The Virginia Tech–USDA Forest Service Housing Commentary: Section I March 2024





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

Opening Remarks

Housing data, month-over-month and year-over-year, exhibited extreme negativity. On a month-over-month basis single-family under construction and new house sales were positive. Year-over-year, single-family starts, new house sales, and total and single-family construction spending were positive. The influence of increased mortgage rates is evident, as aggregate costs have decreased affordability and influenced the "lock-in" effect.

The April 15th Atlanta Fed GDPNow[™] total residential investment spending forecast is 1.4% for Q2 2024. Quarterly log change for new private permanent site expenditures were projected at -0.4%; the improvement spending forecast was 4.3%; and the manufactured/mobile home expenditures projection was 0.0% (all: quarterly log change and at a seasonally adjusted annual rate).¹

"... Over the past year, the number of single-family starts is up 21.2% while multi-unit starts are down 44.3%. Permits for single-family homes are up 17.4% while multi-unit home permits are down 20.2%. This huge gap in the data is due to the unprecedented nature of the last four years since COVID began. While we don't see housing as a major driver of economic growth in the near term, we don't expect a housing bust like the 2000s on the way, either. Builders built too few homes in the decade before COVID and that shortage should support home prices in the years ahead. ..." – Nate Gerze, Economic Analyst, Brian Wesbury, Chief Economist, and Robert Stein, CFA and Deputy Chief Economist; First Trust Advisors L.P.

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.

March 2024 Housing Scorecard

| | M/M | Y/Y |
|---------------------------------------|--|-------------------|
| Housing Starts | ▼ 14.7% | ▼ 4.3% |
| Single-Family (SF) Starts | ▼ 12.4% | ▲ 21.2% |
| Multi-Family (MF) Starts* | ▼ 21.7% | ▼ 44.3% |
| Housing Permits | ▼ 3.7% | ▼ 2.1% |
| SF Permits | ▼ 4.7% | ▼ 18.6% |
| MF Permits* | ▼ 1.6% | ▼ 20.4% |
| Housing Under Construction | ▼ 0.9% | ▼ 2.0% |
| SF Under Construction | ▲ 0.3% | ▼ 2.7% |
| Housing Completions | ▼ 13.5% | ▼ 3.9% |
| SF Completions | ▼ 10.5% | ▼ 8.5% |
| New SF House Sales | ▲ 8.8% | ▲ 8.3% |
| Private Residential Construction Spen | ding v 0.7% | 4. 4% |
| SF Construction Spending | ▼ 0.2% | ▲ 18.3% |
| Existing House Sales ¹ | ▼ 4.3% | ▼ 3.7% |
| · · · · · · · · · · · · · · · · · · · | I/M = month-over-month; Y/Y C = No change | = year-over-year; |

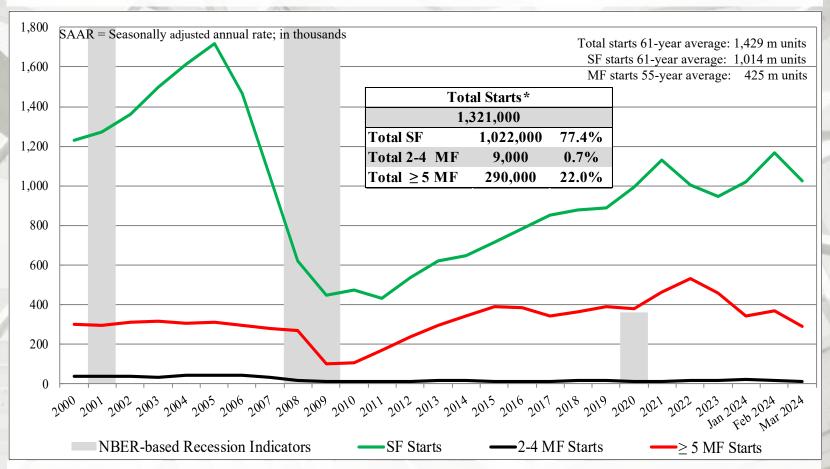
New Housing Starts

| | Total Starts* | SF Starts | MF 2-4 Starts** | MF ≥5 Starts |
|------------|---------------|-----------|-----------------|--------------|
| March | 1,321,000 | 1,022,000 | 9,000 | 290,000 |
| February | 1,549,000 | 1,167,000 | 16,000 | 366,000 |
| 2023 | 1,380,000 | 843,000 | 22,000 | 515,000 |
| M/M change | -14.7% | -12.4% | -43.8% | -20.8% |
| Y/Y change | -4.3% | 21.2% | -59.1% | -43.7% |

^{*} 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

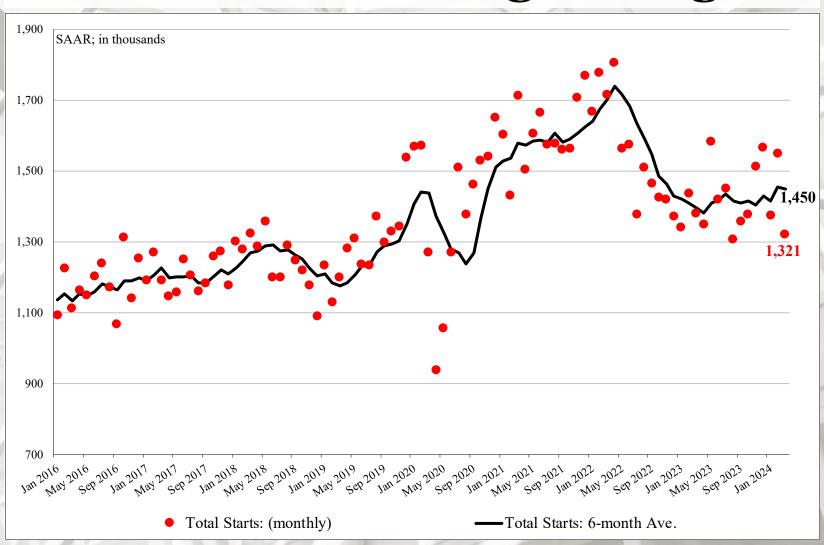


The US DOC does not report 2 to 4 multi-family starts directly; this is an estimation: (Total starts – (SF + 5-unit MF).

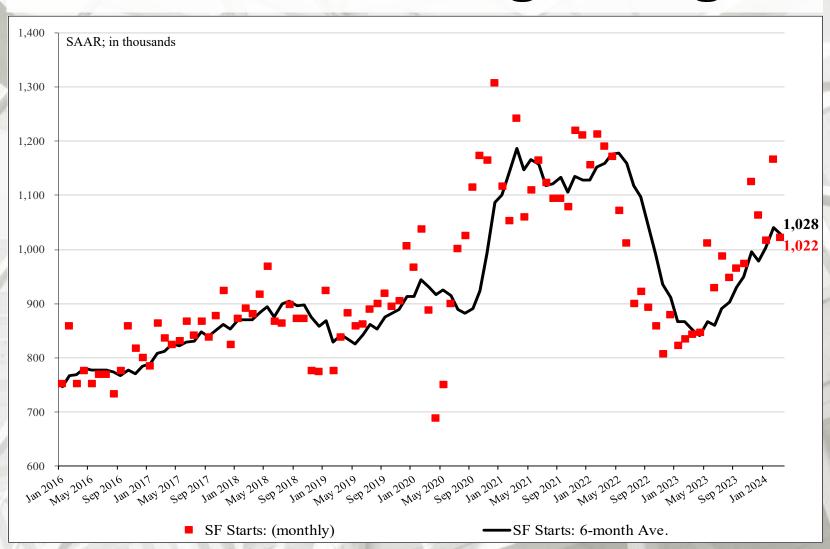
NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

^{*} Percentage of total starts.

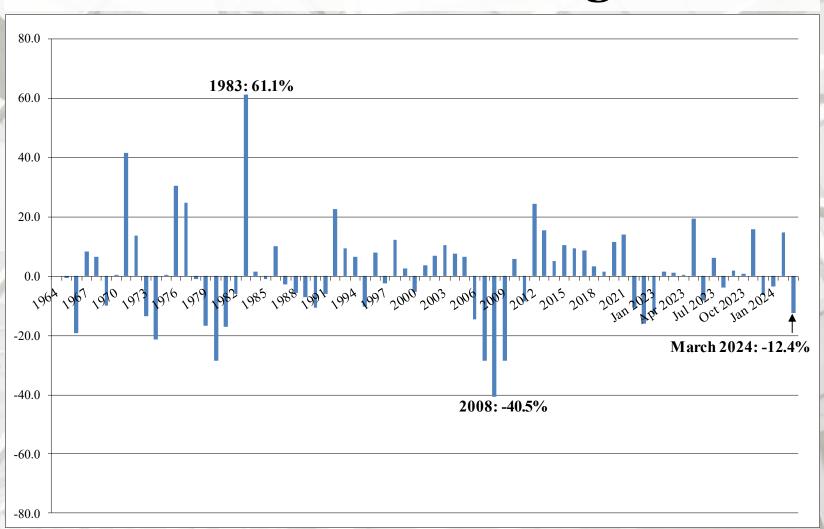
Total Housing Starts: Six-Month Moving Average



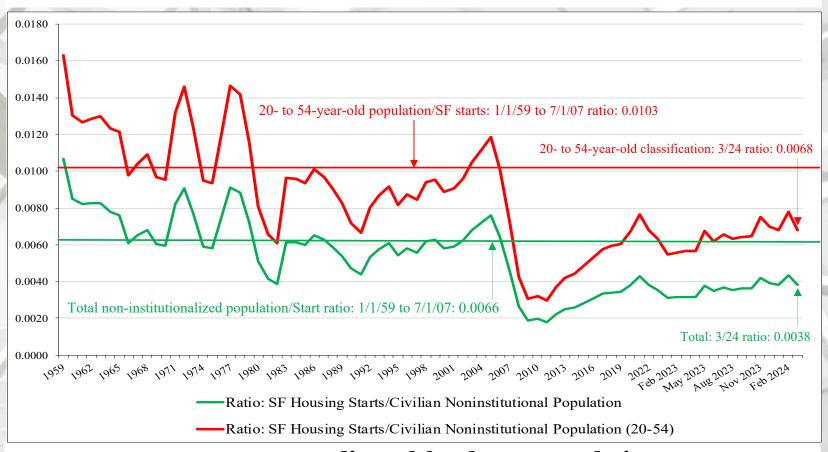
SF Housing Starts: Six-Month Moving Average



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



New SF Starts

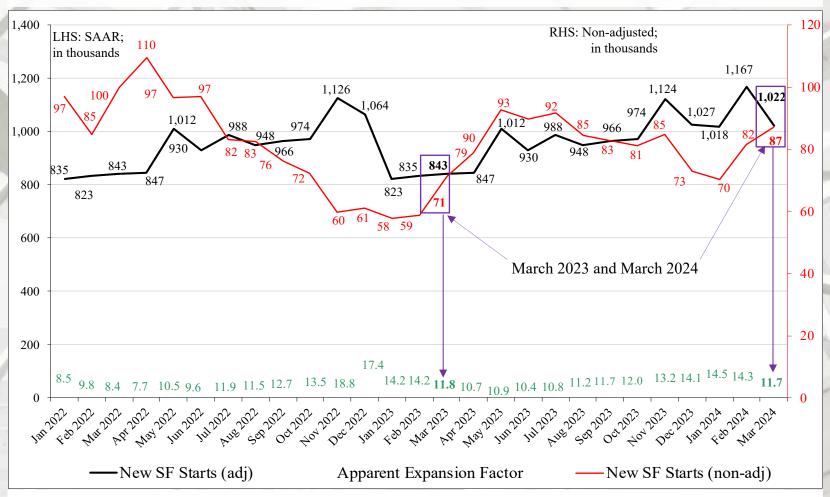


New SF starts adjusted for the US population

From March 1959 to March 2007, the long-term ratio of new SF starts to the total US non-institutionalized population is 0.0066. In March 2024 it was 0.0038 – decreasing from February (0.0044). The long-term ratio of non-institutionalized population, aged 20 to 54 is 0.0103; in March 2024 it was 0.0068 –also a decline from February (0.0078). 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** |
|-------------------|---------------------|--------------------|------------------|
| March | 80,000 | 52,000 | 28,000 |
| February | 125,000 | 88,000 | 37,000 |
| 2023 | 185,000 | 67,000 | 118,000 |
| M/M change | -36.0% | -40.9% | -24.3% |
| Y/Y change | -56.8% | -22.4% | -76.3% |
| | | | |
| | MW Total | MW SF | MW MF |
| March | MW Total 157,000 | MW SF 130,000 | MW MF 27,000 |
| March February | | | |
| | 157,000 | 130,000 | 27,000 |
| February | 157,000 204,000 | 130,000 152,000 | 27,000 52,000 |

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).

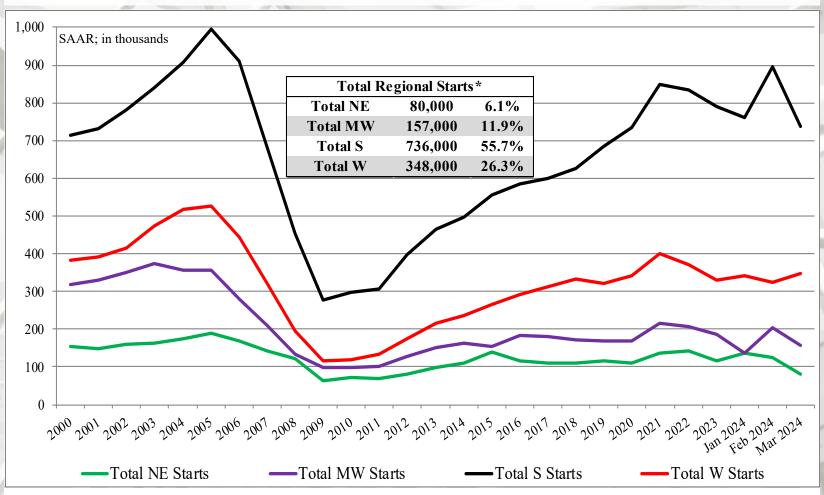
New Housing Starts by Region

| | S Total | S SF | S MF** |
|-------------------|--------------------|--------------------|---------------------|
| March | 736,000 | 609,000 | 127,000 |
| February | 895,000 | 699,000 | 196,000 |
| 2023 | 827,000 | 535,000 | 292,000 |
| M/M change | -17.8% | -12.9% | -35.2% |
| Y/Y change | -11.0% | 13.8% | -56.5% |
| | | | |
| | W Total | W SF | W MF |
| March | W Total 348,000 | W SF 231,000 | W MF 117,000 |
| March February | | | |
| | 348,000 | 231,000 | 117,000 |
| February | 348,000 325,000 | 231,000 228,000 | 117,000 97,000 |

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

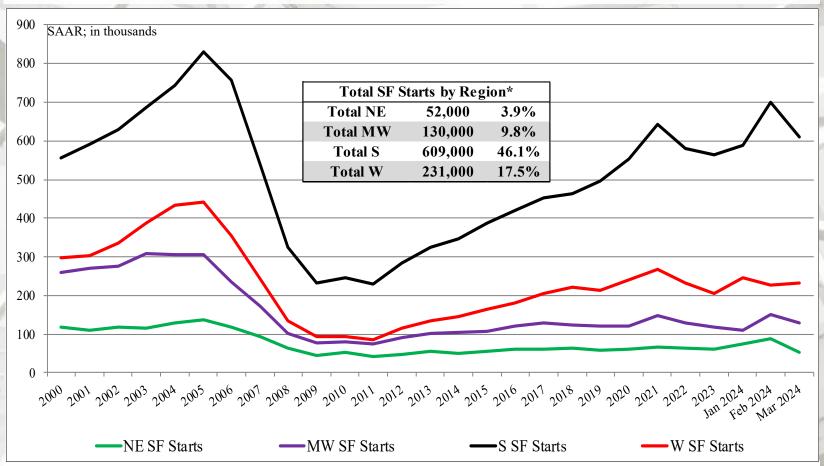


NE = Northeast, MW = Midwest, S = South, W = West

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

^{*} Percentage of total starts.

