The Virginia Tech-USDA Forest Service **Housing Commentary: Section I** October 2024



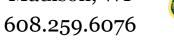


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To request the commentary, please email: buehlmann@gmail.com or delton.r.alderman@usda.gov

Opening Remarks

Housing data, in aggregate, month-over-month and year-over-year were mostly negative. On a month-over-month basis single-family permits, total and single-family spending were positive, and existing house sales were positive. Year-over-year, single-family housing completions; construction spending, and existing house sales were positive. The influence of mortgage rates is evident, as aggregate costs have decreased affordability, and the "lock-in" effect have obfuscated sales.

The December 17th Atlanta Fed GDPNowTM total residential investment spending forecast is 4.7% for Q4 2024. Quarterly log change for new private permanent site expenditures were projected at 2.8%; the improvement spending forecast was 5.0%; and the manufactured/mobile home expenditures projection was 5.2% (all: quarterly log change and at a seasonally adjusted annual rate).¹

"... We expect the residential sector to continue to struggle under the weight of elevated borrowing rates next year. The 30-year fixed mortgage rate is likely to fall to only around 6.30% by the end of the year, which would keep it well-above the current average effective rate on mortgage debt outstanding. Not only is the lingering gap between the current mortgage rate and average outstanding rate likely to mute refinancing activity and limit the boost to consumer spending power from further Fed easing, it is also likely to limit the supply of existing homes for sale, as many home owners will be hesitant to give up their current mortgage rate. Still-elevated mortgage rates along with slower real income growth next year look set to keep housing affordability near its worst levels in decades. The difficult affordability environment is likely to continue to weigh on new home construction. We expect housing starts to slip another 2%-3% next year...." – Jay Bryson, Managing Director and Chief Economist, et al.; Wells Fargo LLC

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.

October 2024 Housing Scorecard

	I	M/M	7	Y/Y
Housing Starts	lacksquare	3.1%	•	4.0%
Single-Family (SF) Starts	lacksquare	6.9%	•	0.5%
Multi-Family (MF) Starts*	V	9.6%	•	12.6%
Housing Permits	lacksquare	0.4%	•	7.5%
SF Permits		0.8%	•	1.5%
MF Permits*	V	3.0%	•	18.2%
Housing Under Construction	V	1.9%	_	12.8%
SF Under Construction	NC	0.0%	•	3.6%
Housing Completions	lacksquare	4.4%		16.8%
SF Completions	V	1.4%	•	0.2%
New SF House Sales	V	17.3%	•	9.4%
Private Residential Construction Spending	5	1.5%		6.4%
SF Construction Spending		0.8%		1.3%
Existing House Sales ¹		3.4%		2.9%
* All multi-family (2 to $4 + \ge 5$ -units) M/M = n	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

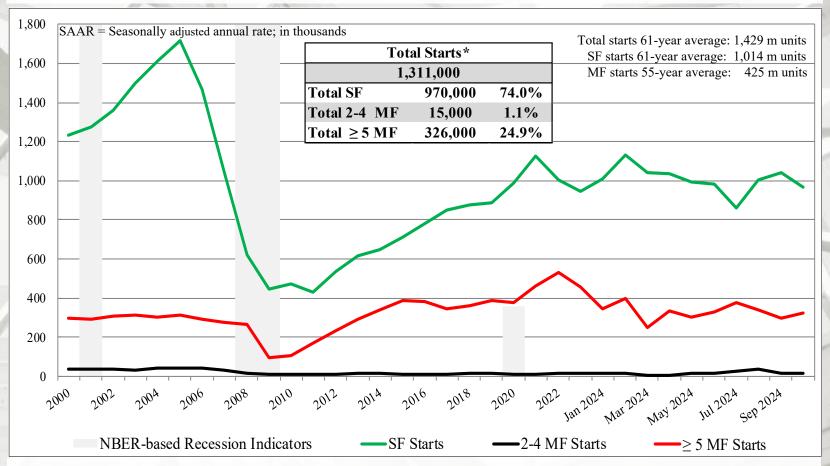
New Housing Starts

	Total Starts*	SF Starts	MF 2-4 Starts**	MF ≥5 Starts
October	1,311,000	970,000	15,000	326,000
September	1,353,000	1,042,000	14,000	297,000
2023	1,365,000	975,000	17,000	373,000
M/M change	-3.1%	-6.9%	7.1%	9.8%
Y/Y change	-4.0%	-0.5%	-11.8%	-12.6%

^{*} 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

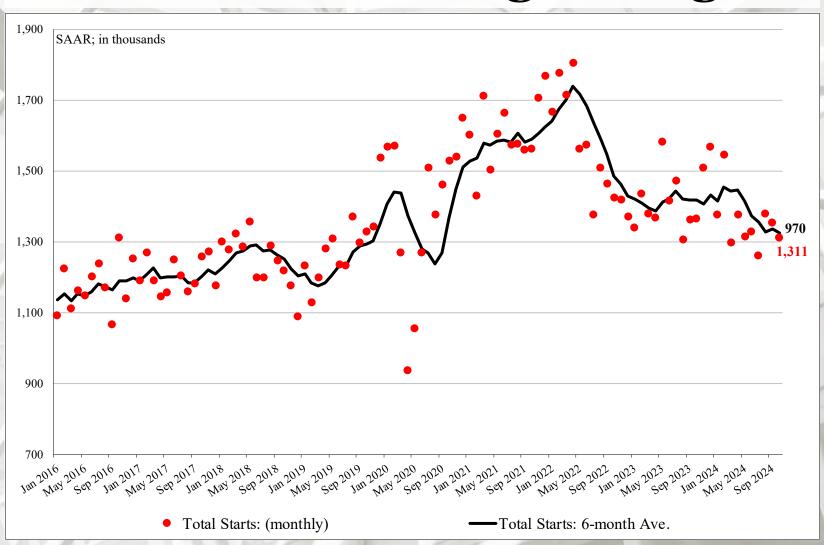


The US DOC does not report 2 to 4 multi-family starts directly; this is an estimation: (Total starts – (SF + 5-unit MF).

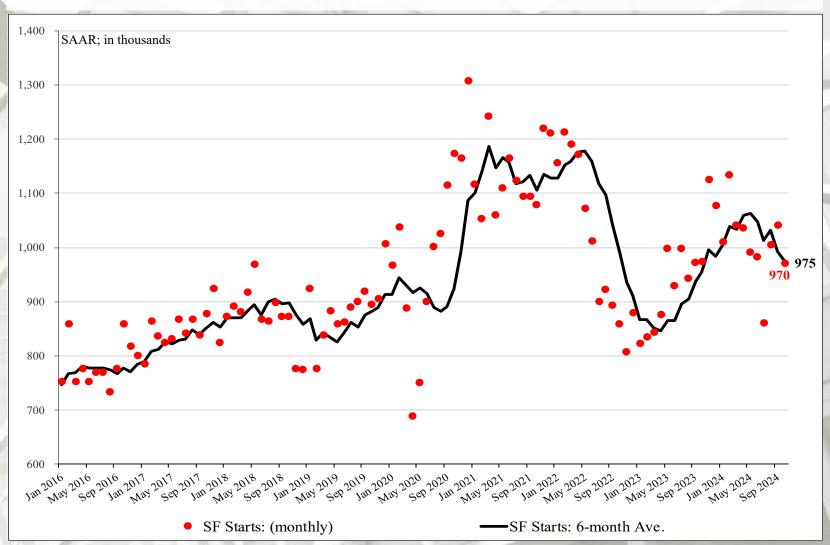
NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

^{*} Percentage of total starts.

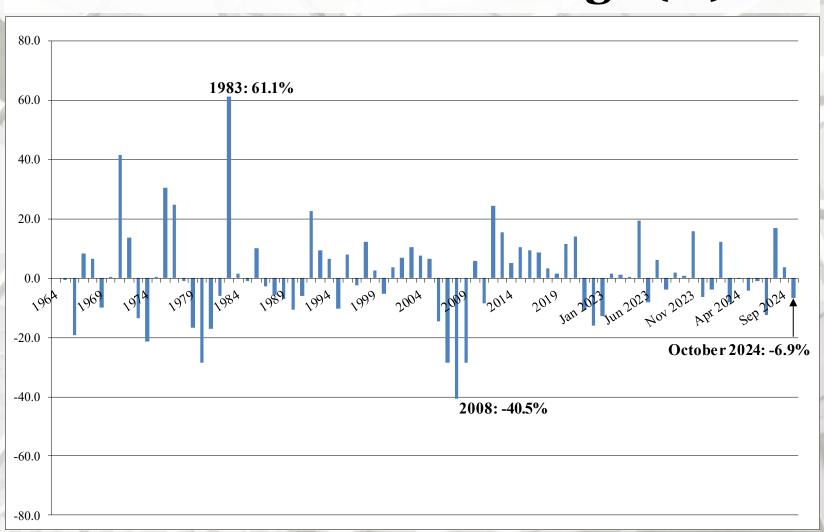
Total Housing Starts: Six-Month Moving Average



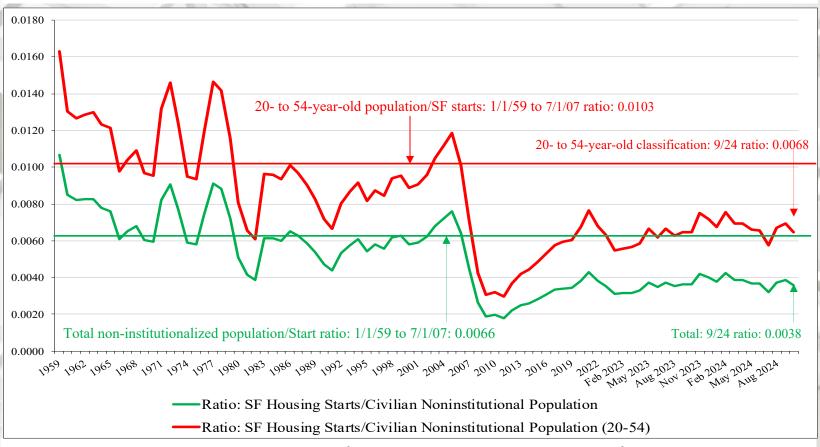
SF Housing Starts: Six-Month Moving Average



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



New SF Starts

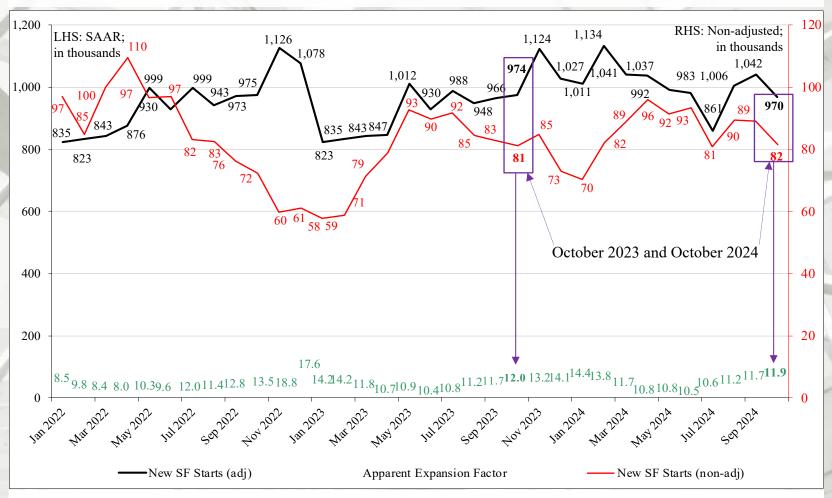


New SF starts adjusted for the US population

From October 1959 to October 2007, the long-term ratio of new SF starts to the total US non-institutionalized population is 0.0066. In October 2024 it was 0.0036 – a decrease from October (0.0039). The long-term ratio of non-institutionalized population, aged 20 to 54 is 0.0103; in October 2024 it was 0.0065 – also a decline from October (0.0069). New SF construction in both age categories is less than what is necessary for changes in the population (i.e., under-building).

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

Nominal & SAAR SF Starts



Nominal and Adjusted New SF Monthly Starts

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

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

New Housing Starts by Region

	NE Total	NE SF	NE MF**
October	110,000	67,000	43,000
September	164,000	94,000	70,000
2023	79,000	61,000	18,000
M/M change	-32.9%	-28.7%	-38.6%
Y/Y change	39.2%	9.8%	138.9%
	MW Total	MW SF	MW MF
October	MW Total 197,000	MW SF 137,000	MW MF 60,000
October September			
	197,000	137,000	60,000
September	197,000 180,000	137,000 131,000	60,000 49,000

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).

