

The Virginia Tech–USDA Forest Service Housing Commentary: Section I January 2022



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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: USDA Housing Story Map	Slide 57: New SF Sales-Population Ratio
Slide 13: New Housing Starts	Slide 67: Construction Spending
Slide 20: Regional Housing Starts	Slide 70: Construction Spending Shares
Slide 26: New Housing Permits	Slide 75: Remodeling
Slide 28: Regional New Housing Permits	Slide 77: Existing House Sales
Slide 33: Housing Under Construction	Slide 80: U.S. Housing Prices & Finance
Slide 35: Regional Under Construction	Slide 96: Mortgage Finance & Outlook
Slide 40: Housing Completions	Slide 93: Summary
Slide 42: Regional Housing Completions	Slide 94: Virginia Tech Disclaimer
Slide 44: New Housing Sales	Slide 95: USDA Disclaimer
Slide 43: New Single-Family House Sales	

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

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

Opening Remarks

January 2021 month-over-month and year-over-year housing data were mixed (January 2021 Scorecard – slide Four). The housing starts and housing completions categories are problematic as completions continue to be restrained due to the inaccessibility of building materials and products, combined with other factors. Consequently, individual builders may be reluctant to start new projects while waiting to complete units under construction. Looking forward, the effects of inflation may impact the construction industry and this bears watching due to the potential negative influence on housing.

The March 8th Atlanta Fed GDPNow™ model forecast was an aggregate 11.3% for total residential investment spending for Q1 2022. New private permanent site expenditures were projected at 3.7%; the improvement spending forecast was 10.3%; and the manufactured/mobile expenditures projection was 26.2% for March 2022 (all: quarterly log change and at a seasonally adjusted annual rate).¹

“For the sixth consecutive quarter, mortgage lenders expressed bearishness about near-term profit margin expectations amid headwinds from declining refinance activity, slower purchase mortgage demand growth, and narrowing spreads. For consumers, rising interest rates, lack of supply, and strong home price appreciation have reduced refinance activity and further constrained home purchase affordability, which, of course, is dampening lenders' expectations of future business activity. Numerous uncertainties, including heightened inflation and the Fed's monetary policy reaction, which must now also account for the inflationary impact of Russia's war on Ukraine, suggest increased market volatility, but the general underlying, upward rate trend aligns with lenders' expectations.”² – Doug Duncan, Senior Vice President and Chief Economist, Fannie Mae

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

Sources: ¹ www.frbatlanta.org/cqer/research/gdpnow.aspx; 3/8/22;

² <https://www.fanniemae.com/newsroom/fannie-mae-news/lenders-bearish-profits-rising-mortgage-rates-declining-volume>; 3/10/22

January 2021 Housing Scorecard

	M/M	Y/Y
Housing Starts	▼ 4.1%	▲ 0.8%
Single-Family (SF) Starts	▼ 5.6%	▼ 2.4%
Multi-Family (MF) Starts*	▼ 0.8%	▲ 8.3%
Housing Permits	▲ 0.5%	▲ 0.6%
SF Permits	▲ 7.5%	▼ 4.3%
MF Permits*	▼ 9.9%	▲ 10.9%
Housing Under Construction	▲ 1.4%	▲ 20.2%
SF Under Construction	▲ 1.9%	▲ 26.8%
Housing Completions	▼ 5.2%	▼ 6.2%
SF Completions	▼ 7.3%	▼ 8.4%
New SF House Sales	▼ 4.5%	▼ 19.3%
Private Residential Construction Spending	▲ 1.3%	▲ 13.4%
SF Construction Spending	▲ 1.2%	▲ 15.4%
Existing House Sales ¹	▲ 6.7%	▼ 2.4%

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

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

USDA Forest Service Housing Story Map

USDA FOREST SERVICE HOUSING MARKET REVIEW Forest Products Laboratory, Economics, Statistics and Life Cycle Analysis Research

WELCOME MONTHLY HOUSING BRIEFS AND COMMENTARIES CONSTRUCTION DATA HOUSING METRICS AND THE WOOD RESOURCE RESOURCES AND REFERENCES

USDA Forest Service Housing Market Review

Housing's Importance

The total value of all homes in the U.S. in 2017 was estimated at \$31.8 trillion.¹
The value of wood building materials consumed in new residential and remodeling construction was estimated at \$37.4 billion in 2018.²

Historic as well as current housing trends show that new, single-family construction is the greatest value-added wood products consuming sector and is a leading coincident economic indicator of the U.S. economy. The forest products sector helps sustain the social, economic, and ecological benefits of forest based industry in the United States. Product revenues sustain economic benefits that include jobs and income. Ecological and social benefits can be supported by timber revenue to landowners that help keep land in forests, and by forest treatments that can help maintain ecological functions. The degree to which the forest products sector helps sustain benefits is influenced by levels of demand and consumption of forest products and how technology, markets, and demand for timber translates into harvest of different species and sizes of trees in different regions.

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USDA Forest Service Housing Market Review

Each story map's tab contains a compilation of housing information. The 'Construction Data' tab is interactive and allows one the capability to gather and view US Census-Construction data at the national or metropolitan statistical area (MSA) level.

The story map is available at the following link:

<https://www.arcgis.com/apps/MapSeries/index.html?appid=9553db0ea36140d28076399e898dc693>

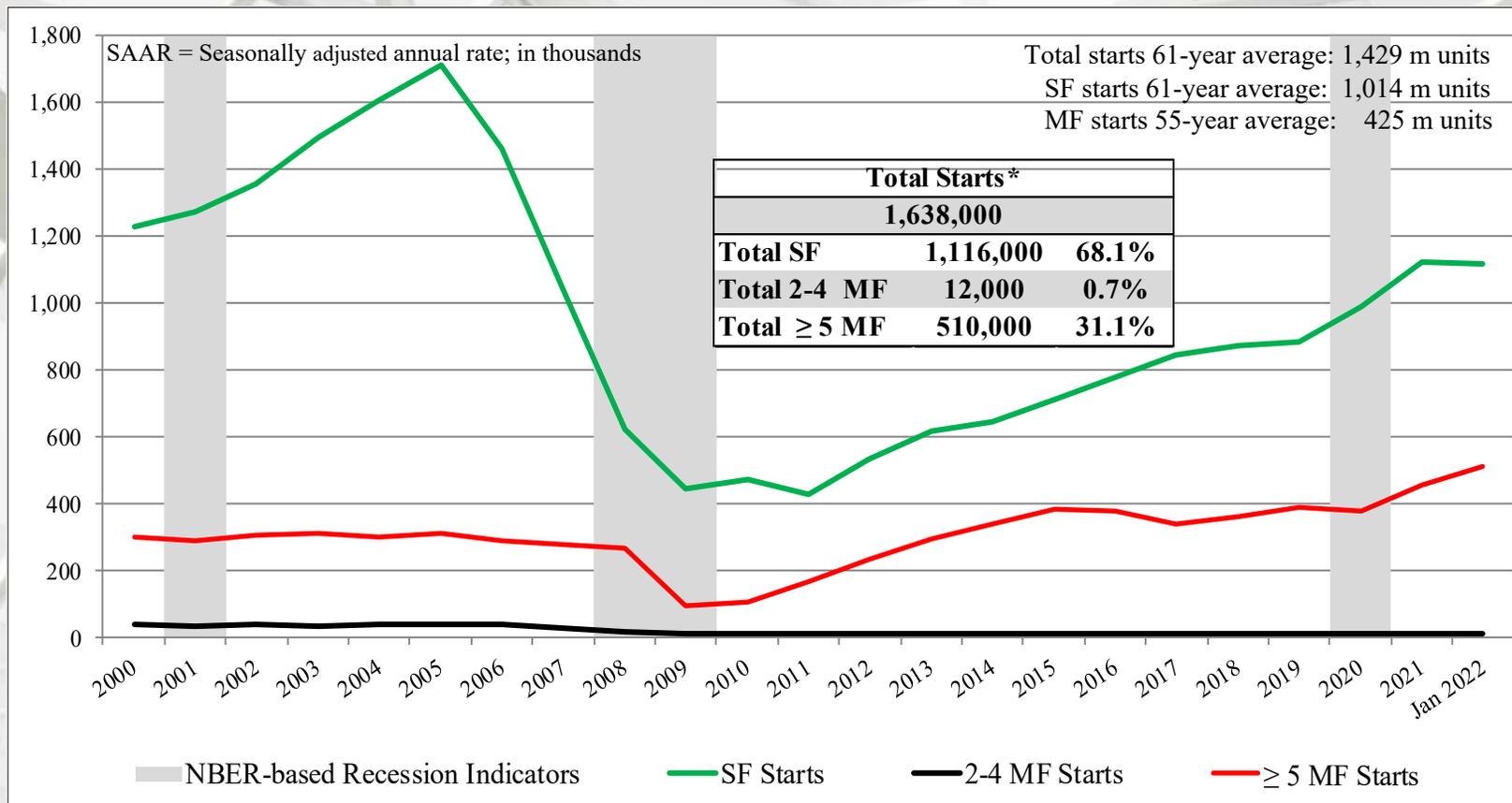
New Housing Starts

	Total Starts*	SF Starts	MF 2-4 Starts**	MF ≥5 Starts
January	1,638,000	1,116,000	12,000	510,000
December	1,708,000	1,182,000	5,000	521,000
2021	1,625,000	1,143,000	13,000	469,000
M/M change	-4.1%	-5.6%	140.0%	-2.1%
Y/Y change	0.8%	-2.4%	-7.7%	8.7%

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

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

Total Housing Starts

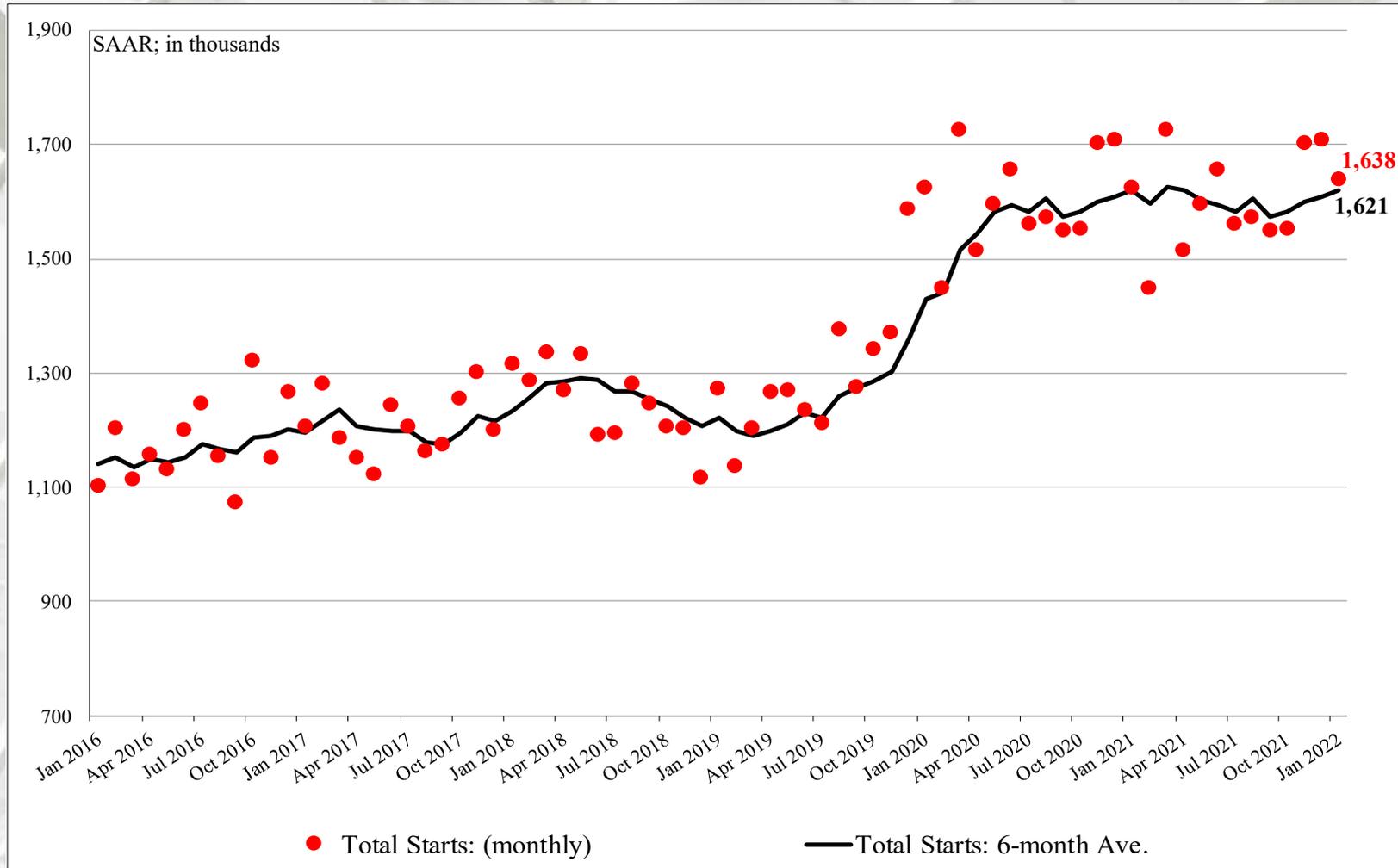


US DOC does not report 2 to 4 multi-family starts directly; this is an estimation: ((Total starts – (SF + ≥ MF)).

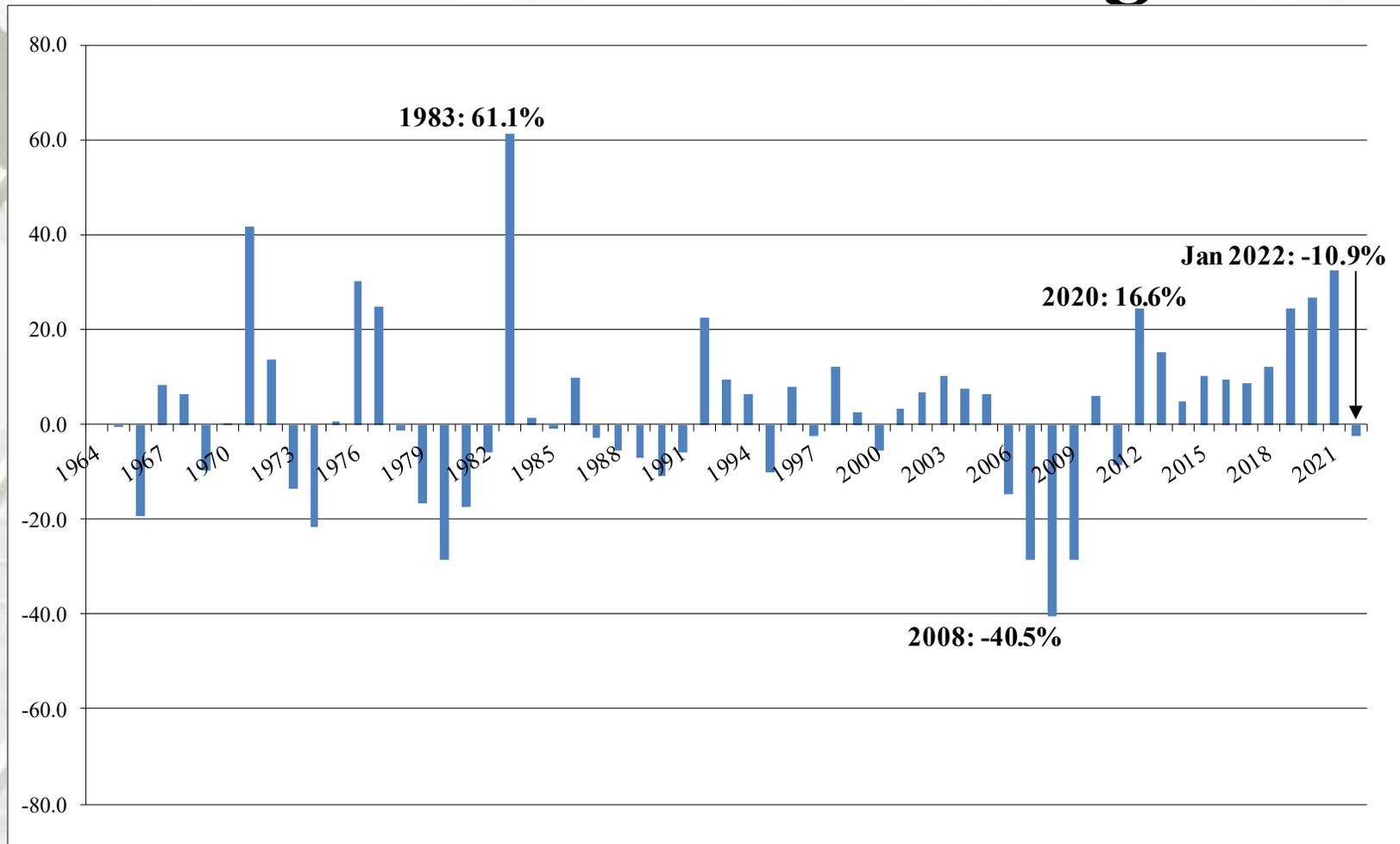
* Percentage of total starts.

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

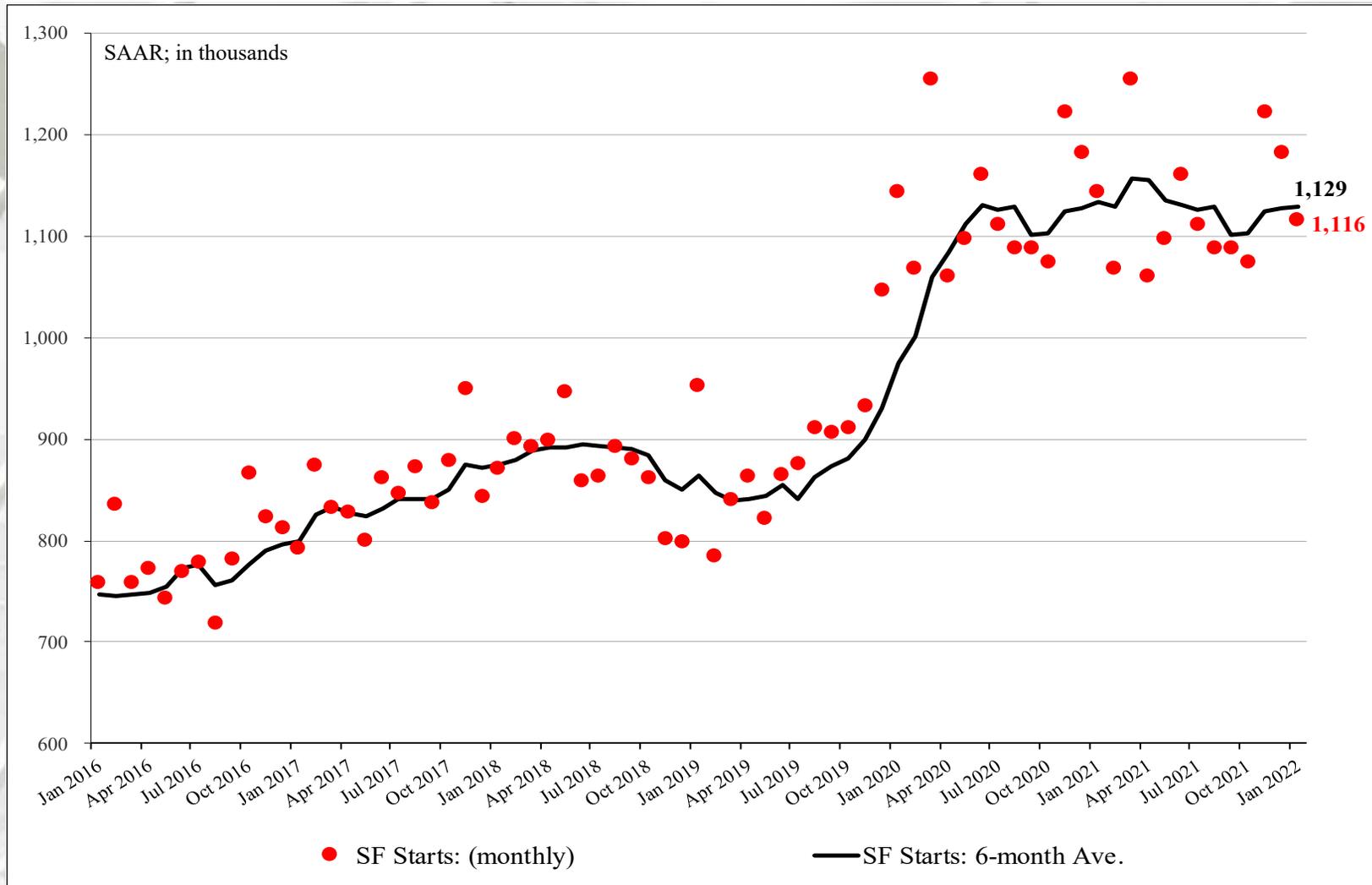
Total Housing Starts: Six-Month Average



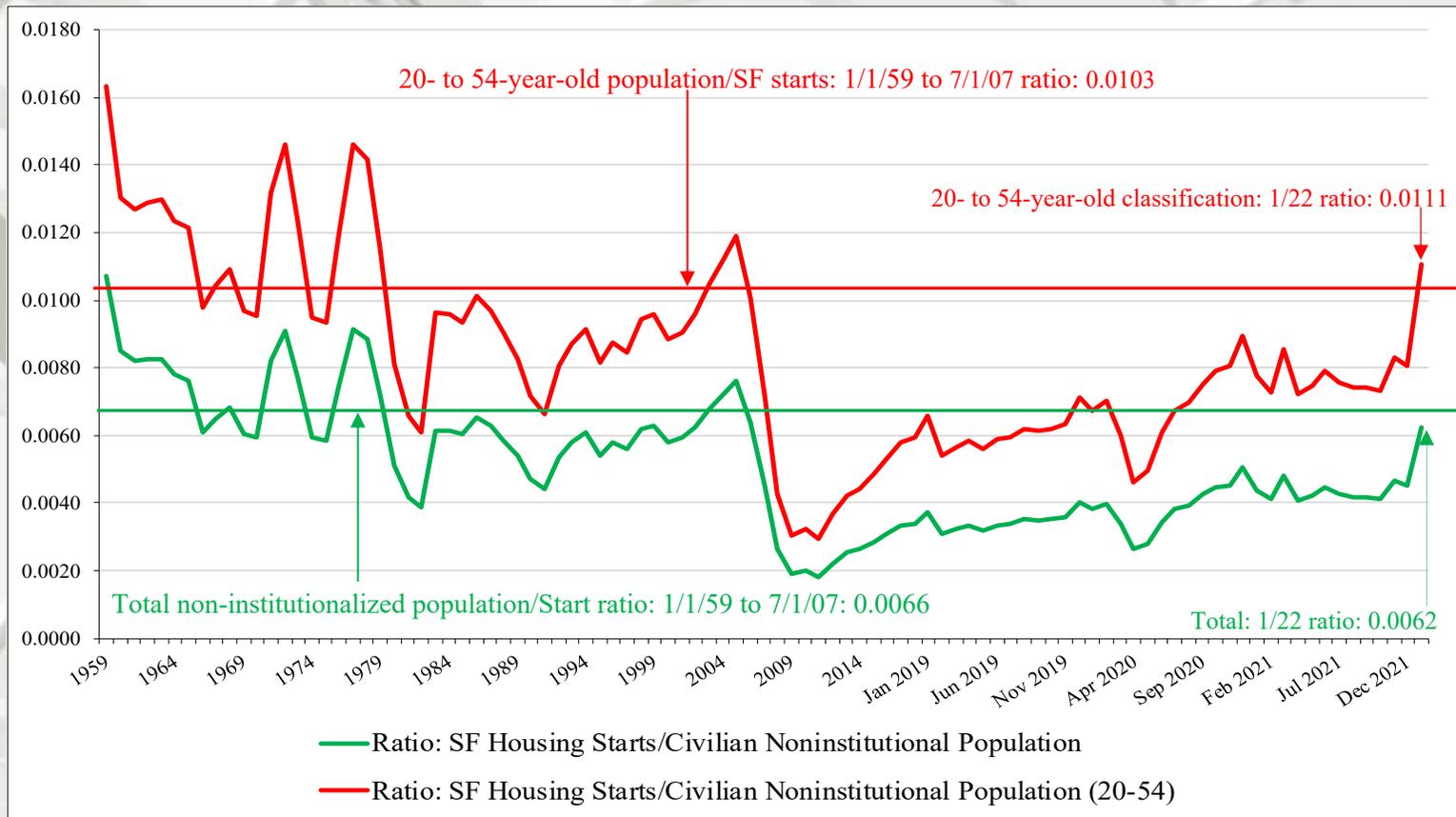
SF Housing Starts: Year-over-Year Change



SF Housing Starts: Six-Month Average



New SF Starts

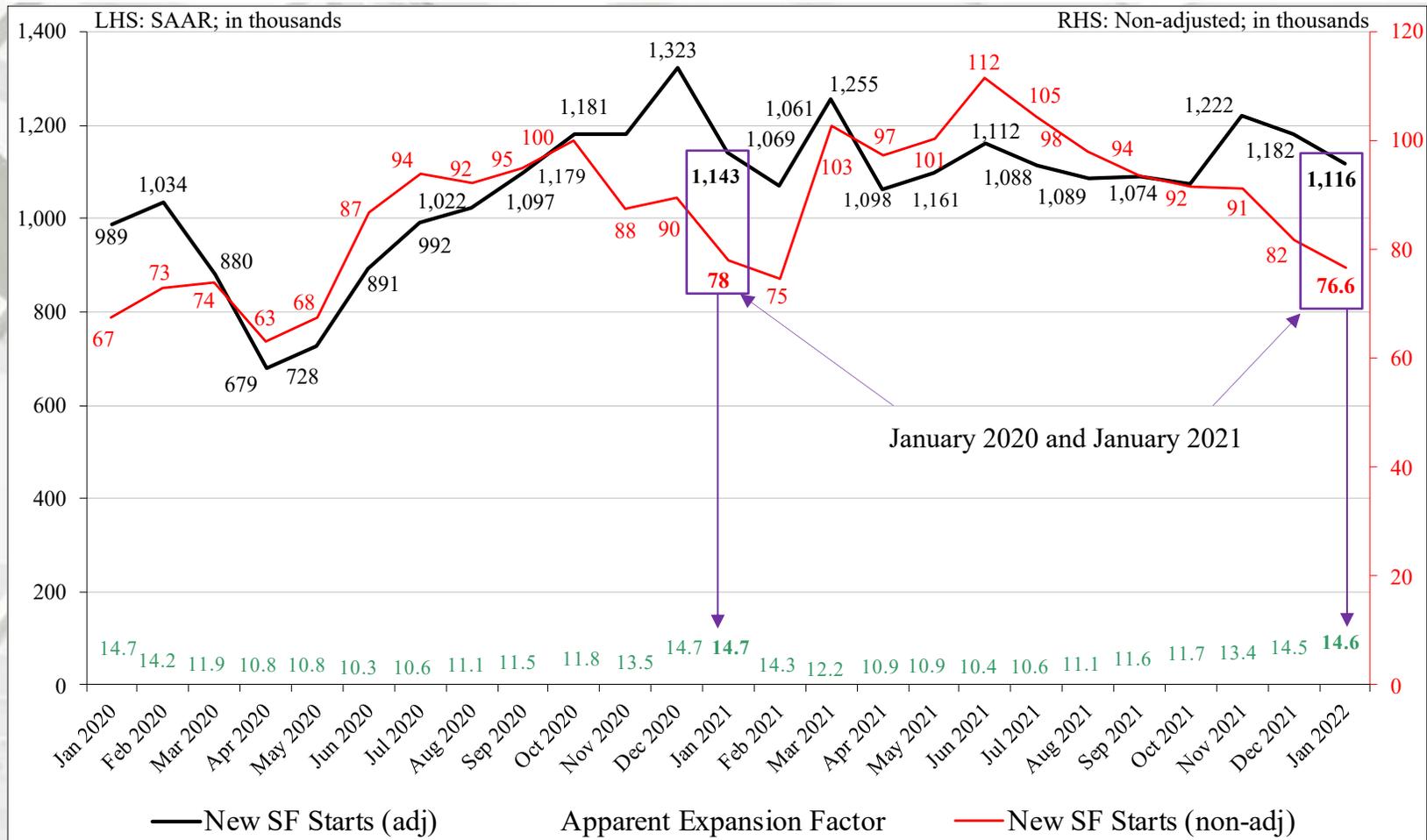


New SF starts adjusted for the US population

From January 1959 to July 2007, the long-term ratio of the total US non-institutionalized population to new SF starts is 0.0066. In January 2022 it was 0.0062 – an increase from December (0.0045). The long-term ratio of non-institutionalized population, aged 20 to 54 was 0.0103; in January 2021 was 0.0111 – also an increase from December (0.0080). This month's reading is the first time this ratio has exceeded the long-term mean since 2005. New SF construction in the 20 to 54 age category is greater than what is necessary for changes in the population (i.e., over-building).