Total SF Housing Starts by Region

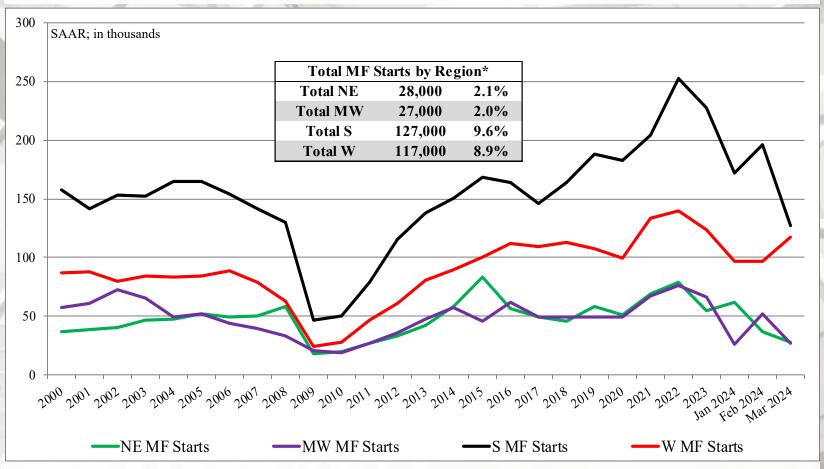


NE = Northeast, MW = Midwest, S = South, W = West

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

^{*} Percentage of total starts.

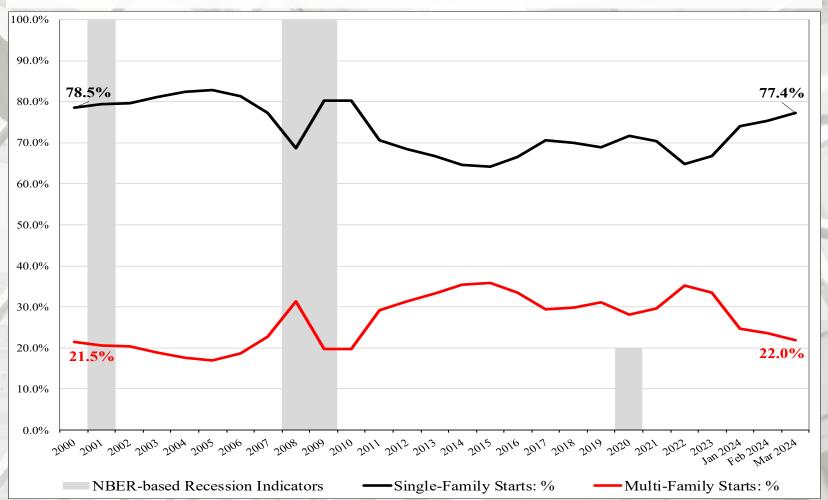
MF Housing Starts by Region



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 (%)



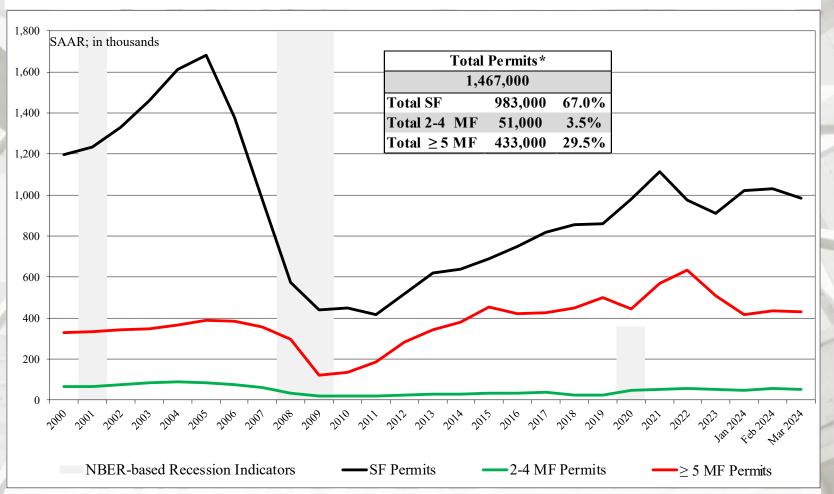
NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

New Housing Permits

| | Total Permits* | SF Permits | MF 2-4 unit Permits | MF ≥ 5 unit Permits |
|------------|-------------------|---------------|------------------------|------------------------|
| March | 1,467,000 | 983,000 | 51,000 | 433,000 |
| February | 1,524,000 | 1,032,000 | 57,000 | 435,000 |
| 2023 | 1,437,000 | 829,000 | 52,000 | 556,000 |
| M/M change | -3.7% | - 4.7% | -10.5% | -0.5% |
| Y/Y change | 2.1% | 18.6% | -1.9% | -22.1% |

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

Total New Housing Permits



^{*} Percentage of total permits.

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

New Housing Permits by Region

| | NE Total* | NE SF | NE MF** |
|------------|-----------|--------|---------|
| March | 161,000 | 57,000 | 104,000 |
| February | 201,000 | 61,000 | 140,000 |
| 2023 | 148,000 | 55,000 | 93,000 |
| M/M change | -19.9% | -6.6% | -25.7% |
| Y/Y change | 8.8% | 3.6% | 11.8% |

| | MW Total* | MW SF | MW MF** |
|------------|-----------|---------|---------|
| March | 199,000 | 133,000 | 66,000 |
| February | 231,000 | 142,000 | 89,000 |
| 2023 | 204,000 | 103,000 | 101,000 |
| M/M change | -13.9% | -6.3% | -25.8% |
| Y/Y change | -2.5% | 29.1% | -34.7% |

NE = Northeast; MW = Midwest

^{*} All data are SAAR

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

New Housing Permits by Region

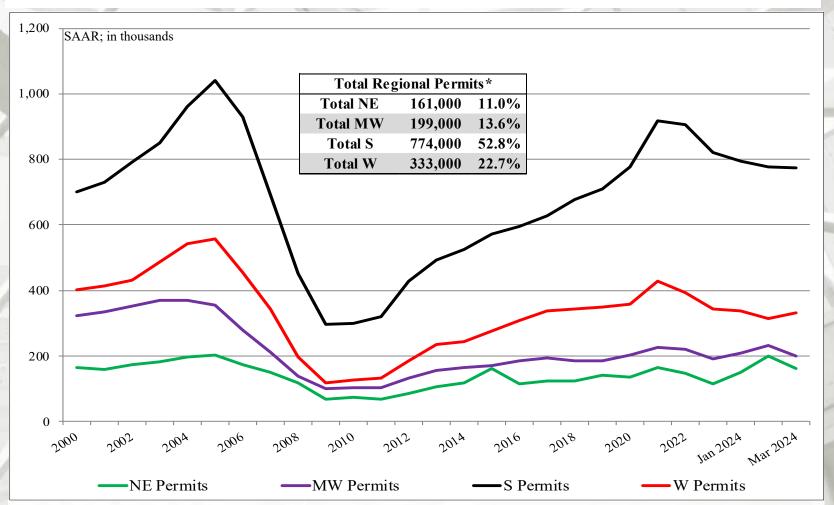
| | S Total* | SSF | S MF** |
|-------------------|--------------------|--------------------|-------------------|
| March | 774,000 | 577,000 | 197,000 |
| February | 777,000 | 605,000 | 172,000 |
| 2023 | 768,000 | 502,000 | 266,000 |
| M/M change | -0.4% | -4.6% | 14.5% |
| Y/Y change | 0.8% | 14.9% | -25.9% |
| | | | |
| | W Total* | WSF | W MF** |
| March | W Total* 333,000 | W SF 216,000 | W MF** 117,000 |
| March February | | | |
| | 333,000 | 216,000 | 117,000 |
| February | 333,000 315,000 | 216,000 224,000 | 117,000 91,000 |

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).

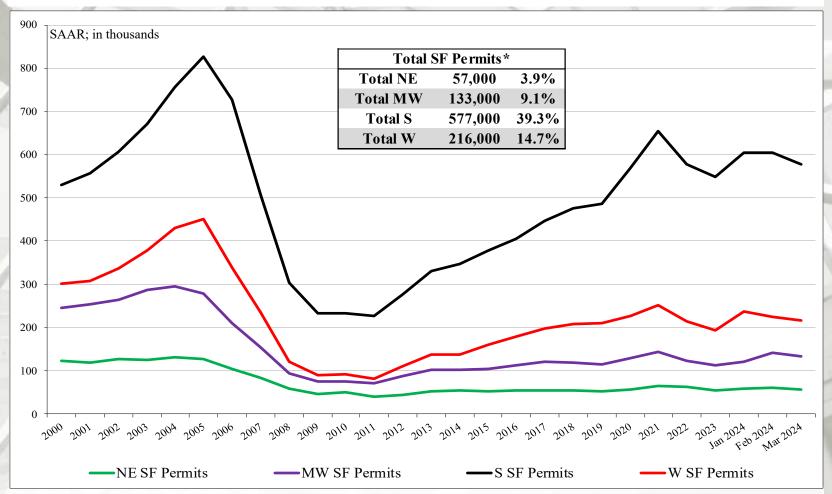
Total Housing Permits by Region



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

^{*} Percentage of total permits.

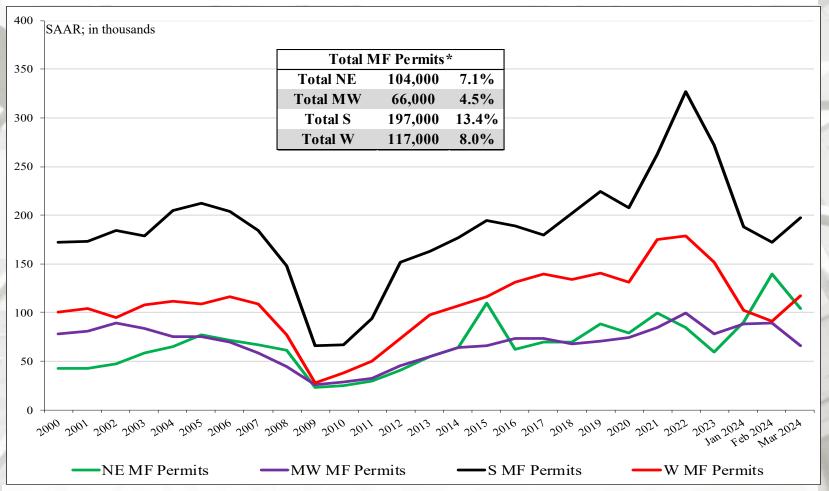
SF Housing Permits by Region



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.

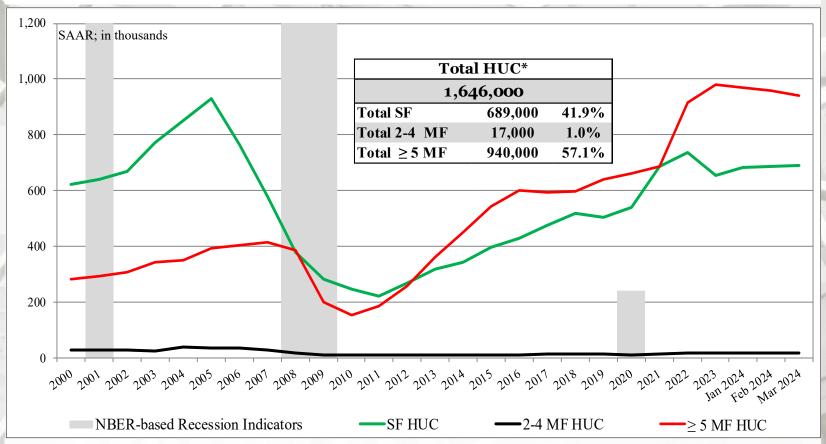
New Housing Under Construction (HUC)

| | Total HUC | SF HUC | MF 2-4 unit** HUC | MF ≥ 5 unit HUC |
|------------|-----------|---------|----------------------|--------------------|
| March | 1,646,000 | 689,000 | 17,000 | 940,000 |
| February | 1,661,000 | 687,000 | 17,000 | 957,000 |
| 2023 | 1,680,000 | 708,000 | 17,000 | 955,000 |
| M/M change | -0.9% | 0.3% | 0.0% | -1.8% |
| Y/Y change | -2.0% | -2.7% | 0.0% | -1.6% |

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** |
|-------------------|---------------------|-----------------|--------------------|
| March | 209,000 | 67,000 | 142,000 |
| February | 206,000 | 67,000 | 139,000 |
| 2023 | 217,000 | 67,000 | 150,000 |
| M/M change | 1.5% | 0.0% | 2.2% |
| Y/Y change | -3.7% | 0.0% | -5.3% |
| | | | |
| | MW Total | MW SF | MW MF |
| March | MW Total 199,000 | MW SF 90,000 | MW MF 109,000 |
| March February | | | |
| | 199,000 | 90,000 | 109,000 |
| February | 199,000 203,000 | 90,000 | 109,000 113,000 |

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).