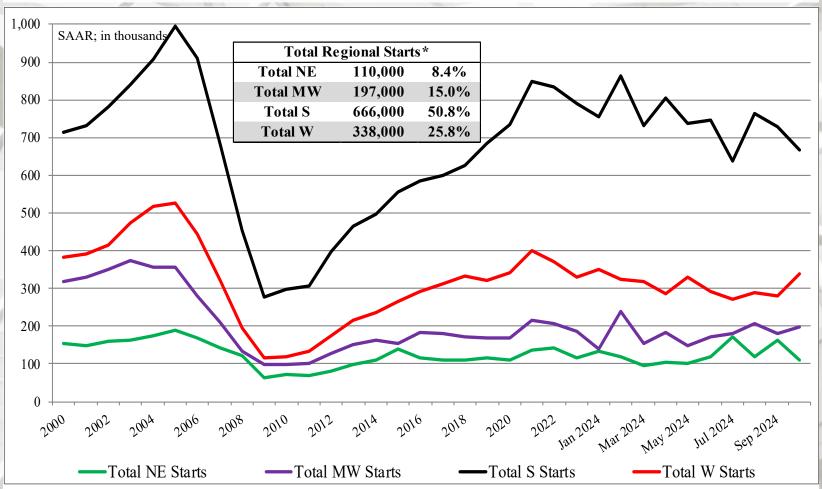
New Housing Starts by Region

	S Total	S SF	S MF**
October	666,000	537,000	129,000
September	730,000	598,000	132,000
2023	722,000	547,000	175,000
M/M change	-8.8%	-10.2%	-2.3%
Y/Y change	-7.8%	-1.8%	-26.3%
	W Total	W SF	W MF
October	W Total 338,000	W SF 229,000	W MF 109,000
October September			
	338,000	229,000	109,000
September	338,000 279,000	229,000 219,000	109,000 60,000

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

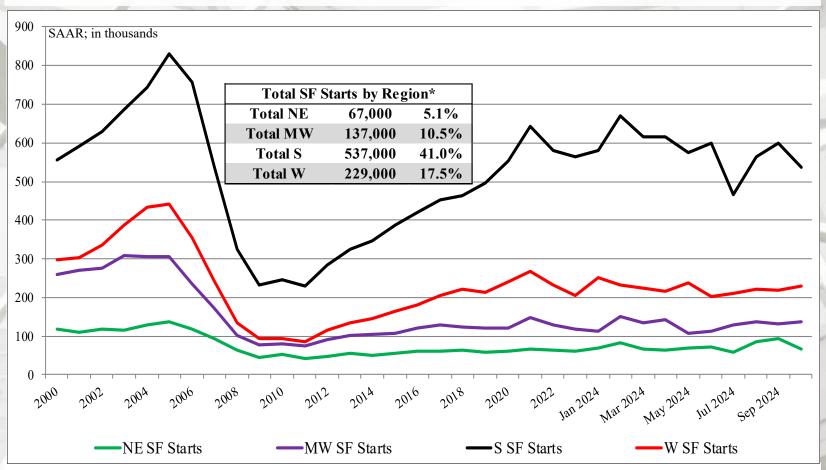


NE = Northeast, MW = Midwest, S = South, W = West

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

^{*} Percentage of total starts.

Total SF Housing Starts by Region

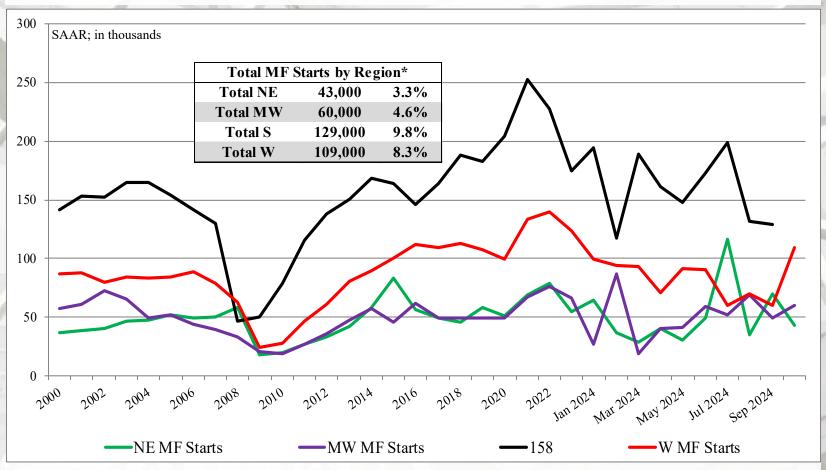


NE = Northeast, MW = Midwest, S = South, W = West

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

^{*} Percentage of total starts.

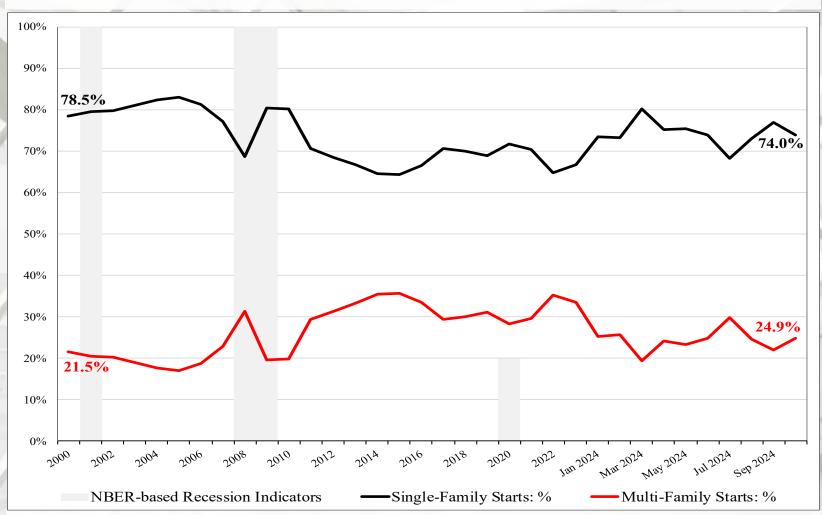
MF Housing Starts by Region



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 $+ \ge 5$ MF starts).

^{*} Percentage of total starts.

SF vs. MF Housing Starts (%)



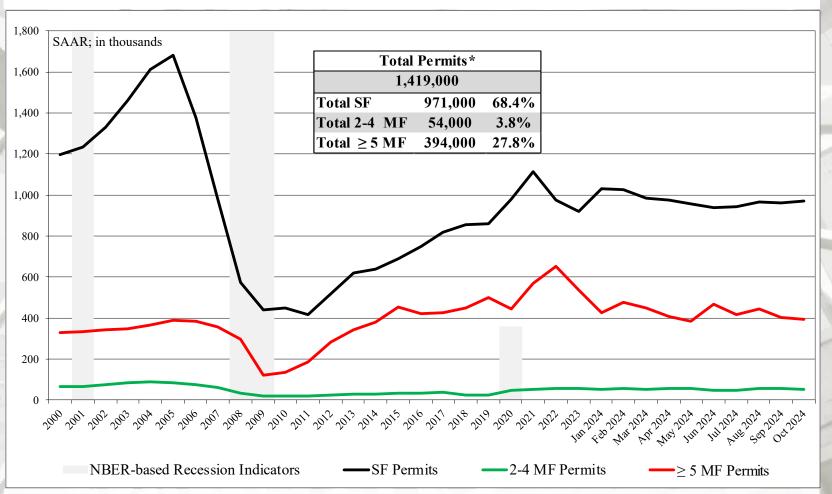
NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

New Housing Permits

	Total Permits*	SF Permits	MF 2-4 unit Permits	MF ≥ 5 unit Permits
October	1,419,000	971,000	54,000	394,000
September	1,425,000	963,000	57,000	405,000
2023	1,534,000	986,000	51,000	497,000
M/M change	-0.4%	0.8%	-5.3%	-2.7%
Y/Y change	-7.5%	-1.5%	5.9%	-20.7%

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

Total New Housing Permits



^{*} Percentage of total permits.

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

New Housing Permits by Region

	NE Total*	NE SF	NE MF**
October	142,000	65,000	77,000
	,	,	,
September	127,000	60,000	67,000
2023	153,000	59,000	94,000
M/M change	11.8%	8.3%	14.9%
Y/Y change	-7.2%	10.2%	-18.1%

	MW Total*	MW SF	MW MF**
October	196,000	128,000	68,000
September	201,000	129,000	72,000
2023	174,000	118,000	56,000
M/M change	-2.5%	-0.8%	-5.6%
Y/Y change	12.6%	8.5%	21.4%

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

	6191118 1 9		71981911
	S Total*	S SF	S MF**
October	755,000	563,000	192,000
September	766,000	555,000	211,000
2023	862,000	601,000	261,000
M/M change	-1.4%	1.4%	-9.0%
Y/Y change	-12.4%	-6.3%	-26.4%
	W Total*	WSF	W MF**
October	326,000	215,000	111,000

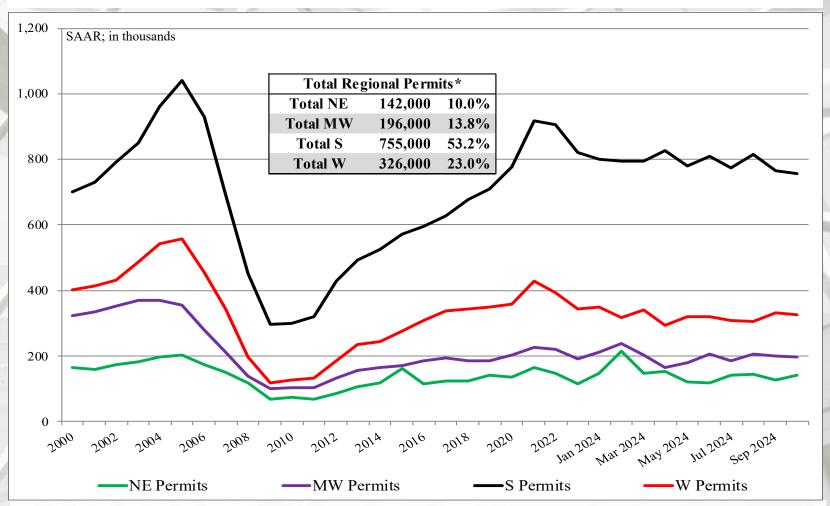
	W Total*	WSF	W M F**
October	326,000	215,000	111,000
September	331,000	219,000	112,000
2023	345,000	208,000	137,000
M/M change	-1.5%	-1.8%	-0.9%
Y/Y change	-5.5%	3.4%	-19.0%

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).

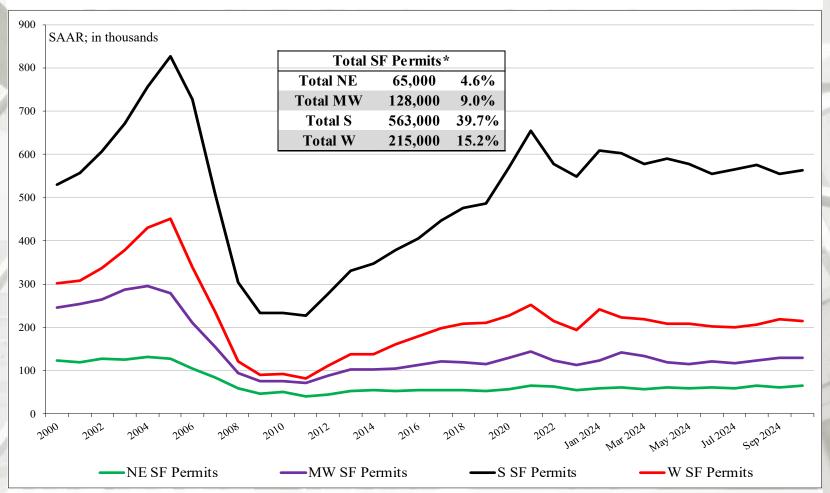
Total Housing Permits by Region



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

^{*} Percentage of total permits.

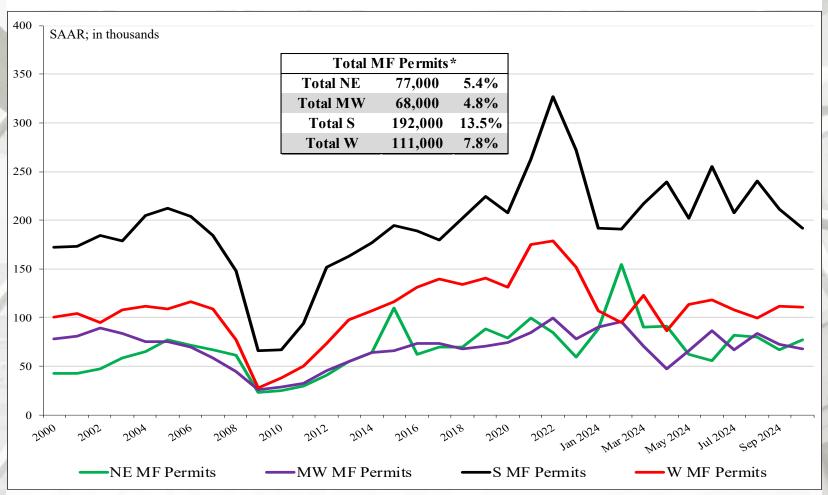
SF Housing Permits by Region



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.

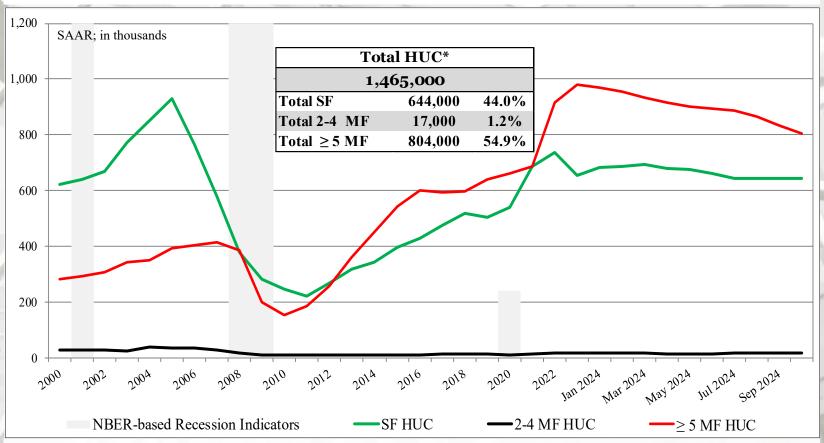
New Housing Under Construction (HUC)

	Total HUC	SF HUC	MF 2-4 unit** HUC	MF ≥ 5 unit HUC
October	1,465,000	644,000	17,000	804,000
September	1,494,000	644,000	17,000	833,000
2023	1,680,000	668,000	17,000	995,000
M/M change	-1.9%	0.0%	0.0%	-3.5%
Y/Y change	-12.8%	-3.6%	0.0%	-19.2%

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



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)).