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

Nominal & SAAR SF Starts



Nominal and Adjusted New SF Monthly Starts

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

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

New Housing Starts by Region

	NE Total	NE SF	NE MF**
January	120,000	49,000	71,000
December	117,000	66,000	51,000
2021	204,000	79,000	125,000
M/M change	2.6%	-25.8%	39.2%
Y/Y change	-41.2%	-38.0%	-43.2%
	MW Total	MW SF	MW MF
January	200,000	144,000	56,000
December	321,000	202,000	119,000
2021	209,000	163,000	46,000
M/M change	-37.7%	-28.7%	-52.9%
Y/Y change	-4.3%	-11.7%	21.7%

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

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

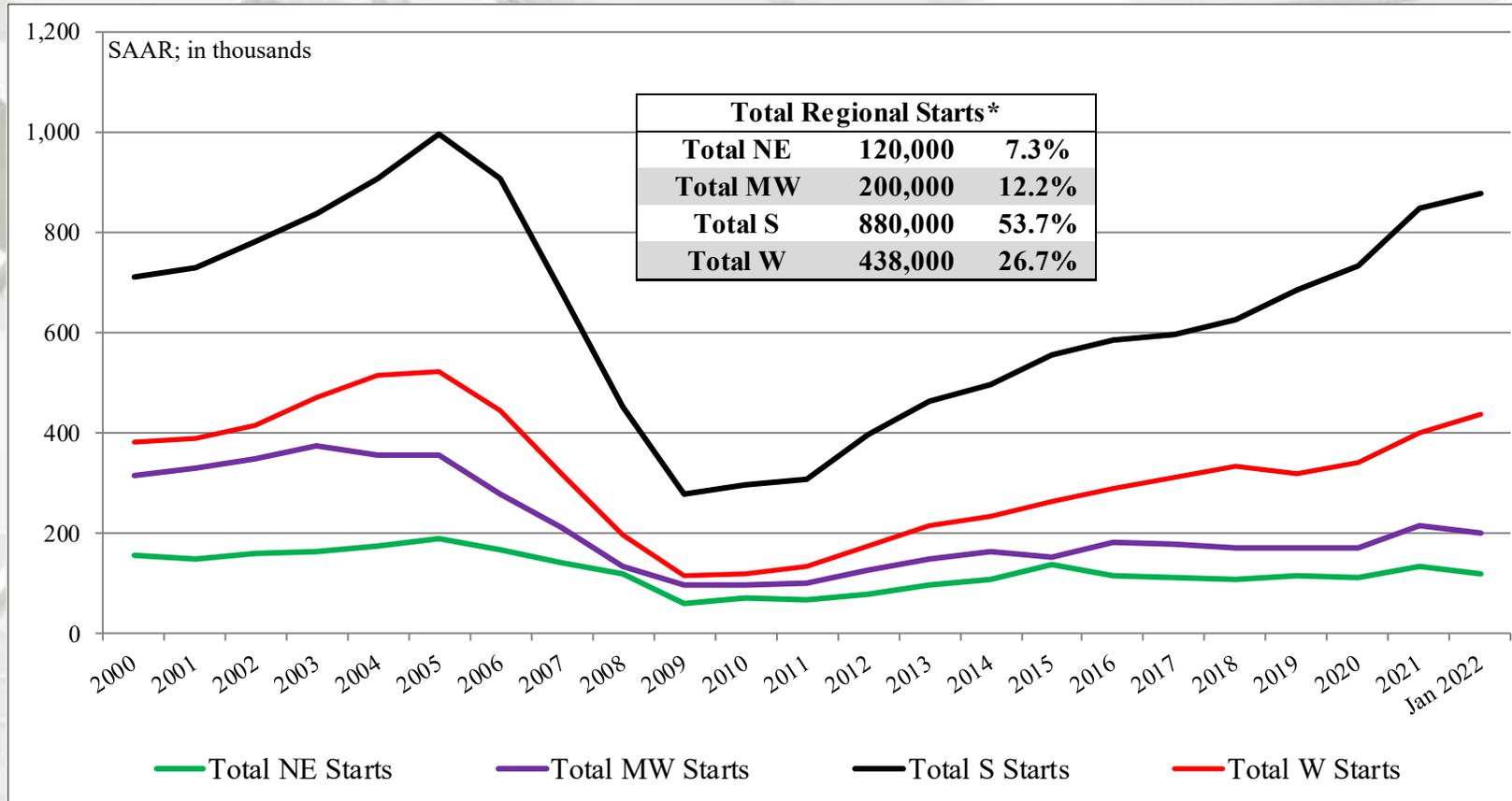
New Housing Starts by Region

	S Total	S SF	S MF**
January	880,000	628,000	252,000
December	898,000	659,000	239,000
2021	811,000	642,000	169,000
M/M change	-2.0%	-4.7%	5.4%
Y/Y change	8.5%	-2.2%	49.1%
	W Total	W SF	W MF
January	438,000	295,000	143,000
December	372,000	255,000	117,000
2021	401,000	259,000	142,000
M/M change	17.7%	15.7%	22.2%
Y/Y change	9.2%	13.9%	0.7%

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

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

New Housing Starts by Region

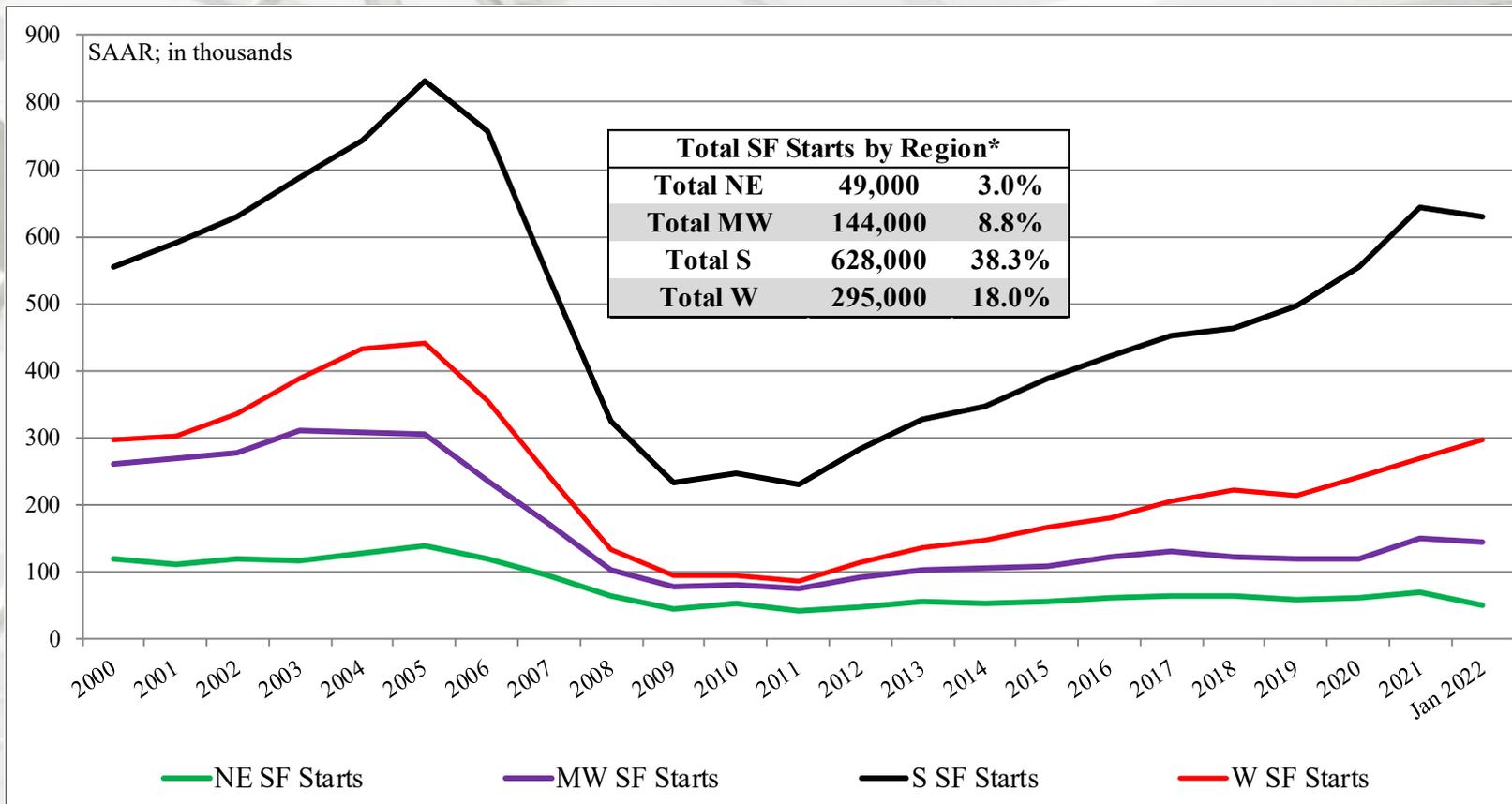


NE = Northeast, MW = Midwest, S = South, W = West

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

* Percentage of total starts.

Total SF Housing Starts by Region

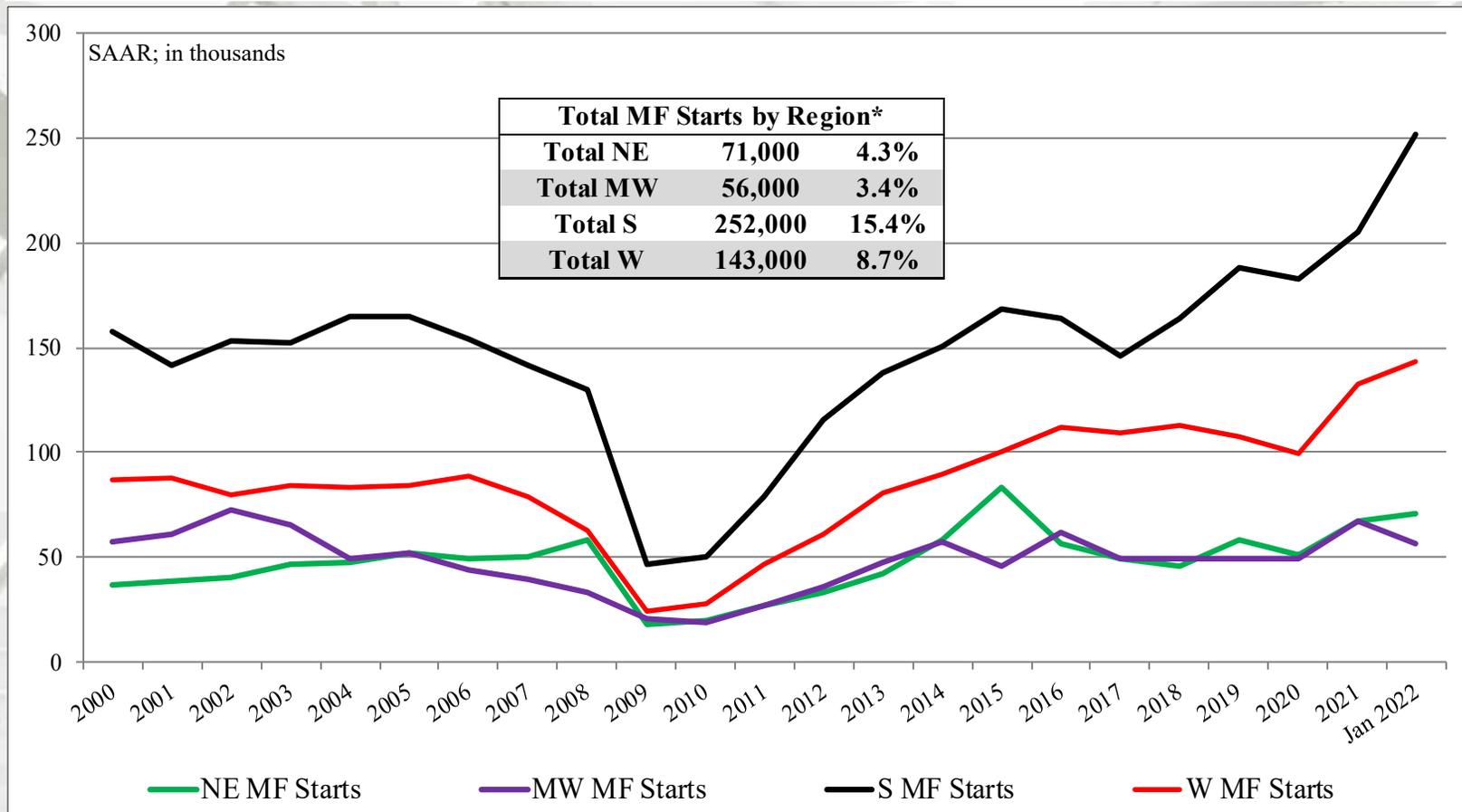


NE = Northeast, MW = Midwest, S = South, W = West

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

* Percentage of total starts.

MF Housing Starts by Region

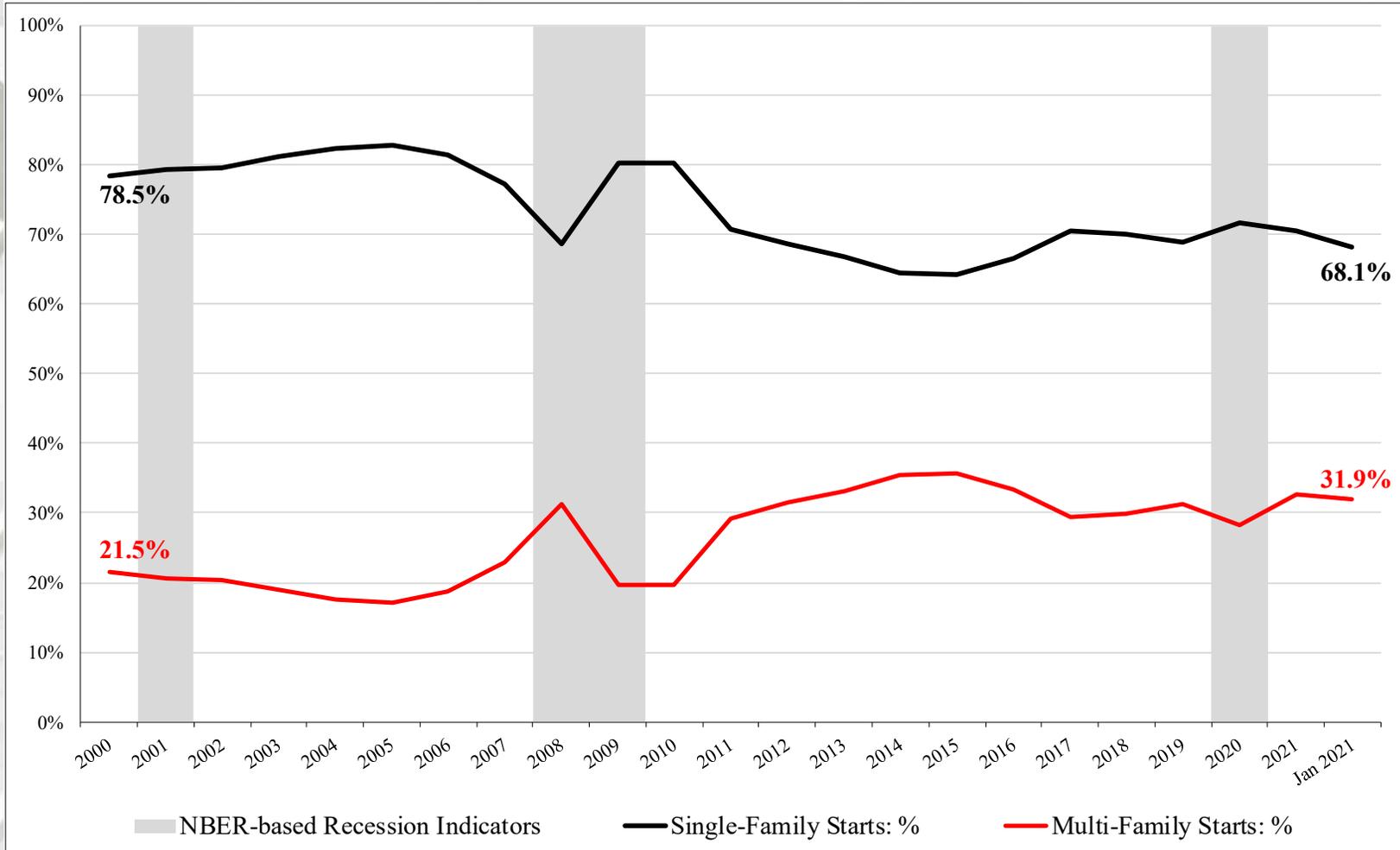


NE = Northeast, MW = Midwest, S = South, W = West

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

* Percentage of total starts.

SF vs. MF Housing Starts (%)



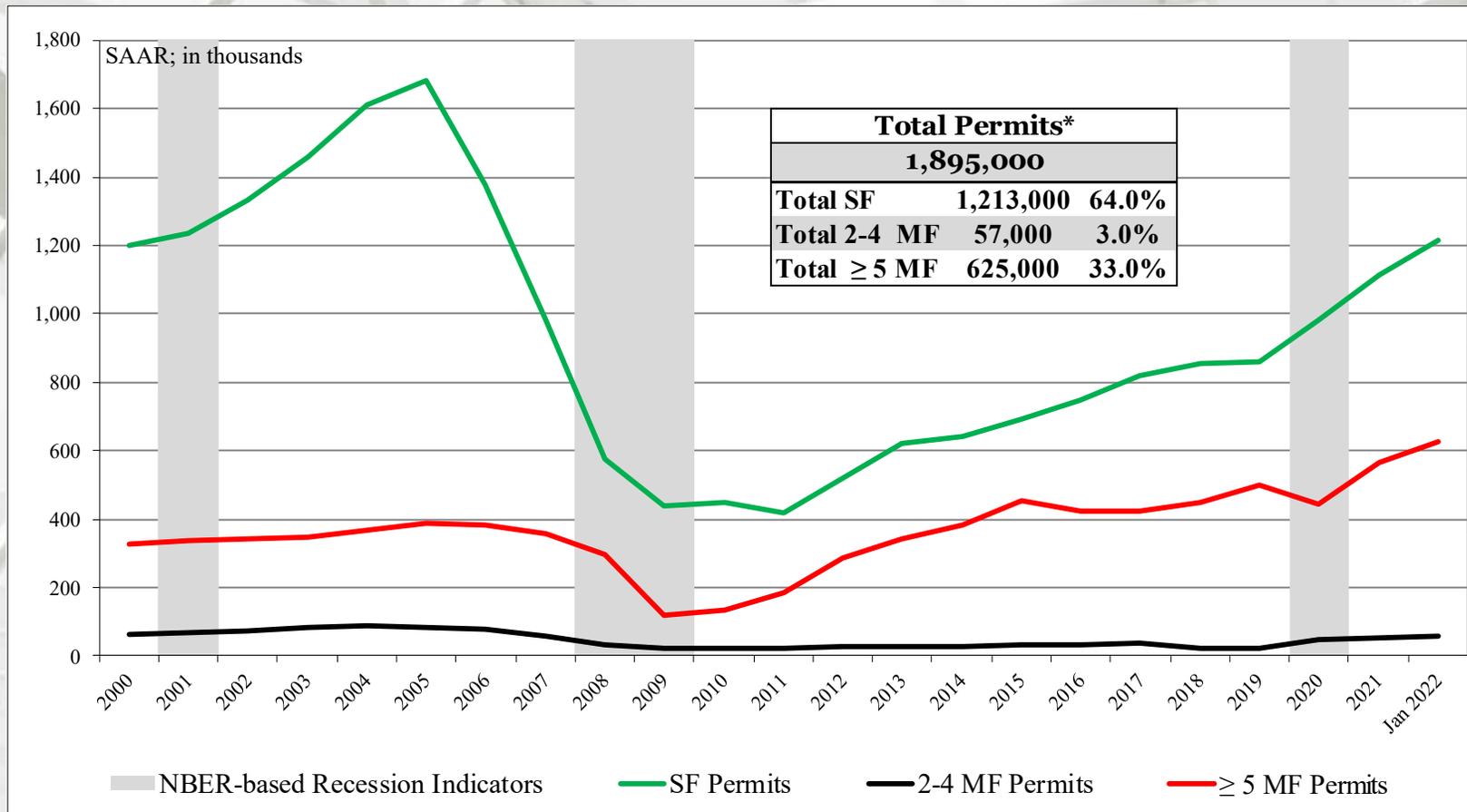
NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

New Housing Permits

	Total Permits*	SF Permits	MF 2-4 unit Permits	MF ≥ 5 unit Permits
January	1,895,000	1,213,000	57,000	625,000
December	1,885,000	1,128,000	67,000	690,000
2021	1,883,000	1,268,000	55,000	560,000
M/M change	0.5%	7.5%	-14.9%	-9.4%
Y/Y change	0.6%	-4.3%	3.6%	11.6%

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

Total New Housing Permits



* Percentage of total permits.

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

New Housing Permits by Region

	NE Total*	NE SF	NE MF**
January	141,000	71,000	70,000
December	300,000	83,000	217,000
2021	195,000	79,000	116,000
M/M change	-53.0%	-14.5%	-67.7%
Y/Y change	-27.7%	-10.1%	-39.7%
	MW Total*	MW SF	MW MF**
January	275,000	160,000	115,000
December	267,000	155,000	112,000
2021	245,000	175,000	70,000
M/M change	3.0%	3.2%	2.7%
Y/Y change	12.2%	-8.6%	64.3%

NE = Northeast; MW = Midwest

* All data are SAAR

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

New Housing Permits by Region

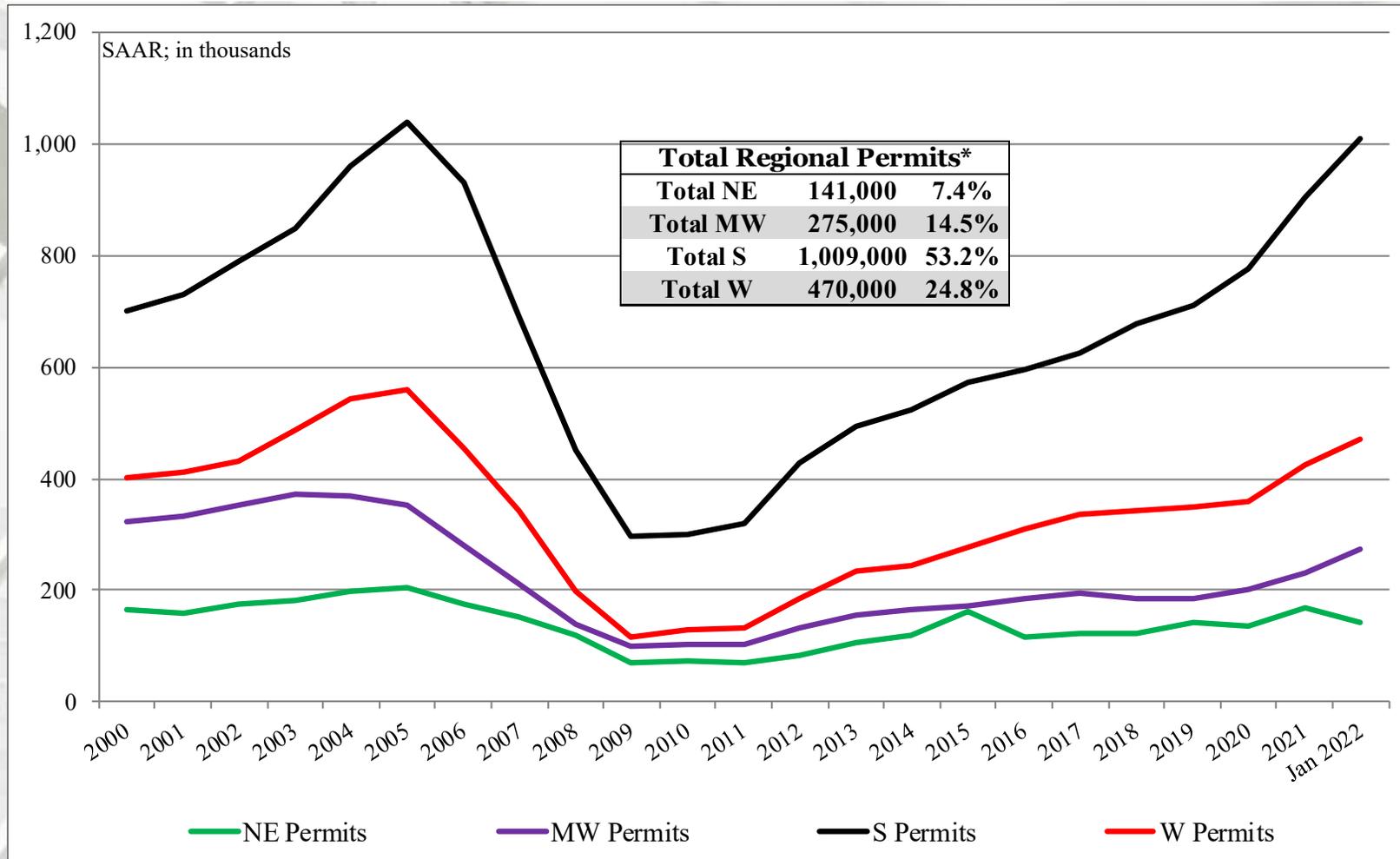
	S Total*	S SF	S MF**
January	1,009,000	685,000	324,000
December	901,000	650,000	251,000
2021	956,000	711,000	245,000
M/M change	12.0%	5.4%	29.1%
Y/Y change	5.5%	-3.7%	32.2%
	W Total*	W SF	W MF**
January	470,000	297,000	173,000
December	417,000	240,000	177,000
2021	487,000	303,000	184,000
M/M change	12.7%	23.8%	-2.3%
Y/Y change	-3.5%	-2.0%	-6.0%

S = South; W = West

* All data are SAAR

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

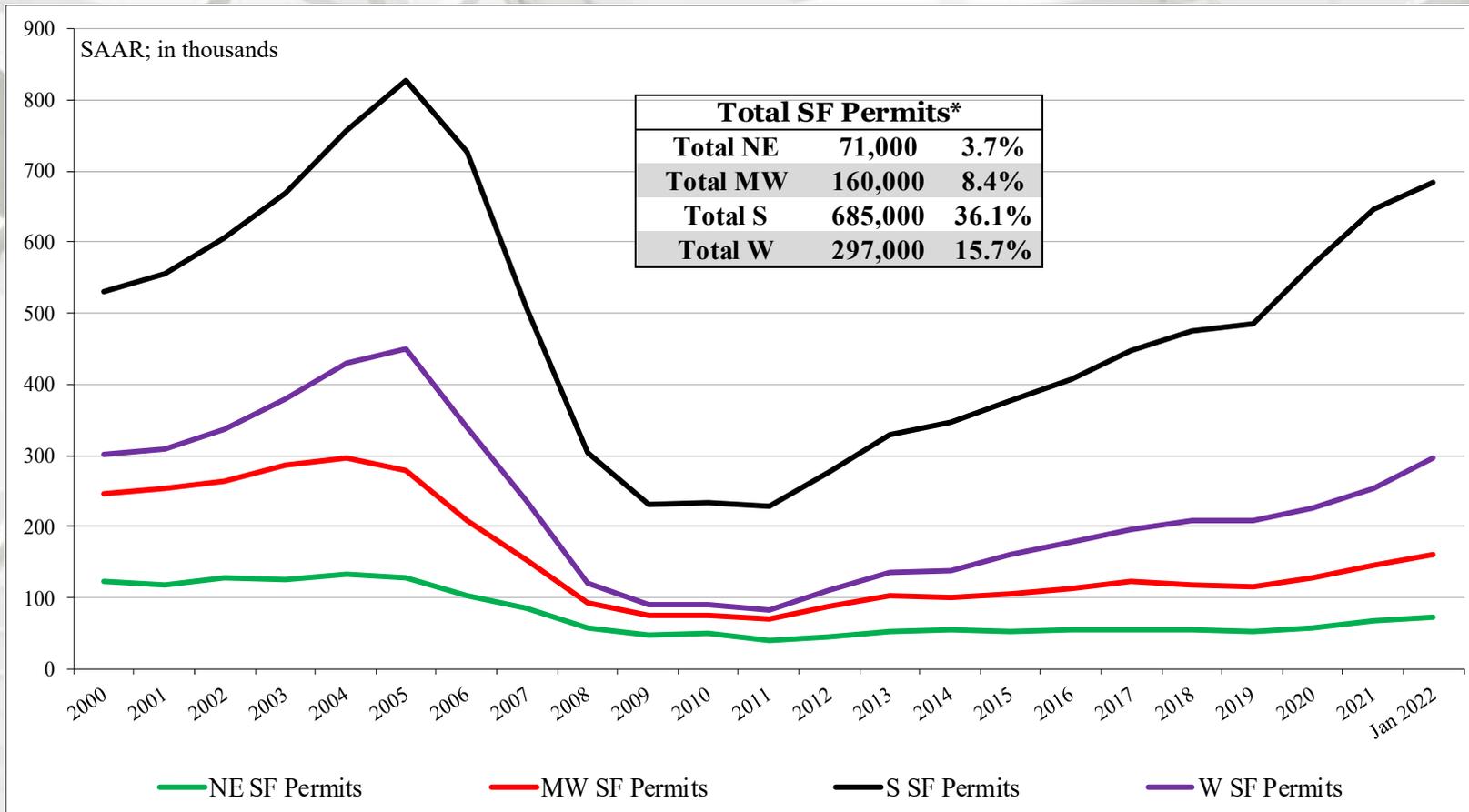
Total Housing Permits by Region



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

* Percentage of total permits.

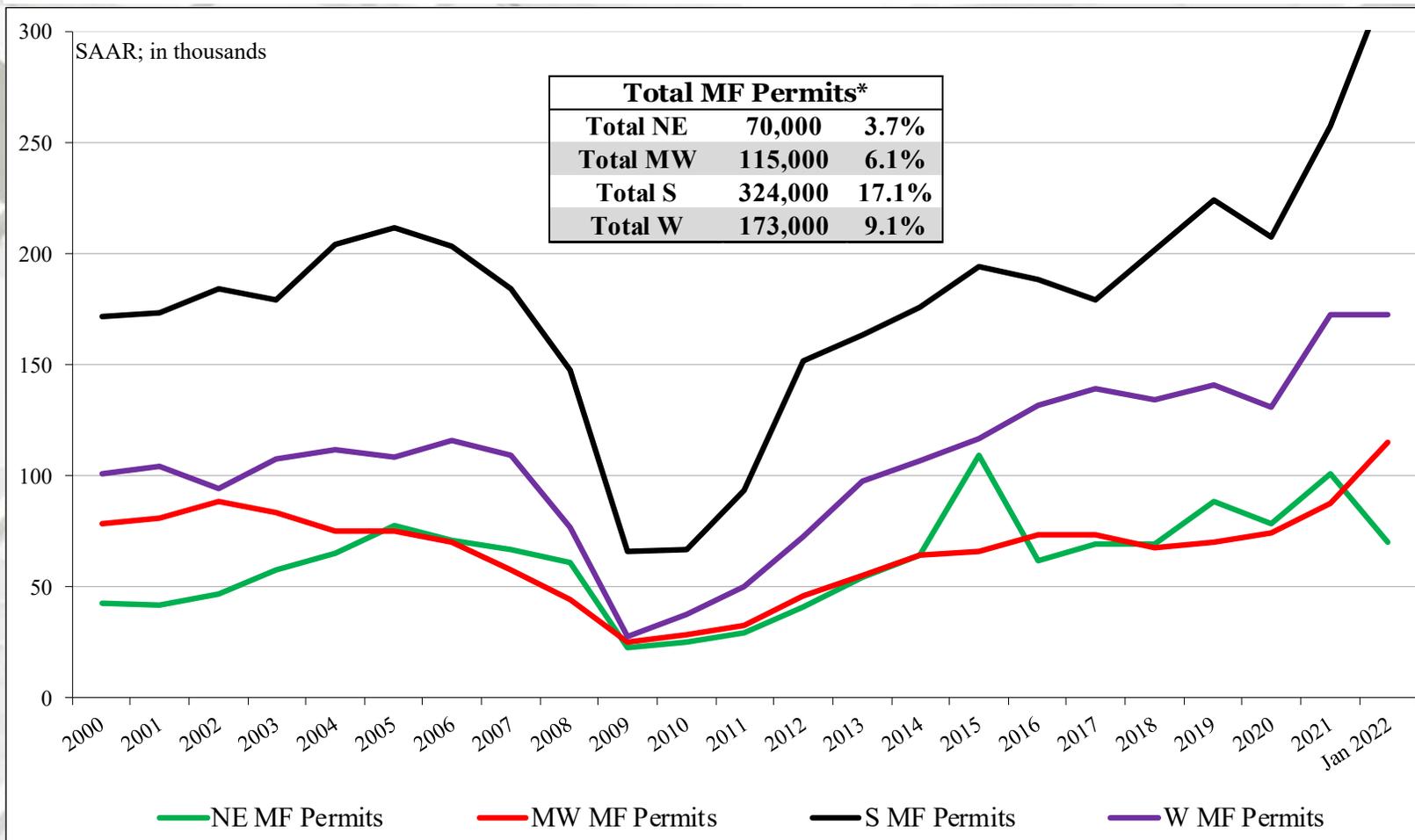
SF Housing Permits by Region



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

* Percentage of total permits.

MF Housing Permits by Region



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

* Percentage of total permits.