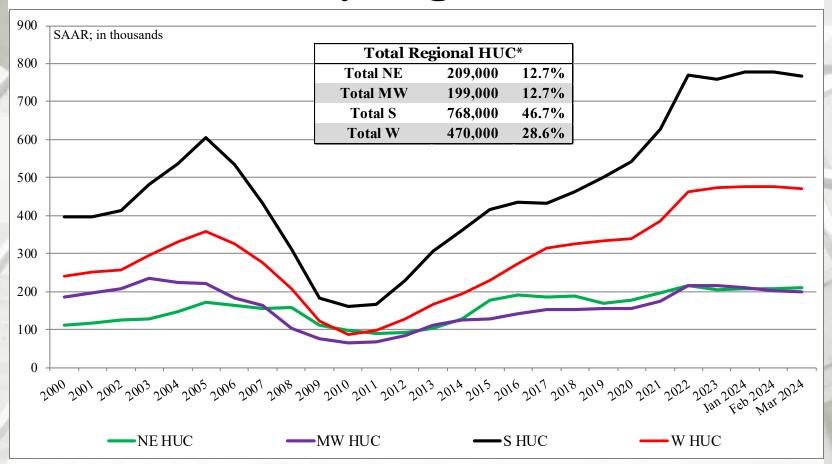
New Housing Under Construction by Region

| | S Total | S SF | S MF** |
|-------------------|--------------------|--------------------|--------------------|
| March | 768,000 | 354,000 | 414,000 |
| February | 777,000 | 353,000 | 424,000 |
| 2023 | 787,000 | 376,000 | 411,000 |
| M/M change | -1.2% | 0.3% | -2.4% |
| Y/Y change | -2.4% | -5.9% | 0.7% |
| | | | |
| | W Total | W SF | W MF |
| March | W Total 470,000 | W SF 178,000 | W MF 292,000 |
| March February | | | |
| | 470,000 | 178,000 | 292,000 |
| February | 470,000 475,000 | 178,000 177,000 | 292,000 298,000 |

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

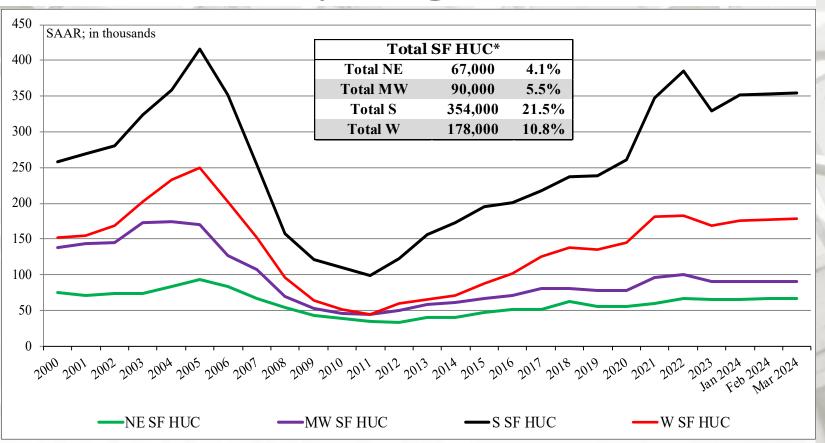


NE = Northeast, MW = Midwest, S = South, W = West

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

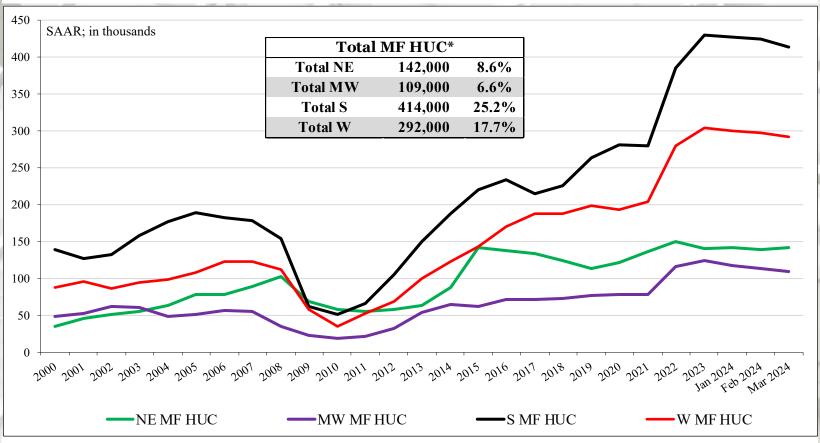


NE = Northeast, MW = Midwest, S = South, W = West.

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.

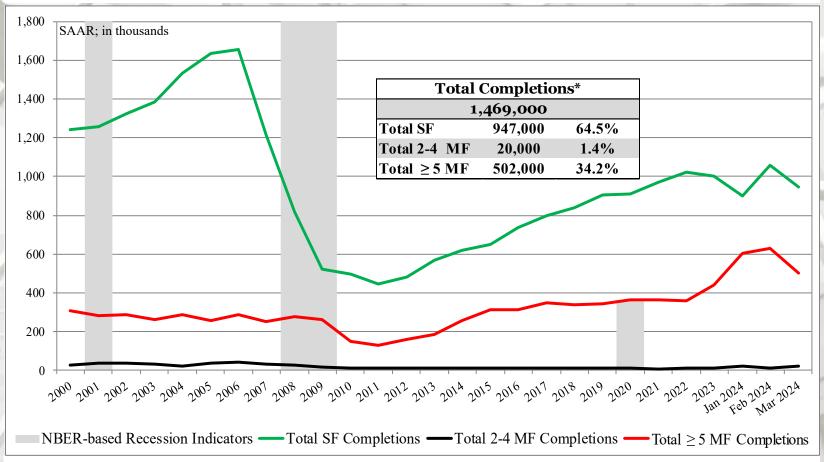
New Housing Completions

| | Total Completions* | SF Completions | MF 2-4 unit** Completions | MF ≥ 5 unit Completions |
|------------|-----------------------|-------------------|------------------------------|----------------------------|
| March | 1,469,000 | 947,000 | 20,000 | 502,000 |
| February | 1,698,000 | 1,058,000 | 13,000 | 627,000 |
| 2023 | 1,528,000 | 1,035,000 | 13,000 | 480,000 |
| M/M change | -13.5% | -10.5% | 53.8% | -19.9% |
| Y/Y change | -3.9% | -8.5% | 53.8% | 4.6% |

^{*} 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 $+ \ge 5$ -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** |
|-------------------|---------------------|--------------------|-----------------------|
| March | 74,000 | 41,000 | 33,000 |
| February | 120,000 | 61,000 | 59,000 |
| 2023 | 135,000 | 66,000 | 69,000 |
| M/M change | -38.3% | -32.8% | -44.1% |
| Y/Y change | -45.2% | -37.9% | -52.2% |
| | | | |
| | MW Total | MW SF | MW MF** |
| March | MW Total 184,000 | MW SF 129,000 | MW MF** 55,000 |
| March February | | | |
| | 184,000 | 129,000 | 55,000 |
| February | 184,000 271,000 | 129,000 156,000 | 55,000 115,000 |

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).

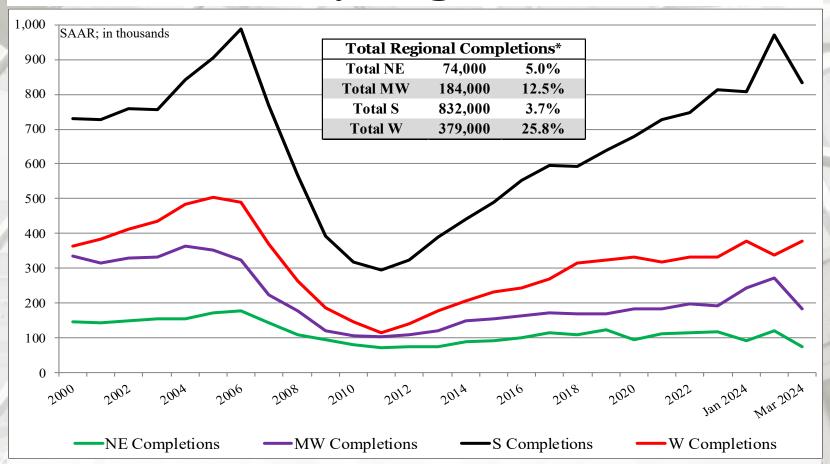
New Housing Completions by Region

| | S Total | S SF | S MF** |
|------------|---------|---------|---------|
| March | 832,000 | 559,000 | 273,000 |
| February | 970,000 | 631,000 | 339,000 |
| 2023 | 761,000 | 602,000 | 159,000 |
| M/M change | -14.2% | -11.4% | -19.5% |
| Y/Y change | 9.3% | -7.1% | 71.7% |
| | W Total | W SF | WMF** |
| March | 379,000 | 218,000 | 161,000 |
| February | 337,000 | 210,000 | 127,000 |
| 2023 | 417,000 | 234,000 | 183,000 |
| M/M change | 12.5% | 3.8% | 26.8% |
| Y/Y change | -9.1% | -6.8% | -12.0% |

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

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

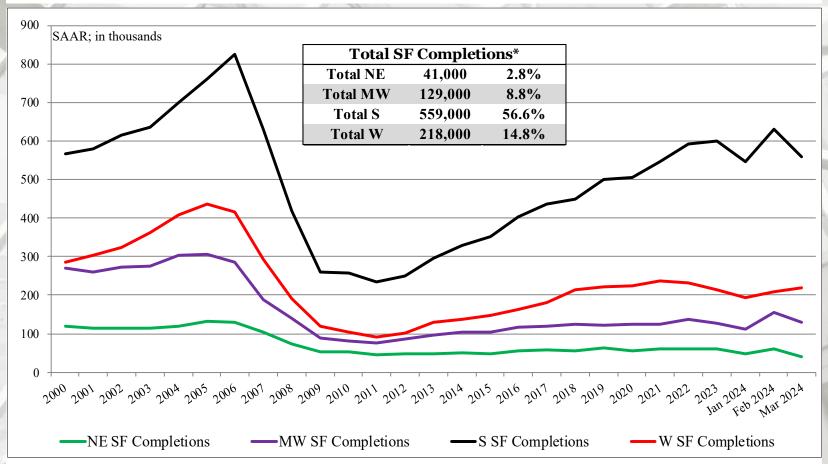
Total Housing Completions by Region



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

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

SF Housing Completions by Region

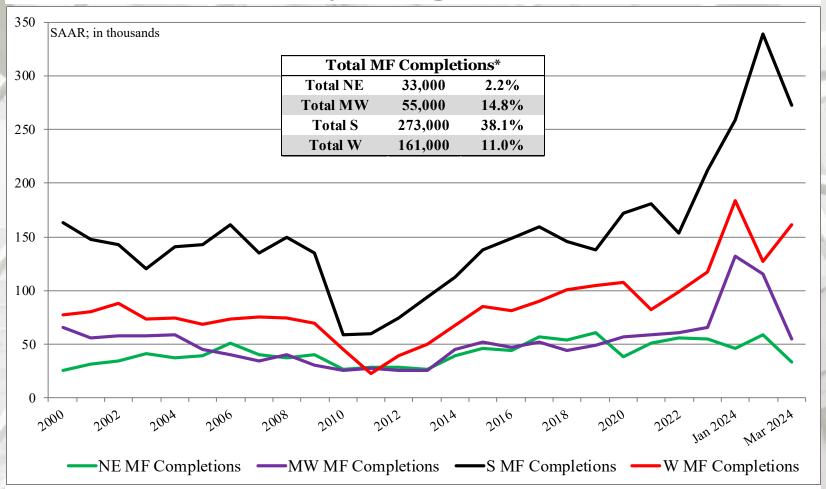


NE = Northeast, MW = Midwest, S = South, W = West

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

^{*} Percentage of total housing completions

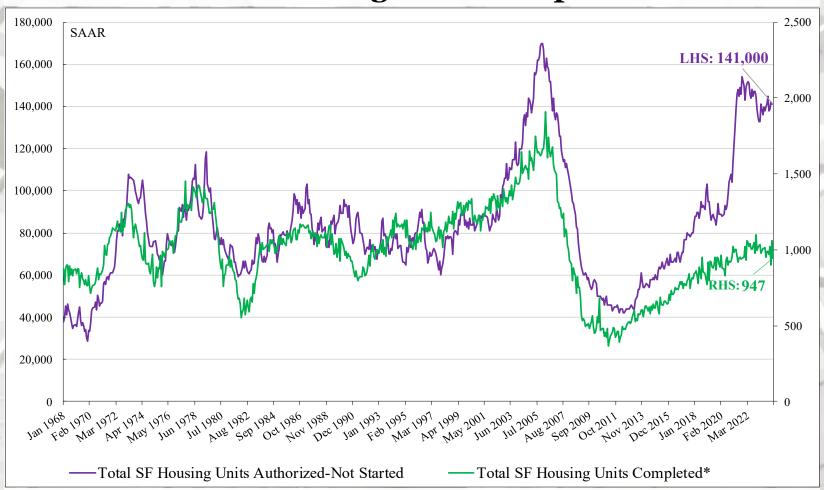
MF Housing Completions by Region



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

^{*} Percentage of total housing completions

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



Authorized, Not Started vs. Housing Completions

Total authorized units "not" started was 273,000 in March, an increase from February (271,000), and SF authorized units "not" started were 141,000 units in March, no change from February. 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.