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

^{*} Percentage of total housing under construction units.

New Housing Under Construction by Region

	NE Total	NE SF	NE MF**
October	228,000	67,000	161,000
September	234,000	68,000	166,000
2023	211,000	65,000	146,000
M/M change	-2.6%	-1.5%	-3.0%
Y/Y change	8.1%	3.1%	10.3%
	MW Total	MW SF	MW MF
October	MW Total 174,000	MW SF 85,000	MW MF 89,000
October September			
	174,000	85,000	89,000
September	174,000 177,000	85,000 85,000	89,000 92,000

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).

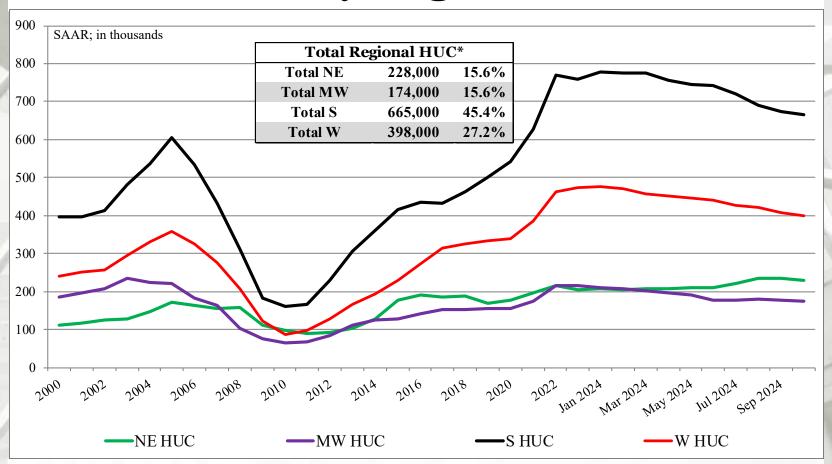
New Housing Under Construction by Region

	S Total	S SF	S MF**
October	665,000	328,000	337,000
September	675,000	327,000	348,000
2023	786,000	347,000	439,000
M/M change	-1.5%	0.3%	-3.2%
Y/Y change	-15.4%	-5.5%	-23.2%
	W Total	W SF	W MF
October	W Total 398,000	W SF 164,000	W MF 234,000
October September			
	398,000	164,000	234,000
September	398,000 408,000	164,000 164,000	234,000 244,000

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

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

Total Housing Under Construction by Region

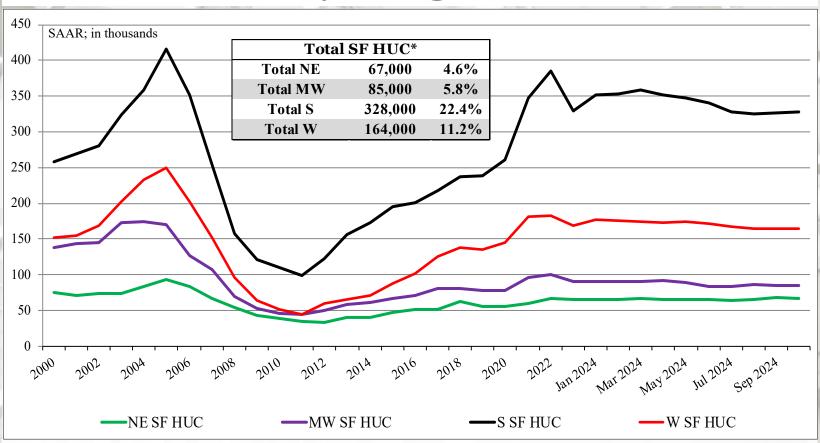


NE = Northeast, MW = Midwest, S = South, W = West

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

^{*} Percentage of total housing under construction units.

SF Housing Under Construction by Region

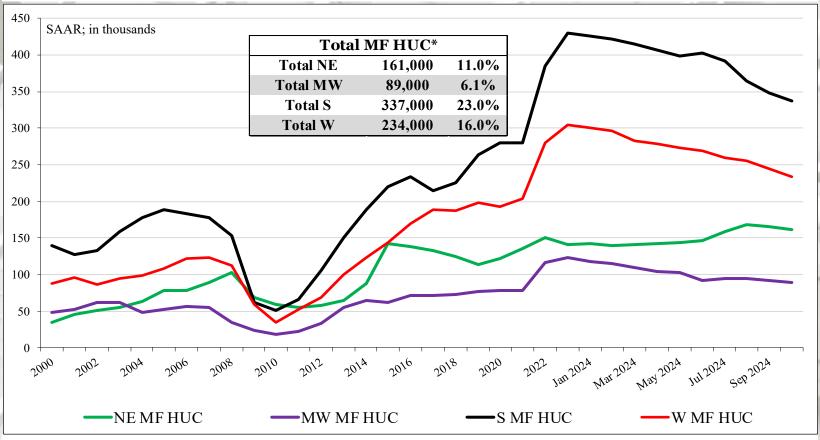


NE = Northeast, MW = Midwest, S = South, W = West.

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

^{*} Percentage of total housing under construction units.

MF Housing Under Construction by Region



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

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

^{*} Percentage of total housing under construction units.

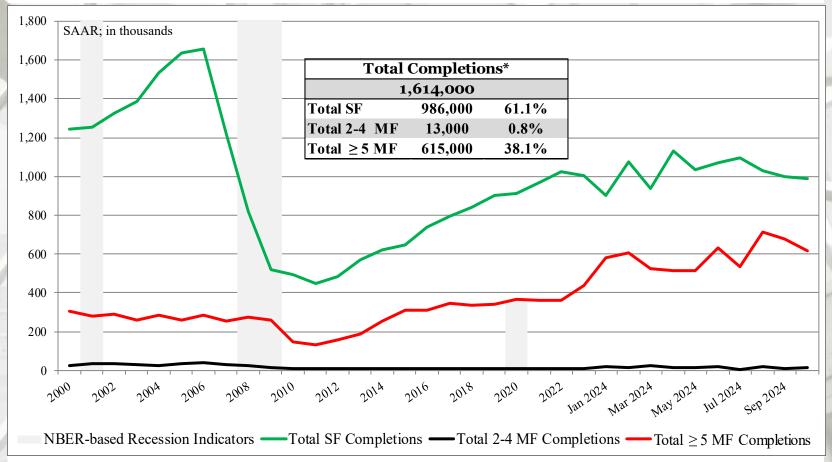
New Housing Completions

	Total Completions*	SF Completions	MF 2-4 unit** Completions	MF ≥ 5 unit Completions
October	1,614,000	986,000	13,000	615,000
September	1,688,000	1,000,000	12,000	676,000
2023	1,382,000	988,000	13,000	381,000
M/M change	-4.4%	-1.4%	8.3%	-9.0%
Y/Y change	16.8%	-0.2%	0.0%	61.4%

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

^{**} US DOC does not report multi-family completions directly; this is an estimation ((Total completions – (SF $+ \ge 5$ -unit MF)).

Total Housing Completions



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

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

^{*} Percentage of total housing completions

New Housing Completions by Region

	NE Total	NE SF	NE MF**
October	173,000	87,000	86,000
September	186,000	63,000	123,000
2023	103,000	74,000	29,000
M/M change	-7.0%	38.1%	-30.1%
Y/Y change	68.0%	17.6%	196.6%
	MW Total	MW SF	MW MF**
October	MW Total 212,000	MW SF 128,000	MW MF** 84,000
October September			
	212,000	128,000	84,000
September	212,000 210,000	128,000 130,000	84,000 80,000

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).

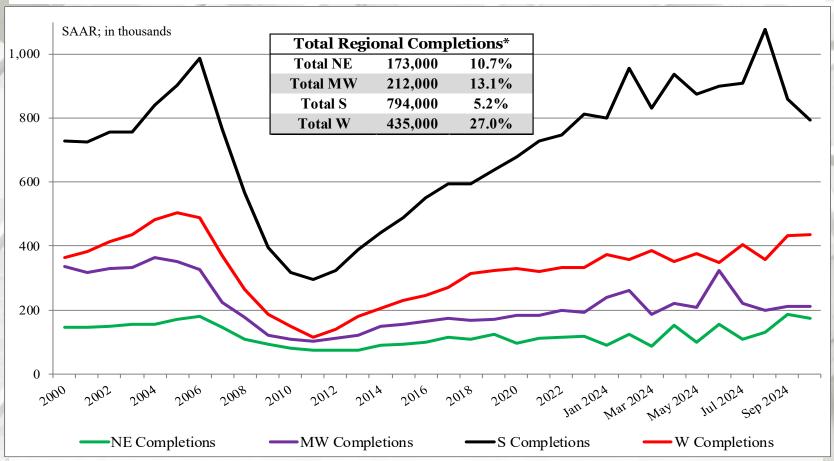
New Housing Completions by Region

	S Total	S SF	S MF**
October	794,000	552,000	242,000
September	859,000	571,000	288,000
2023	804,000	608,000	196,000
M/M change	-7.6%	-3.3%	-16.0%
Y/Y change	-1.2%	-9.2%	23.5%
	W Total	W SF	W MF **
October	425,000	210.000	216.000
October	435,000	219,000	216,000
September	433,000	219,000 236,000	216,000 197,000
	,	,	,
September	433,000	236,000	197,000

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).

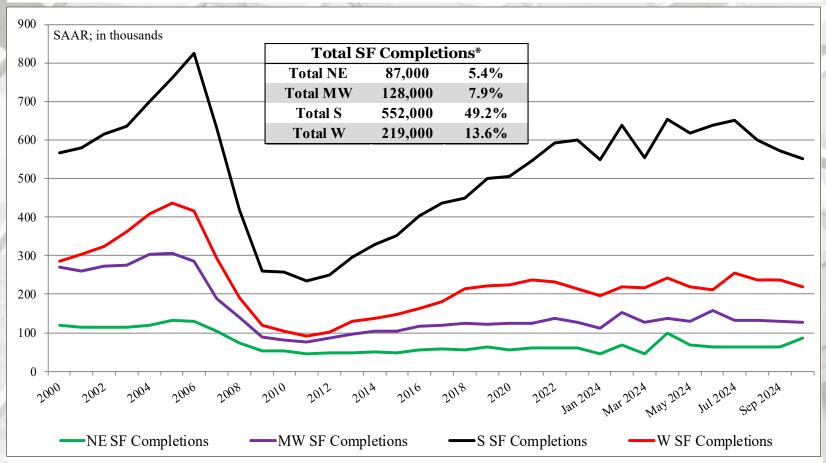
Total Housing Completions by Region



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

^{*} Percentage of total housing completions.

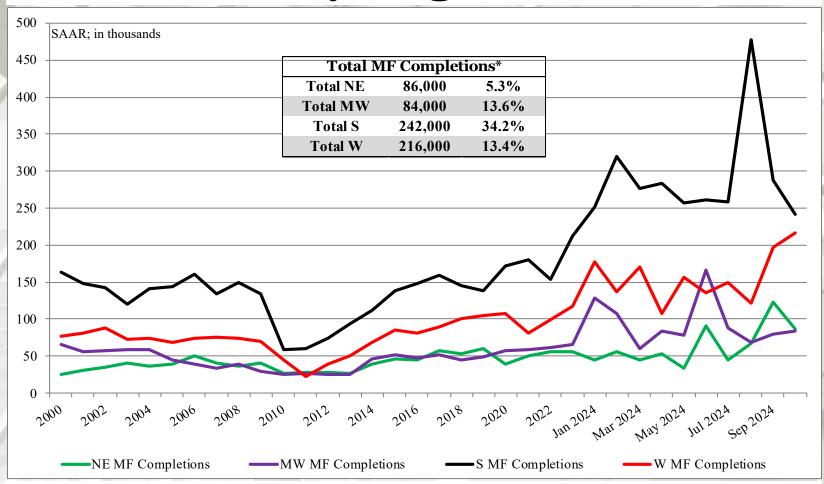
SF Housing Completions by Region



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

^{*} Percentage of total housing completions

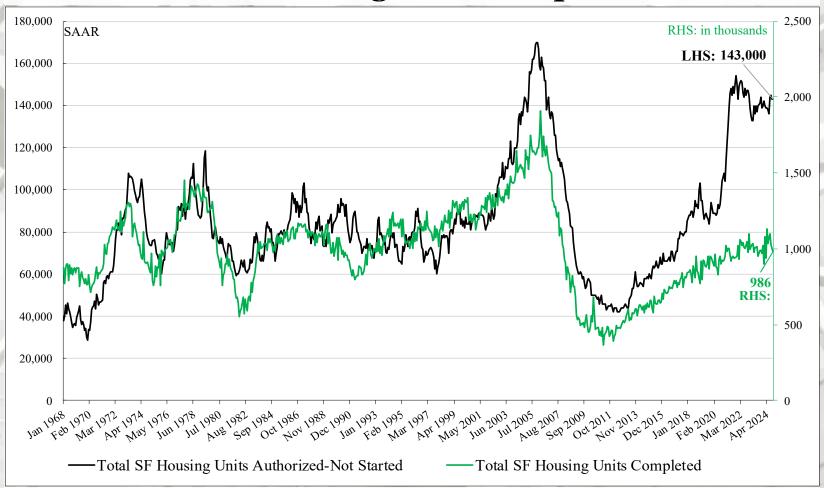
MF Housing Completions by Region



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

^{*} 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 285,000 in October, an increase from July (281,000), and SF authorized units "not" started were 148,000 units in October, an increase from July (144,000). Total completions 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