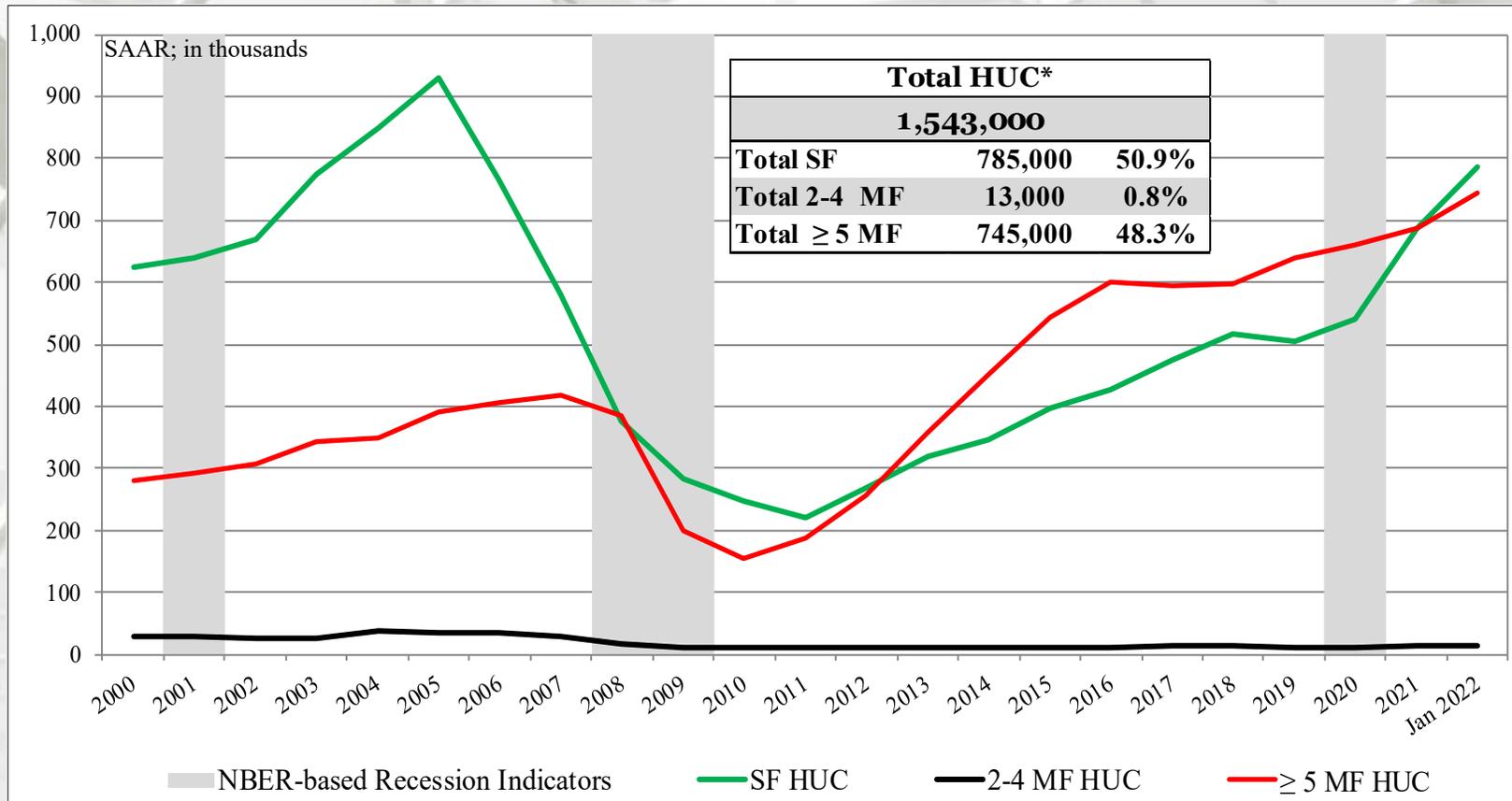
New Housing Under Construction (HUC)

	Total HUC*	SF HUC	MF 2-4 unit** HUC	MF ≥ 5 unit HUC
January	1,543,000	785,000	13,000	745,000
December	1,521,000	770,000	13,000	738,000
2021	1,284,000	619,000	11,000	654,000
M/M change	1.4%	1.9%	0.0%	0.9%
Y/Y change	20.2%	26.8%	18.2%	13.9%

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

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

Total Housing Under Construction



US DOC does not report 2 to 4 multi-family under construction directly, this is an estimation (Total under constructions – (SF + ≥ 5 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**
January	200,000	62,000	138,000
December	201,000	62,000	142,000
2021	183,000	58,000	125,000
M/M change	-0.5%	0.0%	-2.8%
Y/Y change	9.3%	6.9%	10.4%
	MW Total	MW SF	MW MF
January	204,000	111,000	93,000
December	197,000	108,000	89,000
2021	165,000	87,000	78,000
M/M change	3.6%	2.8%	4.5%
Y/Y change	23.6%	27.6%	19.2%

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).

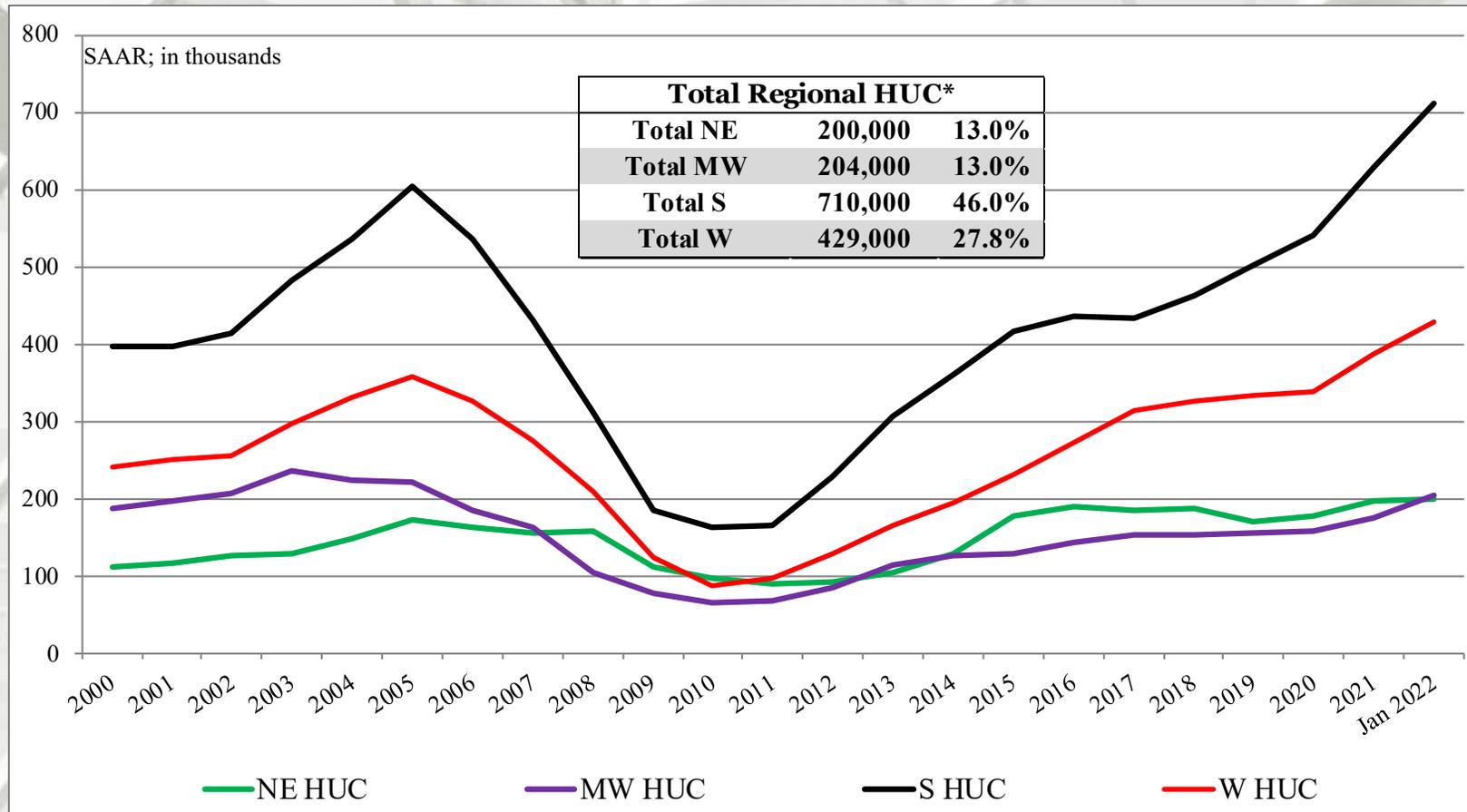
New Housing Under Construction by Region

	S Total	S SF	S MF**
January	710,000	414,000	296,000
December	699,000	405,000	294,000
2021	581,000	308,000	273,000
M/M change	1.6%	2.2%	0.7%
Y/Y change	22.2%	34.4%	8.4%
	W Total	W SF	W MF
January	429,000	198,000	231,000
December	424,000	195,000	229,000
2021	355,000	166,000	189,000
M/M change	1.2%	1.5%	0.9%
Y/Y change	20.8%	19.3%	22.2%

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

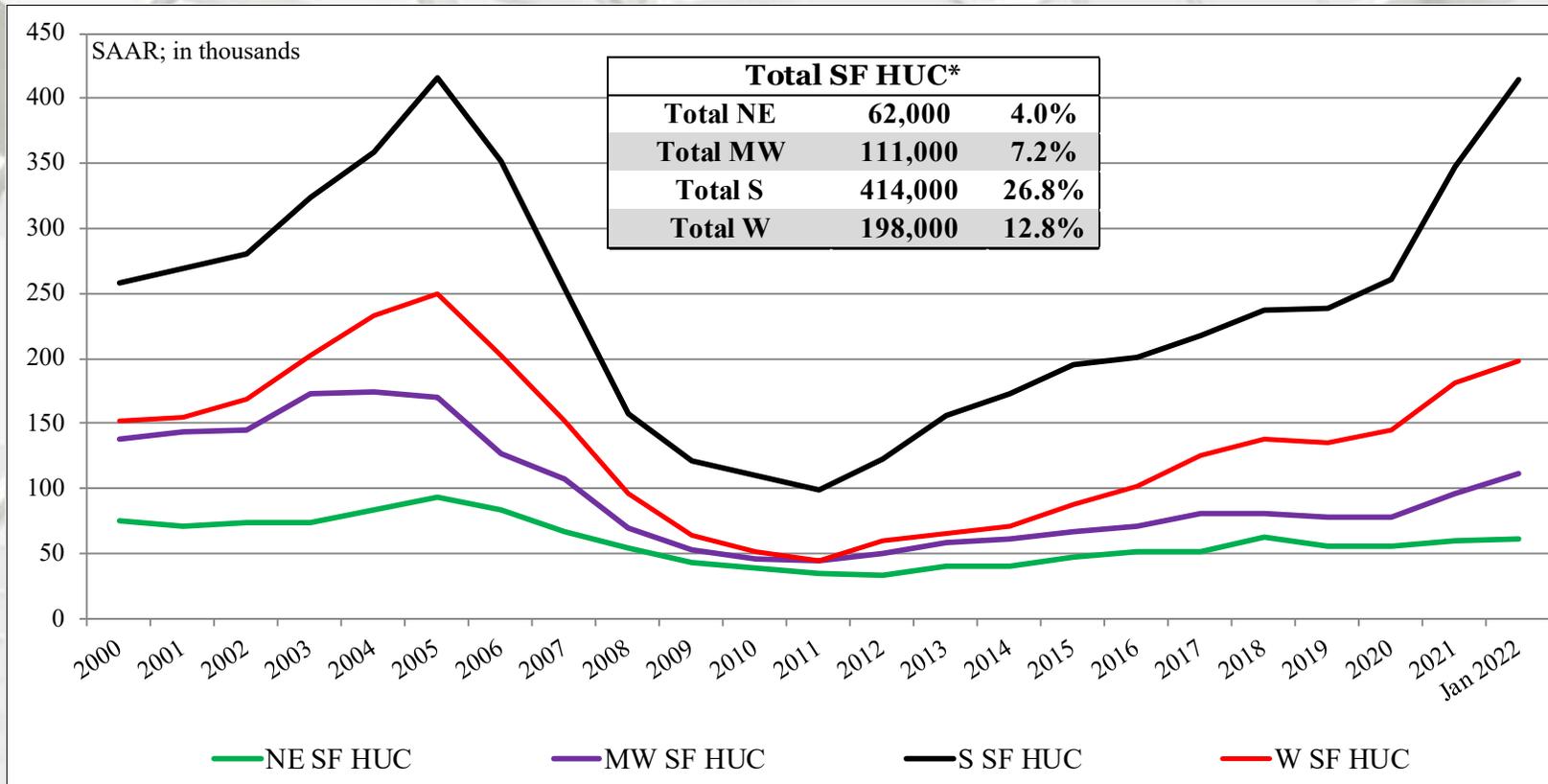


NE = Northeast, MW = Midwest, S = South, W = West

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

* Percentage of total housing under construction units.

SF Housing Under Construction by Region

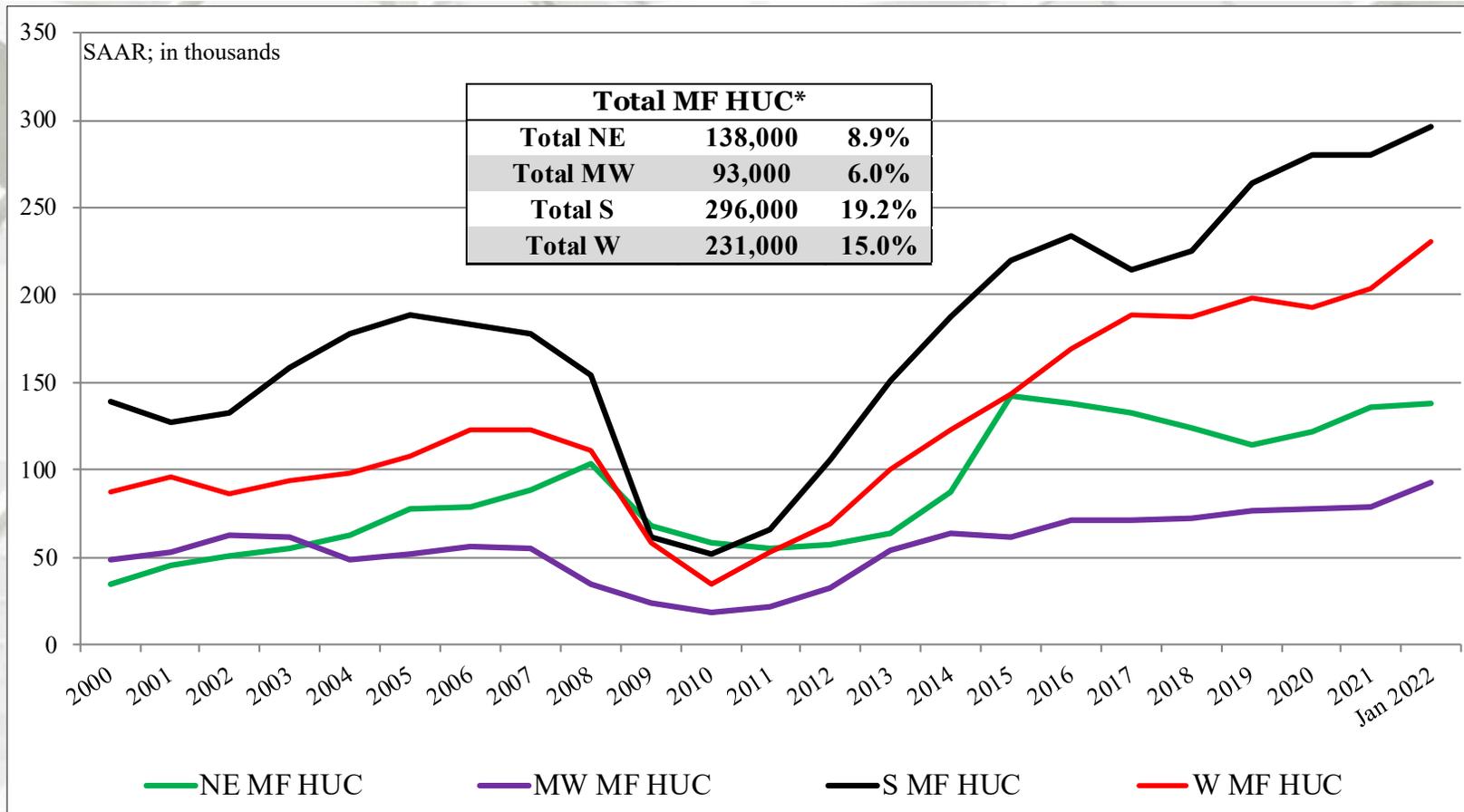


NE = Northeast, MW = Midwest, S = South, W = West.

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

* Percentage of total housing under construction units.

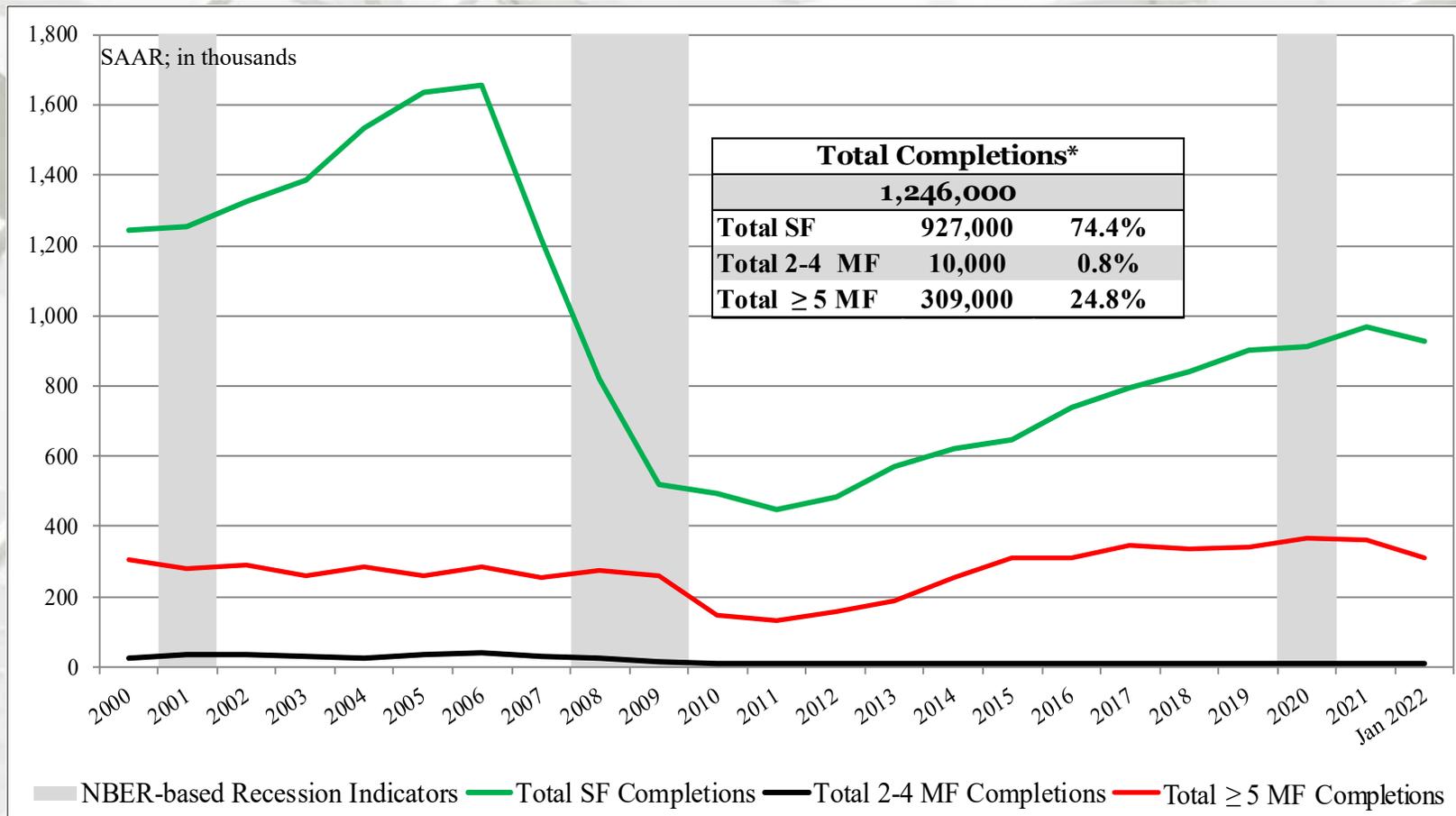
New Housing Completions

	Total Completions*	SF Completions	MF 2-4 unit**	MF ≥ 5 unit Completions
January	1,246,000	927,000	10,000	309,000
December	1,315,000	1,000,000	6,000	309,000
2021	1,328,000	1,012,000	5,000	311,000
M/M change	-5.2%	-7.3%	66.7%	0.0%
Y/Y change	-6.2%	-8.4%	100.0%	-0.6%

* 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



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

* Percentage of total housing completions

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

New Housing Completions by Region

	NE Total	NE SF	NE MF**
January	86,000	54,000	32,000
December	121,000	67,000	54,000
2021	108,000	71,000	37,000
M/M change	-28.9%	-19.4%	-40.7%
Y/Y change	-20.4%	-23.9%	-13.5%
	MW Total	MW SF	MW MF
January	134,000	120,000	14,000
December	170,000	106,000	64,000
2021	175,000	146,000	29,000
M/M change	-21.2%	13.2%	-78.1%
Y/Y change	-23.4%	-17.8%	-51.7%

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

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

* Percentage of total housing completions

New Housing Completions by Region

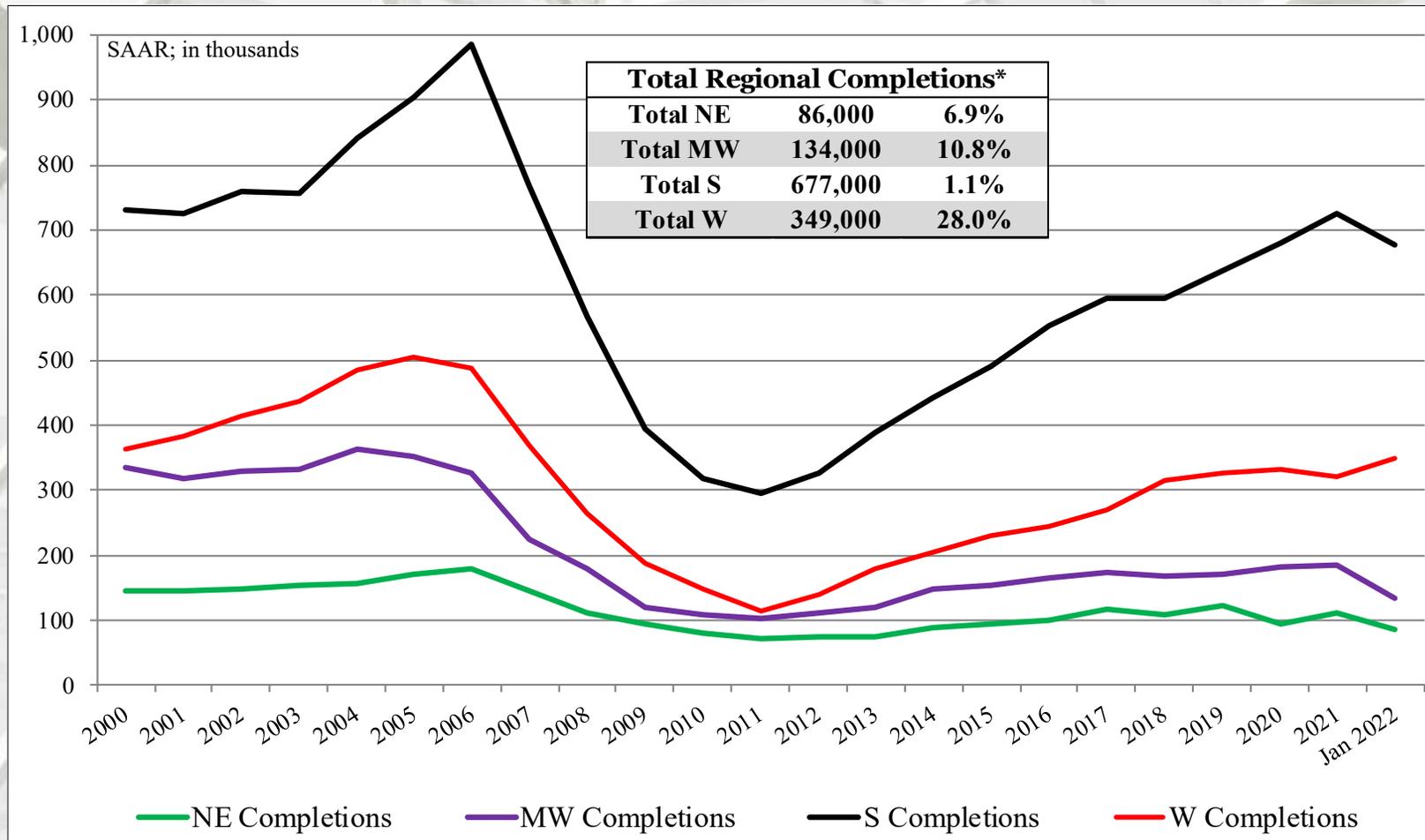
	S Total	S SF	S MF**
January	677,000	510,000	167,000
December	729,000	580,000	149,000
2021	740,000	568,000	172,000
M/M change	-7.1%	-12.1%	12.1%
Y/Y change	-8.5%	-10.2%	-2.9%
	W Total	W SF	W MF
January	349,000	243,000	106,000
December	295,000	247,000	48,000
2021	305,000	227,000	78,000
M/M change	18.3%	-1.6%	120.8%
Y/Y change	14.4%	7.0%	35.9%