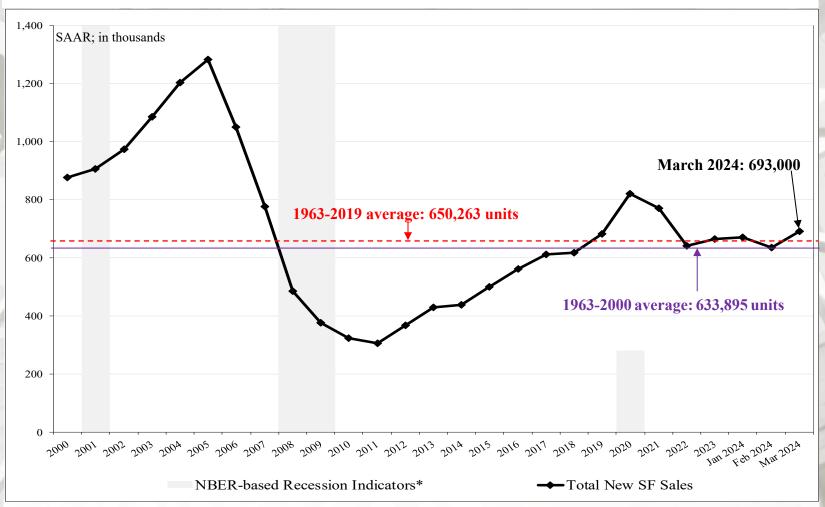
New Single-Family House Sales

| | New SF Sales* | Median Price | Mean Price | Month's Supply |
|------------|------------------|-----------------|---------------|-------------------|
| March | 693,000 | \$430,700 | \$524,800 | 8.3 |
| February | 637,000 | \$406,500 | \$488,600 | 8.8 |
| 2023 | 640,000 | \$438,900 | \$519,600 | 8.1 |
| M/M change | 8.8% | 6.0% | 7.4% | -5.7% |
| Y/Y change | 8.3% | -1.9% | 1.0% | 2.5% |

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

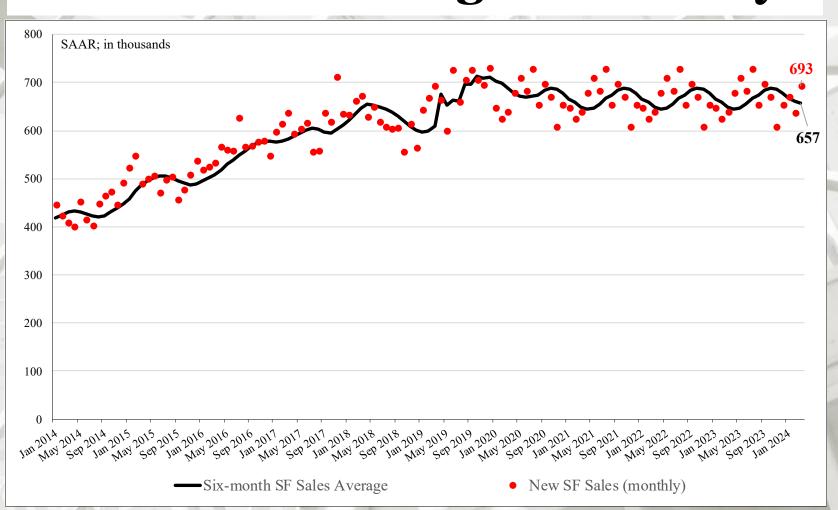
New SF sales were more than the consensus forecast³ of 670 m; range 625 m to 685 m. The past three month's new SF sales data also were revised:

December initial: 664 m, revised to 654 m. January initial: 661 m, revised to 671 m. February initial: 662 m, revised to 637 m.



^{*} 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 | |
|--------------------------|---------|---------------------|-------------------|---------------------|-----------------------|---------------------|----------|--|
| March | 46,000 | | 79,000 | | 391,000 |) 17' | 177,000 | |
| February | 36,000 | | 75,000 | | 363,000 |) 16. | 163,000 | |
| 2023 | 53,000 |) | 64,000 | | 374,000 |) 149 | 149,000 | |
| M/M change | 27.8% | • | 5.3% |) | 7.7% | 8 | .6% | |
| Y/Y change | -13.2% | 0 | 23.4% | o o | 4.5% | 18 | 3.8% | |
| | ≤\$150m | \$150 - \$199.9m | \$200 - 299.9m | \$300 - \$399.9m | \$400 - n \$499.9m | \$500 - \$749.9m | ≥ \$75om | |
| March ^{1,2,3,4} | 0 | 0 | 10,000 | 19,000 | 12,000 | 17,000 | 9,000 | |
| Febuary | 0 | 0 | 8,000 | 19,000 | 9,000 | 14,000 | 7,000 | |
| 2023 | 0 | 0 | 9,000 | 17,000 | 12,000 | 16,000 | 7,000 | |
| M/M change | #N/A | #N/A | 25.0% | 0.0% | 33.3% | 21.4% | 28.6% | |
| Y/Y change | #N/A | #N/A | 11.1% | 11.8% | 0.0% | 6.3% | 28.6% | |
| % of New SF sales | 0.0% | 0.0% | 14.0% | 29.8% | 21.1% | 22.8% | 12.3% | |

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

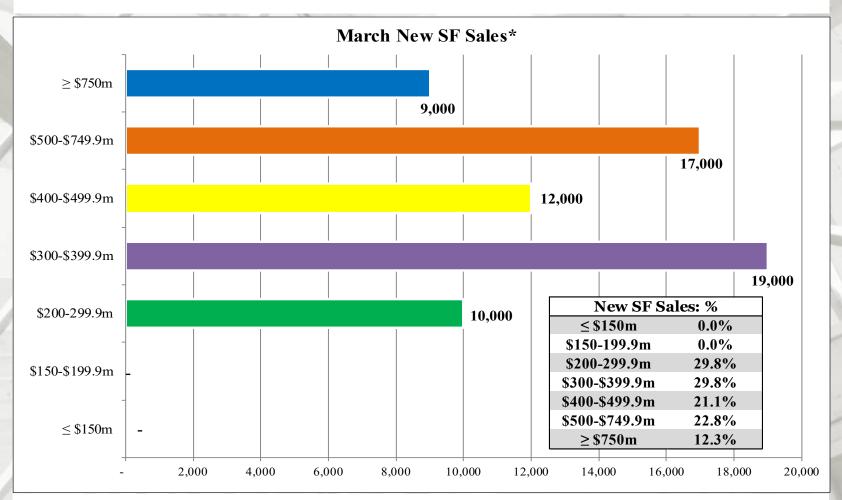
¹ All data are SAAR

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

³ Detail March not add to total because of rounding.

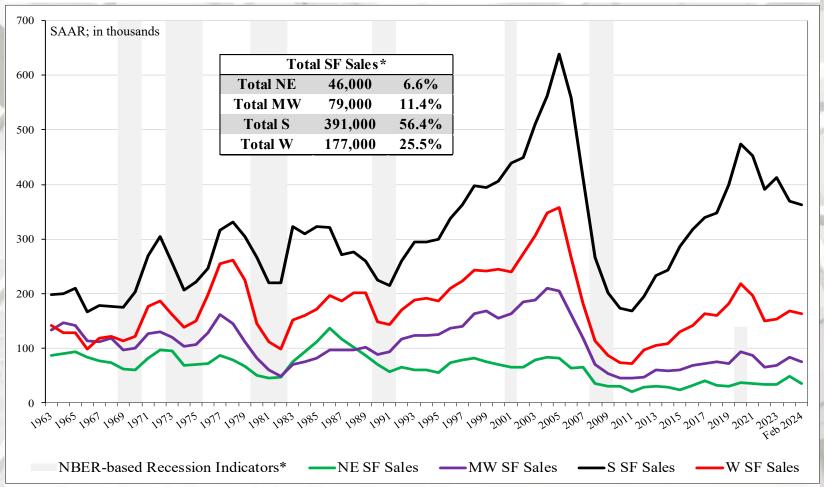
⁴ Housing prices are adjusted at irregular intervals.

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



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

New SF House Sales by Region

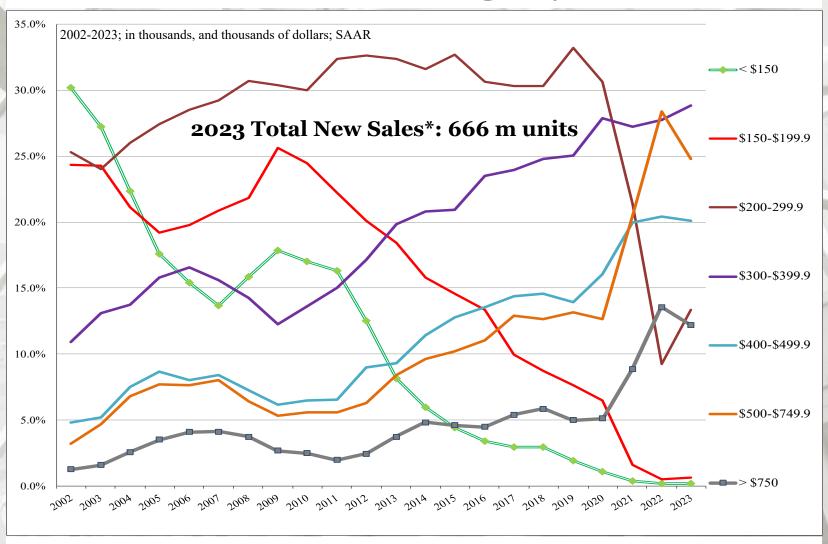


NE = Northeast; MW = Midwest; S = South; W = West

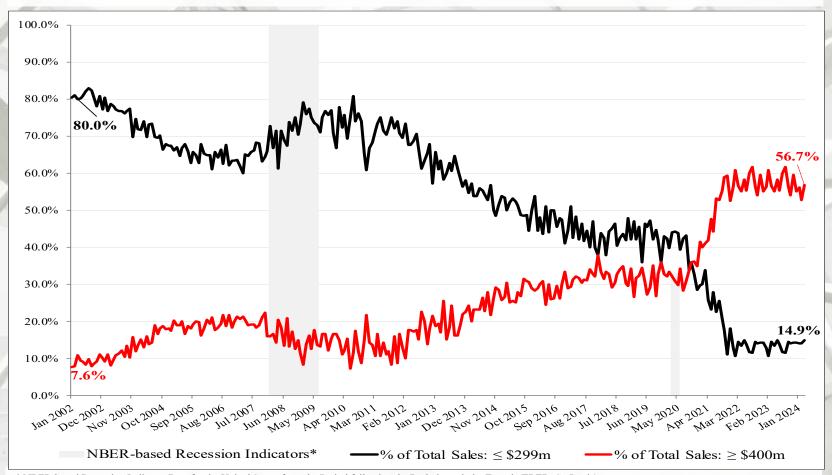
NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

^{*} Percentage of total new sales.

New SF House Sales by Price Category



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



^{*} 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 – March 2024

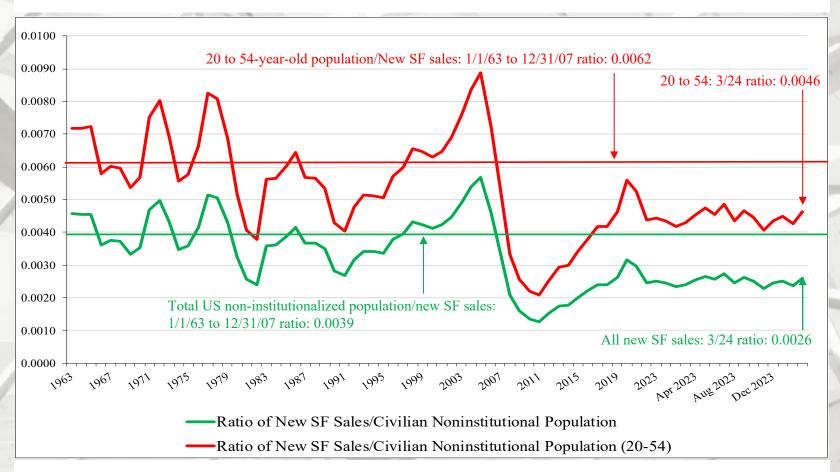
The sales share of \$400 thousand plus SF houses is presented above^{1, 2}. Since the beginning of 2012, the upper priced houses have and are garnering a greater percentage of sales. A decreasing spread indicates that more high-end luxury homes are being sold. Several reasons are offered by industry 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 Sales: ≤ \$ 200m and ≥ \$500m: 199 to March 2024

The number of \leq \$200 thousand SF houses has declined dramatically since 1999^{1, 2}. Subsequently, from 2012 onward, the \geq \$500 thousand class has soared (on a percentage basis) in contrast to the \leq \$200 thousand class. Oft mentioned reasons for this occurrence is builder net margins, affordability, and purchase of new houses for rent – single-family rentals.

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

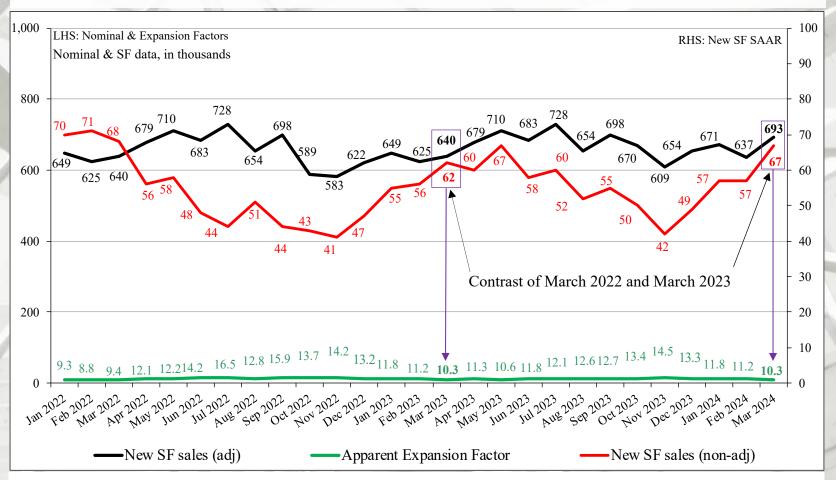


New SF sales adjusted for the US population

From March 1963 to March 2007, the long-term ratio of new house sales to the total US non-institutionalized population was 0.0039; in March 2024 it was 0.0026 – improving from February (0.0024). The non-institutionalized population, aged 20 to 54 long-term ratio is 0.0062; in March 2024 it was 0.0046 – also an increase from February (0.0046). 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.