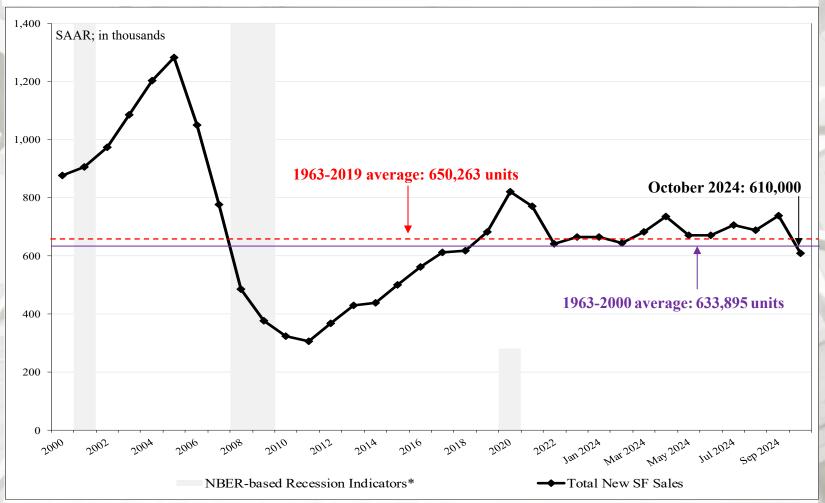
	New SF Sales*	Median Price	Mean Price	Month's Supply
October	610,000	\$437,300	\$545,800	9.5
September	738,000	\$426,800	\$509,900	7.7
2023	673,000	\$417,500	\$498,800	7.9
M/M change	-17.3%	2.5%	7.0%	23.4%
Y/Y change	-9.4%	4.7%	9.4%	20.3%

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

New SF sales were greater than the consensus forecast³ of 725 m; range 710 m to 750 m. The past three month's new SF sales data also were revised:

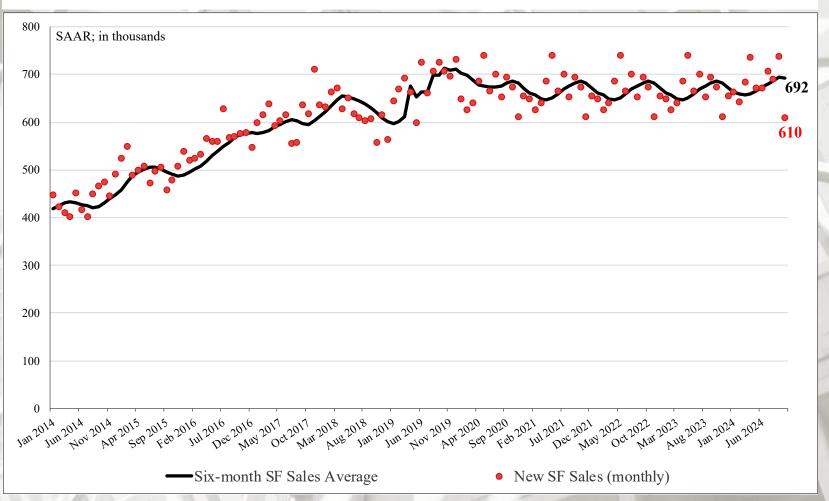
July initial: 739 m, revised to 707 m. August initial: 716 m, revised to 690 m. September initial: 738 m, revised to 738 m.

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
October	46,000		73,000	3	39,000	152	2,000
September	30,000		72,000	4	469,000		7,000
2023	34,000		63,000	4	422,000		1,000
M/M change	53.3%		1.4%	-27.7%		-9	.0%
Y/Y change	35.3%		15.9%	_	-19.7%		.3%
	<\$300m	\$300m- \$399m	\$400m- \$499m	\$500m- \$599m	\$600m- \$799m	\$800m- \$999m	≥ \$1mm
October ^{1,2,3,4}	6,000	13,000	9,000	6,000	6,000	2,000	2,000
September ^{1,2,3,4}	10,000	16,000	11,000	8,000	8,000	3,000	3,000
2023	7,000	16,000	7,000	16,000	10,000	13,000	5,000
M/M change	-40.0%	-18.8%	-18.2%	-25.0%	-25.0%	-33.3%	-33.3%
Y/Y change	-14.3%	-18.8%	28.6%	-62.5%	-40.0%	-84.6%	-60.0%
% of New SF sales	13.8%	29.3%	22.4%	12.1%	12.1%	5.2%	6.9%

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

¹ All data are SAAR

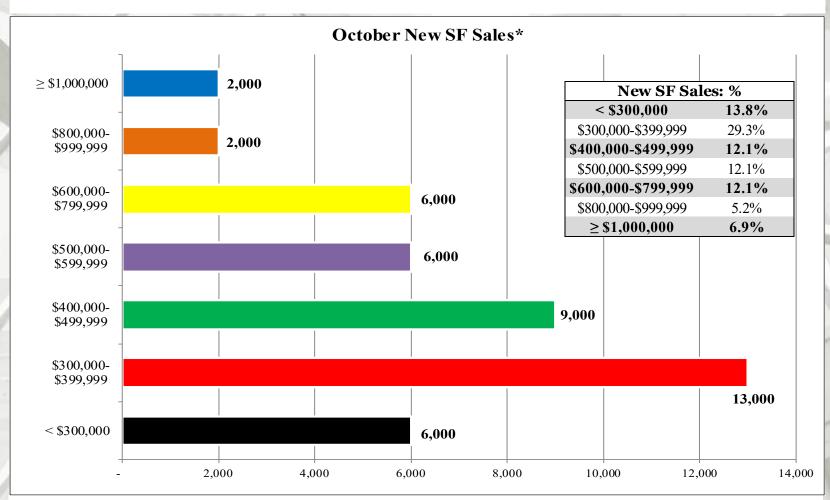
² Houses for which sales price were not reported have been distributed proportionally to those for which sales price was reported;

³ Detail October not add to total because of rounding.

⁴ Housing prices are adjusted at irregular intervals.

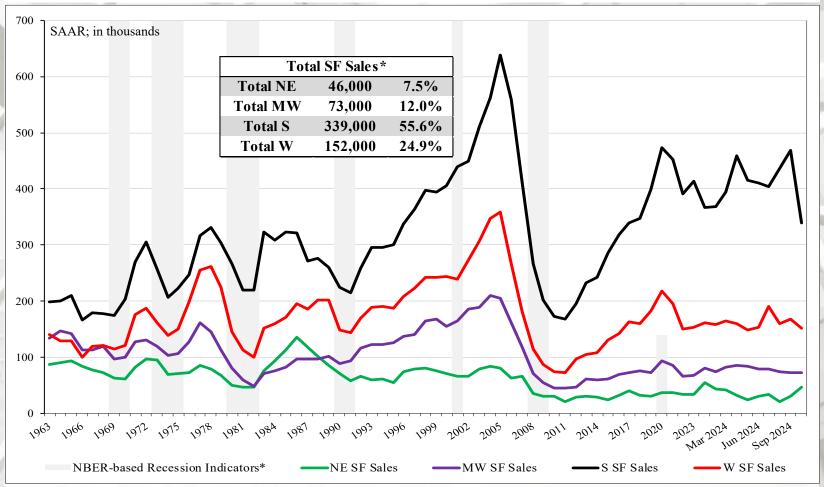
 $^{^{5}}$ Z = Less than 500 units or less than 0.5 percent

New SF House Sales



^{*} Total new sales by price category and percent.

New SF House Sales by Region

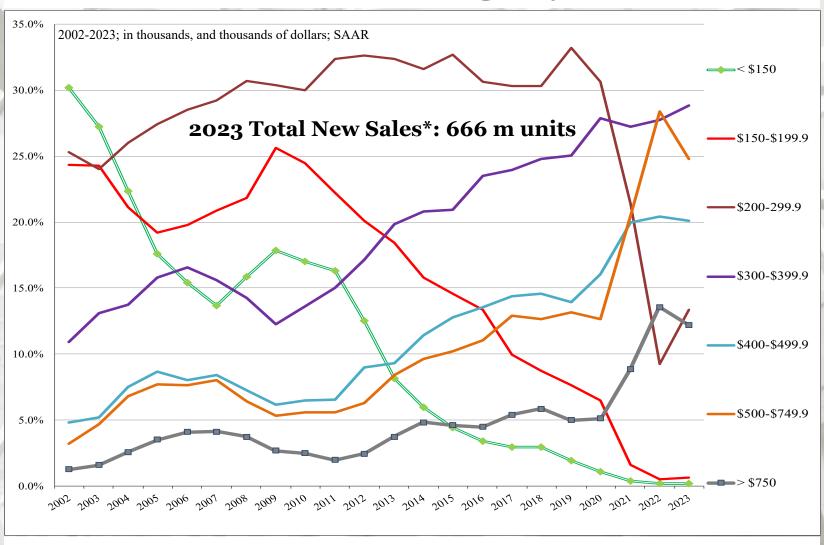


NE = Northeast; MW = Midwest; S = South; W = West

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

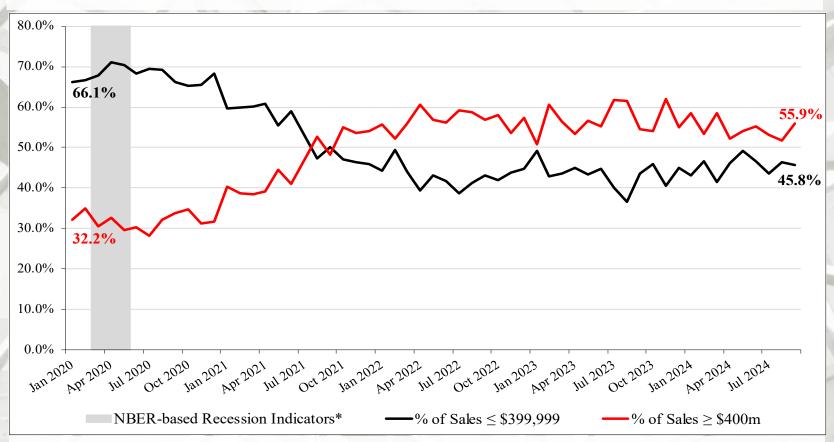
^{*} Percentage of total new sales.

New SF House Sales by Price Category



^{*} Sales tallied by price category, nominal dollars.

New SF House Sales

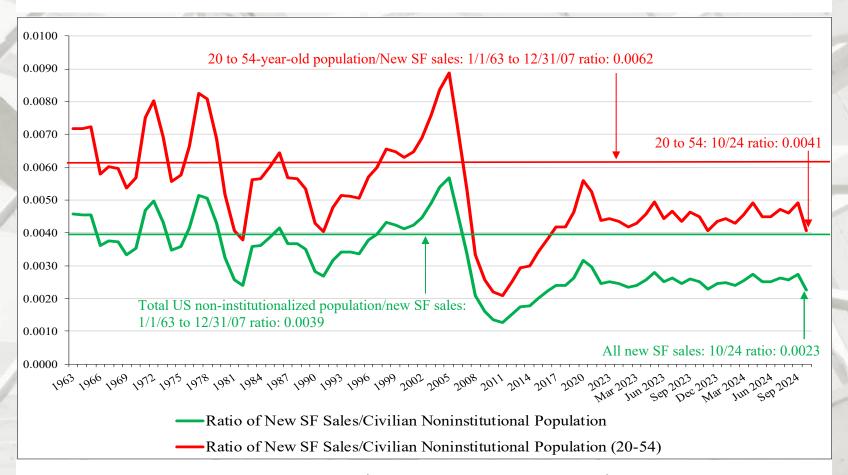


^{*} NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

New SF Sales: < \$399.9 m and > \$400 m: 2020 - October 2024

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

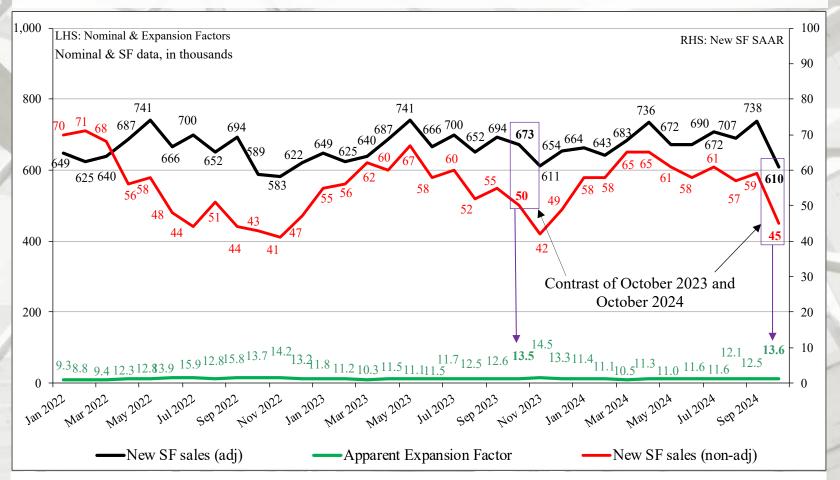


New SF sales adjusted for the US population

From October 1963 to October 2007, the long-term ratio of new house sales to the total US non-institutionalized population was 0.0039; in October 2024 it was 0.0023 – decreasing from September (0.0027). The non-institutionalized population, aged 20 to 54 long-term ratio is 0.0062; in October 2024 it was 0.0041 – also a decrease from September (0.0049). 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