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

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

* Percentage of total housing completions

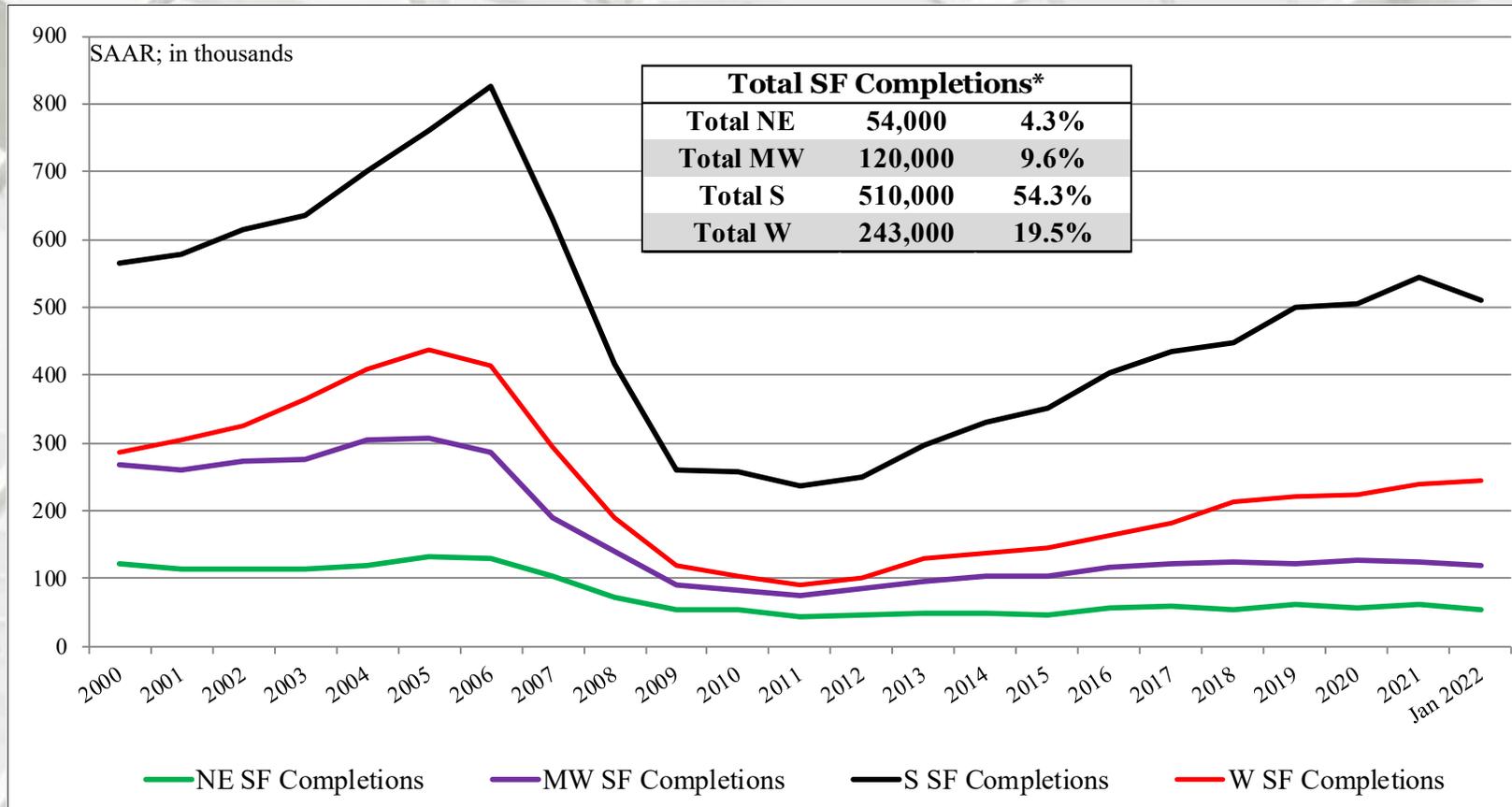
Total Housing Completions by Region



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

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

SF Housing Completions by Region

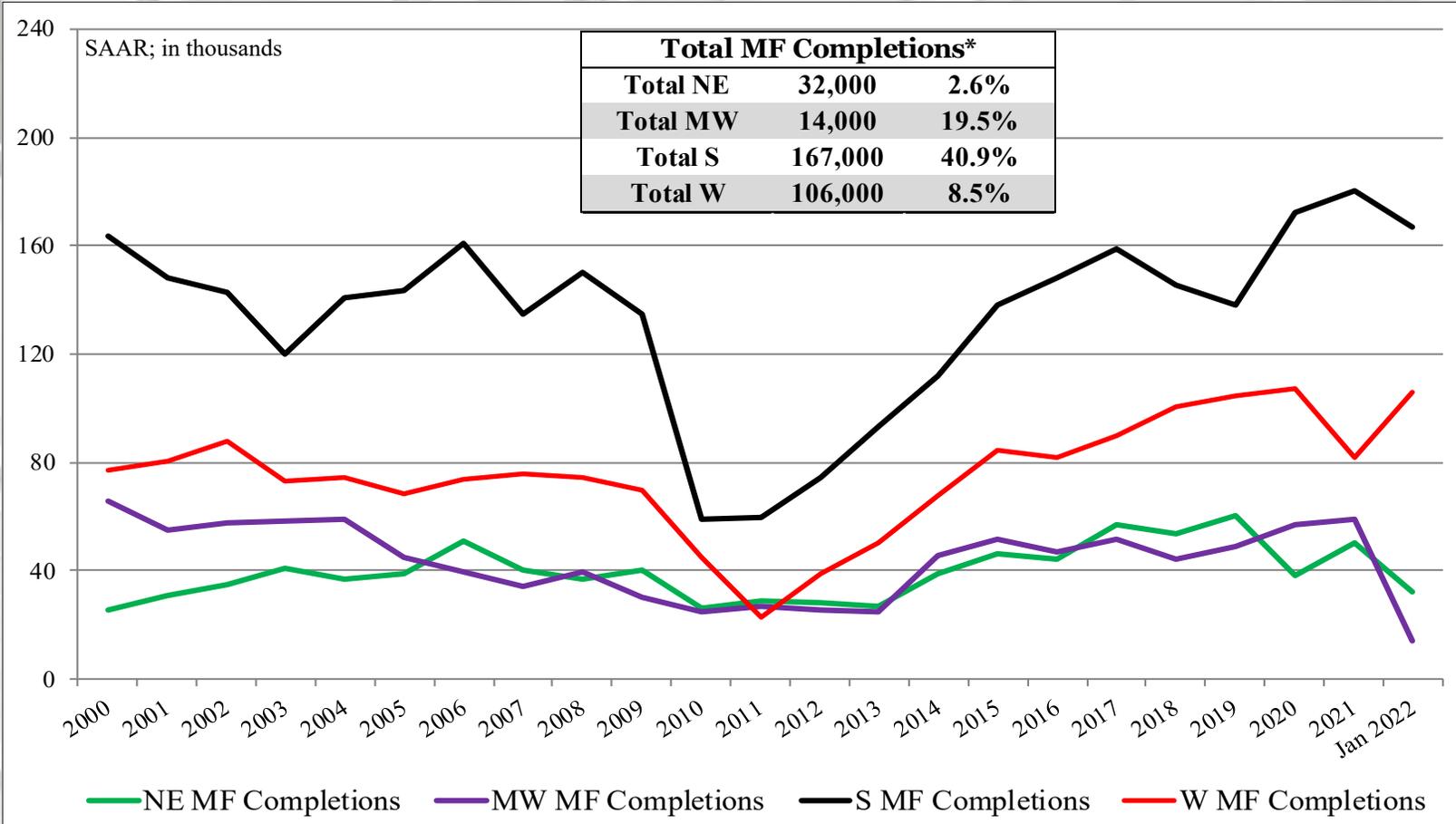


NE = Northeast, MW = Midwest, S = South, W = West

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

* Percentage of total housing completions

MF Housing Completions by Region

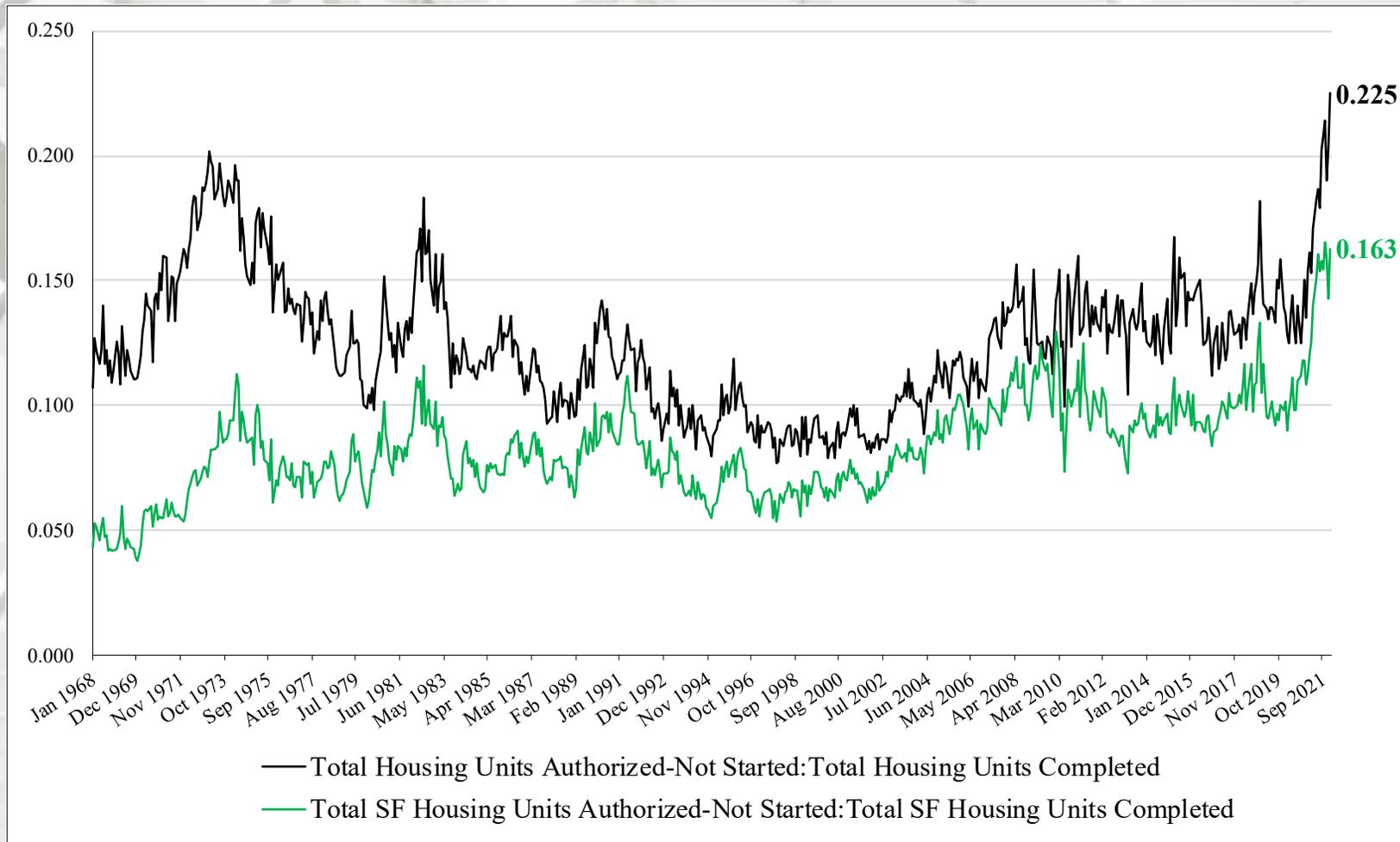


NE = Northeast, MW = Midwest, S = South, W = West

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

* Percentage of total housing completions

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



Authorized, Not Started to Housing Completions

The ratio of SF houses authorized-not started to SF completed is the greatest in the history of this data series. The total housing unit ratio is the greatest since February 1973 (0.202). Authorized units not started increased to 280,000 in January.

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

Supply Chains & Housing

Top Product Substitutions by Industry Segment



MANUFACTURING



BUILDING AND
CONSTRUCTION



RETAIL SALES



DESIGN

1	Faucets	Cabinets	Cabinets	Cabinets
2	Cabinets	Faucets	Faucets	Faucets
3	Toilets	Tile	Refrigerators	Refrigerators
4	Bathtubs	Refrigerators	Bathtubs	Tile
5	Sinks	Ranges / Stoves	Dishwashers	Ranges / Stoves

Sources: NKBA; John Burns Real Estate Consulting, LLC (Data: 4Q21, Pub: Feb-22)
Kitchen & Bath Market Index (KBMI)

John Burns Real Estate Consulting LLC

“Product substitutions are the norm now in housing due to supply-chain mess. Cabinets dominate pain point ranking system below when it comes to kitchen & bath. As one survey participant noted: “Cabinets are taking 6 months to get here or sometimes they just don’t show up.”” – Rick Palacios, Director of Research, John Burns Real Estate Consulting

New Single-Family House Sales

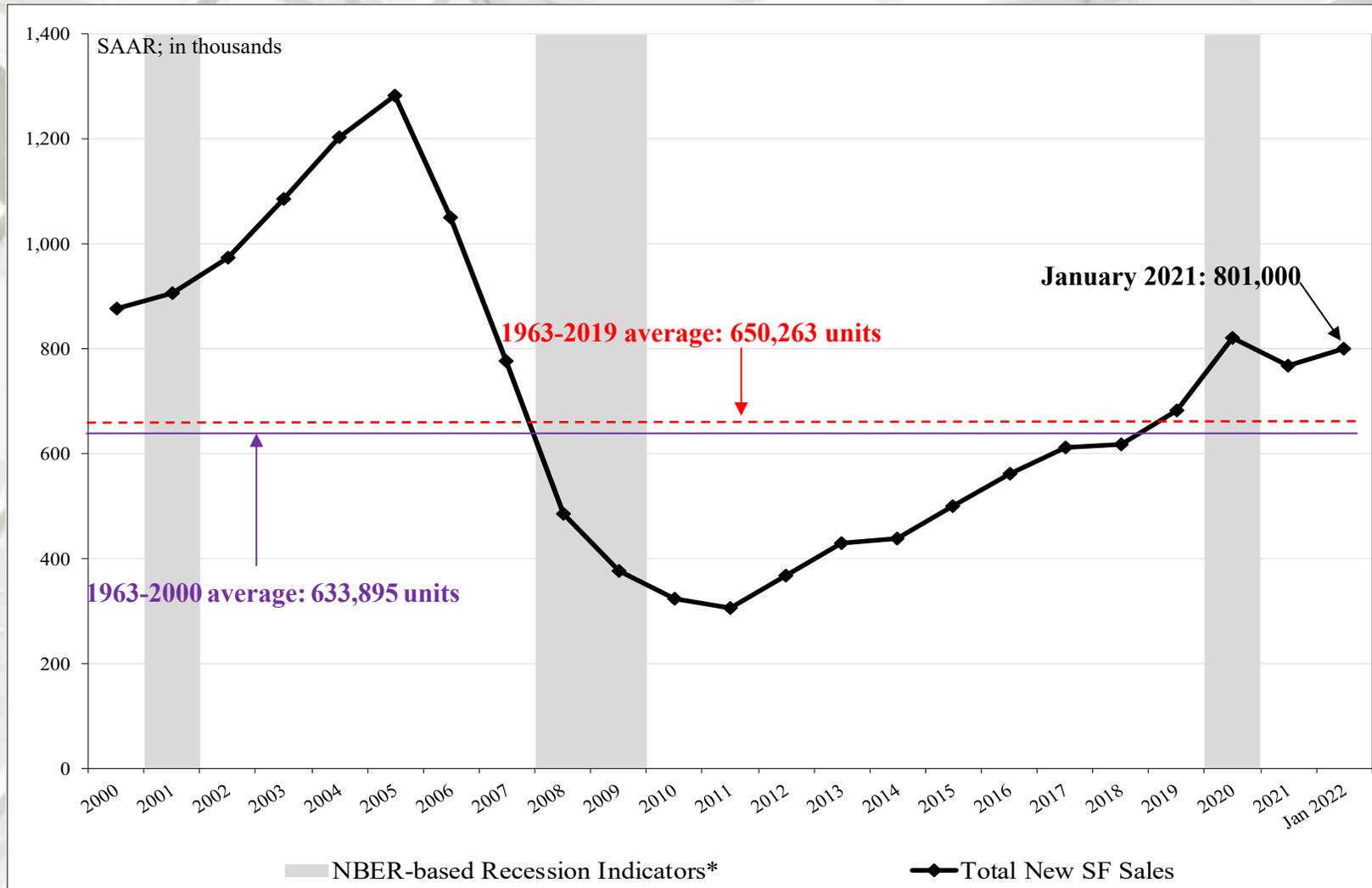
	New SF Sales*	Median Price	Mean Price	Month's Supply
January	801,000	\$423,300	\$496,900	6.1
December	839,000	\$395,500	\$482,300	5.6
2021	993,000	\$373,200	\$418,600	3.6
M/M change	-4.5%	7.0%	3.0%	8.9%
Y/Y change	-19.3%	13.4%	18.7%	69.4%

* 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 the same as the consensus forecast³ of 855 m (range: 809 m to 905 m). The past three month's new SF sales data also were revised:

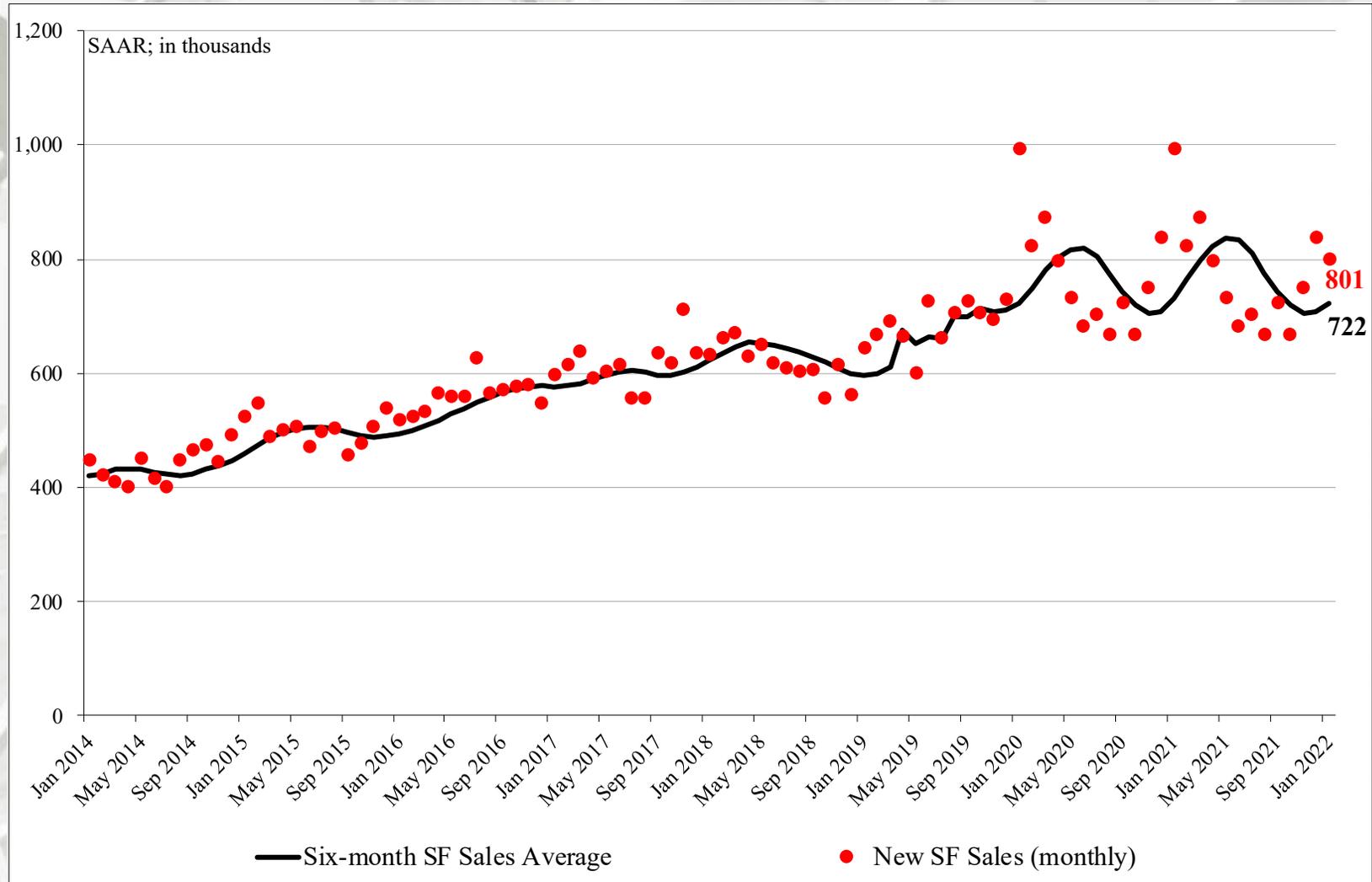
October initial:	745 m, revised to 667 m.
November initial:	744 m, revised to 749 m.
December initial:	811m, revised to 839 m.

New SF House Sales



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

New SF Housing Sales: Six-month average & monthly



New SF House Sales by Region and Price Category

	NE	MW	S	W			
January	25,000	78,000	438,000	260,000			
December	28,000	81,000	473,000	257,000			
2021	47,000	124,000	575,000	247,000			
M/M change	-10.7%	-3.7%	-7.4%	1.2%			
Y/Y change	-46.8%	-37.1%	-23.8%	5.3%			
	\$150 - ≤ \$150m	\$200 - \$199.9m 299.9m	\$300 - \$399.9m	\$400 - \$499.9m	\$500 - \$749.9m	≥ \$750m	
January ^{1,2,3,4}	1,000	1,000	5,000	23,000	11,000	18,000	6,000
December	1,000	1,000	10,000	18,000	12,000	13,000	5,000
2021	1,000	2,000	20,000	22,000	15,000	13,000	4,000
M/M change	0.0%	0.0%	-50.0%	27.8%	-8.3%	38.5%	20.0%
Y/Y change	0.0%	-50.0%	-75.0%	4.5%	-26.7%	38.5%	50.0%
New SF sales: %	1.6%	1.6%	7.8%	35.9%	17.2%	28.1%	9.4%

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

¹ All data are SAAR

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

³ Detail January not add to total because of rounding.

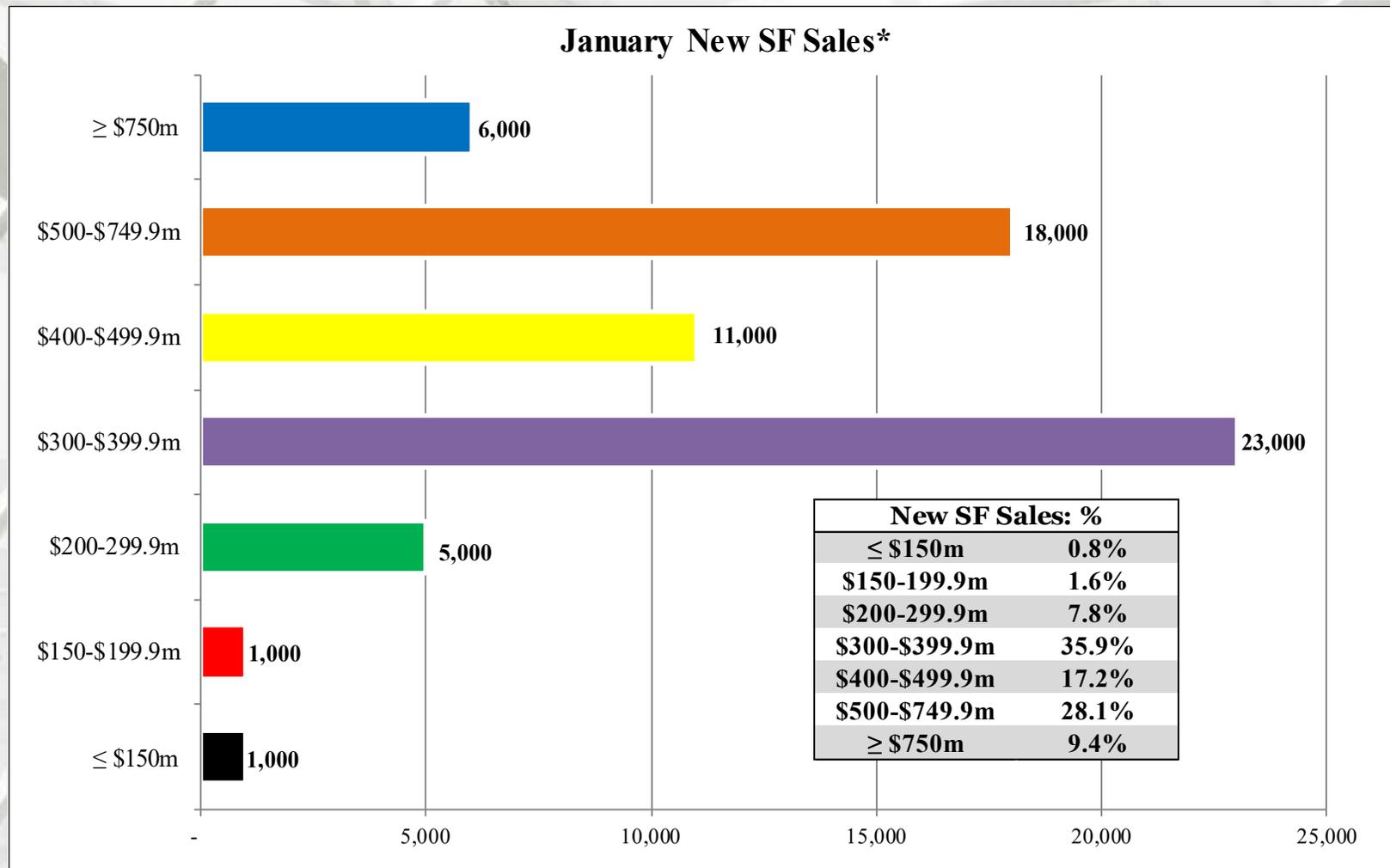
⁴ Housing prices are adjusted at irregular intervals.

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

Sources: ^{1,2,3} <https://www.census.gov/construction/nrs/index.html>; 2/24/22;

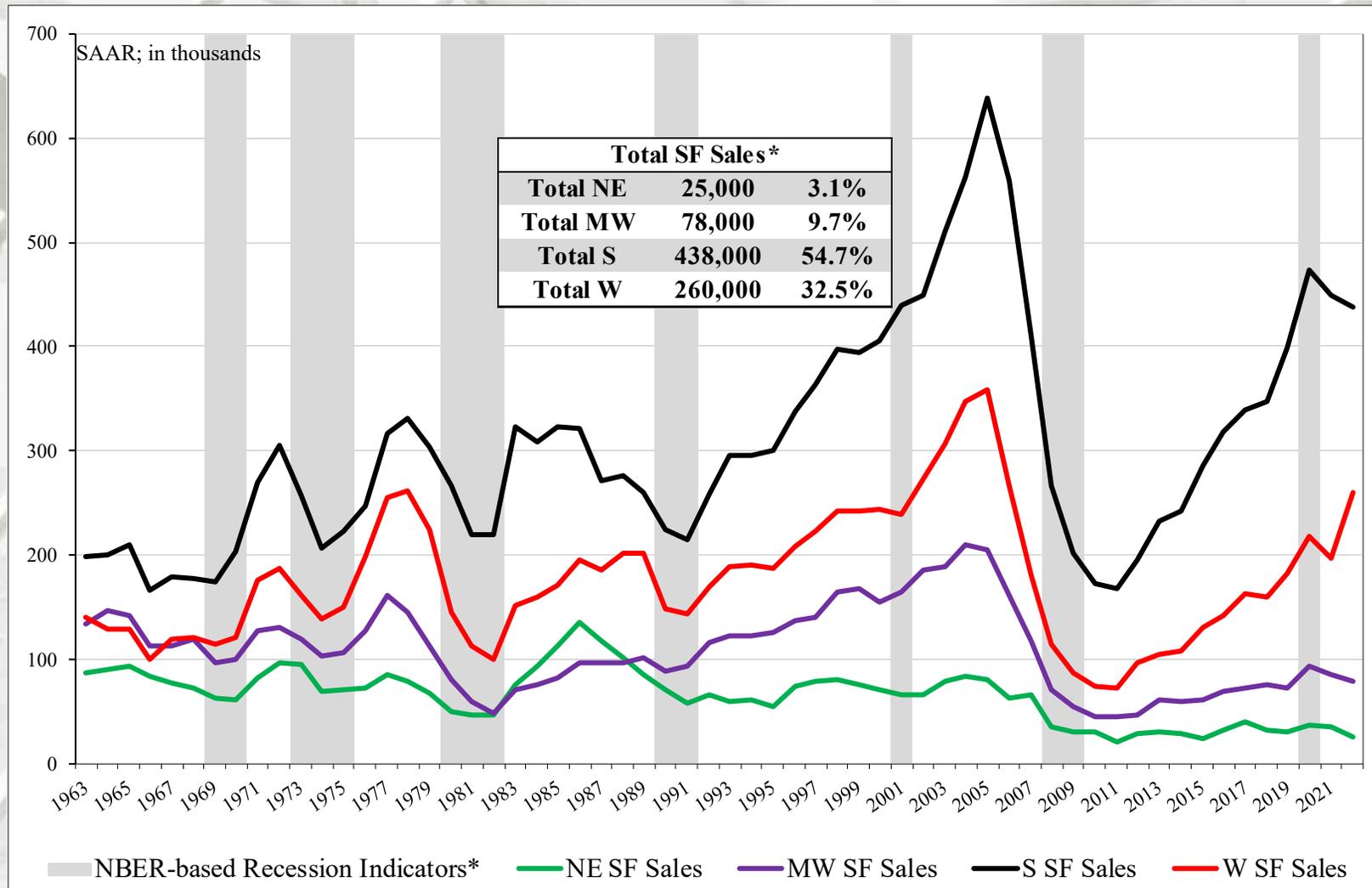
⁴ https://www.census.gov/construction/cpi/pdf/descpi_sold.pdf

New SF House Sales



* Total new sales by price category and percent.

New SF House Sales by Region

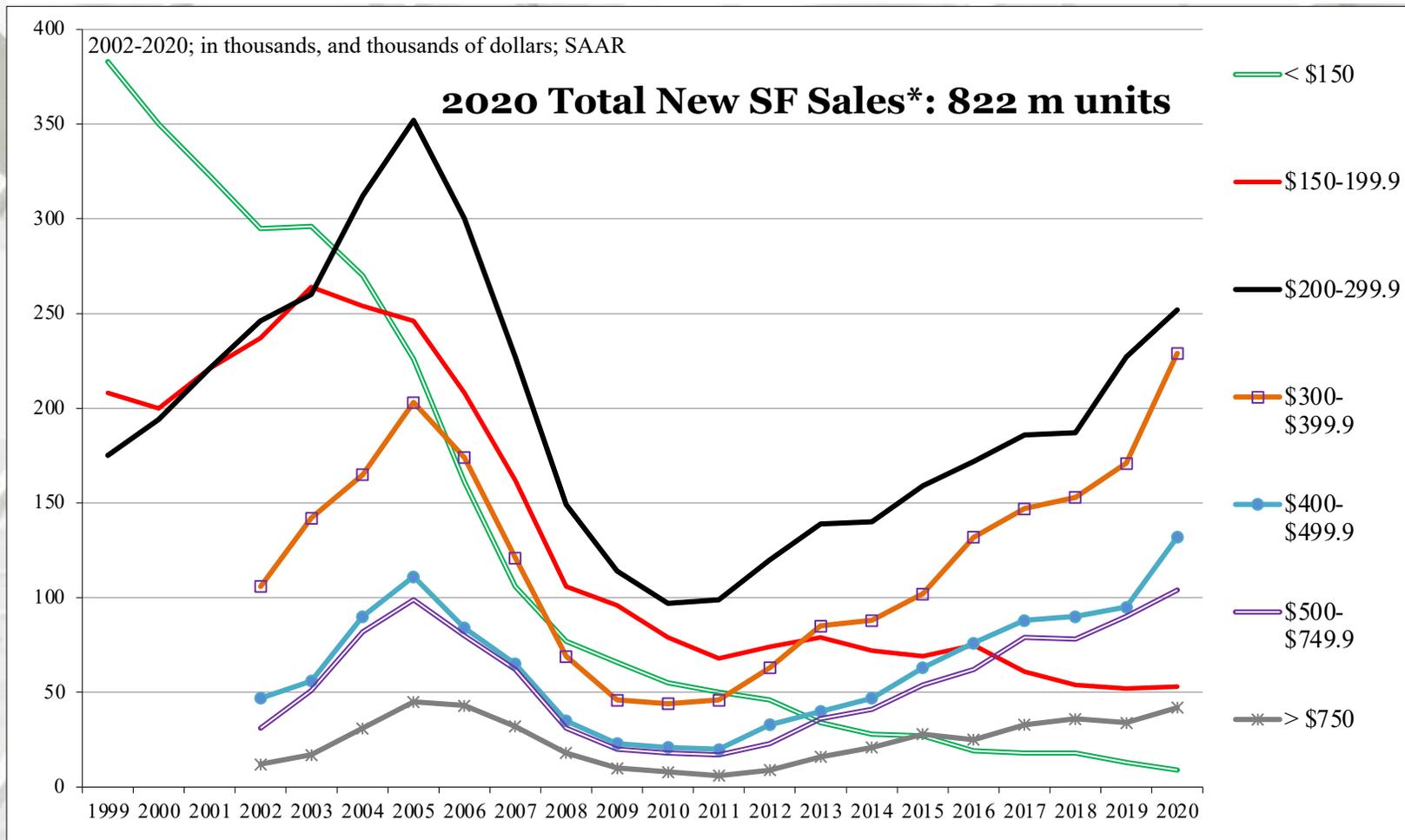


NE = Northeast; MW = Midwest; S = South; W = West

* Percentage of total new sales.

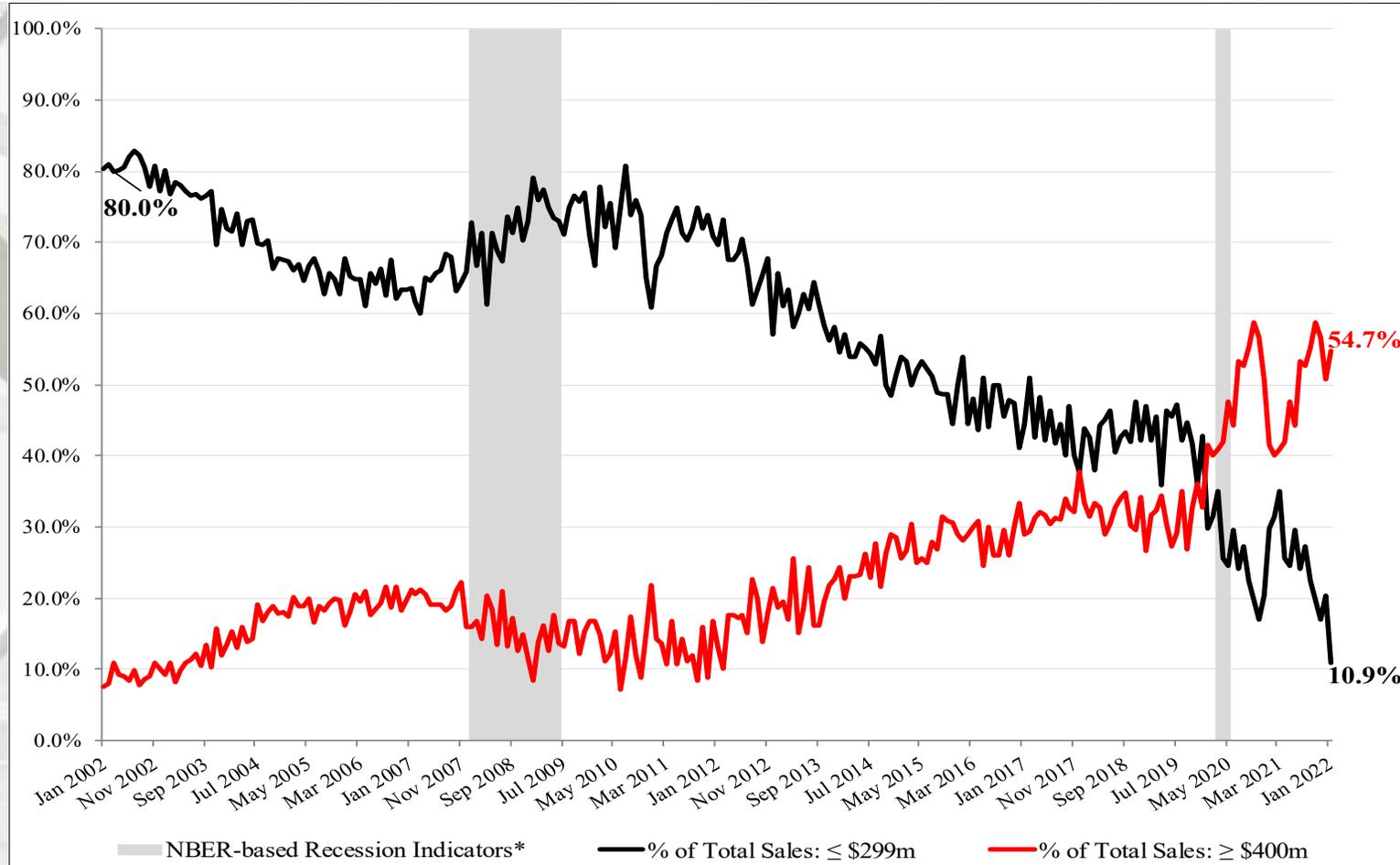
* NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

New SF House Sales by Price Category



* Sales tallied by price category, nominal dollars.