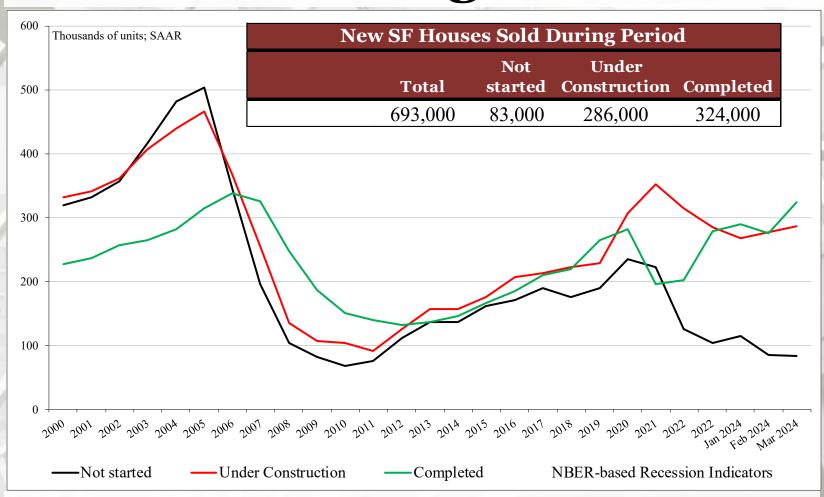
The apparent expansion factor "...is the ratio of the unadjusted number of houses sold in the US to the seasonally adjusted number of houses sold in the US (i.e., to the sum of the seasonally adjusted values for the four regions)." – U.S. DOC-Construction

New SF Houses Sold During Period

| | Total | Not started | Under Construction | Completed |
|------------------|---------|----------------|-----------------------|-----------|
| March | 693,000 | 83,000 | 286,000 | 324,000 |
| February | 637,000 | 84,000 | 277,000 | 276,000 |
| 2023 | 433,000 | 90,000 | 273,000 | 70,000 |
| M/M change | 8.8% | -1.2% | 3.2% | 17.4% |
| Y/Y change | 60.0% | -7.8% | 4.8% | 362.9% |
| Total percentage | | 12.0% | 41.3% | 46.8% |

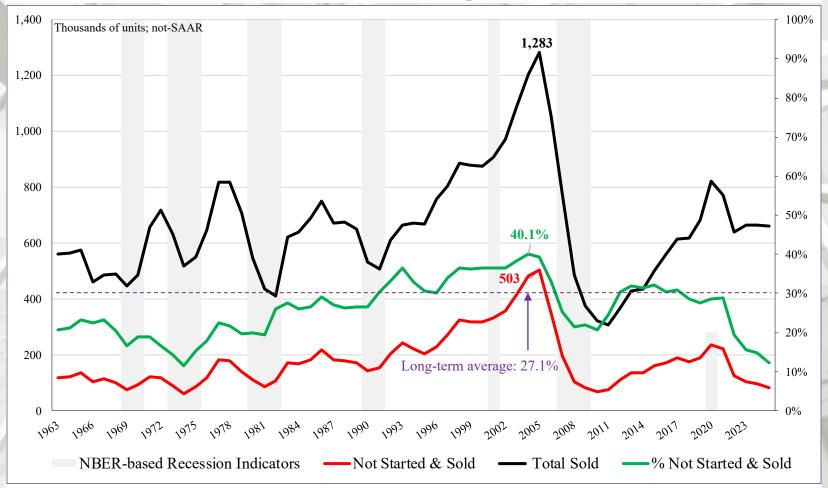
All data is SAAR

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 March (693 m), 11.9% (83 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).

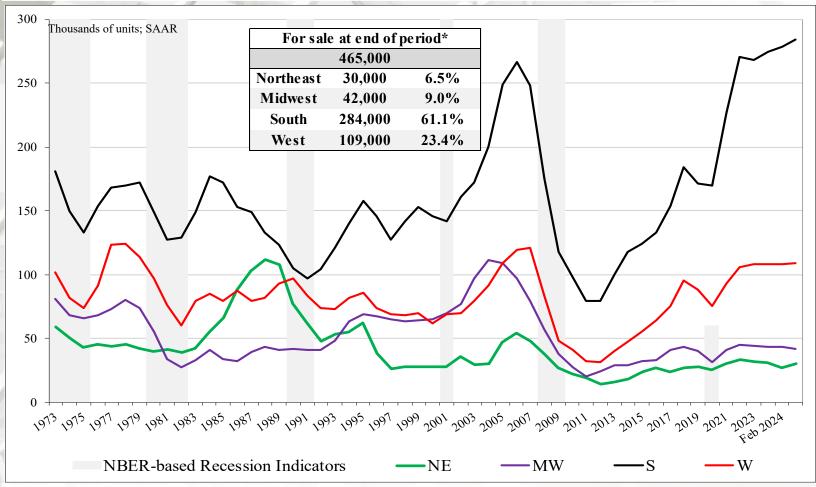
New SF Houses for Sale

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

| | Total | NE | MW | S | \mathbf{W} |
|------------|---------|--------|--------|---------|--------------|
| March | 465,000 | 30,000 | 42,000 | 284,000 | 109,000 |
| February | 457,000 | 27,000 | 43,000 | 279,000 | 108,000 |
| 2023 | 427,000 | 32,000 | 41,000 | 250,000 | 104,000 |
| M/M change | 1.8% | 11.1% | -2.3% | 1.8% | 0.9% |
| Y/Y change | 8.9% | -6.3% | 2.4% | 13.6% | 4.8% |

^{*} Not SAAR

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



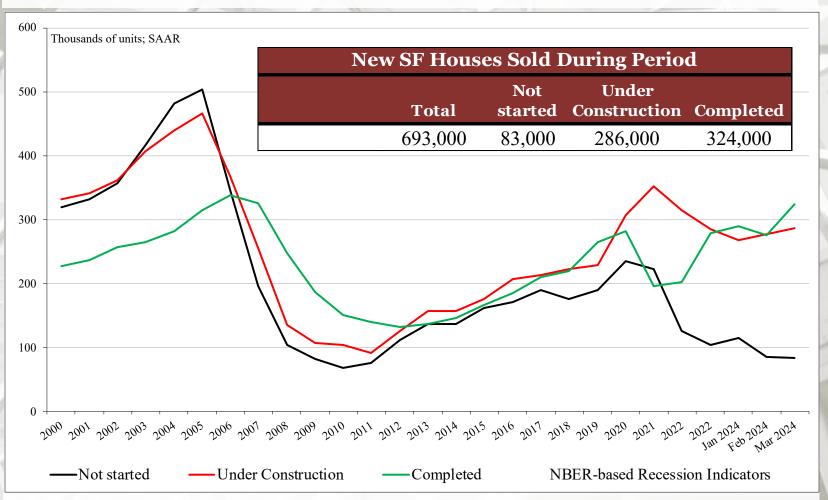
NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

* Percentage of total for sale at end of period.

New SF Houses Sold During Period

| | Total | Not started | Under Construction | Completed |
|------------------|---------|----------------|-----------------------|-----------|
| March | 693,000 | 83,000 | 286,000 | 324,000 |
| February | 637,000 | 84,000 | 277,000 | 276,000 |
| 2023 | 433,000 | 90,000 | 273,000 | 70,000 |
| M/M change | 8.8% | -1.2% | 3.2% | 17.4% |
| Y/Y change | 60.0% | -7.8% | 4.8% | 362.9% |
| Total percentage | | 12.0% | 41.3% | 46.8% |

New SF House Sales: For Sale at End of Period

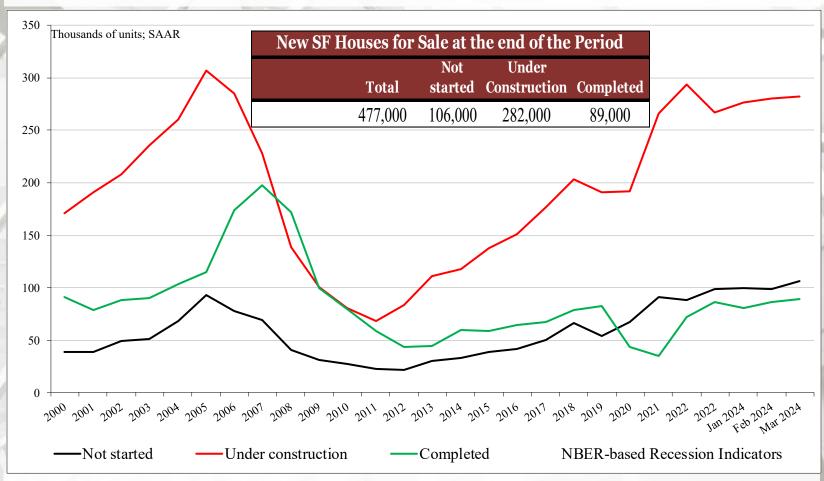


NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

New SF Houses for Sale at the end of the Period

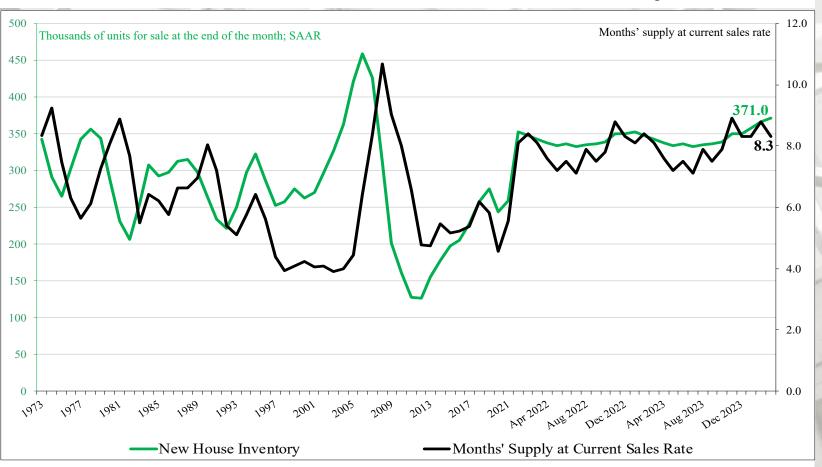
| | Total | Not started | Under Construction | Completed |
|------------------|---------|----------------|-----------------------|-----------|
| March | 477,000 | 106,000 | 282,000 | 89,000 |
| February | 465,000 | 99,000 | 280,000 | 86,000 |
| 2023 | 433,000 | 90,000 | 273,000 | 70,000 |
| M/M change | 2.6% | 7.1% | 0.7% | 3.5% |
| Y/Y change | 10.2% | 17.8% | 3.3% | 27.1% |
| Total percentage | | 22.2% | 59.1% | 18.7% |

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).

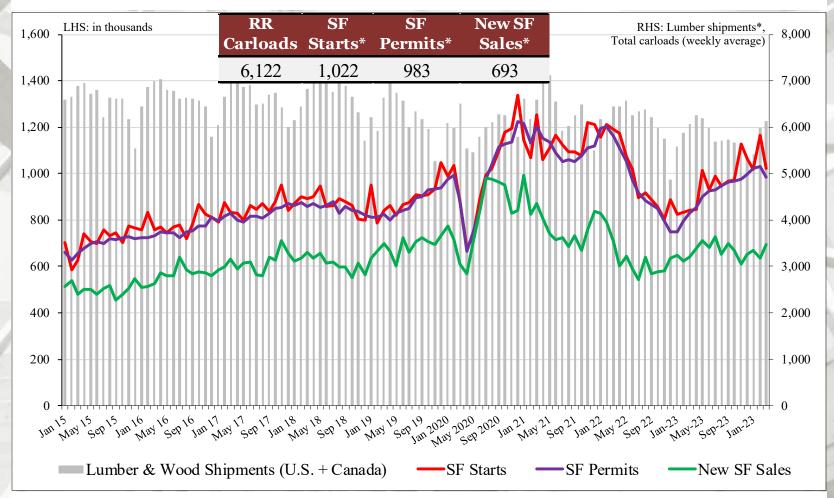
Months' Supply and New House Inventory^a



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

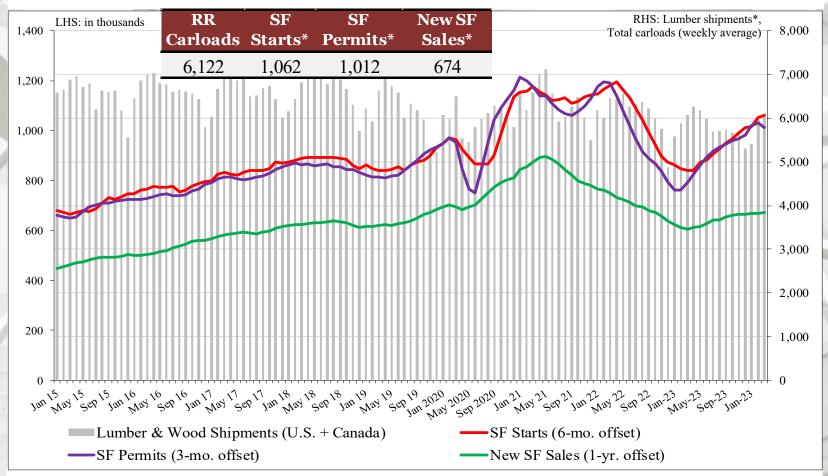
The months' supply of new houses at current sales rate at the end of March was 8.4, greater than the historically preferred number of five- to six-months (SAAR).

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



Carloads of Canadian + U.S. lumber and wood shipments to the U.S. are contrasted above to U.S. housing metrics. Annual SF starts, SF Permits, and New sales are compared to total carload lumber and wood shipments. The intent is to discern if lumber shipments relate to future SF starts, SF permits, and new SF sales. It is realized that lumber and wood products are trucked; however, to our knowledge comprehensive and timely trucking data is not available.

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



Carloads of Canadian + US lumber and wood shipments to the US are contrasted above to U.S. housing metrics. SF starts are off-set 6-months (a typical time-frame from permit issuance to actual start); Permits are off-set 3-months; and New sales are off-set 1-year. The intent is to discern if lumber shipments relate to future SF starts, SF permits, and New sales. It is realized that lumber and wood products are trucked; however, to our knowledge comprehensive and timely trucking data is not available.

^{*} In thousands.

March 2024 Construction Spending

| | Total Private Residential* | SF* | MF* | Improvement** |
|------------|-------------------------------|-----------|-----------|---------------|
| March | \$884,285 | \$436,983 | \$131,366 | \$315,936 |
| February | \$890,910 | \$437,752 | \$132,167 | \$320,991 |
| 2023 | \$846,865 | \$369,398 | \$126,961 | \$350,506 |
| M/M change | -0.7% | -0.2% | -0.6% | -1.6% |
| Y/Y change | 4.4% | 18.3% | 3.5% | -9.9% |

^{*} millions.