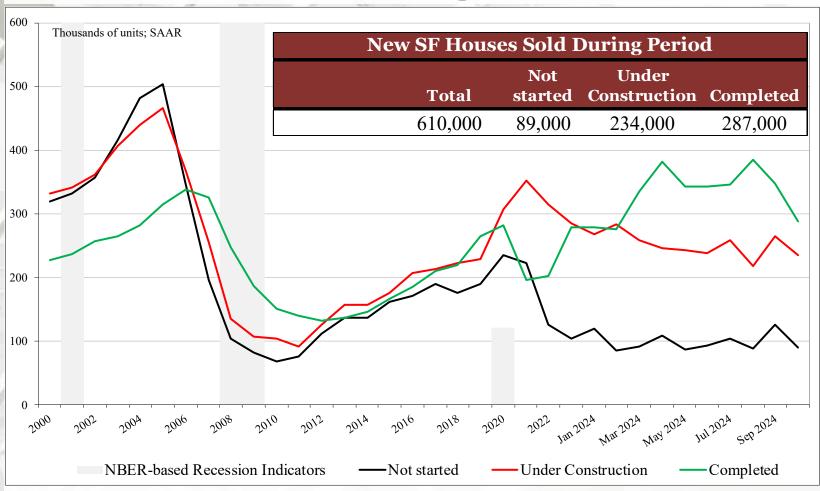
New SF House Sales

New SF Houses Sold During Period

	Total	Not started	Under Construction	Completed
October	610,000	89,000	234,000	287,000
September	738,000	126,000	265,000	347,000
2023	442,000	101,000	266,000	75,000
M/M change	-17.3%	-29.4%	-11.7%	-17.3%
Y/Y change	38.0%	-11.9%	-12.0%	282.7%
Total percentage		14.6%	38.4%	47.0%

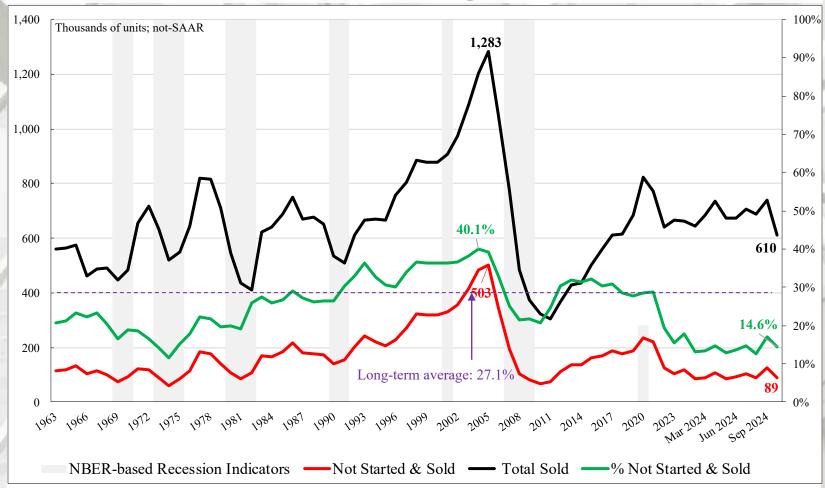
All data is SAAR

New SF House Sales: Sold During Period



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

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



Of the new houses sold in October (610 m), 14.6% (89 m) had not been started and sold. The long-term average is 27.1%.

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

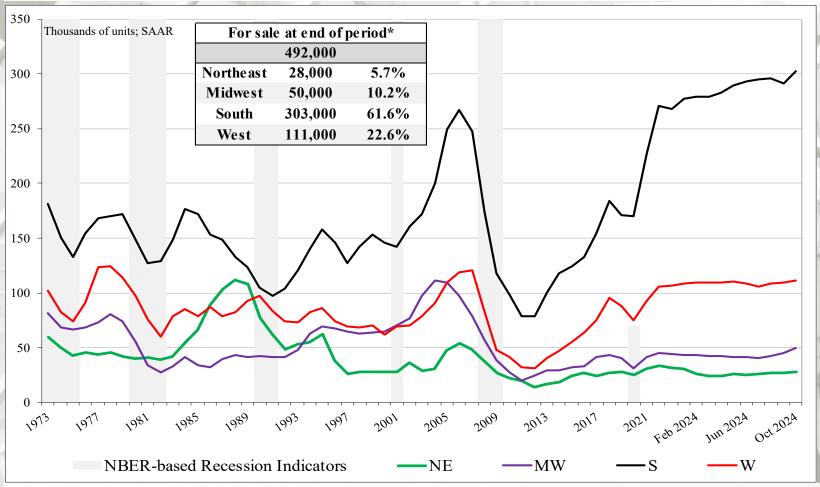
New SF Houses for Sale

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

	Total	NE	MW	S	\mathbf{W}
October	492,000	28,000	50,000	303,000	111,000
September	472,000	27,000	45,000	291,000	109,000
2023	450,000	32,000	45,000	270,000	104,000
M/M change	4.2%	3.7%	11.1%	4.1%	1.8%
Y/Y change	9.3%	-12.5%	11.1%	12.2%	6.7%

^{*} Not SAAR

New SF House Sales: For sale at end of period by Region



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

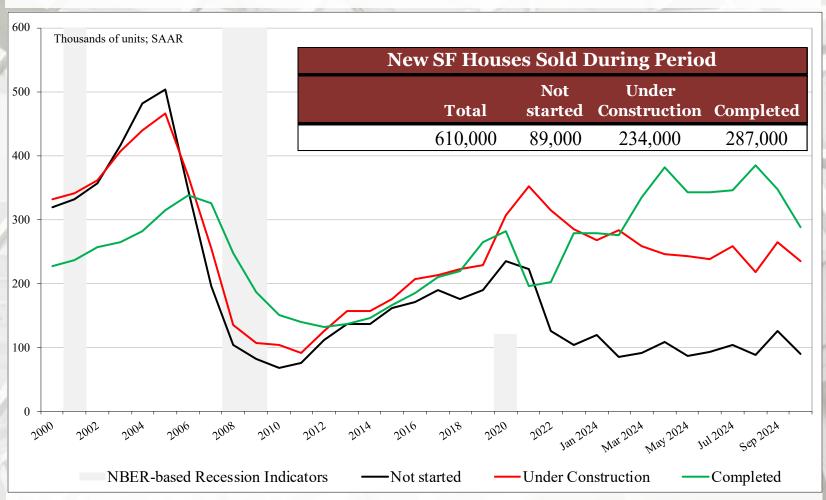
* Percentage of total for sale at end of period.

New SF House Sales

New SF Houses Sold During Period

	Total	Not started	Under Construction	Completed
October	610,000	89,000	234,000	287,000
September	738,000	126,000	265,000	347,000
2023	442,000	101,000	266,000	75,000
M/M change	-17.3%	-29.4%	-11.7%	-17.3%
Y/Y change	38.0%	-11.9%	-12.0%	282.7%
Total percentage		14.6%	38.4%	47.0%

New SF House Sales: For Sale at End of Period



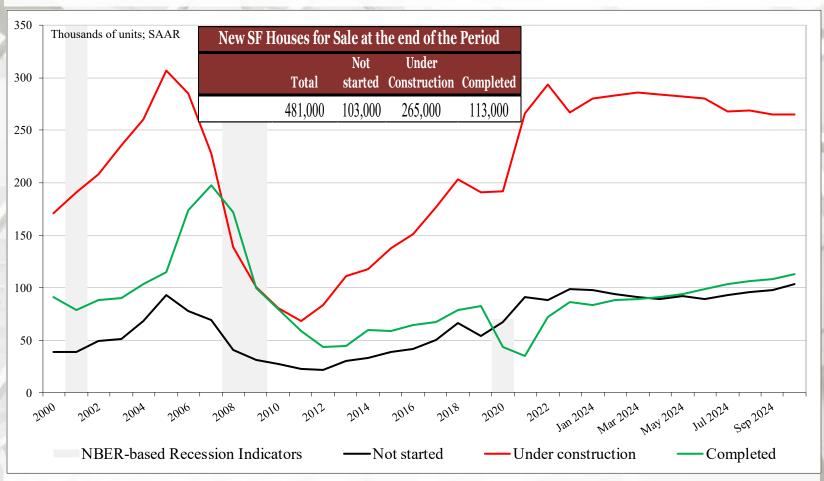
NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

New SF House Sales

New SF Houses for Sale at the end of the Period

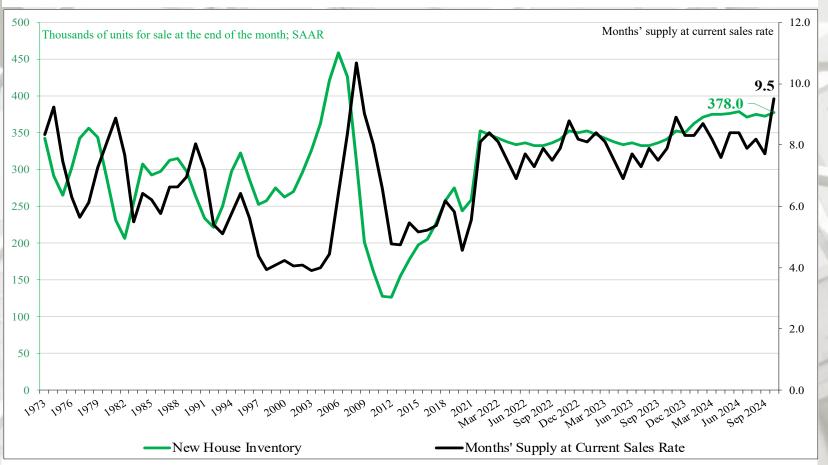
	Total	Not started	Under Construction	Completed
October	481,000	103,000	265,000	113,000
September	471,000	98,000	265,000	108,000
2023	442,000	101,000	266,000	75,000
M/M change	2.1%	5.1%	0.0%	4.6%
Y/Y change	8.8%	2.0%	-0.4%	50.7%
Total percentage		21.4%	55.1%	23.5%

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).

Months' Supply and New House Inventory^a



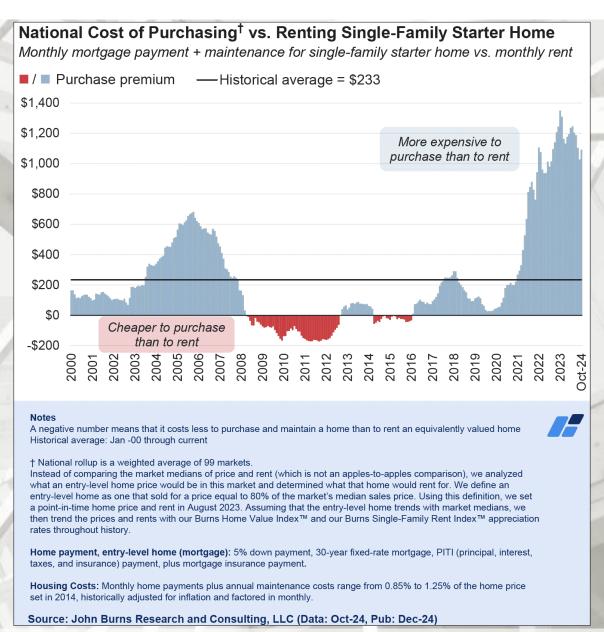
^a New HUC + New House Completions (sales data only)

The months' supply of new houses at current sales rate at the end of October was 9.5, greater than the historically preferred number of five- to six-months (SAAR).

John Burns Research and Consulting Starter homes cost \$1,091 more per month to purchase than rent Key takeaways

- "On average, purchasing a home now costs \$1,091 more per month than renting the same property. Although this gap has narrowed from the \$1,349 peak in October 2023, it remains significantly higher than the historical national average of \$233.
- Across the top 20 single-family rental (SFR) markets, the spread between purchasing and renting a starter home ranges from \$4 in Cincinnati to \$1,900 in Austin.
- Rising unaffordability has made it harder for people to buy homes, leading to more demand for SFR homes. This means tenants are staying longer, and landlords are seeing steady rent growth with renewals.
- Keep an eye on the rising housing supply in the market, as this may cause new lease rent growth to rise more slowly, especially in Sunbelt markets.

As we've noted through the years (in both 2022 and 2023), high home prices, elevated mortgage rates, and tight housing supply painted a rosy backdrop for the rental sector. As we near the end of 2024, we'd like to give you an update—and no surprise here, it's still more expensive monthly to buy a single-family home than it is to rent one." – Danielle Nguyen, Vice President of Research, John Burns Research and Consulting



John Burns Research and Consulting

Starter homes cost \$1,091 more per month to purchase than rent

"The monthly premium to buy a home versus renting that same home is now \$1,091 per month, down from \$1,349 per month at this time last year (the historical peak). Challenging for-sale affordability will boost demand for rental homes while reducing demand for homeownership.

Historically, it's +14% more on average to buy a starter home than to rent one (roughly \$233 per month), compared to the current 44% premium. Elevated home prices in most markets are keeping the purchase premium well above normal.

Mortgage rates need to drop to 3.75% to bridge the gap

For homeownership costs to return to the historical 14% premium over renting, mortgage rates would need to fall to about 3.75%, assuming all other factors remain unchanged.

Many home builders are finding success by offering mortgage rate buydowns, reducing rates to between 4% and 5% (or even lower). This helps bridge the cost gap between buying and renting.