New SF House Sales

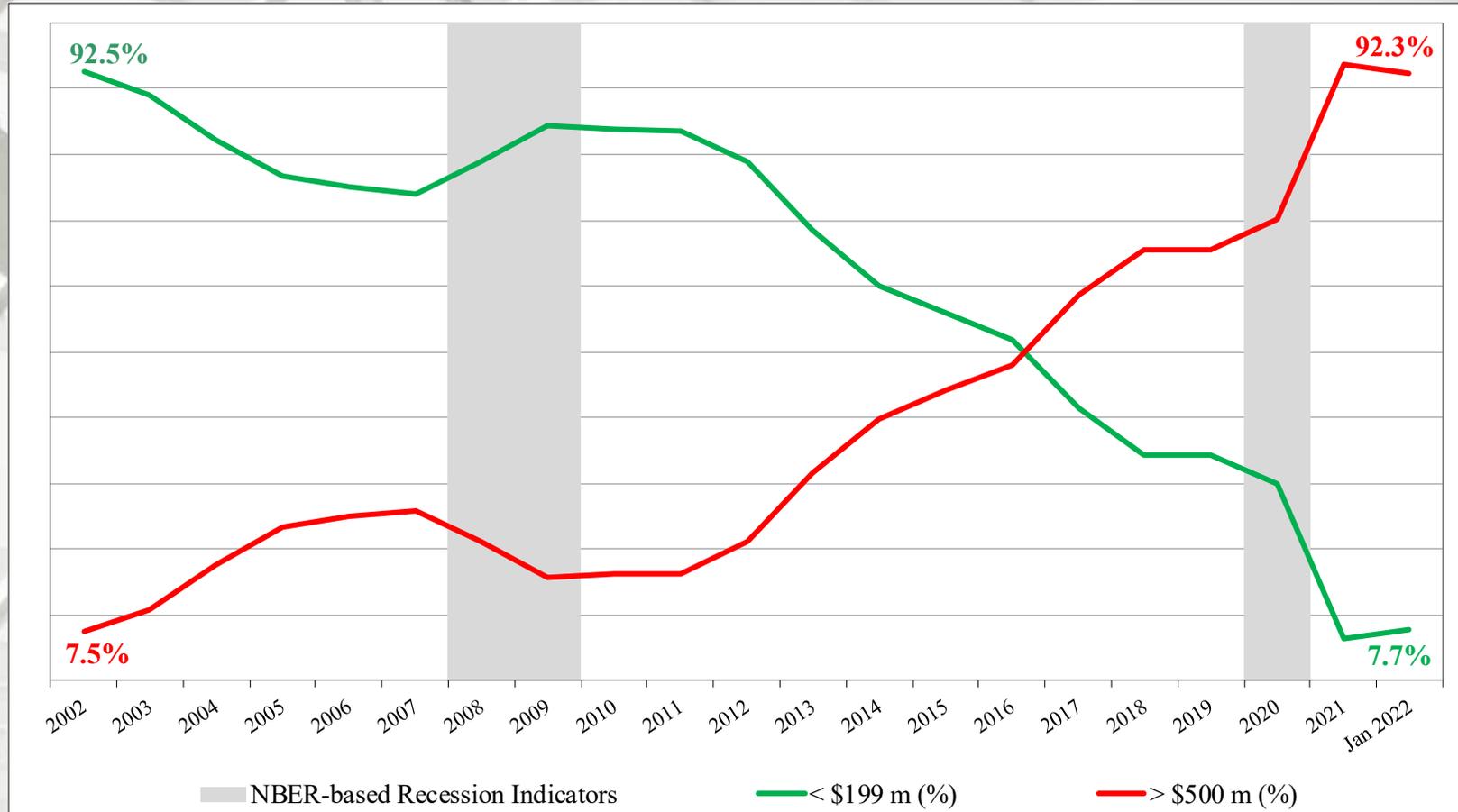


* NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

New SF Sales: ≤ \$299m and ≥ \$400m: 2002 – January 2021

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

New SF House Sales



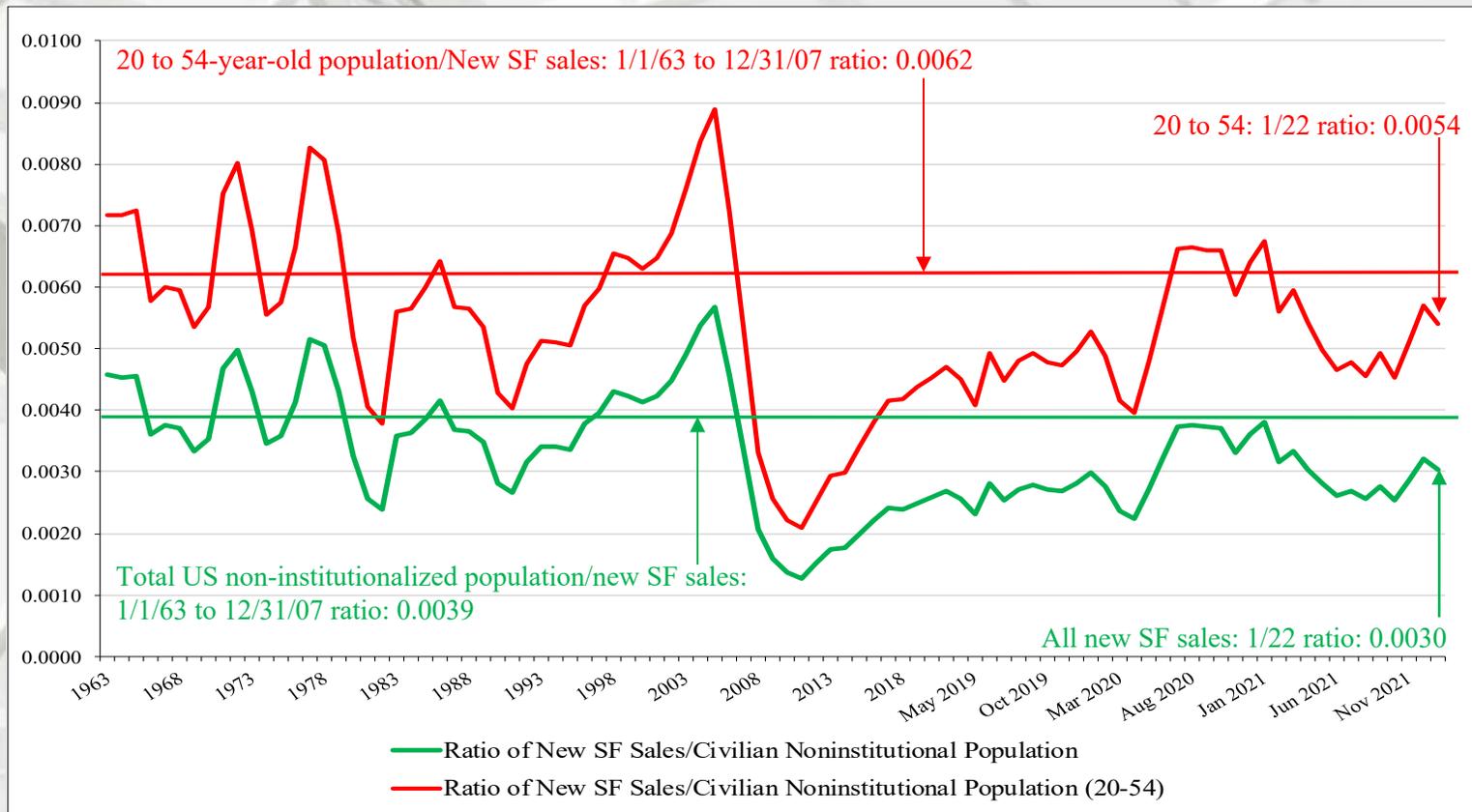
New SF Sales: ≤ \$ 200m and ≥ \$500m: 2002 to January 2021

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 ≤ \$200m class. One of the most oft mentioned reasons for this occurrence is builder net margins.

Note: Sales values are not adjusted for inflation.

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

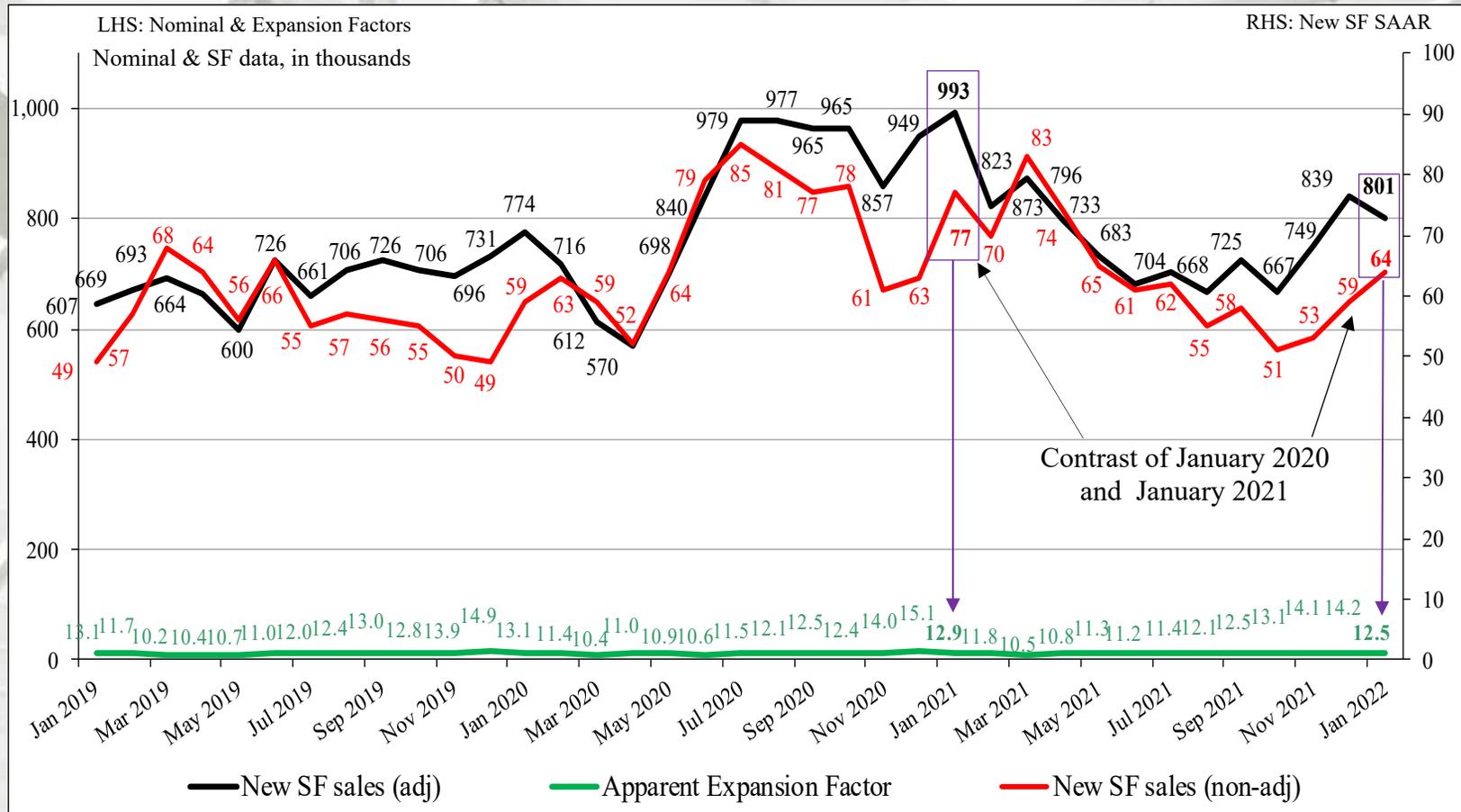


New SF sales adjusted for the US population

From January 1963 to July 2007, the long-term ratio of new house sales to the total US non-institutionalized population was 0.0039; in January 2022 it was 0.0030 – a decrease from December (0.0032). The non-institutionalized population, aged 20 to 54 long-term ratio is 0.0048; in January 2022 it was 0.0054 – also a decrease from December (0.0057). All are non-adjusted data. New house sales for the 20 to 54 class exceeded population growth for the second time in more than a decade. From a total population world view, new sales remain less than the long-term average.

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

Nominal vs. SAAR New SF House Sales



Nominal and Adjusted New SF Monthly Sales

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

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

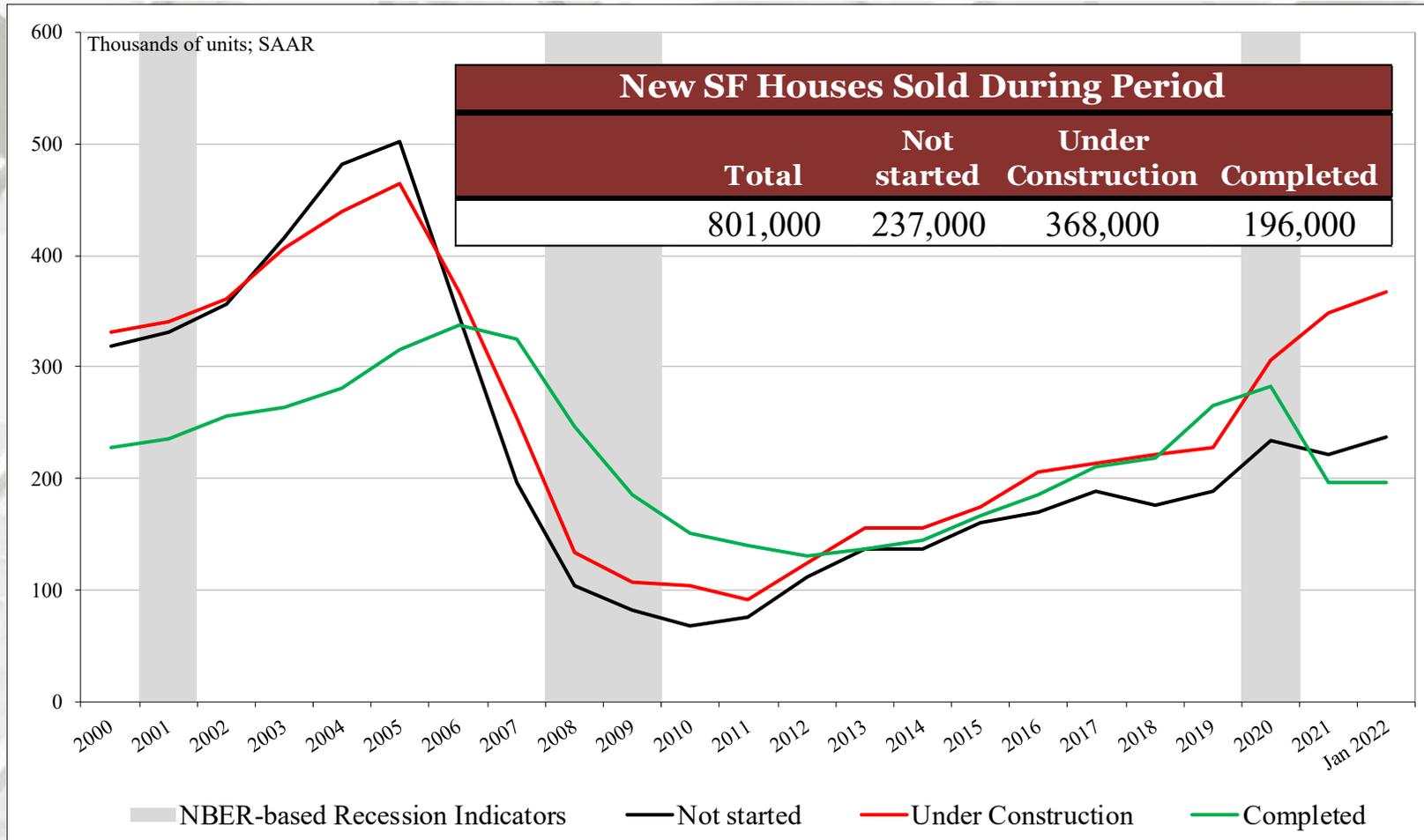
New SF House Sales

New SF Houses Sold During Period

	Total	Not started	Under Construction	Completed
January	801,000	237,000	368,000	196,000
December	839,000	182,000	426,000	231,000
2021	993,000	317,000	413,000	263,000
M/M change	-4.5%	30.2%	-13.6%	-15.2%
Y/Y change	-19.3%	-25.2%	-10.9%	-25.5%
Total percentage		29.6%	45.9%	24.5%

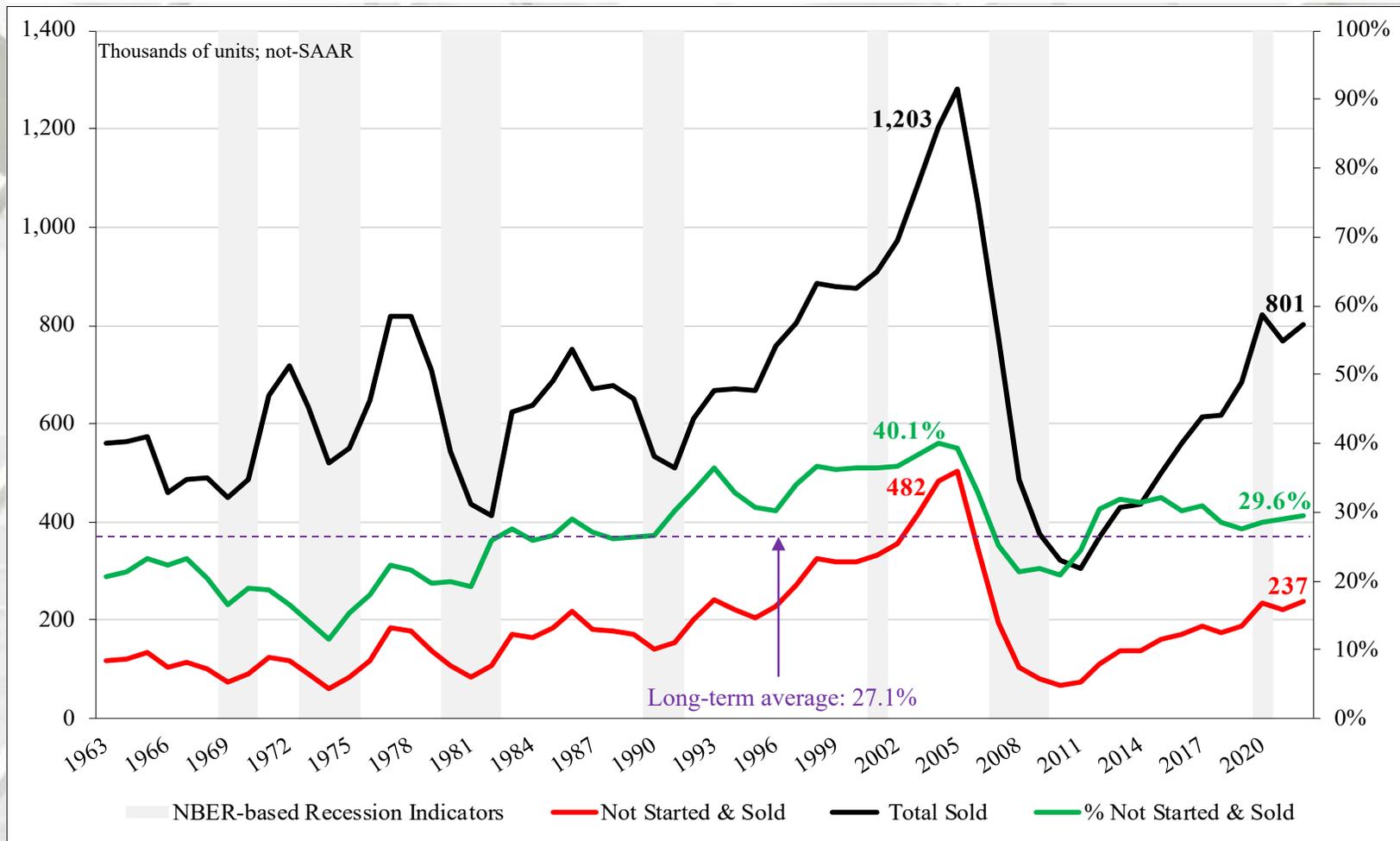
SAAR

New SF House Sales: Sold During Period



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

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



Of the new houses sold in January (801 m), 29.7% (237 m) had not been started. The long-term average is 27.1%.

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

New SF Houses for Sale at End of Period

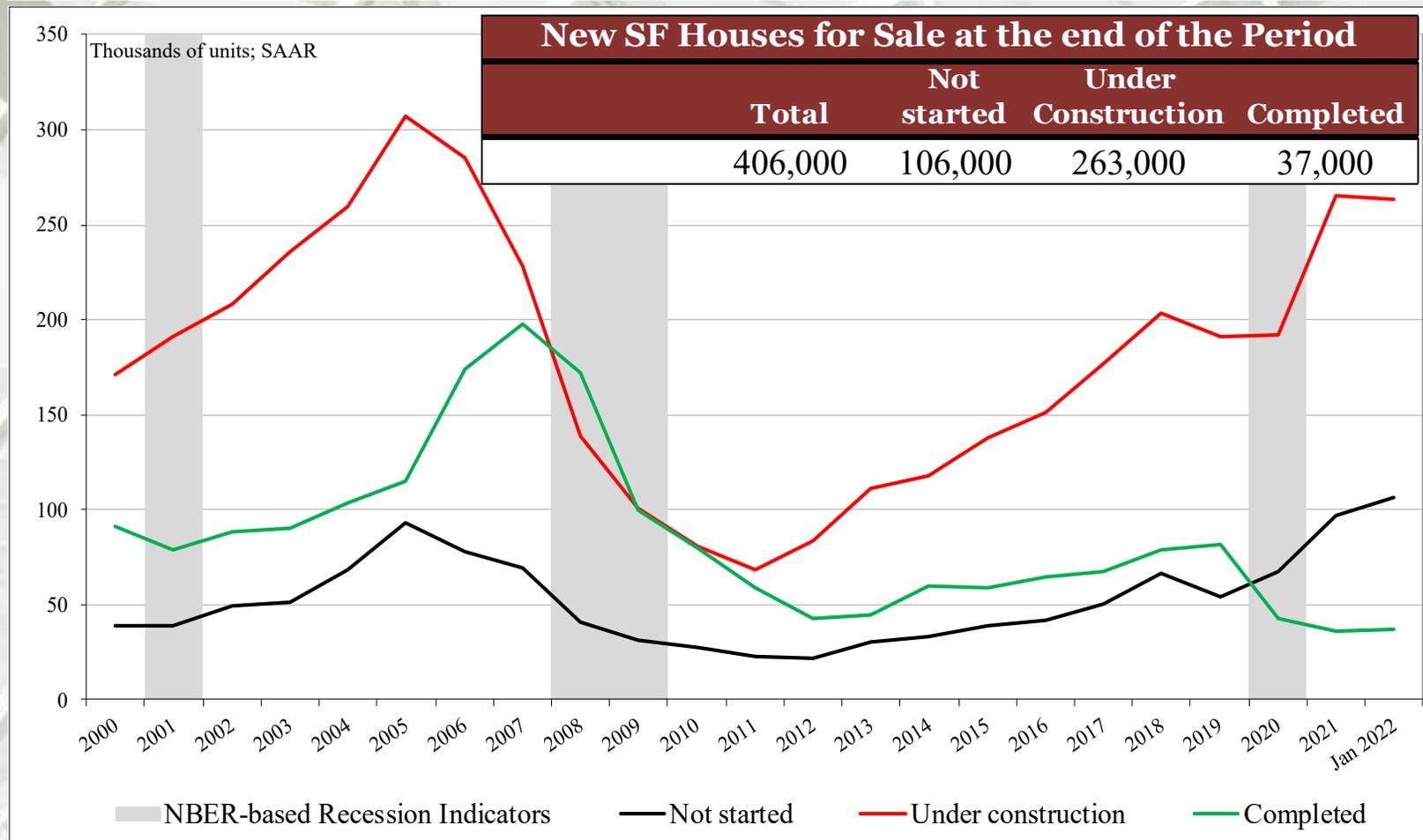
New SF Houses for Sale at the end of the Period

	Total	Not started	Under Construction	Completed
January	406,000	106,000	263,000	37,000
December	394,000	96,000	264,000	34,000
2021	302,000	75,000	187,000	40,000
M/M change	3.0%	10.4%	-0.4%	8.8%
Y/Y change	34.4%	41.3%	40.6%	-7.5%
Total percentage		26.1%	64.8%	9.1%

Not SAAR

Of houses listed for sale (406m) in January, 9.1% (37m) have been built. In the 'ground had not been broken for construction' or 'not started' category, 106m (26.1%) were sold; *the greatest number since April of 2006 (100m).*

New SF House Sales: For Sale at End of Period



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

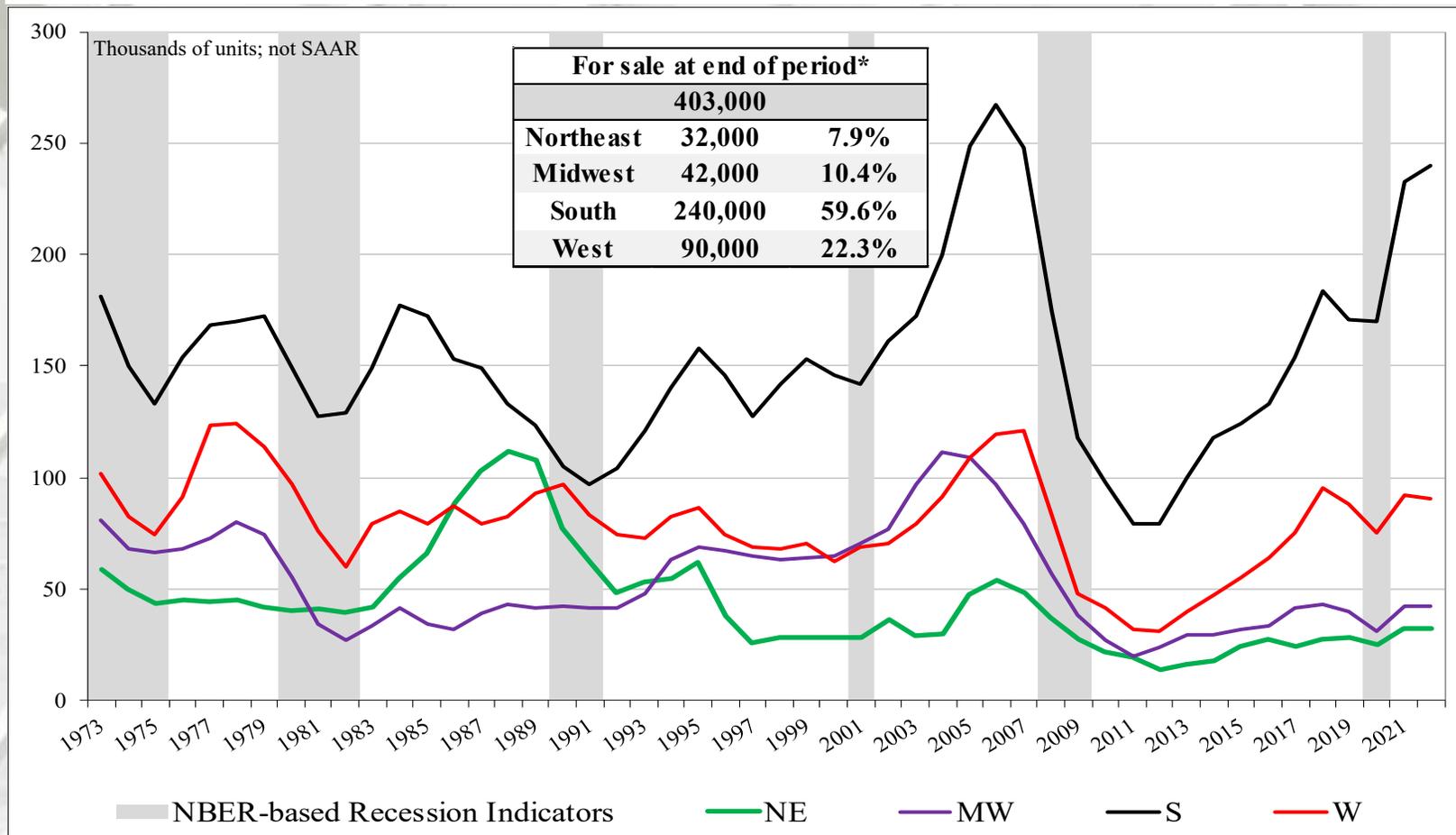
New SF House Sales

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

	Total	NE	MW	S	W
January	403,000	32,000	42,000	240,000	90,000
December	398,000	32,000	42,000	233,000	92,000
2021	300,000	26,000	30,000	169,000	75,000
M/M change	1.3%	0.0%	0.0%	3.0%	-2.2%
Y/Y change	34.3%	23.1%	40.0%	42.0%	20.0%

* Not SAAR

New SF Houses for Sale at End of Period by Region

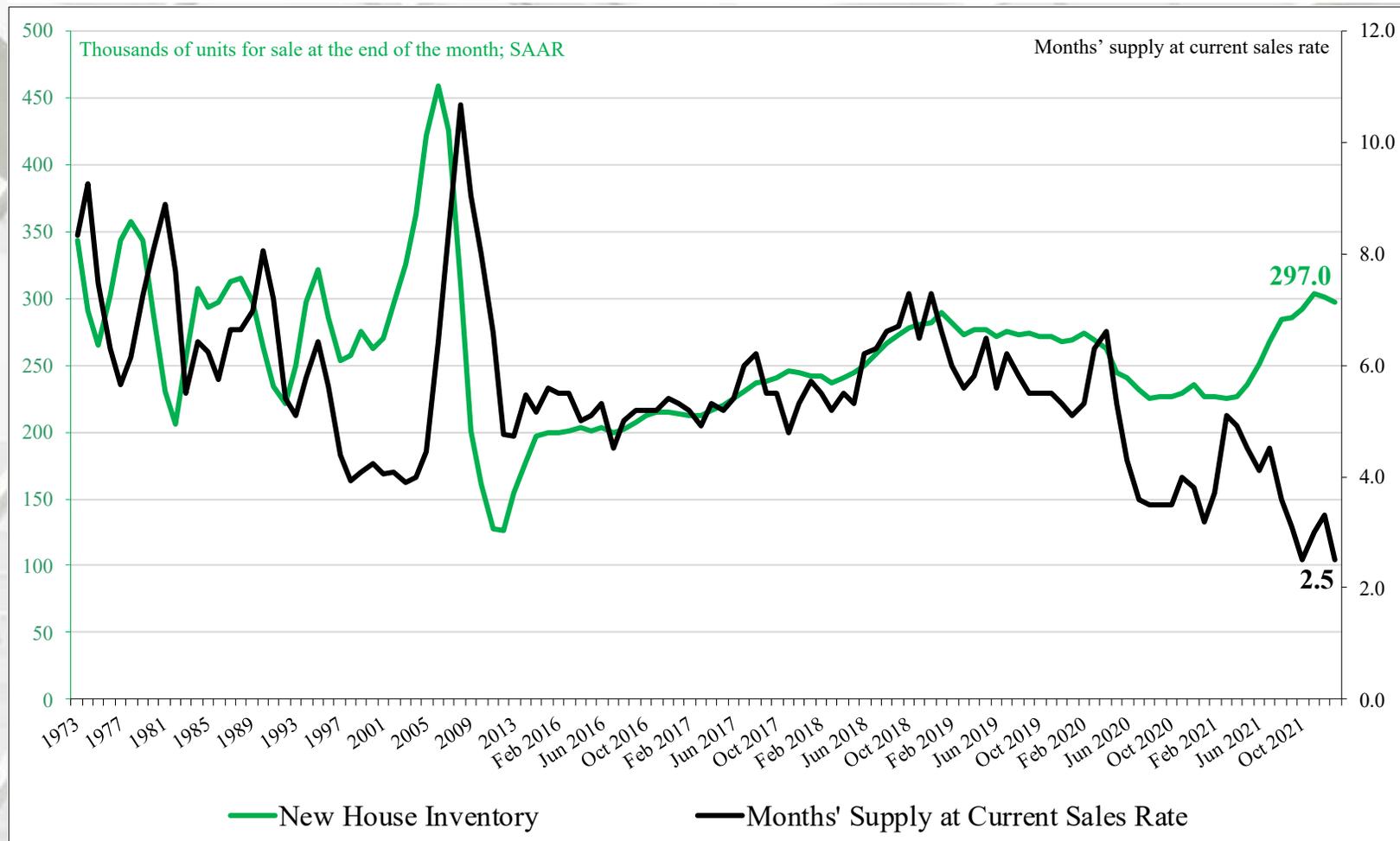


NE = Northeast; MW = Midwest; S = South; W = West

* Percentage of new SF sales.