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

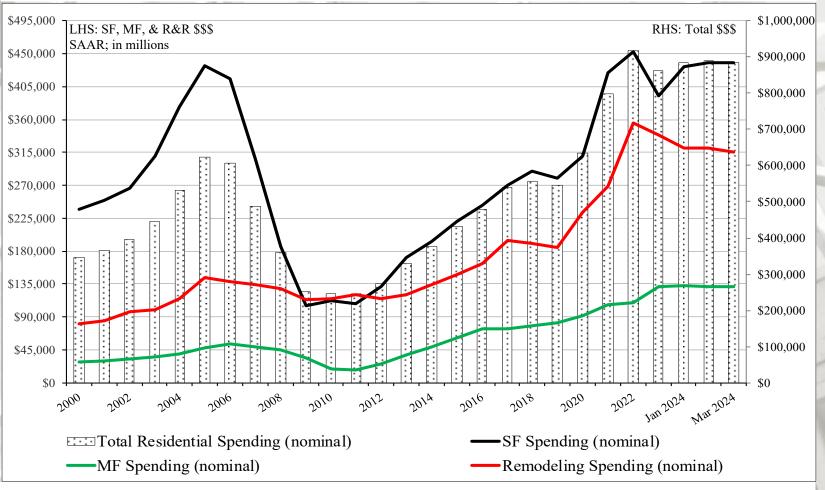
New single-family: new houses and town houses built to be sold or rented and units built by the owner or for the owner on contract. The classification excludes residential units in buildings that are primarily nonresidential. It also excludes manufactured housing and houseboats.

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\$.

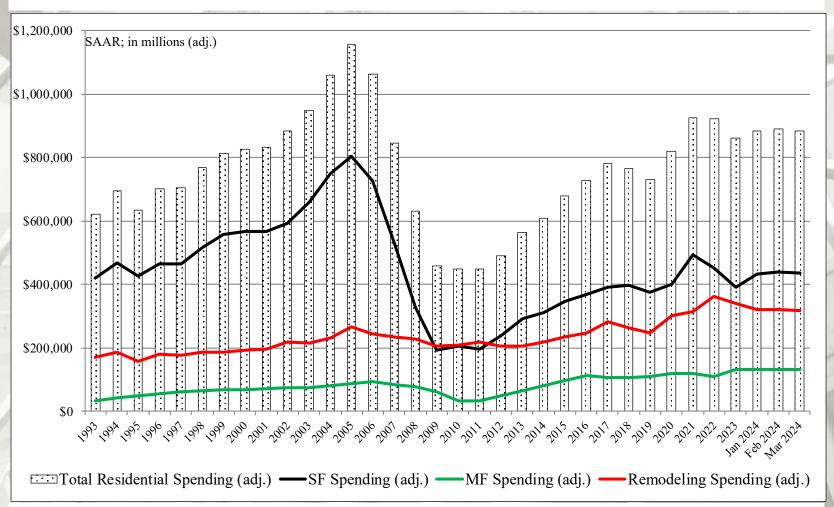
Total Construction Spending (nominal): 2000 – March 2024



Reported in nominal US\$.

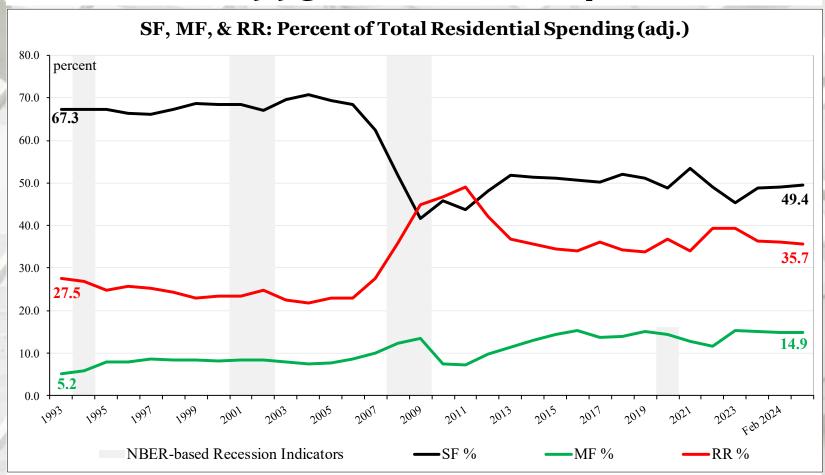
The US DOC does not report improvement spending directly, this is a monthly estimation for 2022.

Total Construction Spending (adjusted): 1993 – March 2024



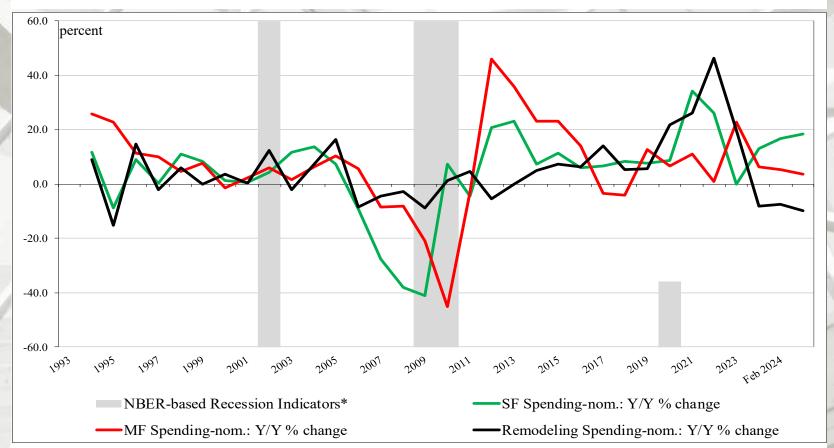
Reported in adjusted \$US: 1993 – 2021 (adjusted for inflation, BEA Table 1.1.9); March 2024 reported in nominal US\$.

Construction Spending Shares: 1993 – March 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

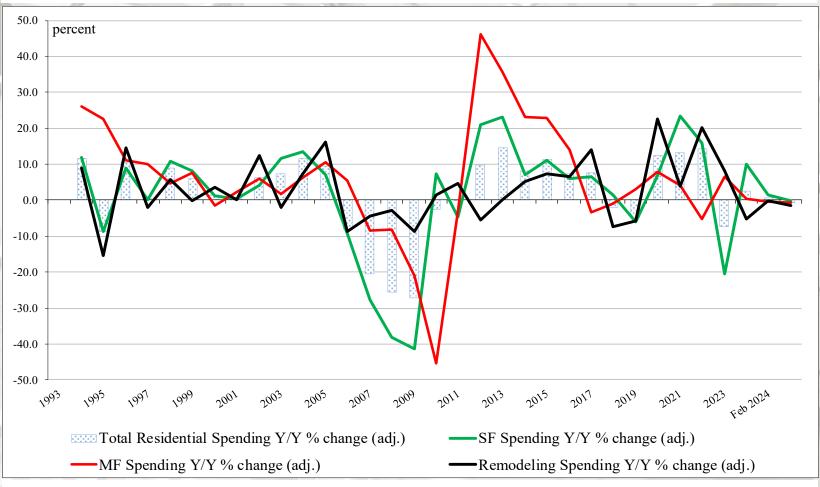


Nominal Residential Construction Spending: Y/Y percentage change, 1993 to March 2024

Presented above is the percentage change of Y/Y construction spending. MF expenditures were positive on a percentage basis, year-over-year (March 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



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

Harvard Joint Center for Housing Studies Continued Easing of Remodeling Declines Expected into 2025

"Annual expenditures for improvements and repairs to owner-occupied homes are projected to decrease this year and into the first quarter of 2025, but at a moderating rate, according to our latest <u>Leading Indicator of Remodeling Activity (LIRA)</u>. The LIRA projects that annual owner spending for home renovations and maintenance will decline by over 7 percent in the third quarter of this year before easing to just -2.6 percent through the first quarter of 2025.

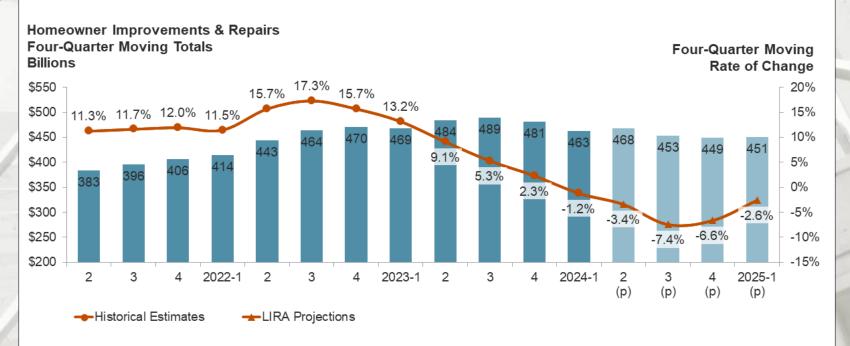
Residential remodeling is expected to benefit from the rebounding housing market and stabilizing material costs as we move into next year. While home improvement and repair spending is down from pandemic-induced highs, the nation's aging homes continue to need investment in critical replacements, home performance deficiencies, as well as modernization.

At \$451 billion, spending on home owner improvements and repairs over the coming year is anticipated to be slightly lower than the \$463 billion spent over the last year. Yet, the remodeling downturn is poised to be fairly modest and short-lived with market expenditures steadying at near-record levels." – Abbe Will, Senior Research Associate and Associate Director, Remodeling Futures; Harvard Joint Center for Housing Studies

Harvard Joint Center for Housing Studies

Continued Easing of Remodeling Declines Expected into 2025

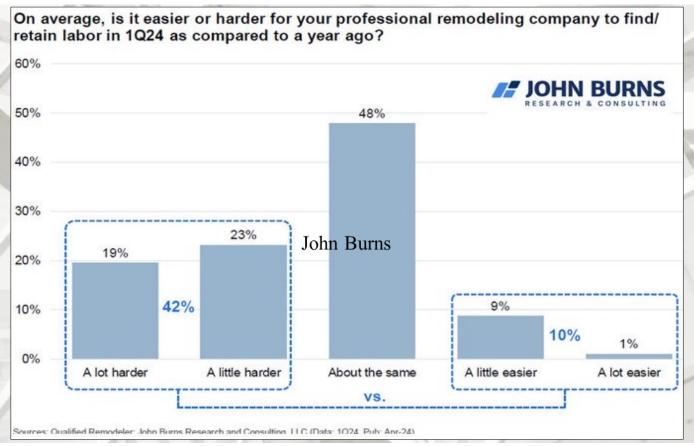
Leading Indicator of Remodeling Activity – First Quarter 2024



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

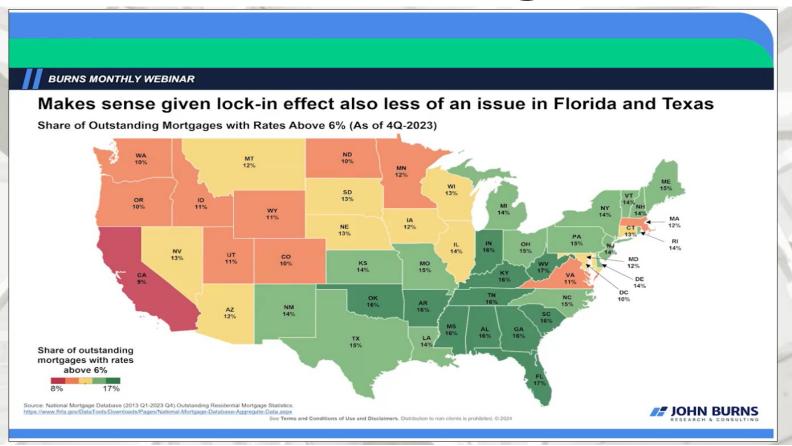
© PRESIDENT AND FELLOWS OF HARVARD COLLEGE

Joint Center for Housing Studies of Harvard University JCHS



John Burns Real Estate Consulting LLC Remodeling Employment

"What gives? Despite concluding that we most likely added 4-million more immigrants than usual the last 2-years, and concluding that housing demand is picking up because of immigration, 494 remodelers we just surveyed report that labor is getting harder to find – not easier." – John Burns, President and CEO, Remodeling Futures; John Burns Real Estate Consulting LLC

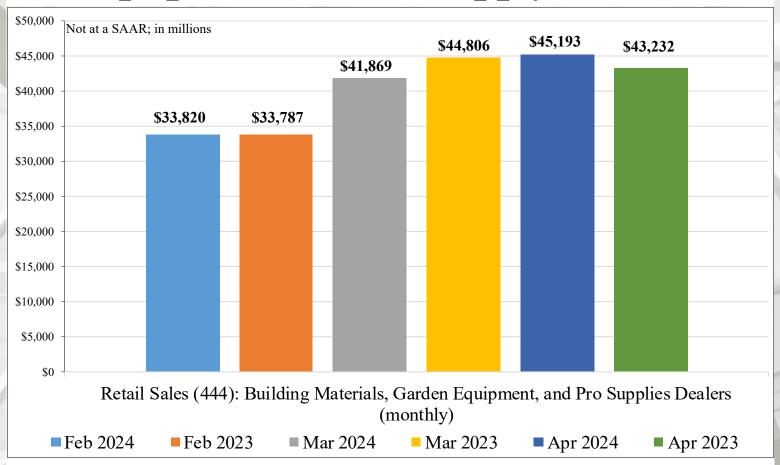


John Burns Real Estate Consulting LLC Resale Homes

"Resale homes are older, need work, and there aren't many for sale (lock-in, etc.). All of this helped home builders this cycle. The story shifts when you compare California (super old housing and very locked-in) vs. Florida and Texas (newer housing and not as locked-in)." – Rick Palacios Jr, Director of Research; John Burns Real Estate Consulting LLC

Remodeling

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

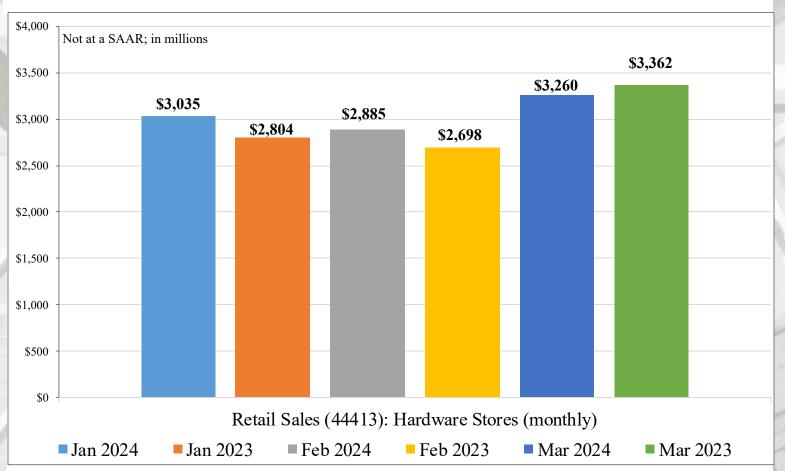


Building materials, Garden Equipment, & PRO Supply Dealers: NAICS 444

NAICS 444 sales increased 16.9% in April 2024 from April 2023 and improved 4.5% Y/Y (nominal basis).