The additional cost of purchasing over renting varies widely across the country. In the top 20 SFR markets, the difference ranges from just \$4 in Cincinnati to a steep \$1,900 in Austin. In several Midwest markets, purchasing is only slightly more expensive than renting (based on our assumptions and methodology)." – Danielle Nguyen, Vice President of Research, John Burns Research and Consulting

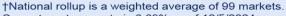
National Cost of Purchasing vs. Renting Single-Family Starter Home under Various Mortgage Rate Scenarios (Holding All Other Variables Fixed)

■ Monthly mortgage payment + maintenance ■ Single-family-rent entry-level home



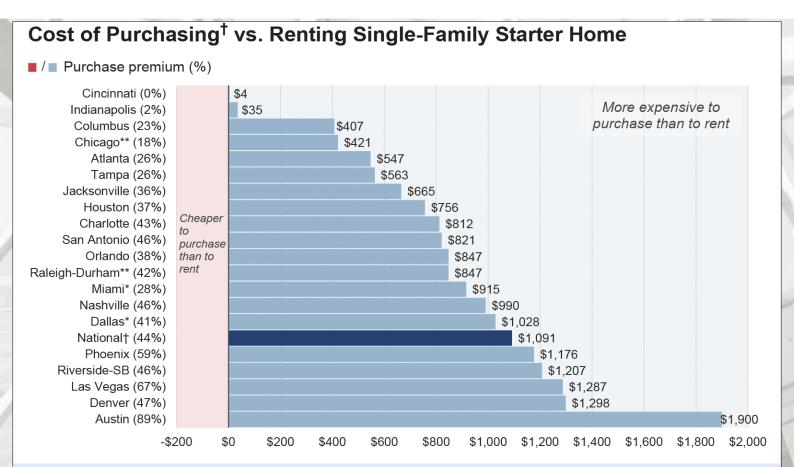
Notes

A negative number means that it costs less to purchase and maintain a home than to rent an equivalently valued home *All variables including home value, down payment, maintenance, taxes, insurance, mortgage insurance, and single-family rents are fixed except for the mortgage rate.



Current mortgage rate is 6.69% as of 12/5/2024.

Sources: Freddie Mac; John Burns Research and Consulting, LLC (Data: Oct-24/Dec-24, Pub: Dec-24)



Notes

A negative number means that it costs less to purchase and maintain a home than to rent an equivalently valued home † We base the national rollup on a weighted average of 99 markets.



*Metropolitan division **Combination of metropolitan divisions, except Raleigh-Durham, which is a combination of metros

Source: John Burns Research and Consulting, LLC (Data: Oct-24, Pub: Dec-24)

Return TOC

John Burns Research and Consulting Starter homes cost \$1,091 more per month to purchase than rent

Watch for supply trends

"Despite the tailwinds of a higher purchase premium for the SFR industry, rising supply in both for-sale and rental markets is a critical factor to monitor. In areas with increasing housing availability – such as parts of Florida, Texas, and the Southeast/Southwest – SFR rent growth has slowed or moderated.

As the market continues to evolve, we hope to give our clients clarity and insight into where the market is headed. If you have significant investments in housing in any capacity, our <u>research memberships</u> and/or <u>consulting services</u> can keep you more informed than ever, allowing for early decision-making that leads to significant profits." – Danielle Nguyen, Vice President of Research, John Burns Research and Consulting

October 2024 Construction Spending

	Total Private Residential*	SF*	MF*	Improvement**
October	\$934,033	\$423,881	\$125,379	\$384,773
September	\$920,280	\$420,574	\$125,182	\$374,524
2023	\$877,566	\$418,391	\$134,533	\$324,642
M/M change	1.5%	0.8%	0.2%	2.7%
Y/Y change	6.4%	1.3%	-6.8%	18.5%

^{*} Millions of dollars.

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

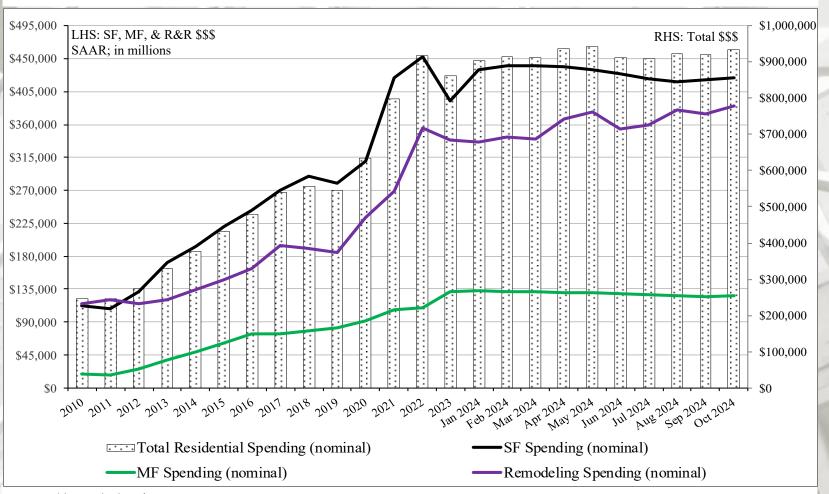
New single-family: new houses and town houses built to be sold or rented and units built by the owner or for the owner on contract. The classification excludes residential units in buildings that are primarily nonresidential. It also excludes manufactured housing and houseboats.

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.

^{**} 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\$.

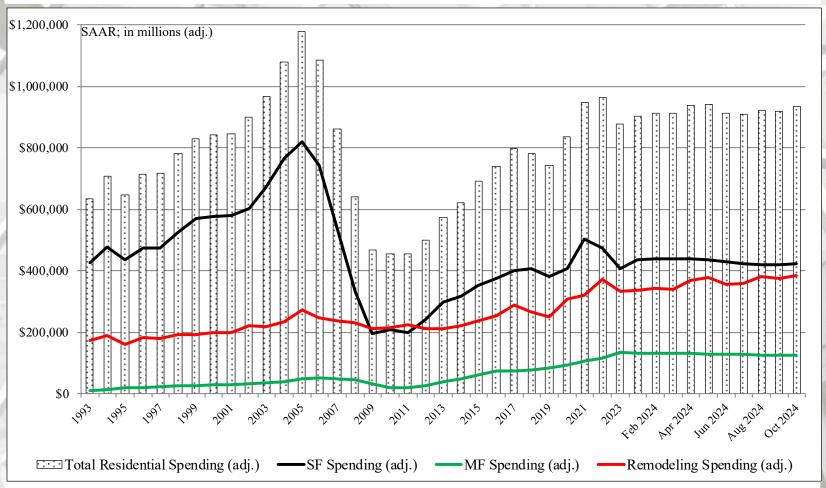
Total Construction Spending (nominal): 2000 – October 2024



Reported in nominal US\$.

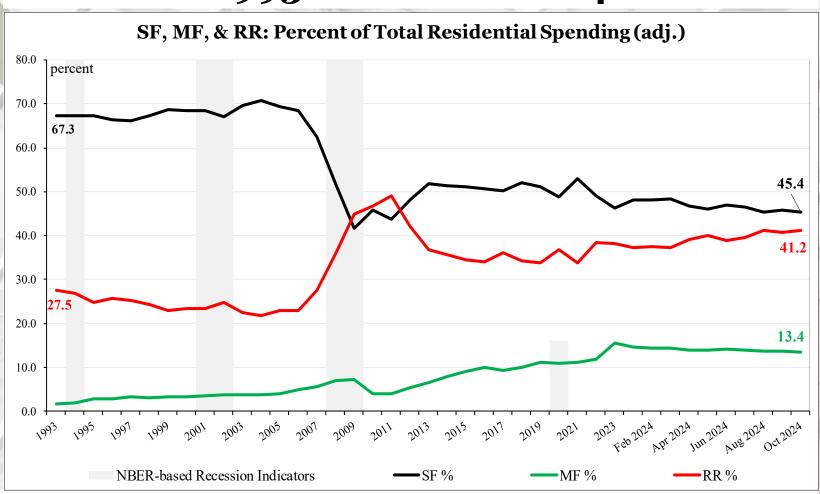
The US DOC does not report improvement spending directly, this is a monthly estimation for 2024.

Total Construction Spending (adjusted): 1993 – October 2024



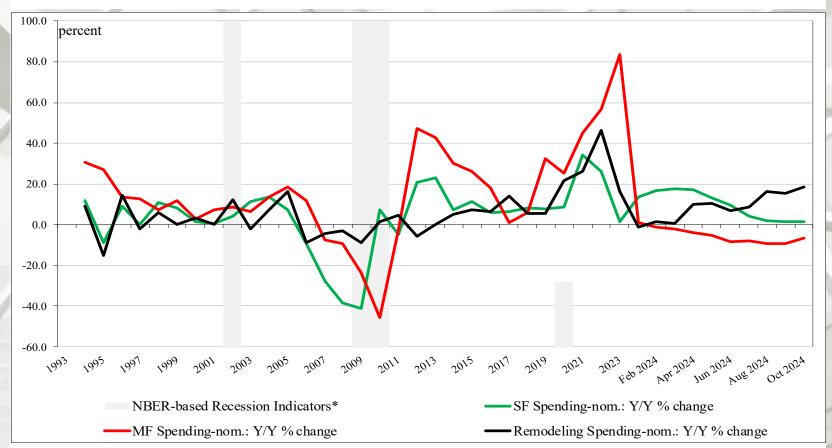
Reported in adjusted \$US: 1993 – 2023 (adjusted for inflation, BEA Table 1.1.9); October 2024 reported in nominal US\$.

Construction Spending Shares: 1993 – October 2024



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

Construction Spending: Y/Y Percentage Change

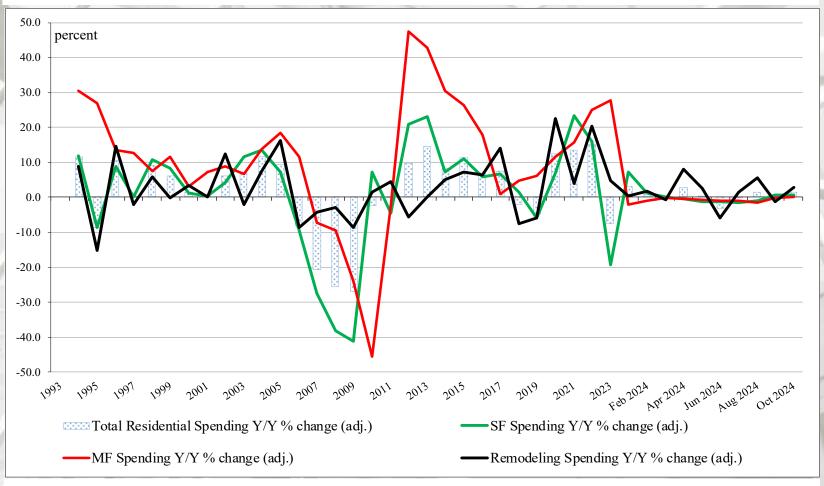


Nominal Residential Construction Spending: Y/Y percentage change, 1993 to October 2024

Presented above is the percentage change of Y/Y construction spending. SF and RR expenditures were positive on a percentage basis, year-over-year (October 2024 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).

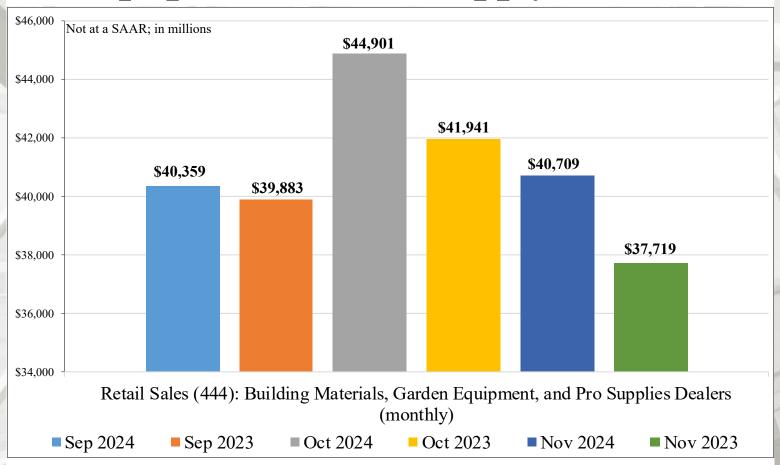
Adjusted Construction Spending, Y/Y Percentage Change: 1993 to October 2024



Adjusted Residential Construction Spending: Y/Y percentage change, 1993 to October 2024

Remodeling

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

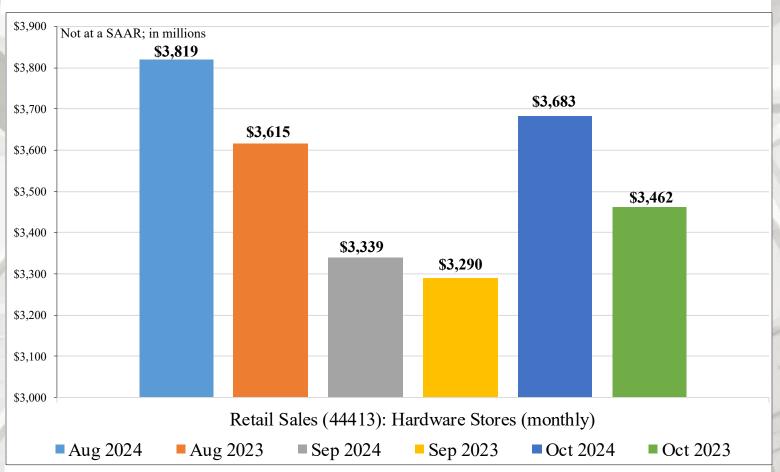


Building materials, Garden Equipment, & PRO Supply Dealers: NAICS 444

NAICS 444 sales decreased 9.7% in November 2024 from October 2024 and improved 2.5% Y/Y (nominal basis).