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

Months' Supply and New House Inventory^a



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

The months supply of new houses for sale was 2.5 at the end of January 2022 (SAAR).

January 2022 Construction Spending

	Total Private Residential*	SF	MF	Improvement**
January	\$829,377	\$445,085	\$101,471	\$282,821
December	\$818,957	\$439,644	\$101,524	\$277,789
2021	\$731,248	\$385,680	\$96,827	\$248,741
M/M change	1.3%	1.2%	-0.1%	1.8%
Y/Y change	13.4%	15.4%	4.8%	13.7%

* millions.

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

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

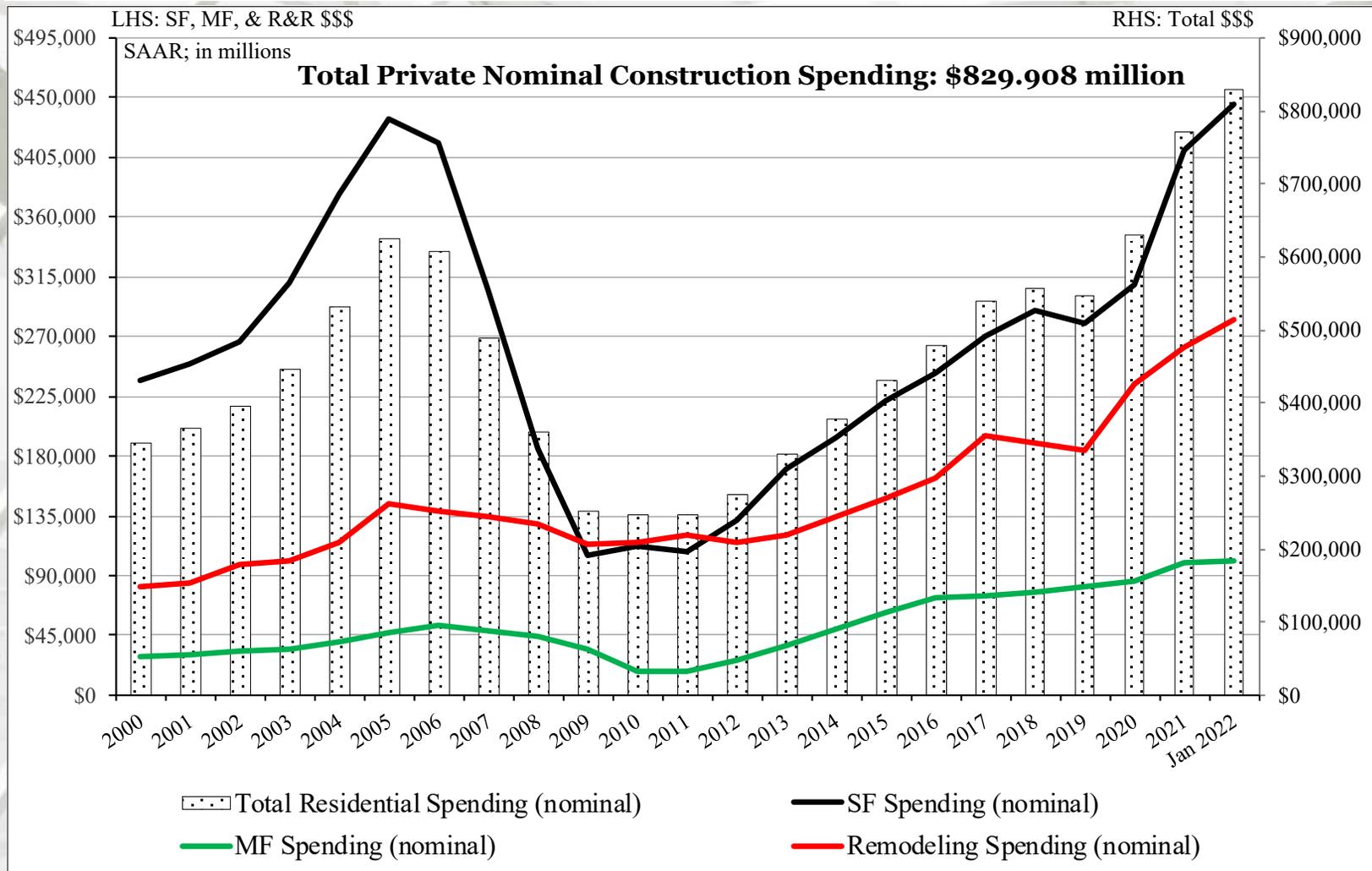
Total private residential construction spending includes new single-family, new multi-family, and improvement (AKA repair and remodeling) expenditures.

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

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

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

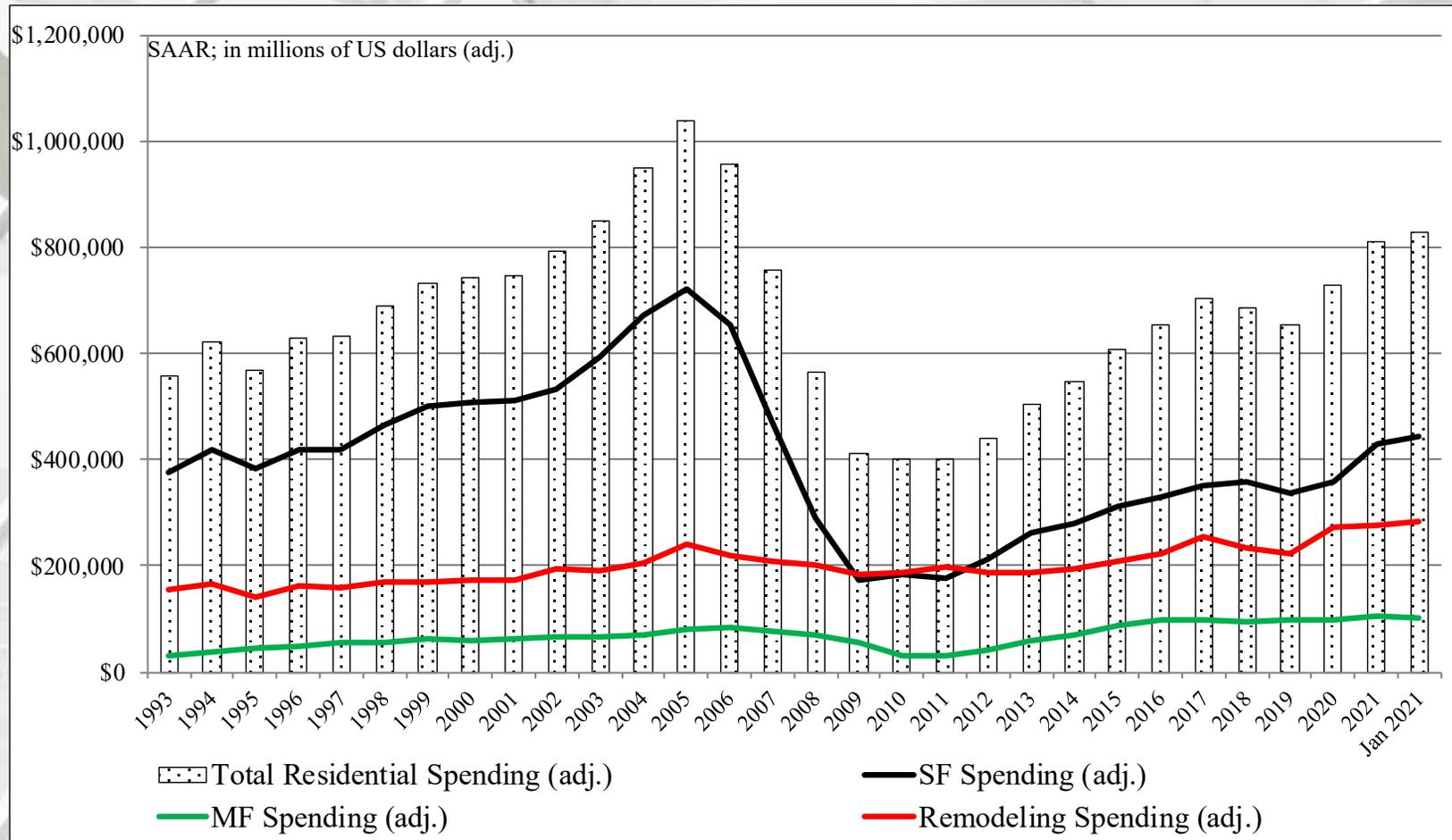
Total Construction Spending (nominal): 2000 – January 2022



Reported in nominal US\$.

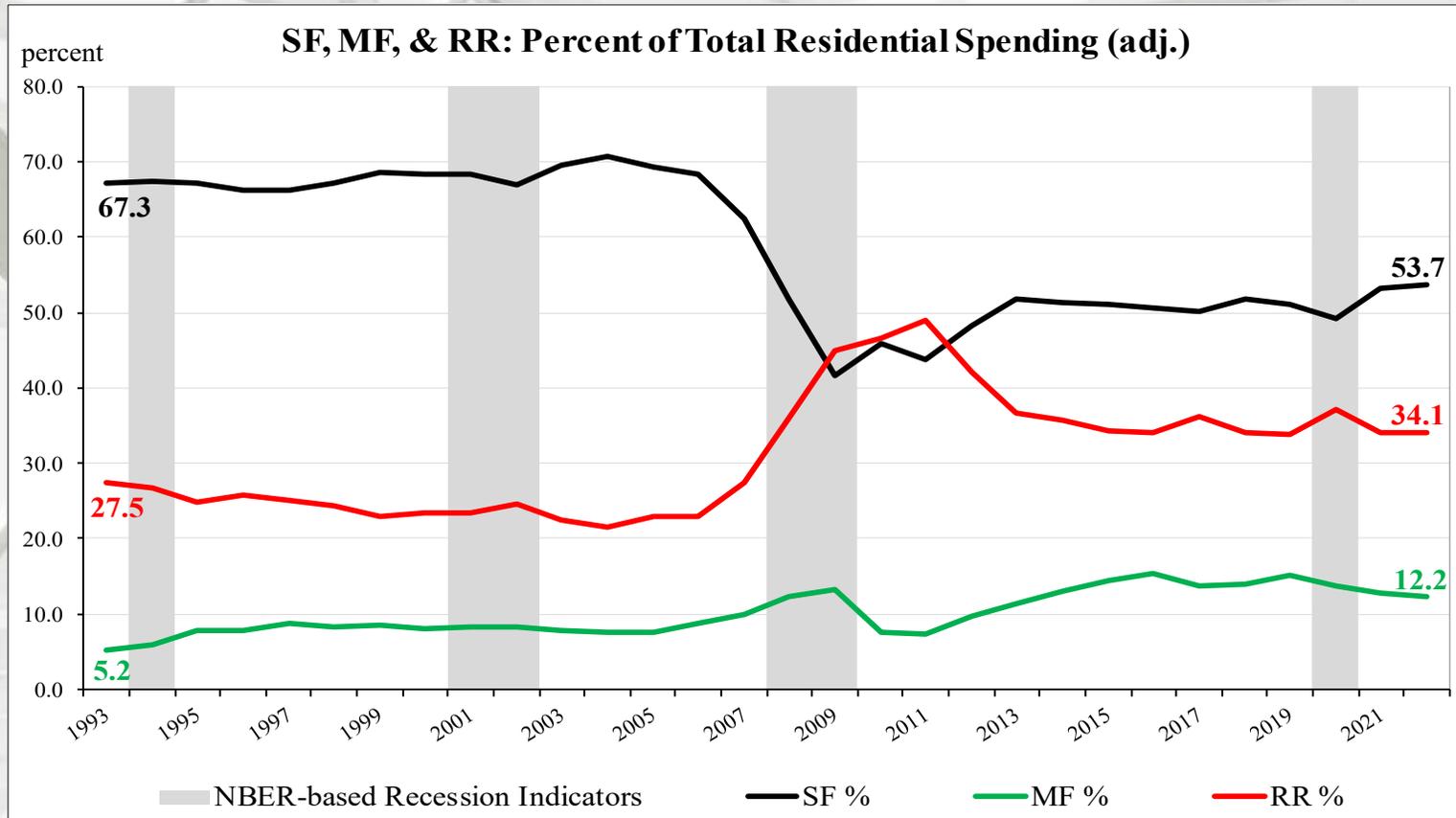
The US DOC does not report improvement spending directly, this is a monthly estimation for 2022.

Total Construction Spending (adjusted): 1993 – January 2022



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

Construction Spending Shares: 1993 – January 2022



Total Residential Spending: 1993 through 2006

SF spending average: 69.2%

MF spending average: 7.5%

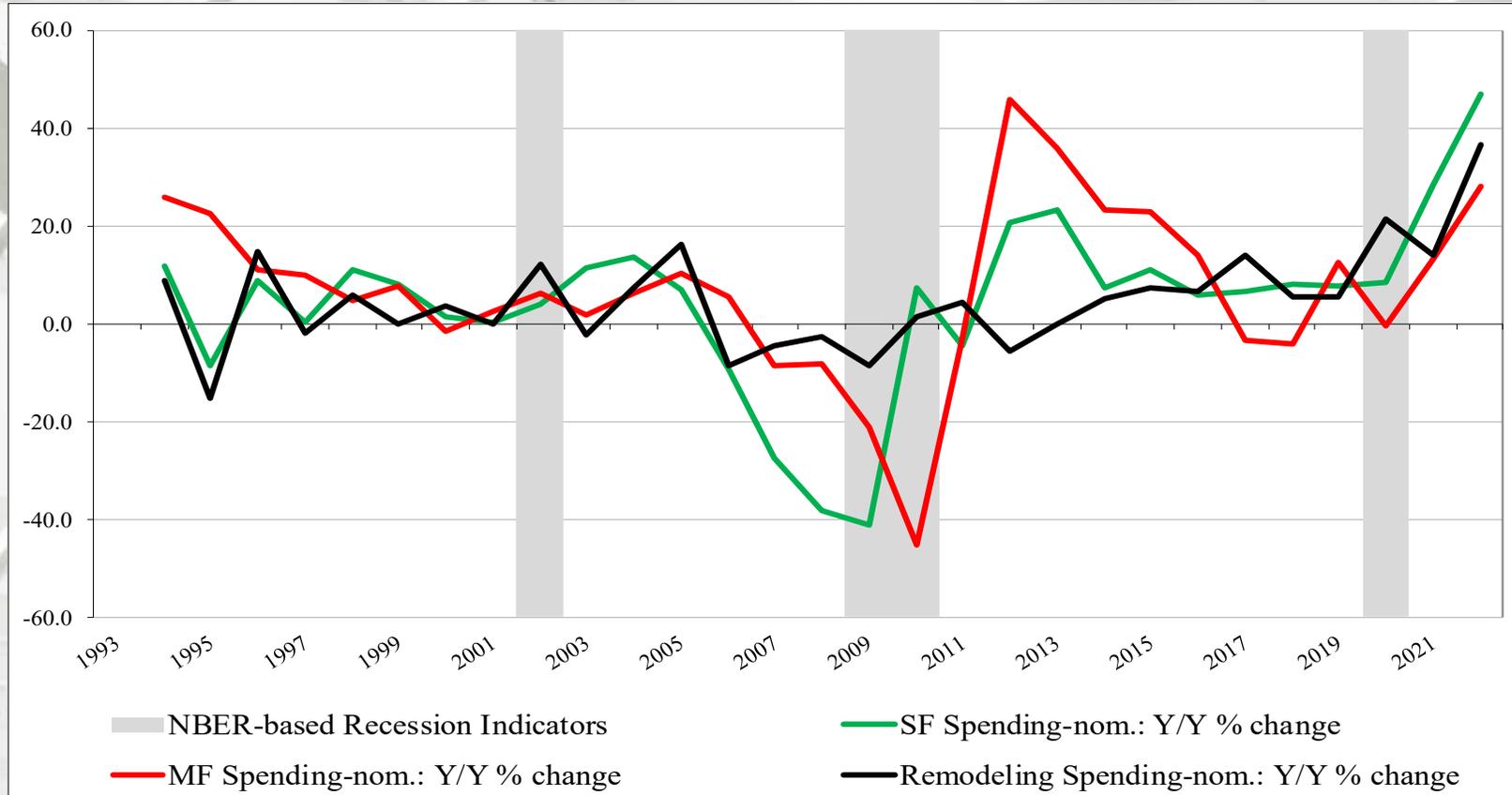
Residential remodeling (RR) spending average: 23.3% (SAAR).

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

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

Sources: * <https://fred.stlouisfed.org/series/USREC>, 6/24/21; <http://www.census.gov/construction/c30/pdf/privsa.pdf>; 3/1/22 and <http://www.bea.gov/iTable/iTable.cfm>; 3/1/22

Adjusted Construction Spending: Y/Y Percentage Change, 1993 – January 2022

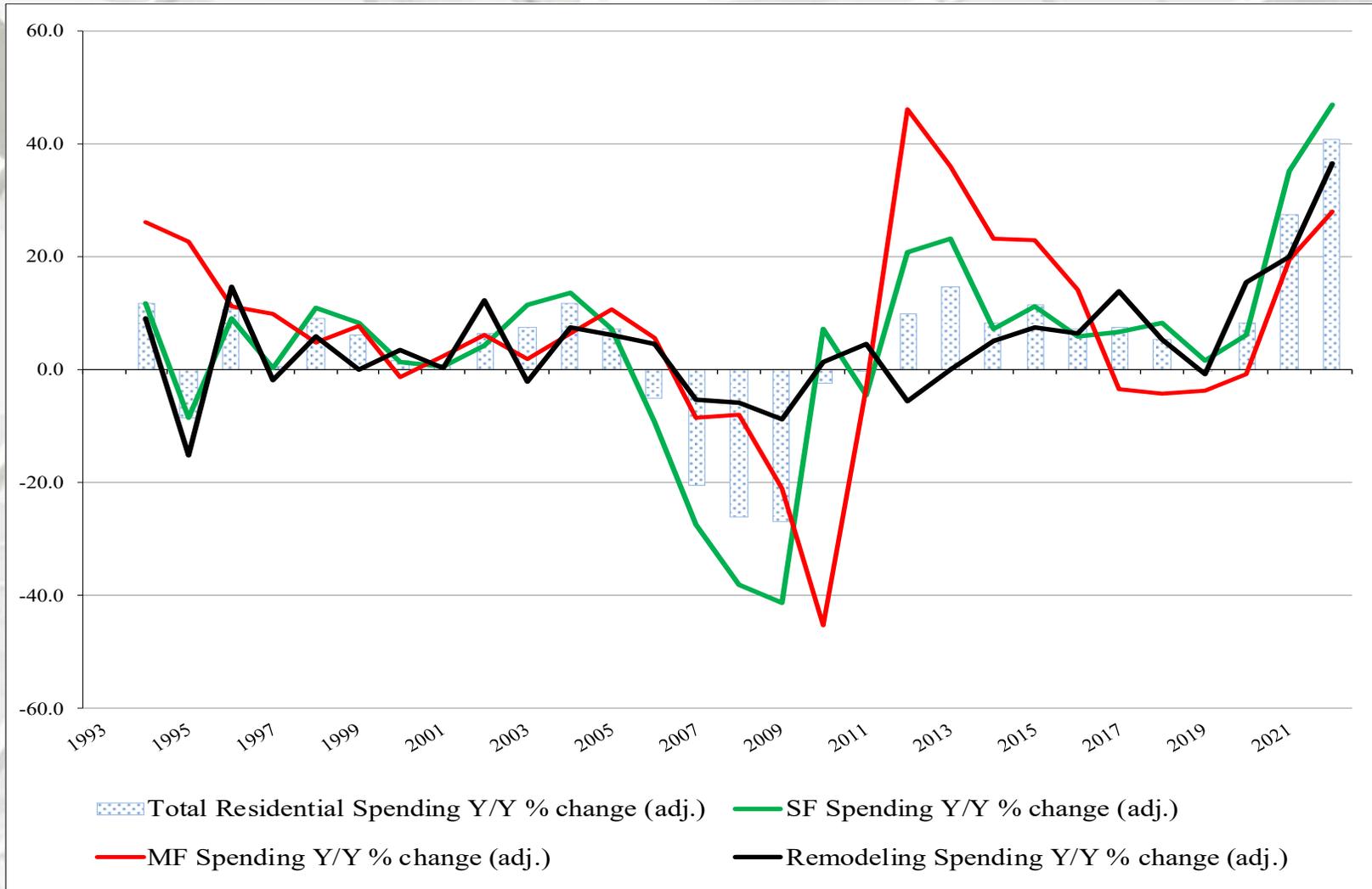


Nominal Residential Construction Spending: Y/Y percentage change, 1993 to January 2021

Presented above is the percentage change of inflation adjusted Y/Y construction spending. SF, MF, and RR expenditures were positive on a percentage basis, year-over-year and month-over-month (January 2022 data reported in nominal dollars).

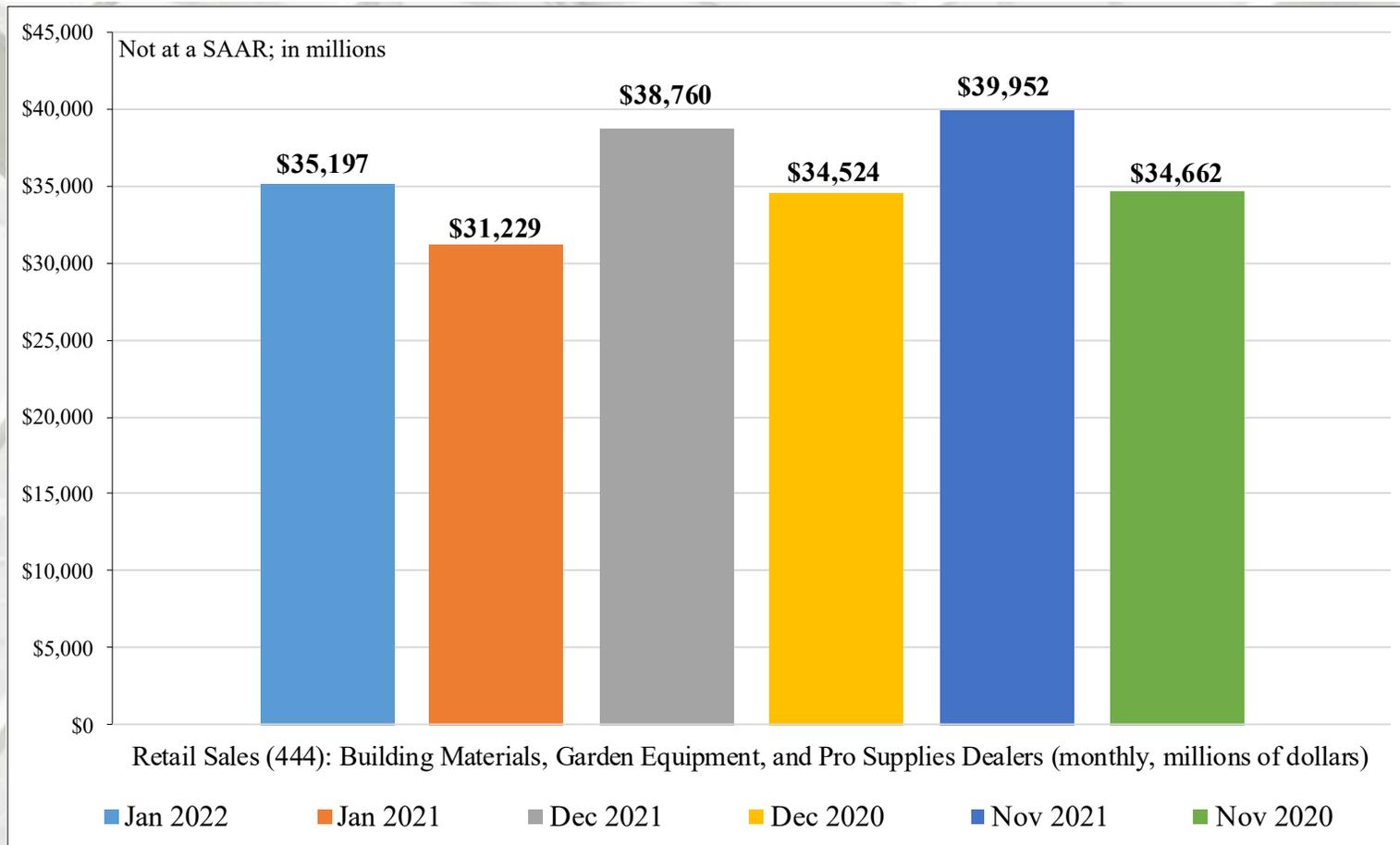
* NBER based Recession Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

Adjusted Construction Spending: Y/Y Percentage Change, 1993 – January 2022



Remodeling

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

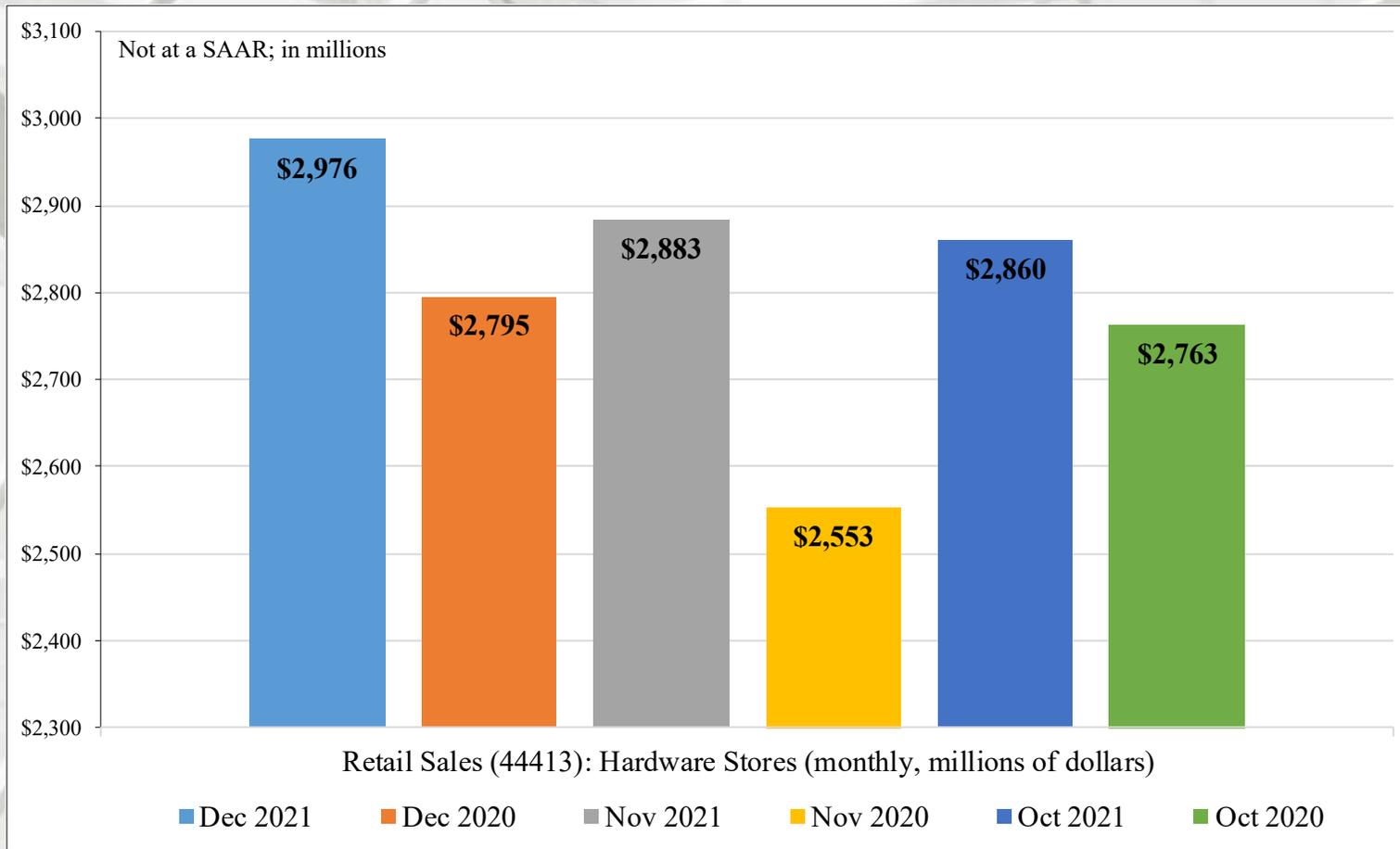


Building materials, Garden Equipment, & PRO Supply Dealers: NAICS 444

NAICS 444 sales decreased 3.0% in January 2022 from December 2021 and improved 12.7% Y/Y (on a non-adjusted basis).

Remodeling

Retail Sales: Hardware Stores



Hardware Stores: NAICS 44413

NAICS 44413 retail sales increased 3.2% in December 2021 from November 2021 and increased 6.5% in December 2021 from December 2020 (on a non-adjusted basis).