Remodeling

Retail Sales: Hardware Stores



Hardware Stores: NAICS 44413

NAICS 44413 retail sales increased 13.0% in March 2024 from February 2024 and declined 3.0% Y/Y (nominal basis).

Existing House Sales

National Association of Realtors®

| | Existing Sales | Median Price | Month's Supply |
|------------|-------------------|-----------------|-------------------|
| March | 4,190,000 | \$393,500 | 3.2 |
| February | 4,380,000 | \$383,800 | 2.9 |
| 2023 | 4,350,000 | \$375,400 | 2.7 |
| M/M change | -4.3% | 2.5% | 10.3% |
| Y/Y change | -3.7% | 4.8% | 18.5% |

All sales data: SAAR

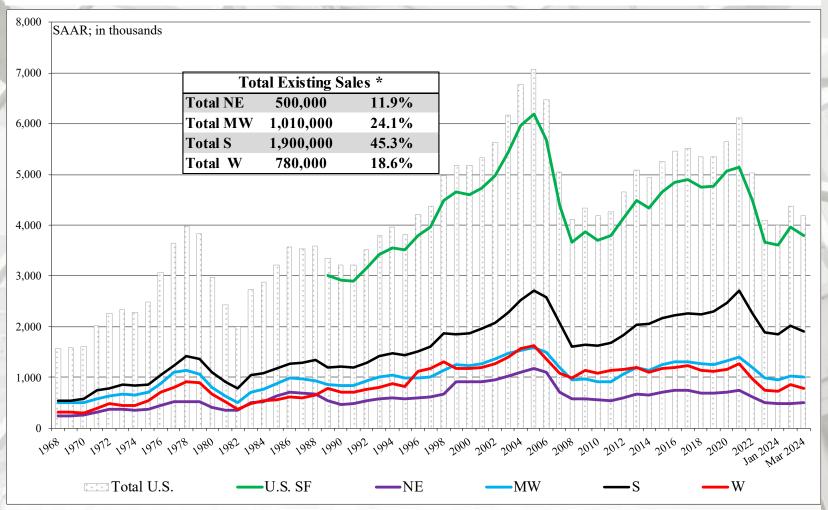
Existing House Sales

| | NE | MW | S | W |
|------------|---------|-----------|-----------|---------|
| March | 500,000 | 1,010,000 | 1,900,000 | 780,000 |
| February | 480,000 | 1,030,000 | 2,020,000 | 850,000 |
| 2023 | 520,000 | 1,020,000 | 2,000,000 | 810,000 |
| M/M change | 4.2% | -1.9% | -5.9% | -8.2% |
| Y/Y change | -3.8% | -1.0% | -5.0% | -3.7% |

| | Existing | SF Median |
|------------|-----------|-----------|
| | SF Sales | Price |
| March | 3,800,000 | \$397,200 |
| February | 3,970,000 | \$388,000 |
| 2023 | 3,910,000 | \$379,500 |
| M/M change | -4.3% | 2.5% |
| Y/Y change | -2.8% | 4.7% |

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

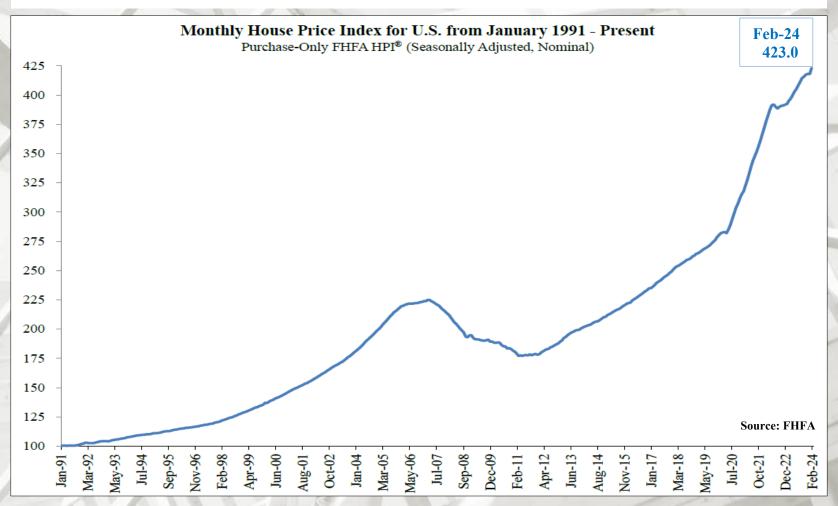
FHFA House Price Index Up 1.2 Percent in February; Up 7.0 Percent from Last Year

Significant Findings

"U.S. house prices rose in February, up **1.2 percent** from January, according to the Federal Housing Finance Agency (FHFA) seasonally adjusted monthly House Price Index (HPI®). House prices rose **7.0 percent** from February 2023 to February 2024. The previously reported 0.1 percent price decrease in January remained unchanged.

For the nine census divisions, seasonally adjusted monthly price changes from January 2024 to February 2024 ranged from +0.4 percent in the West South Central division to +3.0 percent in the New England division. The 12-month changes were all positive, ranging from +3.7 percent in the West South Central division to +10.8 percent in the Middle Atlantic division." – Adam Russell, FHFA

"U.S. house prices rebounded with an increase in February, after declining slightly in January. All nine census divisions experienced price appreciation over the last 12 months, with New England and Middle Atlantic divisions posting double digit growth." – Dr. Nataliya Polkovnichenko, Supervisory Economist, Division of Research and Statistics, FHFA



S&P CoreLogic Case-Shiller Index Continues to Trend Upward in January 2024

"S&P Dow Jones Indices (S&P DJI) released the February 2024 results for the S&P CoreLogic Case-Shiller Indices. The leading measure of U.S. home prices shows that 18 out of the 20 major metro markets reported month-over-month price increases. 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/spcorelogic-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 6.4% annual gain for February, up from a 6.0% rise in the previous month. The 10-City Composite showed an increase of 8.0%, up from a 7.4% increase in the previous month. The 20-City Composite posted a year-over-year increase of 7.3%, up from a 6.6% increase in the previous month. San Diego continued to report the highest year-over-year gain among the 20 cities with an 11.4% increase in February, followed by Chicago and Detroit, with increases of 8.9%. Portland, while still holding the lowest rank after reporting two consecutive months of the smallest year-over-year growth, had a significant annual increase of 2.2% in February.

Month-Over-Month

The U.S. National Index the 20-City Composite, and the 10-City Composite all rose for the first time since October 2023, showing pre-seasonality adjustment increases of 0.6%, 0.9% and 1.0%, respectively. After seasonal adjustment, the U.S. National Index posted a month-over-month increase of 0.4%, while the 20-City and the 10-City Composite both reported month-over-month increases of 0.6%." – Brian D. Luke, Head of Commodities, Real & Digital Assets, S&P DJI

S&P CoreLogic Case-Shiller Index Analysis

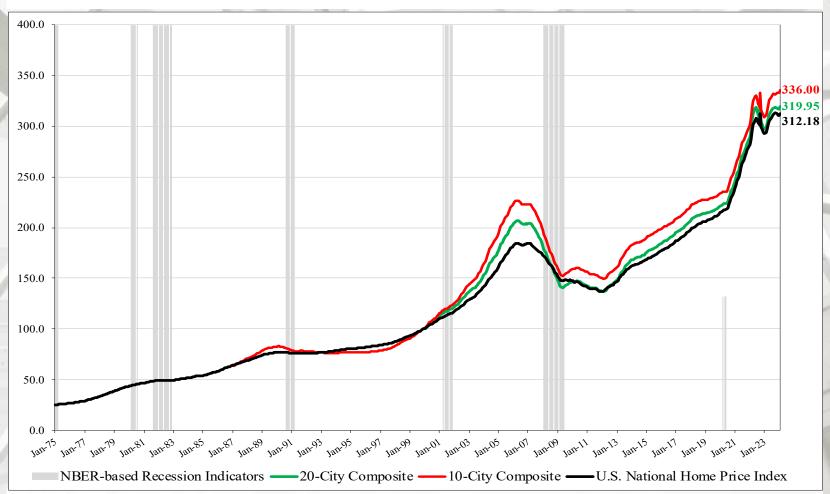
"Following last year's decline, U.S. home prices are at or near all-time highs. Our National Composite rose by 6.4% in February, the fastest annual rate since November 2022. Our 10- and 20-City Composite indices are currently at all-time highs. For the third consecutive month, all cities reported increases in annual prices, with four currently at all-time highs: San Diego, Los Angeles, Washington, D.C., and New York. On a seasonal adjusted basis, our National, 10- and 20- City Composite indices continue to break through previous all-time highs set last year.

Since the previous peak in prices in 2022, this marks the second time home prices have pushed higher in the face of economic uncertainty. The first decline followed the start of the Federal Reserve's hiking cycle. The second decline followed the peak in average mortgage rates last October. Enthusiasm for potential Fed cuts and lower mortgage rates appears to have supported buyer behavior, driving the 10- and 20- City Composites to new highs.

The Northeast region, which includes Boston, New York, and Washington, D.C., ranks as the best performing market for over the last half year. As remote work benefitted smaller (and sunnier markets) in the first part of the decade, return to office may be contributing to outperformance in larger metropolitan markets in the Northeast. San Diego has been the best performing market following the trough in home prices observed in early 2023. With Los Angeles rising for 13 consecutive months to record another new high, Southern California has outperformed its surrounding neighbors. San Francisco has dropped 12% since its peak, while Phoenix and Las Vegas have dropped 6% and 4.5%, respectively.

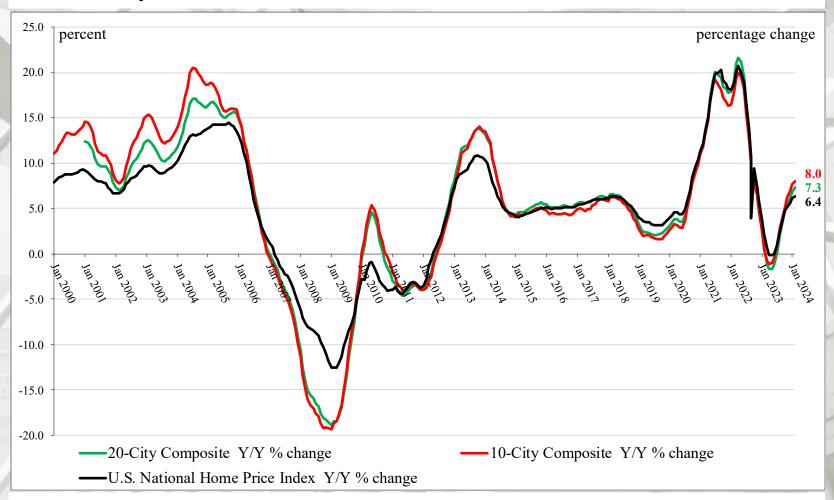
With all markets increasing on an annual basis, similar performance was observed in the monthly return data. Eighteen markets experienced uplift in February. Tampa experienced a decline of 0.3% while Seattle has the largest monthly gain of 2.3%." – Brian D. Luke, Head of Commodities, Real & Digital Assets, 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 February 2023 to February 2024, the National Index indicated a 6.4% increase; the Ten-City improved by 8.0%, and the Twenty-City increased by 7.3%.

ResiClub

Strained affordability leads home builders to go smaller — just look at what Lennar is building north of Dallas

One way that Lennar, a publicly traded home builder ranked No. 119 on the Fortune 500 list, is trying to unlock housing demand is by building smaller homes.

"In March, <u>Lennar co-CEO Stuart Miller</u> informed investors during <u>their earnings call</u> that there is ample demand for single-family new construction, provided it is offered at the right price point.

"The general theme remains primarily focused around very strong demand for housing, limited by the chronic housing shortage that is particularly problematic for working-class families and their ability to find affordable or attainable supply. Demand for that product remains robust if it can be built at an attainable price point," Miller told investors.

One way that Lennar, a publicly traded home builder ranked No. 119 on the Fortune 500 list, is trying to unlock that housing demand is by building smaller homes. In pockets of Texas, they're testing products to gauge just how small single-family buyers might be interested in going.

Jon Greany, managing partner at North Star Property Solutions, shared with <u>ResiClub</u> some images he captured of smaller homes being constructed by Lennar, located 43 miles north of downtown Dallas in a new community called <u>Force Ranch</u>." – Lance Lambert, Author, ResiClub



Source: https://www.resiclubanalytics.com/p/strained-affordability-leads-homebuilders-go-smallerjust-look-lennar-building-north-dallas; 5/1/24

Return TOC

ResiClub

Strained affordability leads home builders to go smaller — just look at what Lennar is building north of Dallas

"The home, which Lennar calls its *Rincon model*, features 3 bedrooms, 2.5 baths, and spans 1,376 square feet. Lennar doesn't currently list prices for the community, however, Greany believes it's priced around \$250,000 to \$299,000.

"For an entry level buyer or someone downsizing into something lower maintenance it makes a lot of sense right now," *Greany tweeted on Wednesday*.

In terms of small builds, this one isn't that small compared to <u>Lennar's Elm Trails community in San Antonio, TX</u>. In that community, there were single-family homes at 661 square feet listed for \$159,999.

And isn't just Lennar.

Last month, D.R. Horton CFO Bill Wheat told investors on <u>their earnings call</u> that: "we have reduced the prices and sizes of our homes where necessary."