Remodeling

Retail Sales: Hardware Stores



Hardware Stores: NAICS 44413

NAICS 44413 retail sales decreased 10.4% in October 2024 from September 2024 and improved 6.4% Y/Y (nominal basis).

Existing House Sales

National Association of Realtors®

	Existing Sales	Median Price	Month's Supply
October	3,960,000	\$407,200	4.3
September	3,830,000	\$406,700	4.2
2023	3,850,000	\$391,600	3.4
M/M change	3.4%	0.1%	2.4%
Y/Y change	2.9%	4.0%	26.5%

All sales data: SAAR

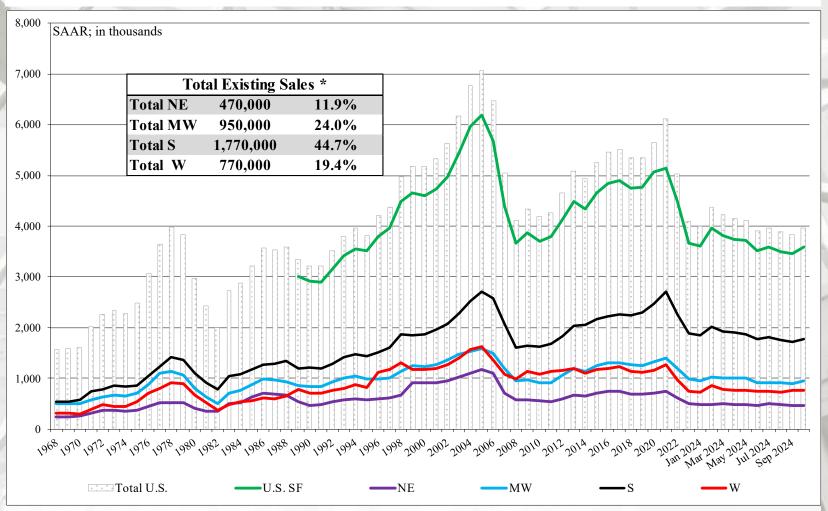
Existing House Sales

	NE	MW	S	W
October	470,000	950,000	1,770,000	770,000
September	460,000	890,000	1,720,000	760,000
2023	470,000	940,000	1,730,000	710,000
M/M change	2.2%	6.7%	2.9%	1.3%
Y/Y change	0.0%	1.1%	2.3%	8.5%

	Existing	SF Median
	SF Sales	Price
October	3,580,000	\$412,200
September	3,460,000	\$411,400
2023	3,440,000	\$396,000
M/M change	3.5%	0.1%
Y/Y change	4.1%	4.1%

All sales data: SAAR.

Existing House Sales



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

^{*} Percentage of total existing sales.

Federal Housing Finance Agency

U.S. House Price Index

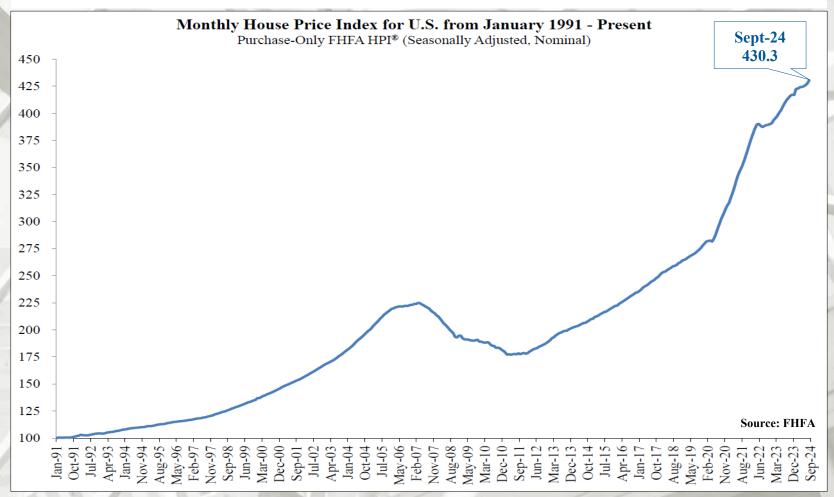
FHFA House Price Index Rise 4.3 Percent over the Prior Year; Up 0.7 Percent from the Second Quarter of 2024

Significant Findings

"U.S. house prices rose **4.3** percent between the third quarter of 2023 and the third quarter of 2024, according to the Federal Housing Finance Agency (FHFA) House Price Index (FHFA HPI®). House prices were up **0.7** percent compared to the second quarter of 2024. FHFA's seasonally adjusted monthly index for September was up **0.7** percent from August.

All nine census divisions had positive house price changes year-over-year. The East North Central division recorded the strongest appreciation, posting a **6.8** percent increase from the third quarter of 2023 to the third quarter of 2024. The West South Central division recorded the smallest four-quarter appreciation, at **1.6** percent." – Adam Russell, FHFA

"U.S. house price growth slowed in the third quarter, continuing a trend that started in the fourth quarter of the previous year. While house prices continued to increase because housing demand outpaced the locked-in housing supply, elevated house prices and mortgage rates likely contributed to the slowdown in price growth." – Dr. Anju Vajja, Deputy Director Division of Research and Statistics, FHFA



S&P CoreLogic Case-Shiller Index Records 3.9% Annual Gain in September in August 2024

"S&P Dow Jones Indices (S&P DJI) released the September 2024 results for the S&P CoreLogic Case-Shiller Indices. The leading measure of U.S. home prices recorded a 3.9% annual gain in September 2024, a slight deceleration from the previous annual gains in 2024. 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 3.9% annual return for September, down from a 4.3% annual gain in the previous month. The 10-City Composite saw an annual increase of 5.2%, down from a 6.0% annual increase in the previous month. The 20-City Composite posted a year-over-year increase of 4.6%, dropping from a 5.2% increase in the previous month. New York again reported the highest annual gain among the 20 cities with a 7.5% increase in September, followed by Cleveland and Chicago with annual increases of 7.1% and 6.9%, respectively. Denver posted the smallest year-over-year growth with 0.2%.

Month-Over-Month

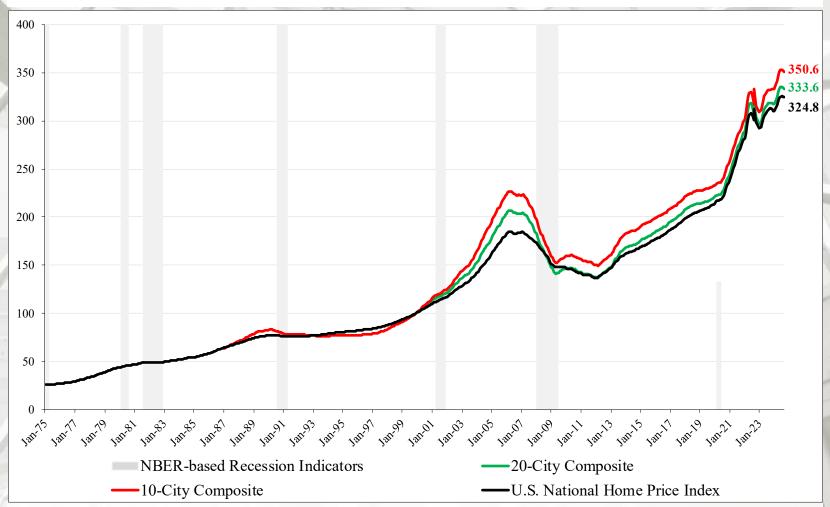
The pre-seasonally adjusted U.S. National Index, 20-City Composite, and 10-City Composite upward trends continued to reverse in September, with a -0.1% drop for the national index, and the 20-City and 10-City Composites saw -0.3% and -0.4% returns for this month, respectively. After seasonal adjustment, the U.S. National Index posted a month-over-month increase of 0.3%, while the 20-City and 10-City Composite reported monthly rises of 0.2% and 0.1%, respectively." – Brian D. Luke, Head of Commodities, Real & Digital Assets, S&P DJI

S&P CoreLogic Case-Shiller Index Analysis

"Home price growth stalled in the third quarter, after a steady start to 2024. The slight downtick could be attributed to technical factors as the seasonally adjusted figures boasted a 16th consecutive all-time high.

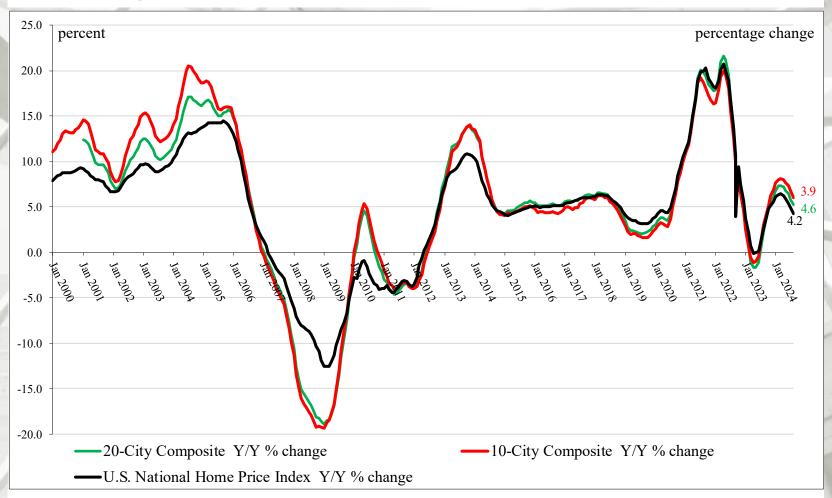
We continue to see above-trend price growth in the Northeast and Midwest, growing 5.7% and 5.4%, respectively, led by New York, Cleveland, and Chicago. The Big Apple has taken the top spot for five consecutive months, pushing the region ahead of all others since August 2023. The South region reported its slowest growth in over a year, rising 2.8%, barely above current inflation levels." – 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).

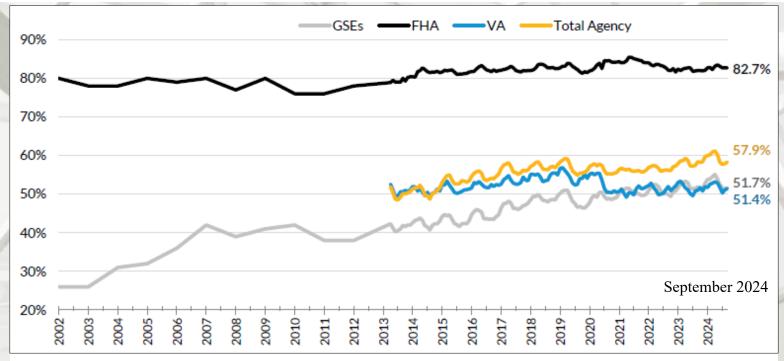
S&P/Case-Shiller Home Price Indices



Y/Y Price Change

From August 2023 to August 2024, the National Index indicated a 3.9% increase; the Ten-City increased by 5.2%, and the Twenty-City escalated by 4.6%.

U.S. First-Time House Buyers



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

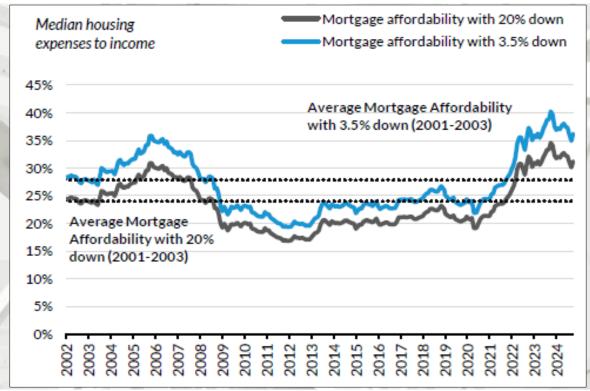
Note: All series measure the first-time home buyer share of purchase loans for principal residences.