Remodeling

Harvard Joint Center for Housing Studies

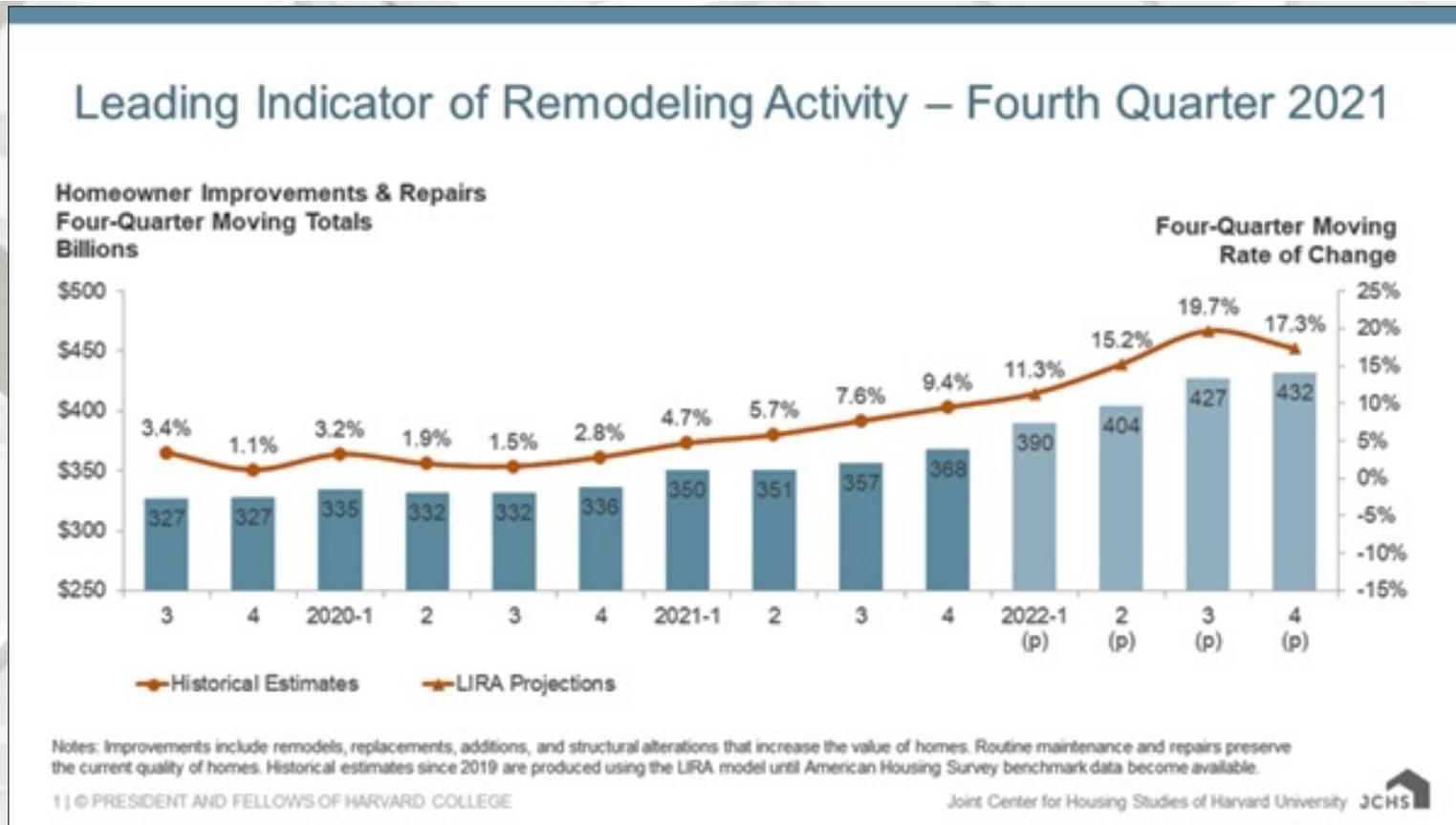
Boom In Home Remodeling May Peak In 2022

“Spending for home improvements and repairs is expected to expand at a stronger pace in 2022, but signs point to some easing of growth by year end, according to our latest [Leading Indicator of Remodeling Activity \(LIRA\)](#). The LIRA projects double-digit gains in annual homeowner renovation and maintenance expenditure will top out in the third quarter of 2022 before beginning a deceleration toward more sustainable rates of growth.

Strong increases in home sales activity, household incomes, and home equity levels are supporting a faster expansion of the home remodeling market over the coming year. As owners continue to navigate the ups and downs of the pandemic’s trajectory, the focus on home improvements for changing wants and needs remains in sharp relief.

While annual owner improvement and repair spending could reach \$430 billion by the second half of 2022, several headwinds may still temper growth expectations this year. The rising costs of labor and construction materials, difficulty retaining contractors, and climbing interest rates could discourage owners from undertaking new or larger remodeling projects.” – Abbe Will, Senior Research Associate & Associate Project Director, Remodeling Futures, Harvard Joint Center for Housing Studies

Remodeling



Harvard Joint Center for Housing Studies

“The prior two LIRA releases reported spending projections using a smoothing technique to adjust for the immense growth rate volatility in several leading model inputs, which was largely an artifact of year-over-year comparisons to pandemic-induced lows. As these shocks recede further in the past and inputs begin to stabilize, the Remodeling Futures Program is reverting to its standard methods for projecting homeowner improvement and repair spending with this release. The result of this change is somewhat higher growth rate projections than previously reported.” – Abbe Will, Senior Research Associate & Associate Project Director, Remodeling Futures, Harvard Joint Center for Housing Studies

Remodeling

Harvard Joint Center for Housing Studies

Residential Remodeling In Top Metros To Accelerate In 2022

“Expenditures for improvements to the owner-occupied housing stock are expected to increase at a faster pace in most of the nation’s largest metropolitan areas this year. [Projections for 2022](#) show a robust average annual growth in home improvement spending of 13.8 percent across all 48 major metropolitan areas tracked, with owner expenditures expected to grow between 7.6 percent and 23.0 percent. Of these metros, 20 are expected to see above average growth of 14 percent or greater with six metros surpassing the [projection for national remodeling spending](#) of 17 percent growth this year. All but one of the metros tracked show higher growth projected for 2022 compared with 2021 estimates.

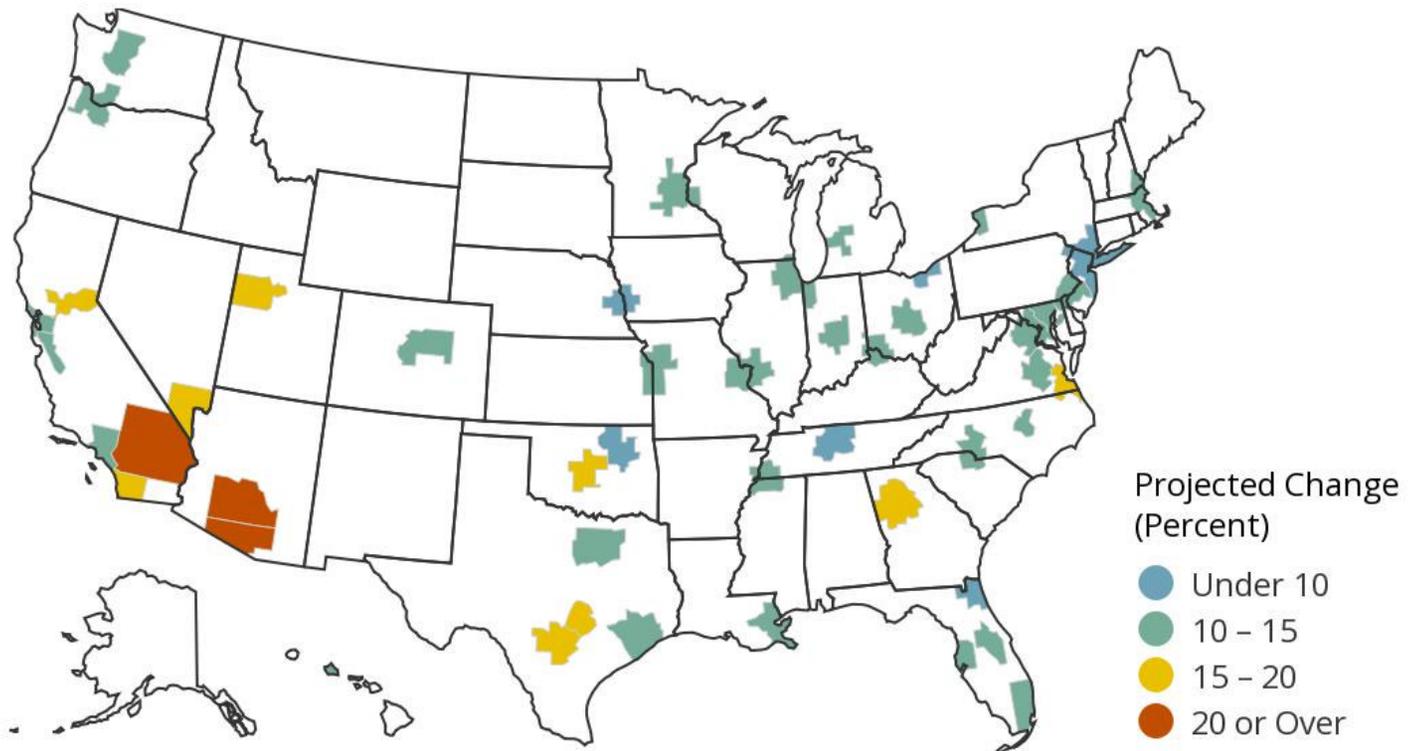
Record-breaking home price appreciation, solid home sales, and high incomes are all contributing to stronger remodeling activity in our nation’s major metros, especially in the South and West. The largest gains in home improvement spending this year are projected to occur in Tucson (23.0 percent), Riverside (21.9 percent), Phoenix (20.3 percent), Austin (19.2 percent), San Antonio (19.1 percent), and Las Vegas (17.5 percent).

Although home remodeling is expected to accelerate broadly across top metros, ongoing shortages and rising costs of labor and building materials may dampen activity in the coming year. There will be shifts in local supply chains and the remodeling workforce as regional economies pull out of the pandemic, and as homeowner needs and activities change.” – Sophia Wedeen, Research Assistant, Remodeling Futures, Harvard Joint Center for Housing Studies

Remodeling

Harvard Joint Center for Housing Studies

Metro Area Home Improvement Projections Annual Change in Spending, 2022Q4



Remodeling

Zonda's Residential Remodeling Index (RRI)

Remodeling Growth to Stabilize After Record Year in 2021

The Residential Remodeling Index averaged growth of 12.9% in 2021, but the model forecasts annual growth will average 2.5% for the next three years.

“Zonda's Residential Remodeling Index (RRI) posted a record-high reading of 151.3 in the fourth quarter of 2021, a 9.7% gain from the fourth quarter of 2020. According to the RRI, fourth quarter big-ticket remodeling spending increased 0.9% compared to the third quarter of 2021.

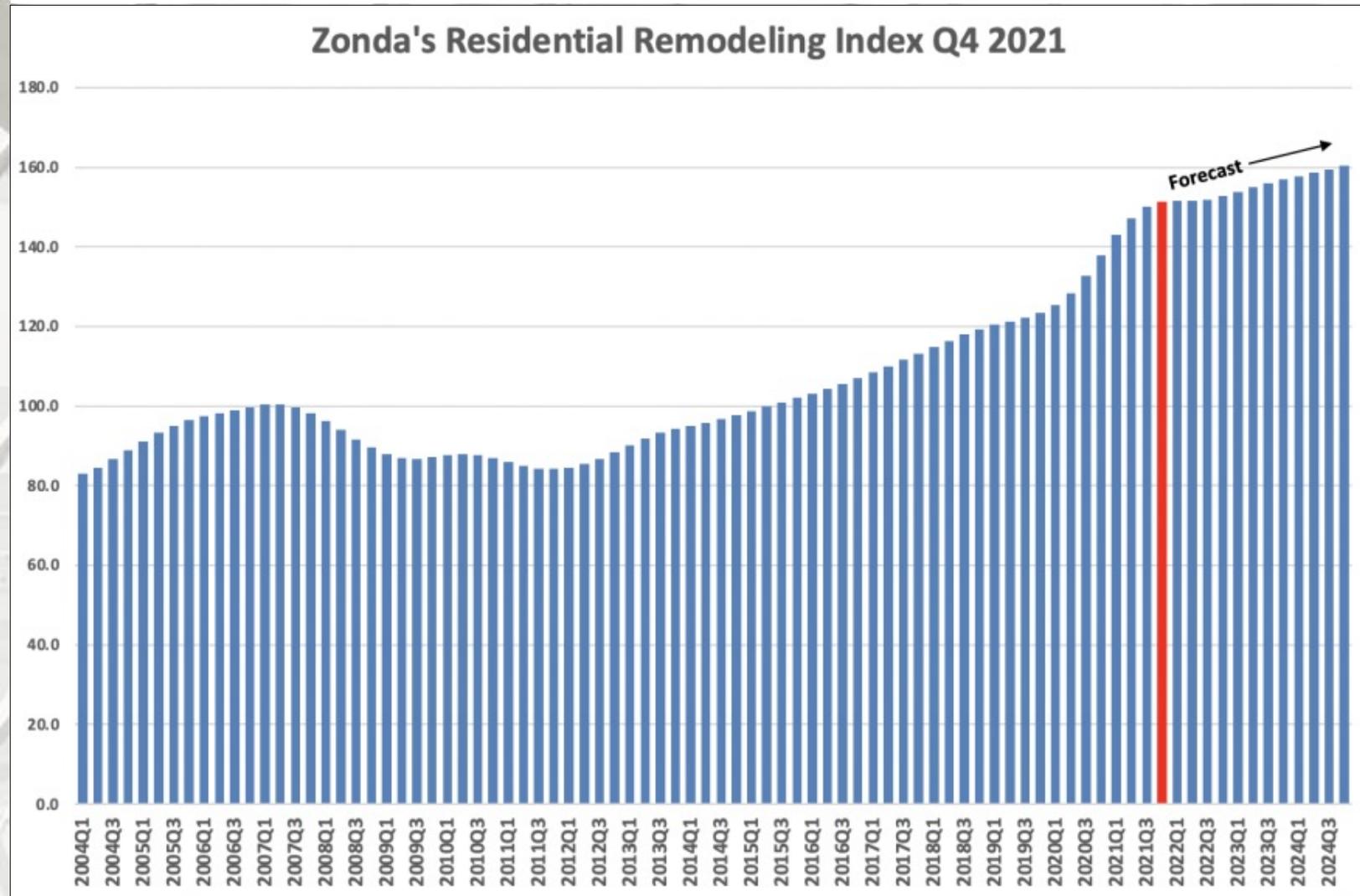
The latest [RRI](#) reading indicates current remodeling activity is 51% higher than the old peak of 2007. The growth during the fourth quarter of 2021 marks the 39th consecutive quarters of growth since remodeling activity bottomed in 2011. Zonda said the RRI average growth of 12.9% for the full year in 2021, the strongest annual increase in the index's history dating back to 2004.

In addition to record growth, the RRI's short-term forecast has firmed due to a strengthening in the economic variables included in the RRI model, particularly GDP and employment. Zonda forecasts the RRI to see annual growth of 2.8% in 2022 and continued steady increases of 2.2% and 2.4% in 2023 and 2024, respectively.” – Vincent Salandro, Associate Editor, *Remodeling and ProSales*

Remodeling

Zonda's Residential Remodeling Index (RRI)

Remodeling Growth to Stabilize After Record Year in 2021



Remodeling

Zonda's Residential Remodeling Index (RRI)

Remodeling Growth to Stabilize After Record Year in 2021

“According to Zonda, continued economic growth is expected to bolster consumer demand for home improvements, while activity in the housing market is expected to see some level of normalization during 2022. While strong existing home sales and record levels of home equity have driven the RRI, the housing market frenzy is expected to subside in 2022 as interest rates rise. After existing home sales reached a 15-year high of 6.12 million units in 2021, the National Association of Realtors forecasts sales will decrease to 5.95 million units in 2022. Price moderation in the existing home market is also expected to moderate from 16.9% in 2021 to 5.1% in 2022. Despite expected moderation, forecasts for the housing market in 2022 suggest underlying buyer demand will remain intact as supply normalizes.

While the RRI model predicts economic and housing conditions will allow for remodeling activity to continue to expand, challenges and uncertainties remain — namely, inflation. Inflation reached 7.5% on an annual basis in January, the highest level in four decades, and how aggressively the Federal Reserve will respond with interest rate hikes in 2022 could have a range of effects on the overall economy.

The RRI estimates the number of pro-worthy remodeling projects worth \$1,000 or more completed in 2021 was 15.9 million. Zonda forecasts the number will increase to 16.4 million in 2022 and increase again to 16.8 million in 2023.

As part of the RRI estimation, Zonda predicts that 366 or 384 observed metropolitan statistical areas will see growth in annual project volume in 2022. Among the markets expected to see growth, the average growth rate is predicted to be 4.1%.” – Vincent Salandro, Associate Editor, *Remodeling and ProSales*

Existing House Sales

National Association of Realtors

January 2021 sales: 6.500 thousand

	Existing Sales	Median Price	Mean Price	Month's Supply
January	6,500,000	\$350,300	\$368,700	1.6
December	6,090,000	\$354,600	\$373,100	1.7
2021	6,660,000	\$303,600	\$337,800	1.9
M/M change	6.7%	-1.2%	-1.2%	-5.9%
Y/Y change	-2.4%	15.4%	9.1%	-15.8%

All sales data: SAAR

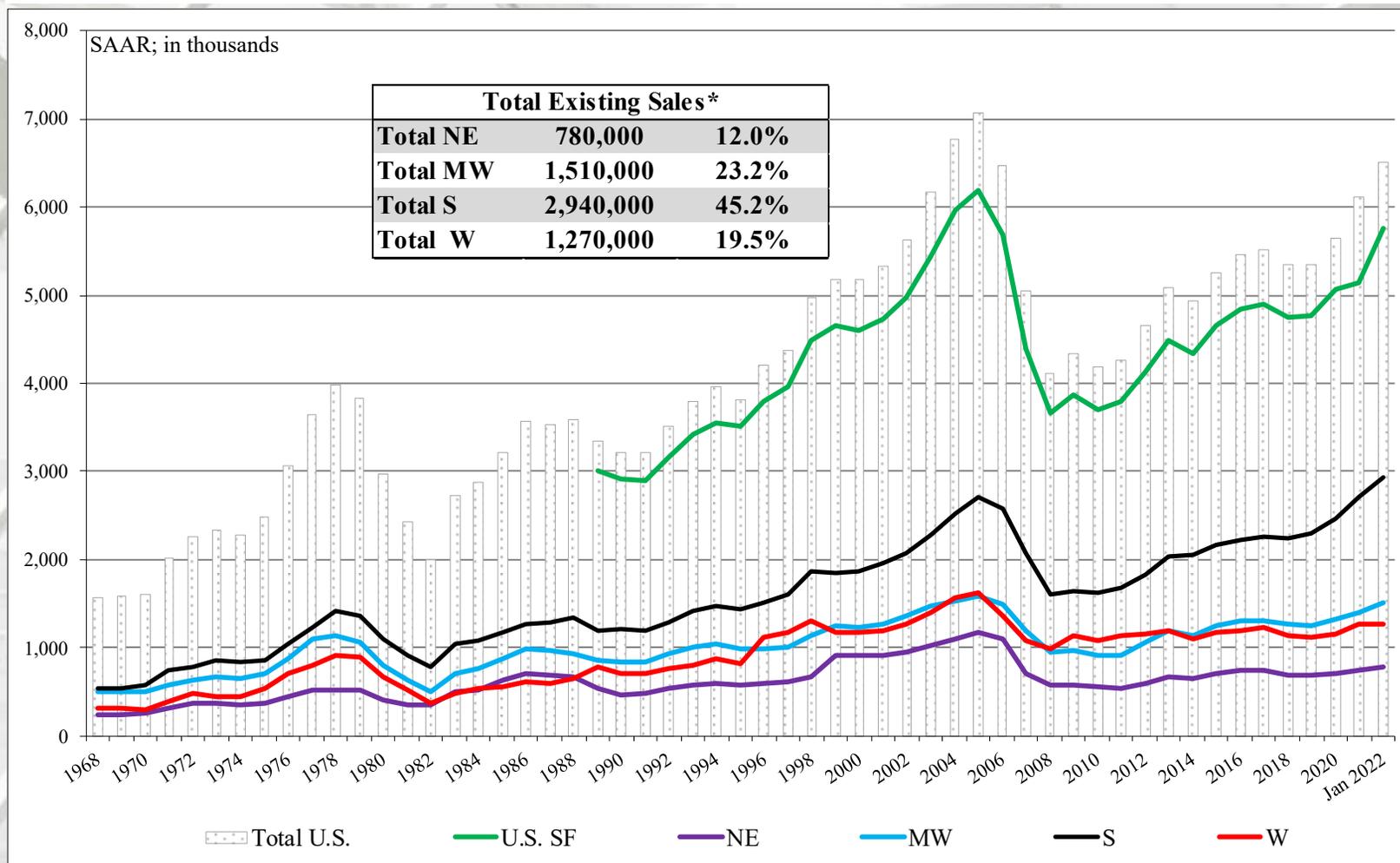
Existing House Sales

	Existing SF Sales	SF Median Price	SF Mean Price
January	5,760,000	\$357,100	\$368,700
December	5,410,000	\$361,300	\$373,100
2021	5,900,000	\$308,000	\$341,300
M/M change	6.5%	-1.2%	-1.2%
Y/Y change	-2.4%	15.9%	8.0%

	NE	MW	S	W
January	780,000	1,510,000	2,940,000	1,270,000
December	730,000	1,450,000	2,690,000	1,220,000
2021	870,000	1,530,000	2,950,000	1,310,000
M/M change	6.8%	4.1%	9.3%	4.1%
Y/Y change	-10.3%	-1.3%	-0.3%	-3.1%

All sales data: SAAR.

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 – January 2022

U.S. House Prices Rise 17.5 Percent over the Last Year; Up 3.3 Percent from the Third Quarter

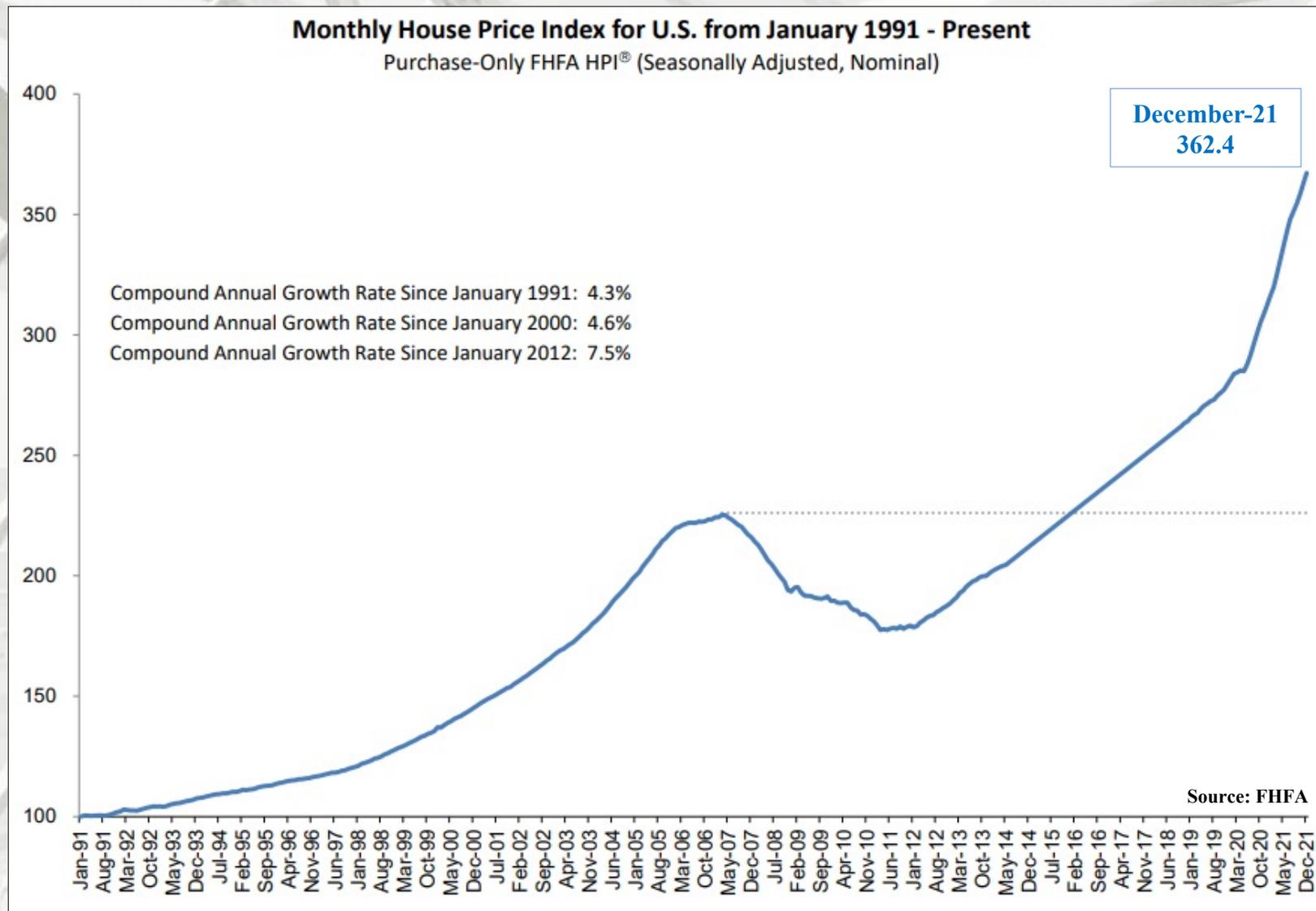
Significant Findings

“U.S. house prices rose **17.5 percent** from the fourth quarter of 2020 to the fourth quarter of 2021 according to the Federal Housing Finance Agency House Price Index (FHFA HPI®). House prices were up 3.3 percent compared to the third quarter of 2021. FHFA's seasonally adjusted monthly index for December was up 1.2 percent from November.

Of the nine census divisions, the **Mountain** division recorded the strongest four-quarter appreciation, posting a 23.1 percent gain between the fourth quarters of 2020 and 2021 and a 3.5 percent increase in the fourth quarter of 2021. Annual house price appreciation was weakest in the **West North Central division**, where prices rose by 13.6 percent between the fourth quarters of 2020 and 2021. ” – Raffi Williams and Adam Russell, FHFA

“House prices continued to climb but not as rapidly during the final quarter of 2021 as in earlier quarters. Housing trends over the past year have created challenges. The quick house price gains may be counterbalanced as mortgage rates increase. However, more expensive housing has elevated affordability to become a broader concern as available supply remains limited.” – William Doerner, Ph.D., Supervisory Economist, Division of Research and Statistics, FHFA

U.S. Housing Prices



U.S. Housing Prices

S&P CoreLogic Case-Shiller Index Reports 18.8% Annual Home Price Gain In November

“... Data for December 2021 show that home prices continue to increase across the U.S. More than 27 years of history are available for these data series, and can be accessed in full by going to www.spdji.com.

Year-Over-Year

The S&P CoreLogic Case-Shiller U.S. National Home Price NSA Index, covering all nine U.S. census divisions, reported an 18.8% annual gain in December, remaining the same from the previous month. The 10-City Composite annual increase came in at 17.0%, up from 16.9% in the previous month. The 20-City Composite posted an 18.6% year-over-year gain, up from 18.3% in the previous month.

Month-Over-Month

Phoenix, Tampa, and Miami reported the highest year-over-year gains among the 20 cities in December. Phoenix led the way with a 32.5% year-over-year price increase, followed by Tampa with a 29.4% increase and Miami with a 27.3% increase. Fifteen of the 20 cities reported higher price increases in the year ending December 2021 versus the year ending November 2021.” – 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

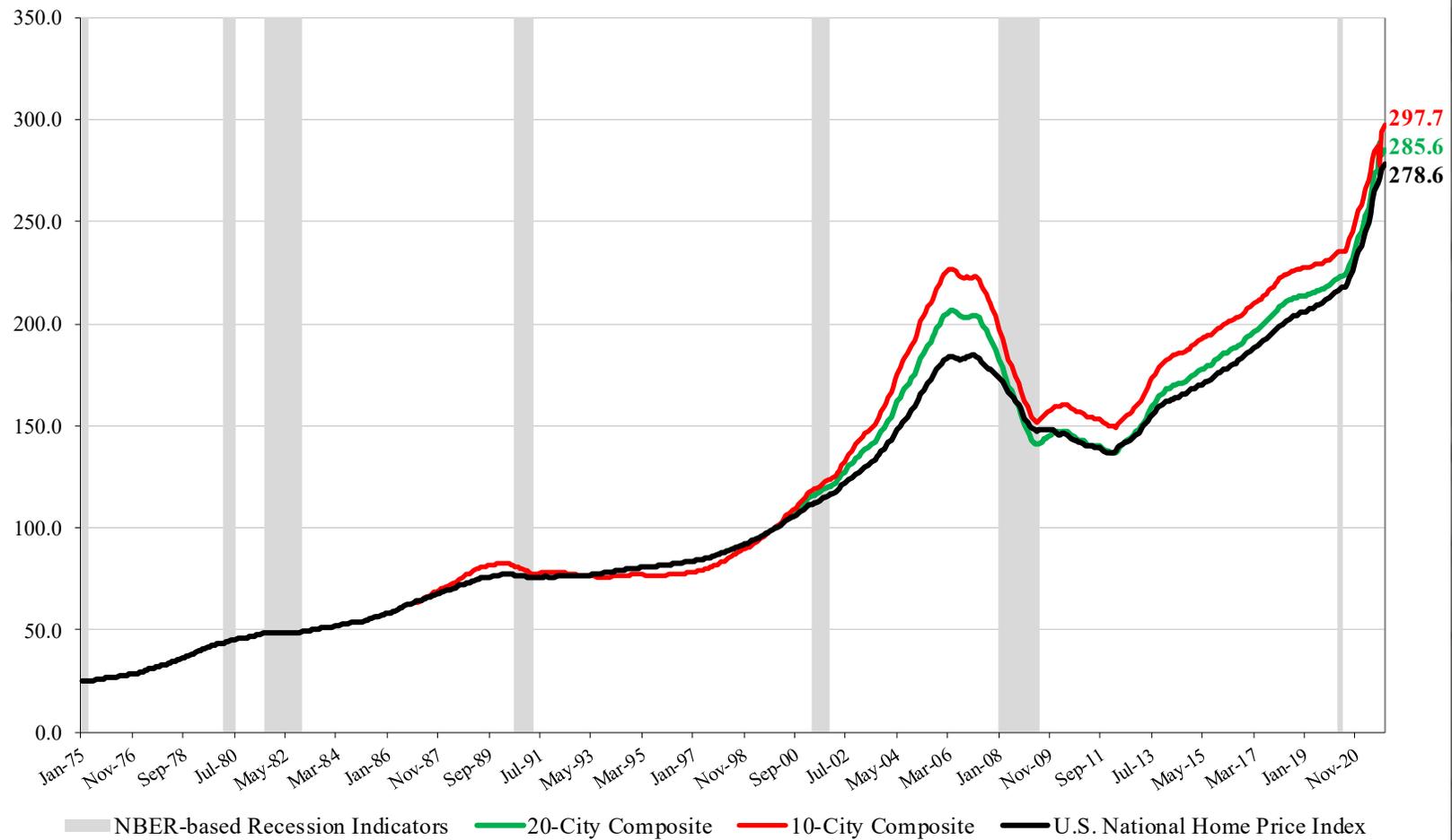
“This month’s report covers December 2021, and therefore brings our reporting on calendar 2021 to a close. For the year, the National Composite Index recorded a gain of 18.8%. This is the highest calendar year increase in 34 years of data, and substantially ahead of 2020’s 10.4% gain. The 10- and 20-City Composites rose 17.0% and 18.6%, respectively – a record for the 20-City Composite, and the second-best year ever for the 10-City Composite.