Urban Institute

First-time House Buyer Share

"In September 2024, the first-time homebuyer (FTHB) share for FHA, which has always been more focused on first time homebuyers, was 82.7 percent. The FTHB share of GSE lending in September was 51.7 percent, slightly higher than the VA share of 51.4 percent. ..." – Laurie Goodman *et. al*, Vice President, Urban Institute

U.S. Housing Affordability

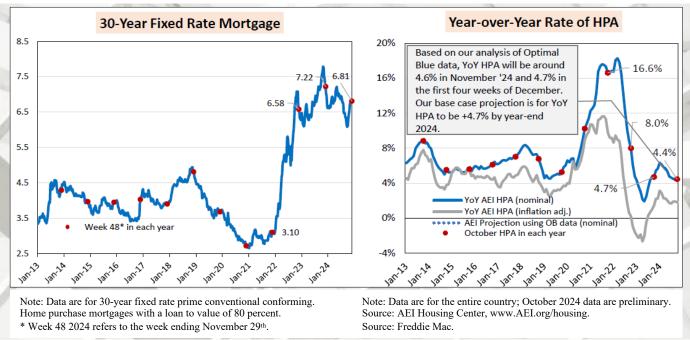


Urban Institute

National Mortgage Affordability Over Time

"Mortgage affordability has improved as rates moderated but remains close to the worst level since the inception of this series in 2002. As of October 2024, with a 20 percent down payment, the share of median income needed for the monthly mortgage payment stood at 31.2 percent, just above 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 36.2 percent, also above the 35.8 percent prior peak in November 2005. ..." – Laurie Goodman *et. al*, Vice President, Urban Institute

U.S. Housing Affordability

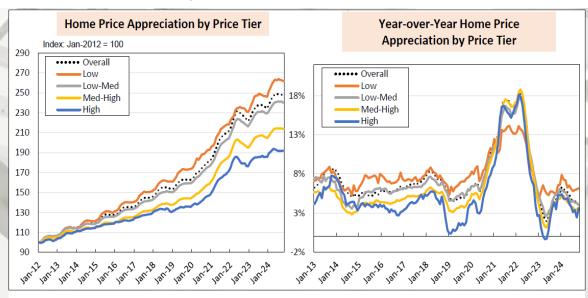


AEI Housing Center

Year over Year (YoY) HPA in October 2024 Remains Robust at 4.4%

- "October 2024's MoM HPA was 0.5%. As our projection on the following slide indicates, YoY HPA is expected to be about 4.7% Dec. 2024.
- YoY HPA has remained robust, especially for low price tier homes, but has tapered down slightly due to relatively high rates.
- A strong sellers' market continues, with well qualified buyers competing for a limited supply of homes.
- YoY HPA is projected to increase slightly to around 4.6% and 4.7% in November and the first four weeks of December.
- Constant quality HPA controls for mix shifts in home quality, which otherwise may skew MoM or YoY changes." Edward Pinto, Senior Fellow and Director and Tobias Peter, Research Fellow and Assistant Director, AEI Housing Center

Home Price Appreciation by Price Tier



Note: Data are for the entire country. Data for October 2024 are preliminary.

Source: AEI Housing Center, www.AEI.org/housing

AEI Housing Center

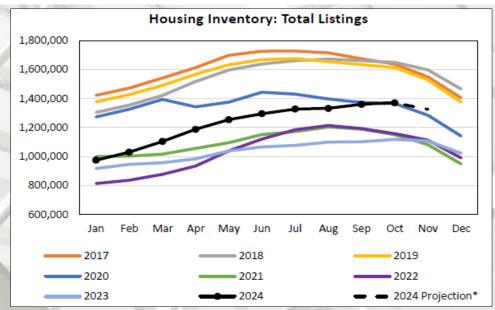
"Since 2012, a large and widening gap in HPA has developed between the lower and upper end of the market (left panel).

Preliminary numbers for October 2024 indicate that the low price tier leads the YoY change in tier home prices at 6.2% due to low months' supply (2.8 months), low unemployment, and increasing demand promoted by agency credit easing (right panel).

The med high and high price tiers are generally not eligible for federal first time buyer assistance, leaving them more dependent on the Fed's monetary punchbowl. As a result, they had the largest slowdowns in YoY HPA since March 2022.

As of October 2024, all price tiers have shown relatively robust YoY HPA from the slowest at 3.6% and 3.7% high and med high, respectively) to the highest of 6.2% (low)." – Edward Pinto, Senior Fellow and Director and Tobias Peter, Research Fellow and Assistant Director, AEI Housing Center

Housing Inventory and Months' Supply



AEI Housing Center

"In October 2024, total inventory increased 23% compared to a year ago. It is still 15% below the October 2019 level and, per Altos data, is expected to stay below 2019 levels through November.

- Among the 60 largest metros, year over year home price appreciation has a strong inverse relationship with the months' remaining supply.
- As of October 2024, metros in the Northeast and Midwest, driven by low months' supply, are continuing to lead the nation in home price appreciation. In contrast, metros in the South, particularly those in Florida, are seeing slower or even negative home price growth due to higher levels of months' supply.

In a break from the typical downward seasonal trend (2017 2019), October 2024 housing inventory was up 0.8% from September 2024. It was also up 22.6% from October 2023.

• While housing inventory increased by 22.6% YoY and 0.8% MoM, it is still 15% below October 2019, the "last normal" month prior to the pandemic. The increase in listings following the Fed's large rate cut in August 2024 has started to taper off, and Altos weekly listings data suggests that inventory is expected to drop in November by 3.3%." – Edward Pinto, Senior Fellow and Director and Tobias Peter, Research Fellow and Assistant Director, AEI Housing

U.S. Housing Finance

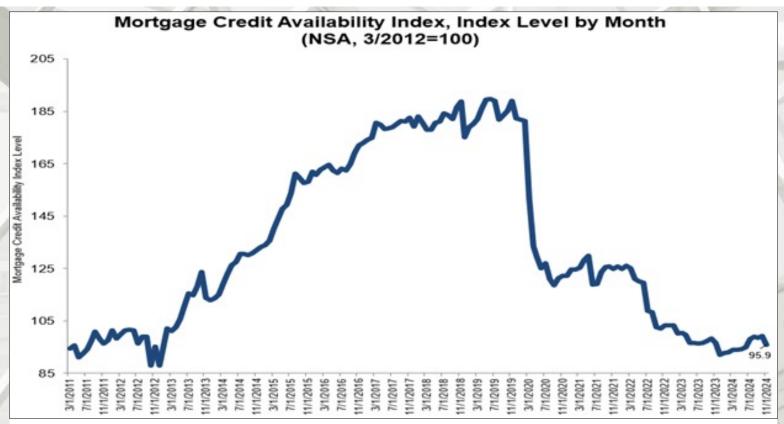
Mortgage Bankers Association Mortgage Credit Availability Decreased in November

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

The MCAI fell by 3.3 percent to 95.9 in November. 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 2.7 percent, while the Government MCAI decreased by 3.9 percent. Of the component indices of the Conventional MCAI, the Jumbo MCAI decreased by 0.9 percent, and the Conforming MCAI fell by 6.6 percent.

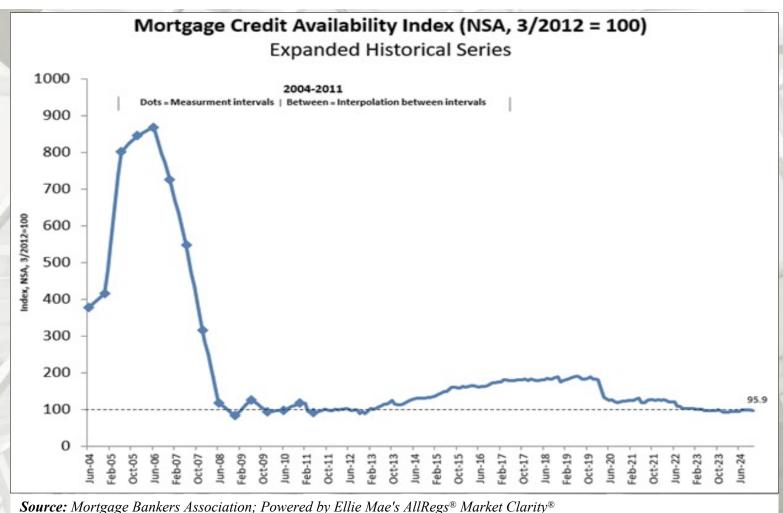
Credit availability tightened considerably in November, pushing the index to the lowest level in five months. Part of the decline was attributable to investors pulling back on high LTV and low credit score programs for both fixed and ARM loans, as well as further exits from the broker channel in an originations market that is still challenging for many lenders. The most notable impact was on the government index, which decreased to its lowest since December 2012." – Joel Kan, Associate Vice President of Economic and Industry Forecasting; MBA

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



Source: Mortgage Bankers Association; Powered by ICE Mortgage Technology

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



MBA Mortgage Finance Forecast

MBA Mortgage Finance Forecast

November 21, 2024

Housing Measures
Housing Starts (SAAR, Thous)
Single-Family
Two or More
Home Sales (SAAR, Thous)
Total Existing Homes
New Homes
FHFA US House Price Index (YOY % Change)
Median Price of Total Existing Homes (Thous \$
Median Price of New Homes (Thous \$)
Interest Rates
30-Year Fixed Rate Mortgage (%)
10-Year Treasury Yield (%)
Mortgage Originations
Total 1- to 4-Family (Bil \$)
Purchase
Refinance
Refinance Share (%)
FHA Originations (Bil \$)
Total 1- to 4-Family (000s loans)
Purchase
Refinance
Refinance Share (%)
Mortgage Debt Outstanding
1- to 4-Family (Bil \$)

	202	24			202	25			202	26					
Ql	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2024	2025	2026	2027
1,407	1,340	1,333	1,335	1,366	1,387	1,418	1,438	1,448	1,446	1,428	1,420	1,354	1,402	1,436	1,452
1,062	1,004	970	992	1,023	1,054	1,094	1,128	1,141	1,144	1,120	1,115	1,007	1,075	1,130	1,142
345	336	363	343	343	333	324	310	307	302	308	305	347	327	306	310
4,200	4,047	3,893	4,033	4,028	4,137	4,331	4,502	4,536	4,570	4,523	4,546	4,043	4,250	4,544	4,697
663	656	724	733	758	762	775	787	796	801	797	805	700	771	800	830
6.6	6.0	4.8	3.8	2.9	2.1	1.7	1.5	1.4	1.3	1.4	1.5	3.8	1.5	1.5	2.2
385.3	416.9	413.4	407.9	409.4	415.2	413.2	407.1	412.7	417.6	416.9	413.1	405.9	411.2	415.1	416.4
429.2	414.4	421.5	425.0	425.8	431.6	427.4	418.4	425.7	431.7	426.3	428.1	421.3	425.8	428.0	430.8
6.7	7.0	6.5	6.6	6.6	6.5	6.4	6.4	6.3	6.3	6.3	6.3	6.6	6.4	6.3	6.3
4.2	4.4	3.9	4.3	4.4	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
377	429	479	494	476	541	570	556	550	630	616	573	1,779	2,143	2,369	2,455
291	336	357	304	302	369	385	369	358	436	428	390	1,288	1.425	1,612	1,681
86	93	122	190	174	172	185	187	192	194	188	183	491	718	757	774
23	22	25	38	37	32	33	34	35	31	31	32	28	34	32	32
			-				•					204	219	242	227
1,076	1,203	1,343	1,426	1,358	1,512	1,591	1,550	1,534	1,729	1,682	1,565	5,049	6,010	6,511	6,614
773	880	924	779	768	934	970	926	896	1,087	1,062	964	3,356	3,599	4,009	4,104
303	323	419	647	589	577	620	624	638	642	621	601	1,693	2,411	2,502	2,510
28	27	31	45	43	38	39	40	42	37	37	38	34	40	38	38
13,990	14,094	14,178	14,268	14,363	14,468	14,571	14,665	14,753	14,853	14,949	15,035	14,268	14,665	15,035	15,418

Notes:

As of the August 2024 forecast, 2023 origination volume was revised based on the 2023 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 U5 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

November 21, 2024

						1010					202							/	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2024	2025	2026	2027		
Percent Change, SAAR																			
	Real Gross Domestic Product	1.6	3.0	2.8	1.8	2.0	1.6	1.9	1.9	1.7	1.6	1.6	1.6	2.3	1.8	1.6	1.5		
	Personal Consumption Expenditures	1.9	2.8	3.7	2.7	2.0	1.9	1.6	1.4	1.4	1.5	1.3	1.3	2.8	1.7	1.4	1.8		
	Business Fixed Investment	4.5	3.9	3.3	0.0	3.7	3.0	3.0	2.9	2.3	2.1	2.0	2.0	2.9	3.2	2.1	1.8		
	Residential Investment	13.7	-2.8	-5.1	-0.4	-0.7	0.8	4.2	7.4	3.7	2.5	1.4	0.7	1.3	2.9	2.1	2.8		
	Govt. Consumption & Investment	1.8	3.1	5.0	0.5	0.6	-0.1	0.2	0.2	0.1	0.2	0.1	0.0	2.6	0.2	0.1	-0.1		
	Net Exports (Bil. Chain 2012\$)	-977.0	-1035.7	-1077.1	-1083.2	-1095.3	-1101.8	-1107.4	-1107.3	-1097.1	-1086.4	-1058.8	-1028.5	-1043.3	-1103.0	-1067.7	-1019.2		
	Inventory Investment (Bil. Chain 2012\$)	17.7	71.7	60.2	61.4	75.3	72.5	85.8	96.5	102.4	102.3	98.9	96.1	52.7	82.5	99.9	90.0		
	Consumer Prices (YOY)	3.2	3.2	2.6	2.6	2.4	2.4	2.3	2.2	2.1	2.1	2.1	2.0	2.6	2.1	2.0	2.4		
	Percent																		
	Unemployment Rate	3.8	4.0	4.2	4.2	4.3	4.4	4.6	4.6	4.7	4.7	4.7	4.6	4.0	4.5	4.7	4.6		
	Federal Funds Rate	5.375	5.375	4.875	4.375	4.125	3.875	3.625	3.625	3.625	3.625	3.625	3.625	4.375	3.625	3.625	3.875		
	10-Year Treasury Yield	4.2	4.4	3.9	4.3	4.4	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3		

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

2024

Forecast produced with the assistance of the S&P ECONOSIM model

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Summary

In conclusion:

Housing data, in aggregate, month-over-month and year-over-year were mostly negative. On a month-over-month basis single-family permits, total and single-family spending were positive, and existing house sales were positive. Year-over-year, single-family housing completions; construction spending, and existing house sales were positive. The influence of mortgage rates is evident, as aggregate costs have decreased affordability, and the "lock-in" effect have obfuscated sales.

Pros:

1) The desire to own a house remains positive.

Cons:

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

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