We have noted that for the past several months, home prices have been rising at a very high, but decelerating rate. The deceleration paused in December, as year-over-year changes in all three composite indices were slightly ahead of their November levels. December’s 18.8% gain for the National Composite is the fifth-highest reading in history. We continue to see very strong growth at the city level. All 20 cities saw price increases in 2021, and prices in all 20 are at their all-time highs. December’s price increase ranked in the top quintile of historical experience for 19 cities, and in the top decile for 16 of them.

Phoenix’s 32.5% increase led all cities for the 31st consecutive month. Tampa (+29.4%) and Miami (+27.3%) continued in second and third place in December. Prices were strongest in the South (+25.7%) and Southeast (+25.6%), but every region continued to log impressive gains.

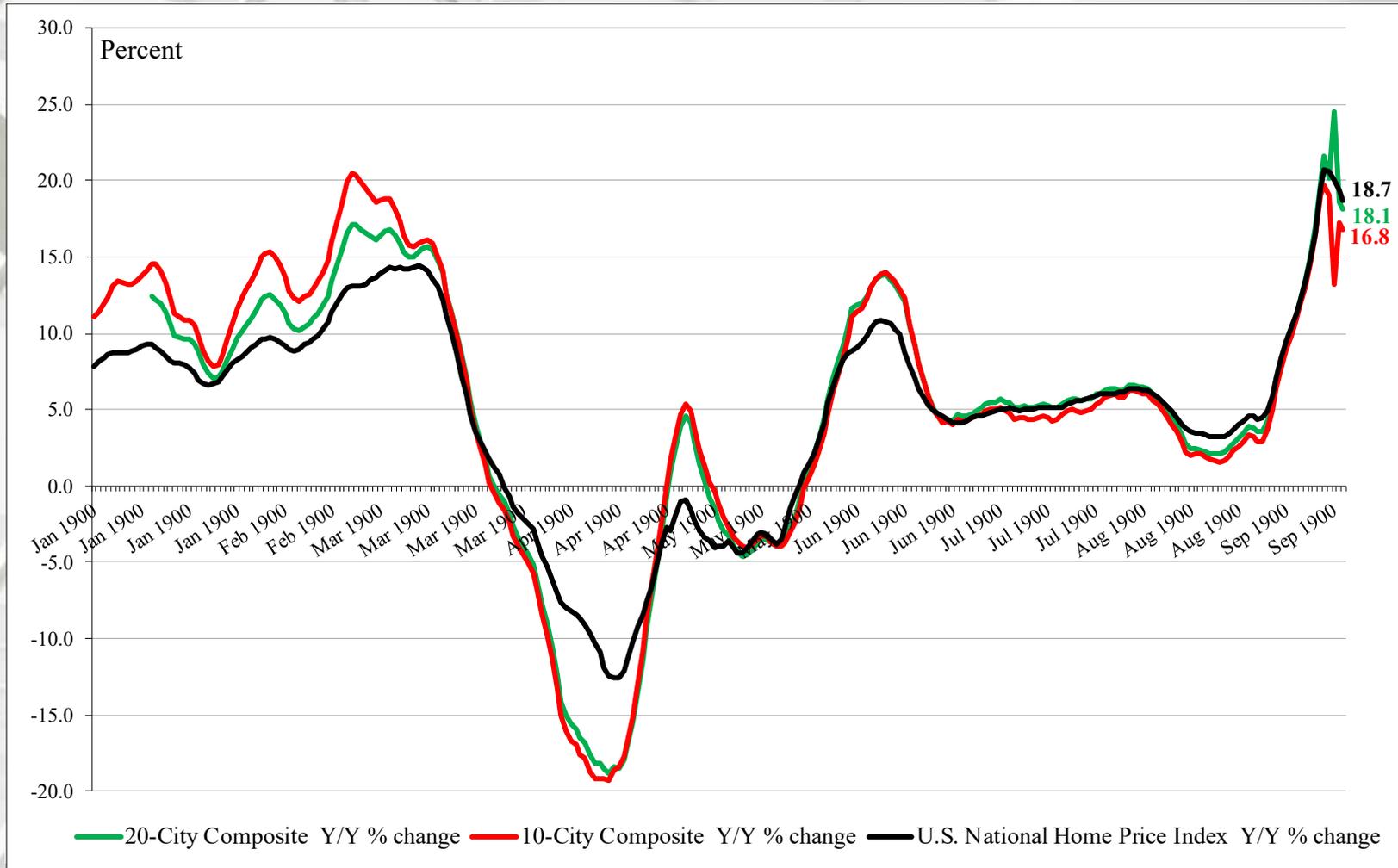
We have previously suggested that the strength in the U.S. housing market is being driven in part by a change in locational preferences as households react to the COVID pandemic. More data will be required to understand whether this demand surge simply represents an acceleration of purchases that would have occurred over the next several years rather than a more permanent secular change. In the short term, meanwhile, we should soon begin to see the impact of increasing mortgage rates on home prices.” – 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).

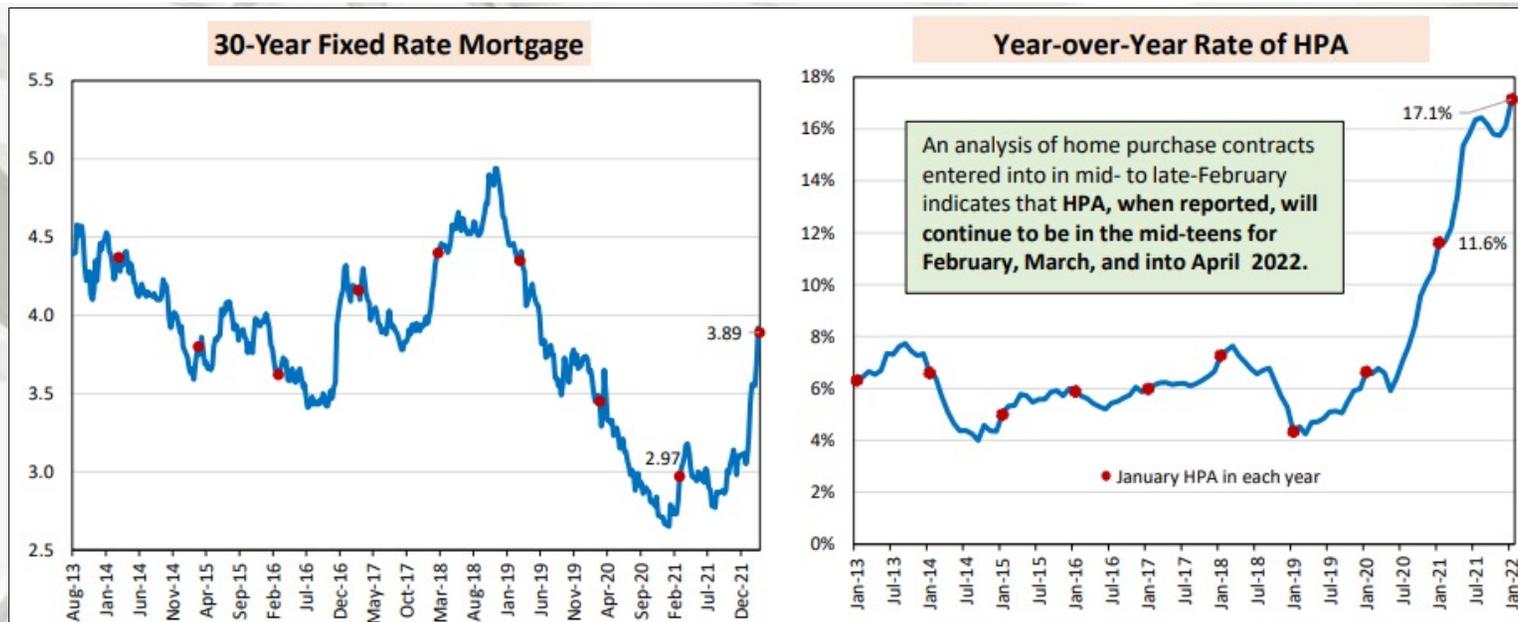
S&P/Case-Shiller Home Price Indices



Y/Y Price Change

From November 2020 to November 2021, the National Index increased 18.7%; the Ten-City by 16.8%, and the Twenty-City by 18.1%.

U.S. Housing Affordability & Prices



Note: Data are for 30-year fixed-rate prime conventional conforming home purchase mortgages with a loan-to-value of 80 percent
Source: Freddie Mac.

Note: Data are for the entire country. Data for January 2022 are preliminary.
Source: AEI Housing Center, www.AEI.org/housing.

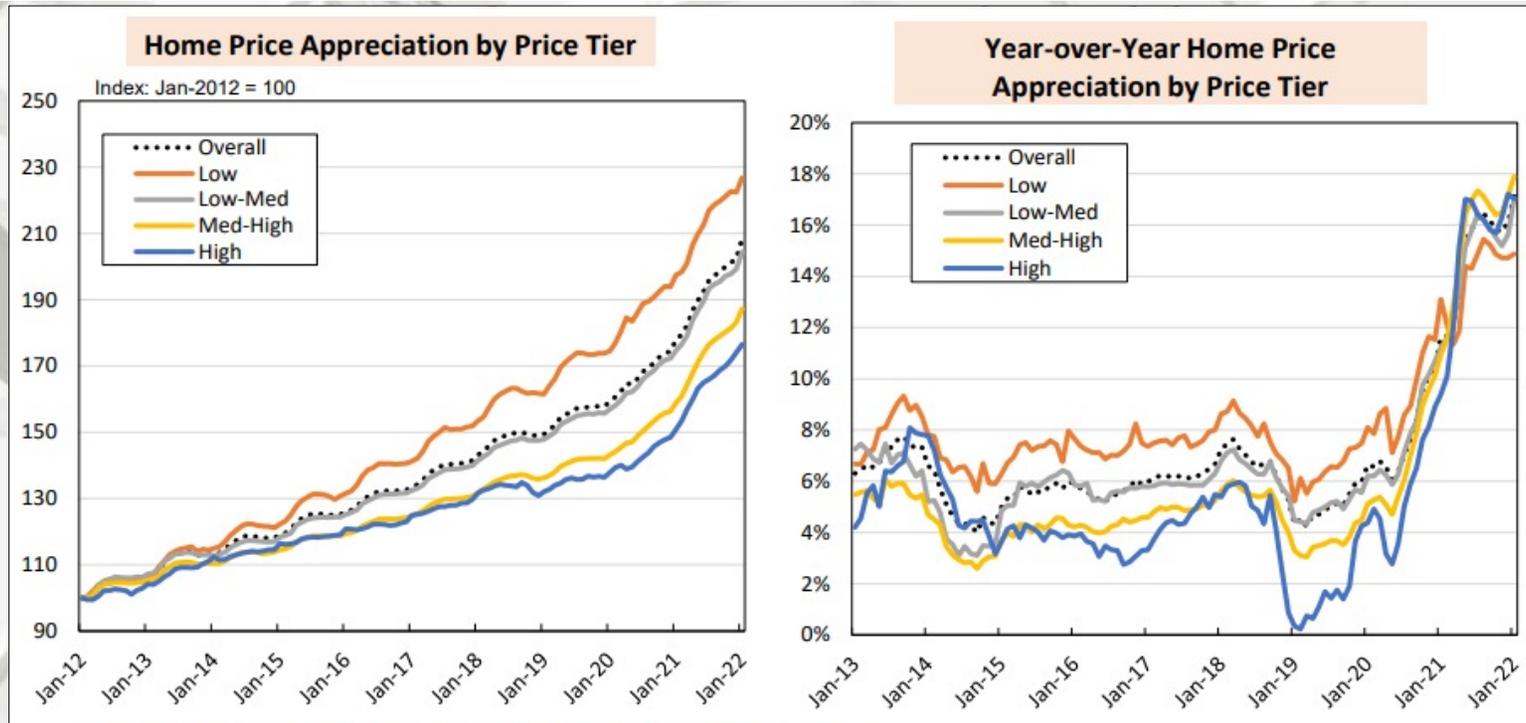
AEI Housing Center

Home Price Appreciation Accelerates Despite the Rate Hikes

“Despite the recent increase in mortgage rates, rampant home price appreciation continues to rise. In January 2022, the preliminary national year-over-year HPA rate came in at 17.1%, up from 16.1% a month ago and 11.6% a year ago. Over the last 24 months, home prices have risen 31%. This rapid pace of HPA is driven by the supply constraints, relatively low mortgage rates, and an arbitrage opportunity enhanced by the work from home economy. As we are entering the spring buying season, HPA is projected to remain in the mid-teens for the first three months of 2022 according to Optimal Blue data. Without more inventory or a mortgage rate upwards of 4.5%, HPA is expected to remain in the mid-teens for the remainder of 2022. December 2022 year-over-year HPA is expected to be 14%, up from the previous projection of 12%.” – Edward Pinto, Resident Fellow; Director and Tobias Peter, Research Fellow and Director of Research, AEI Housing Center

Source: <https://www.aei.org/housing/housing-market-indicators/>; 2/28/22

U.S. Housing Affordability & Prices



Note: Data are for the entire country. Data for January 2021 are preliminary.
Source: AEI Housing Center, www.AEI.org/housing.

AEI Housing Center

Home Price Appreciation by Price Tier

“Since 2012 a large gap in HPA has developed between the lower and upper end of the market (left panel). Preliminary numbers for January 2022 indicate that the low-price tier continued to have strong HPA, but the med-high and high price tiers, which are more dependent on the Fed’s monetary punch bowl for increased buying power from low rates, are showing the strongest HPA (right panel). This is a trend reversal since the low-price tier has historically shown the fastest y-o-y HPA. Since HPA has not yet peaked, it will take a sustained mortgage rate of 4.5% or higher to slow HPA in the med-high and high price tiers.” – Edward Pinto, Resident Fellow; Director and Tobias Peter, Research Fellow and Director of Research, AEI Housing Center

Housing Supply

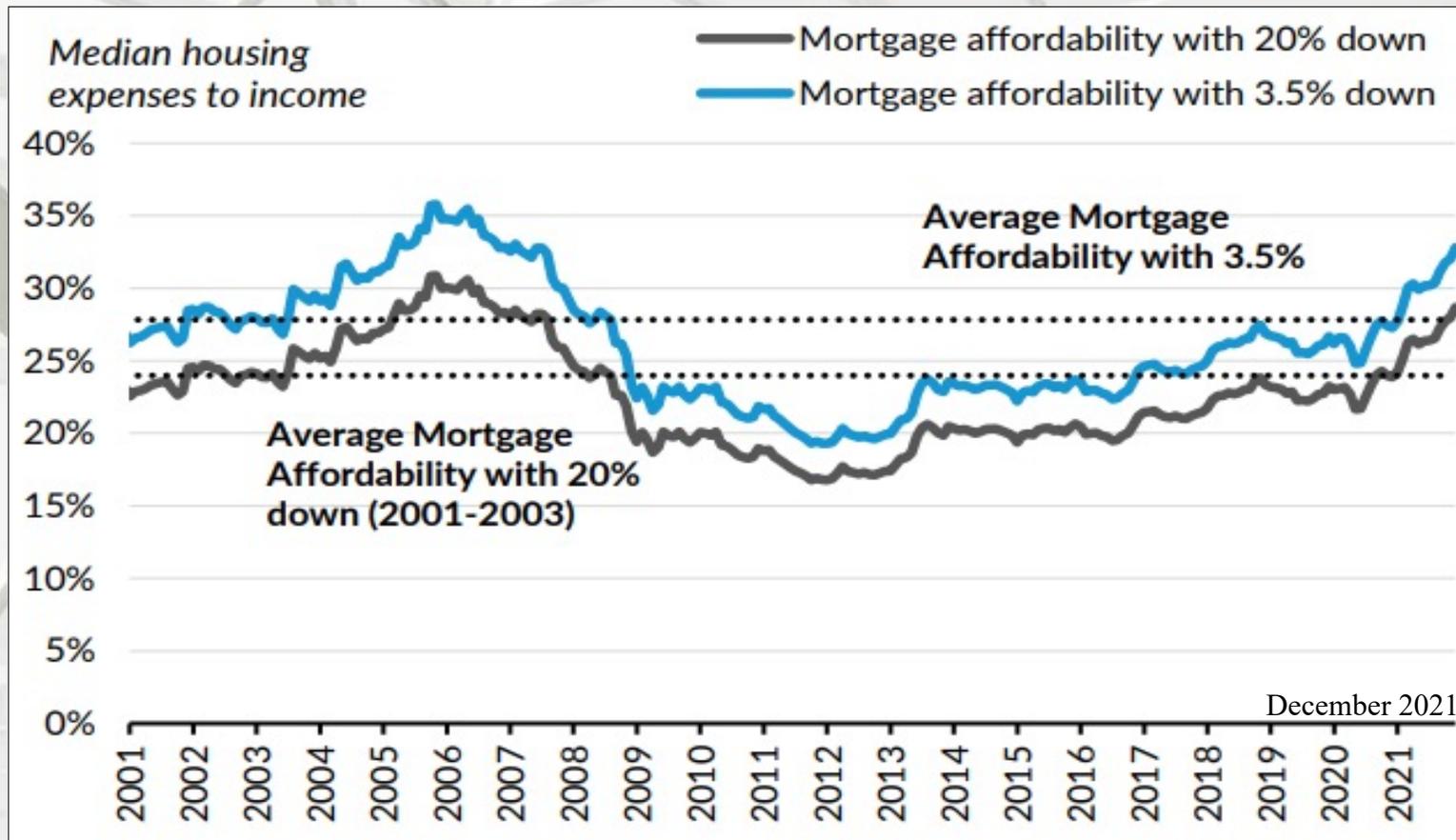


Note: Months' supply measures how long it would take for the existing level of inventory to be sold off at the current sale's pace. While the listings data come from the MLS, the sales numbers come from the public records
Sources: Realtor.com, Zillow, and AEI Housing Center, www.AEI.org/housing.

AEI Housing Center Months' Supply by Price Tiers

“Starting in June 2020, months' supply started to drop precipitously across all price tiers and remain at or near series' lows. In January 2022, overall months' supply stood at 1.2 months. While supply remains lowest in the low (0.9 months) and low-med tiers (1.1 months), the drop in the med-high and high price tiers is especially noteworthy. The high tier has fallen from 9.4 months in May 2020 to 2.7 months in January 2022, while the med-high tier has fallen from 4.2 to 1.6. The recent slight upward trend is more muted than the usual seasonal effect.” – Edward Pinto, Resident Fellow; Director and Tobias Peter, Research Fellow and Director of Research, AEI Housing Center

Housing Affordability



Urban Institute

National Mortgage Affordability Over Time

“Despite historic low interest rates, increases in home prices have pushed affordability to the worst levels since 2008. As of December 2021, with a 20 percent down payment, the share of median income needed for the monthly mortgage payment stood at 28.7 percent; with 3.5 percent down it is 32.8 percent. These numbers are well above the 2001-2003 median, and represent a sharp worsening in affordability over the past year. ... ” – Laurie Goodman, Vice President, Urban Institute

U.S. Housing Finance

Mortgage Bankers Association (MBA)

Mortgage Credit Availability Increased in December

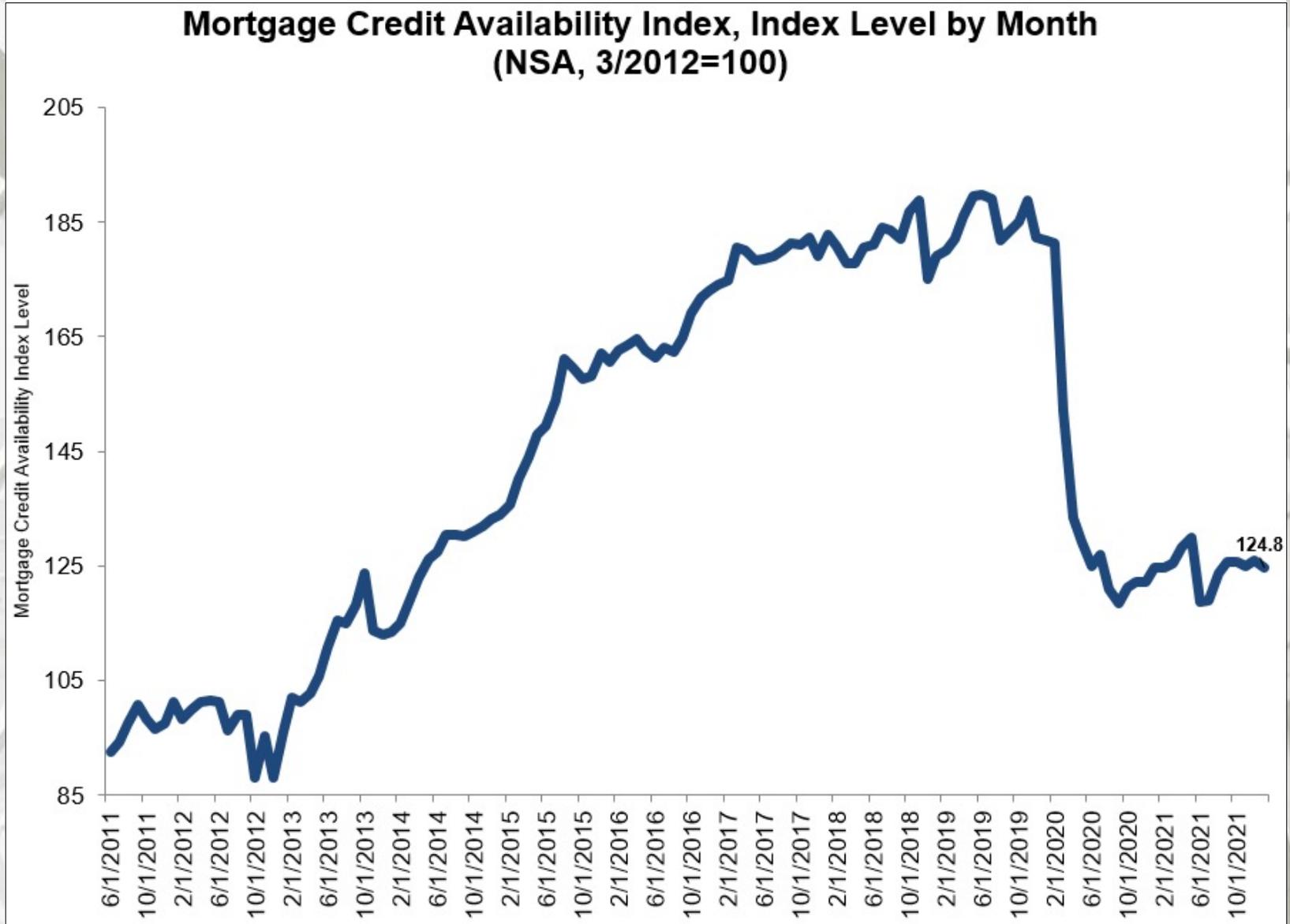
“Mortgage credit availability increased in November according to the Mortgage Credit Availability Index (MCAI), a report from the Mortgage Bankers Association (MBA) that analyzes data from Ellie Mae’s AllRegs® Market Clarity® business information tool.

The MCAI fell by 0.9 percent to 124.8 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 decreased 2.5 percent, while the Government MCAI increased by 0.7 percent. Of the component indices of the Conventional MCAI, the Jumbo MCAI decreased by 1.6 percent, and the Conforming MCAI fell by 4.2 percent.

Credit availability declined to its lowest level since August 2021, even as the economy and job market continued to improve. The decline in credit supply came at a time of rising mortgage rates and limited inventory, which add to the challenges that some prospective buyers are facing. The supply of conforming mortgage credit dropped to its lowest level dating back to 2013, driven by a decrease in investor demand for loan programs catering to borrowers with higher LTVs and lower credit score profiles. Prior to last month, there were six months of increasing jumbo credit supply, driven by strong demand, rapid home-price appreciation, and the overall strength in the economy. That growth streak ended last month, as investors reduced their willingness to purchase jumbo loans and also raised credit requirements.” – Joel Kan, Associate Vice President of Economic and Industry Forecasting, MBA

U.S. Housing Finance

Mortgage Credit Availability (MBA)



Source: www.mba.org/news-research-and-resources/research-and-economics/single-family-research/mortgage-credit-availability-index; 2/15/22

MBA Mortgage Finance Forecast

MBA Mortgage Finance Forecast

February 22, 2022

	2021				2022				2023				2020	2021	2022	2023	2024
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4					
Housing Measures																	
Housing Starts (SAAR, Thous)	1,599	1,588	1,562	1,644	1,670	1,700	1,738	1,744	1,750	1,780	1,815	1,819	1,397	1,598	1,713	1,791	1,686
Single-Family	1,156	1,107	1,096	1,148	1,165	1,220	1,258	1,284	1,310	1,340	1,365	1,384	1,004	1,127	1,232	1,350	1,280
Two or More	443	482	465	496	505	480	480	460	440	440	450	435	393	472	481	441	406
Home Sales (SAAR, Thous)																	
Total Existing Homes	6,303	5,833	6,057	6,203	6,289	6,398	6,444	6,498	6,459	6,527	6,528	6,588	5,678	6,099	6,407	6,525	6,289
New Homes	896	737	738	728	816	888	943	977	969	986	1,000	1,010	828	775	906	992	991
FHFA US House Price Index (YOY % Change)	12.7	17.4	17.6	17.5	13.2	10.1	7.3	5.1	4.0	3.4	3.5	4.1	10.9	17.5	5.1	4.1	5.4
Median Price of Total Existing Homes (Thous \$)	313.5	351.3	356.6	359.9	362.4	364.3	368.1	369.1	377.1	381.3	382.3	383.9	295.4	345.3	366.0	381.1	395.6
Median Price of New Homes (Thous \$)	364.9	380.9	403.3	413.0	410.2	409.9	411.0	412.5	419.0	420.5	422.3	423.5	335.0	390.5	410.9	421.3	430.6
Interest Rates																	
30-Year Fixed Rate Mortgage (%)	2.9	3.0	2.9	3.1	3.8	4.0	4.1	4.3	4.3	4.3	4.4	4.5	2.9	3.1	4.3	4.5	4.5
10-Year Treasury Yield (%)	1.3	1.6	1.3	1.5	1.9	2.1	2.3	2.5	2.5	2.5	2.6	2.7	1.3	1.5	2.5	2.7	2.7
Mortgage Originations																	
Total 1- to 4-Family (Bil \$)	1,094	1,050	954	893	689	710	625	610	553	693	648	632	4,108	3,991	2,634	2,526	2,530
Purchase	320	460	442	424	381	505	449	438	378	526	482	464	1,482	1,646	1,773	1,850	1,784
Refinance	774	590	512	469	308	205	176	172	175	167	166	168	2,625	2,345	861	676	746
Refinance Share (%)	71	56	54	53	45	29	28	28	32	24	26	27	64	59	33	27	29
FHA Originations (Bil \$)													302	289	165	159	147
Total 1- to 4-Family (000s loans)	3,146	2,926	2,714	2,497	1,802	1,880	1,755	1,714	1,500	1,867	1,705	1,707	13,696	11,284	7,151	6,779	6,566
Purchase	974	1,341	1,302	1,259	997	1,302	1,254	1,264	1,043	1,402	1,243	1,267	4,917	4,876	4,817	4,955	4,600
Refinance	2,172	1,585	1,412	1,238	805	578	501	450	457	465	462	440	8,780	6,407	2,334	1,824	1,966
Refinance Share (%)	69	54	52	50	45	31	29	26	30	25	27	26	64	57	33	27	30
Mortgage Debt Outstanding																	
1- to 4-Family (Bil \$)	11,042	11,200	11,386	11,554	11,715	11,916	12,131	12,338	12,525	12,718	12,908	13,085	10,925	11,554	12,338	13,085	13,749

Notes:

As of the Sep, 2021 forecast, the 2020 originations numbers have been revised based on the 2020 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

MORTGAGE BANKERS ASSOCIATION

MBA Economic Forecast

MBA Economic Forecast

February 22, 2022

	2021				2022				2023				2020	2021	2022	2023	2024
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4					
Percent Change, SAAR																	
Real Gross Domestic Product	6.3	6.7	2.3	6.9	2.1	4.9	3.9	3.5	2.8	2.7	2.6	2.6	-2.3	5.5	3.6	2.7	2.0
Personal Consumption Expenditures	11.4	12.0	2.0	3.3	2.5	4.0	2.6	2.9	2.6	3.1	3.1	3.0	-2.4	7.1	3.0	2.9	3.0
Business Fixed Investment	12.9	9.2	1.7	2.0	11.7	8.5	6.7	6.1	5.2	4.8	4.5	4.2	-3.8	6.4	8.2	4.7	3.2
Residential Investment	13.3	-11.7	-7.7	-0.8	2.5	1.5	7.5	4.8	2.5	3.6	4.1	4.0	15.7	-2.2	4.1	3.6	-3.2
Govt. Consumption & Investment	4.2	-2.0	0.9	-2.9	0.9	1.5	1.7	1.1	1.5	1.4	1.0	1.2	1.2	0.0	1.3	1.3	0.8
Net Exports (Bil. Chain 2012\$)	-1033.0	-1048.4	-1112.3	-1128.6	-1136.8	-1132.9	-1125.9	-1125.7	-1127.9	-1143.8	-1162.5	-1182.6	-785.1	-1080.6	-1130.3	-1154.2	-1247.2
Inventory Investment (Bil. Chain 2012\$)	-75.1	-143.3	-56.8	147.6	87.1	109.6	126.0	138.5	137.7	127.4	117.4	109.8	-35.9	-31.9	115.3	123.1	90.8
Consumer Prices (YOY)	1.9	4.8	5.3	6.7	6.8	5.2	4.6	3.5	3.2	3.3	2.9	2.7	1.2	6.7	3.5	2.7	2.2
Percent																	
Unemployment Rate	6.2	5.9	5.1	4.2	3.9	3.7	3.5	3.4	3.3	3.3	3.4	3.5	8.1	5.4	3.6	3.4	3.6
Federal Funds Rate	0.125	0.125	0.125	0.125	0.375	0.875	1.125	1.125	1.375	1.625	1.875	2.125	0.125	0.125	1.125	2.125	2.613
10-Year Treasury Yield	1.3	1.6	1.3	1.5	1.9	2.1	2.3	2.5	2.5	2.5	2.6	2.7	0.9	1.5	2.5	2.7	2.7

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:

January 2021 month-over-month and year-over-year housing data were mixed (January 2021 Scorecard – slide Four). The housing starts and housing completions categories are problematic as completions continue to be restrained due to the inaccessibility of building materials and products, combined with other factors. Consequently, individual builders may be reluctant to start new projects while waiting to complete units under construction. Looking forward, the effects of inflation may impact the construction industry and this bears watching due to the potential negative influence on housing.

Pros:

- 1) Historically low-interest rates remain in place;
- 2) Select builders are beginning to focus on entry-level houses;

Cons:

- 1) Ukraine;
- 2) COVID-19;
- 3) Construction material and appliance constraints;
- 4) Logistics/Supply chains;
- 5) Lot availability and building regulations (according to several sources);
- 6) Laborer 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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