According to <u>Parcl Labs</u>, the median square footage for new construction fell from 2,098 in 2022 to 2,036 in 2023. That 3% year-over-year decline marks <u>the biggest single-year dip over the past</u> 10 years." – Lance Lambert, Author, ResiClub

Parcl Labs: New single-family homes continue to get smaller

In 2023, the median square footage of existing single-family home sales was 1,607 square feet. For new construction, that number was 2,036 square feet

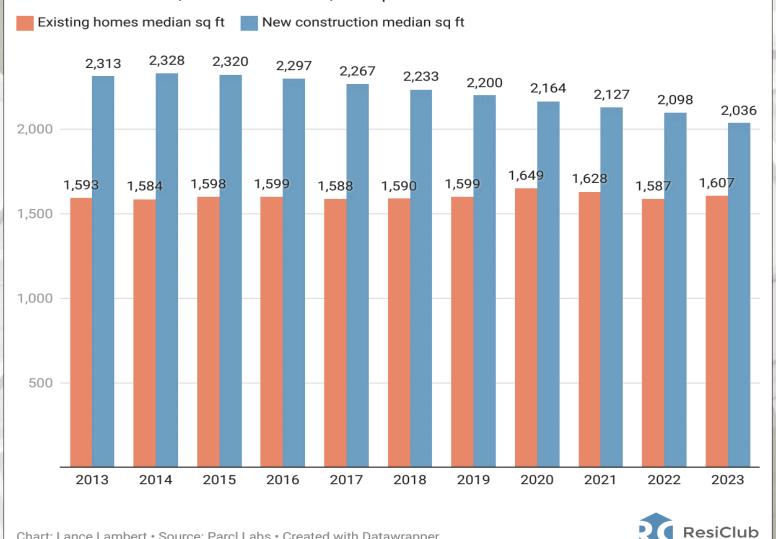


Chart: Lance Lambert • Source: Parcl Labs • Created with Datawrapper

Bankrate

Buy or rent? Study shows renting is more affordable in the 50 largest metros

"For those weighing whether they should rent or <u>buy a home</u> right now, all signs point to renting as the more cost-effective option in most major U.S. cities, according to a new Bankrate analysis.

Nationwide, the typical home costs nearly 37 percent more to buy than to rent on a monthly basis. Rent increases have softened across the U.S. over the last year, and the combination of high home prices, elevated <u>mortgage rates</u> and low housing inventory creates a strong headwind for aspiring home owners.

That doesn't negate the fact that most Americans still do want to own a home. Nearly 4 in 5 Americans (78 percent) say owning a home is part of the American Dream, according to <u>Bankrate's Home Affordability Report</u>. But the factors holding non-home owners back from buying a home revolve around affordability, with the most common responses in the report being lack of income (56 percent), home prices being too high (47 percent) and not being able to afford a down payment and closing costs (42 percent).

To get a snapshot of the monthly cost differences between buying and renting, Bankrate analyzed typical monthly mortgage payments and typical monthly rents for all homes in the 50 largest U.S. metros as of February 2024." – Alex Gailey, Lead Data Reporter, Bankrate.com

Bankrate

Buy or rent? Study shows renting is more affordable in the 50 largest metros

Key insights from Bankrate's Rent vs. Buy Study

- "It's cheaper to rent than to buy in all of the top 50 metros. The typical monthly mortgage payment of a median-priced home (\$412,778, per Redfin) in the U.S. is \$2,703, while the national typical monthly rent is \$1,979 as of February a 36.6 percent difference.
- The five U.S. metros with the smallest cost differences between renting and buying are: Detroit-Warren-Dearborn, MI (2%); Pittsburgh, PA (5.2%); Philadelphia-Camden-Wilmington, PA-NJ-DE-MD (8.7%); Cleveland-Elyria, OH (11.6%); and Buffalo-Cheektowaga, NY (20.2%).
- The five U.S. metros with the widest cost differences between renting and buying are: San Francisco-Oakland-Berkeley, CA (180.7%); San Jose-Sunnyvale-Santa Clara, CA (162.3%); Seattle-Tacoma-Bellevue, WA (125%); Salt Lake City, UT (89%); and Austin-Round Rock-Georgetown, TX (86.5%).
- In 21 U.S. metros, the monthly cost of owning is at least 50 percent more expensive than the monthly cost of renting.

It's cheaper to rent than to buy in all major U.S. cities

Housing is generally expensive across the board right now whether you rent or own, but the current housing market is tipping in favor of renting. According to Bankrate's analysis of Redfin and Zillow housing data, it's cheaper to rent than to buy a typical home in all 50 of the largest U.S. metros. In 21 U.S. metros, the typical monthly cost of owning is at least 50 percent more expensive than the typical monthly cost of renting." – Alex Gailey, Lead Data Reporter, Bankrate.com

Bankrate

Buy or rent? Study shows renting is more affordable in the 50 largest metros

"Nationally, the typical monthly cost of owning is nearly 37 percent higher than the typical monthly cost of renting. The typical monthly mortgage payment of a median-priced home (\$412,778, per Redfin) in the U.S. is \$2,703 as of February, while nationwide typical rent landed at \$1,979 in February.

The fact that it's cheaper to rent in all 50 metros is a reflection of broader housing market trends that are playing out.

Home prices are soaring, and while <u>interest rates for mortgages</u> are down from their 2023 peaks, they're still relatively high. The national average for 30-year mortgages was 7.33 percent as of April 17, a 3 percentage point leap from March 2022, according to <u>Bankrate's survey of large lenders</u>. The reason home prices remain elevated is in part due to a supply shortage of homes for sale. Olsen says the monthly mortgage cost on a typical home bought today is more than double that of one bought in 2019.

At the same time, renting isn't necessarily affordable either. Zillow data shows asking rents, or what someone in the market for a rental would expect to pay today, for all rentals are up from yearago levels in 47 of the 50 largest metro areas, though they aren't climbing as quickly as they were during the COVID-19 pandemic. Asking rents have soared since the beginning of the pandemic, growing nearly 30 percent between early 2020 and February 2024, according to Zillow's Observed Rent Index (ZORI)." – Alex Gailey, Lead Data Reporter, Bankrate.com

Bankrate

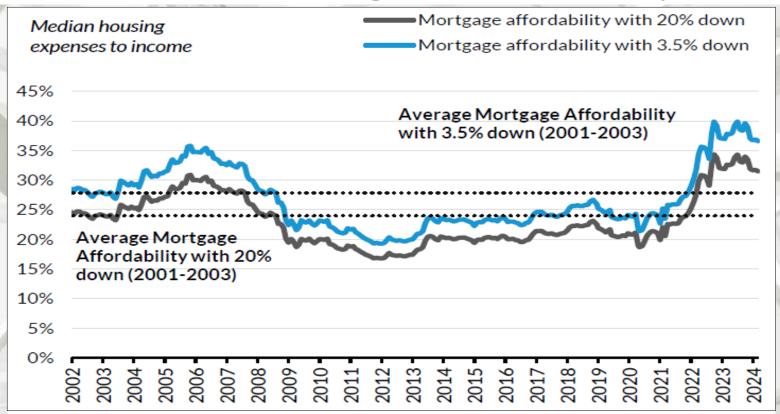
Buy or rent? Study shows renting is more affordable in the 50 largest metros

"Rents surged in 2021 and 2022 after pent-up demand for housing exploded with easing COVID-19 restrictions. Landlords hiked up prices as many young Americans moved out on their own for job opportunities and people flooded back into midsize and large metropolitan areas. What were some of the more affordable places in the country – specifically in the Southwest and Sun Belt, including Austin, Texas, and Cape Coral, Florida – quickly have become much less affordable in recent years, given demand.

"The long-term trend is that people seem to like the Sun Belt, probably because it's sunny down there," says Daryl Fairweather, chief economist of Redfin. "Those places have become more expensive since the pandemic because of how many people are moving in there."

Housing costs are also heavily influenced by where you live in the U.S. In high-cost, coastal metros, such as San Francisco or Seattle, renting is generally much more affordable. In Seattle, for example, a typical home costs roughly 125 percent more to own than to rent on a monthly basis. Bankrate's analysis also found renting is more affordable in the short run in metros with lower living costs, such as Detroit or Pittsburgh, but the differences between renting and buying costs are much smaller, making it financially easier to switch from renter to homeowner status. In Detroit, for example, a typical home costs only 2 percent more to own than to rent on a monthly basis. ..."

– Alex Gailey, Lead Data Reporter, Bankrate.com



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

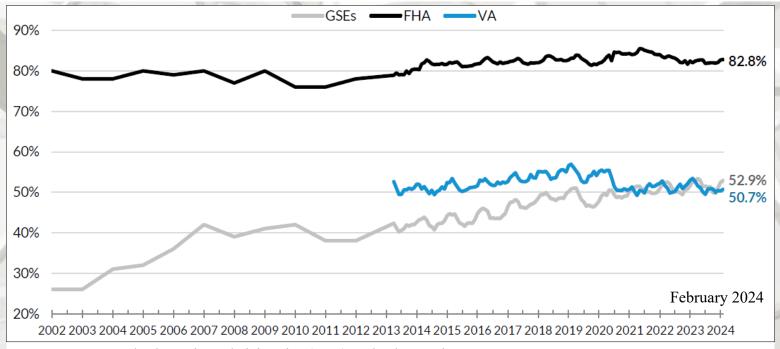
Note: All series measure the first-time home buyer share of purchase loans for principal residences.

Urban Institute

National Mortgage Affordability Over Time

"Amid higher mortgage rates, mortgage affordability has improved but remains close to the worst level since the inception of this series in 2002. As of March 2024, with a 20 percent down payment, the share of median income needed for the monthly mortgage payment stood at 31.5 percent, higher than the 30.9 percent at the peak of the housing bubble in November 2005; and with 3.5 percent down the housing cost burden is 36.6 percent, also above the 35.8 percent prior peak in November 2005...." – Laurie Goodman et. al, Vice President, Urban Institute

U.S. First-Time House Buyers



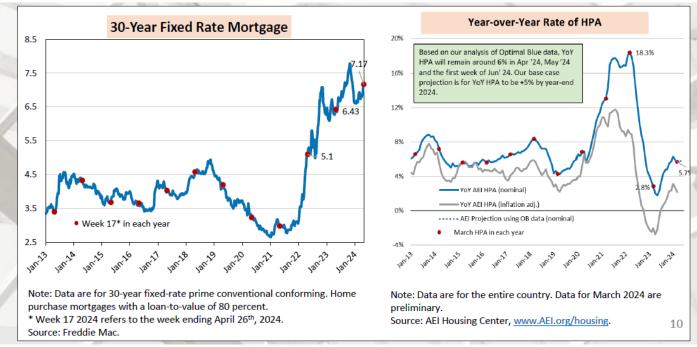
Sources: eMBS, Federal Housing Administration (FHA), and Urban Institute.

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

Urban Institute

First-time House Buyer Share

"In February 2024, the first-time homebuyer (FTHB) share for FHA, which has always been more focused on first time home buyers, was 82.8 percent. The FTHB share of GSE lending in February was 52.9 percent; the VA share was 50.7 percent. ..." – Laurie Goodman *et. al*, Vice President, Urban Institute

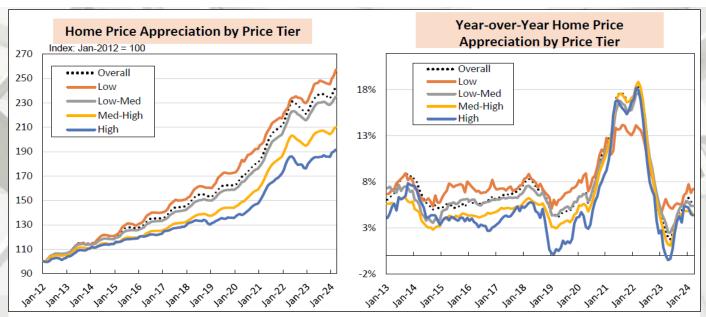


AEI Housing Center

March 2024's preliminary YoY HPA was 5.7%, down from 5.9% a month ago while up from 2.8% a year ago.

- "March 2024's MoM HPA was 1.2 %. As our projection on the following slide indicates, HPA is expected to be around 5% by Dec. 2024.
- Despite subdued purchase activity and relatively high rates, YoY HPA remains strong, largely due to buyers being well qualified and continued competition due to a strong sellers' market.
- Continued low unemployment rates, low levels of foreclosures in most areas, work from home, and ongoing home price arbitrage opportunities further support HPA gains that outpace inflation.
- 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 March 2024 are preliminary.

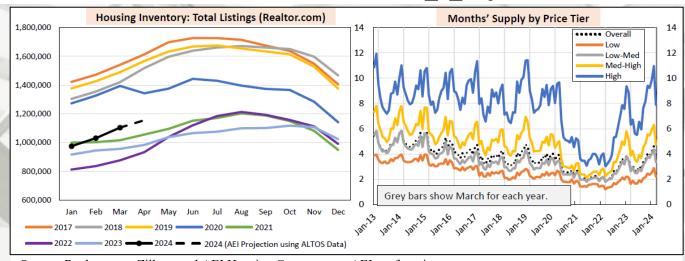
Source: AEI Housing Center, www.AEI.org/housing

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 March 2024 indicate that the low price tier leads the YoY change in tier home prices at 7.3 % due to low months' supply 2.2 months), low unemployment and increasing demand promoted by agency credit easing (right panel).
- Being more dependent on the Fed's monetary punchbowl, the med high and high price tiers have had the largest slowdowns in YoY HPA. However, this deceleration has ended as of May 2023.
- As of March 2024, all price tiers have shown relatively robust YoY HPA from the slowest at 4.4% (high) to the highest of 7.3% (low)." Edward Pinto, Senior Fellow and Director and Tobias Peter, Research Fellow and Assistant Director, AEI Housing Center

Housing Inventory and Months' Supply



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

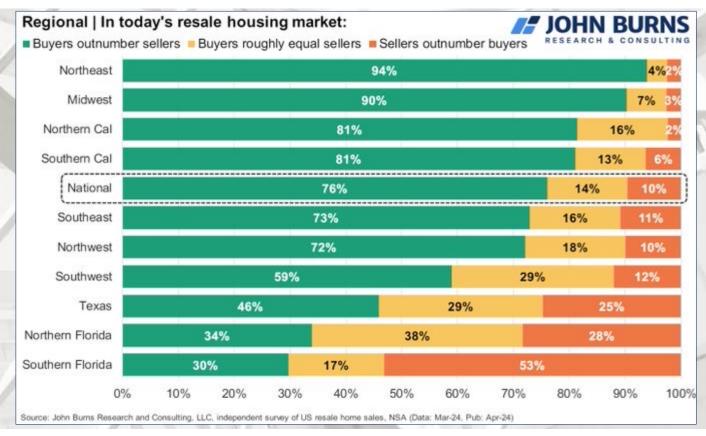
AEI Housing Center

"Months' remaining supply was 3.6 months (not seasonally-adjusted) in March 2024. Housing inventory continued to run below pre-pandemic levels, which helps explain the robust YoY HPA.

- March 2024 housing inventory was up 7% and 15% from February 2024 and March 2023, respectively. Inventory today is at about 70% of 2017 2019 levels, indicating an unhealthy market (left panel).
- However, the month over month growth in March 2024 shows positive signs. Altos weekly listings data suggest that housing inventory is expected to continue rising in April.
- Months' supply stood at 3.6 months in March 2024, down from 4.6 months in February 2024, while up from 2.8 months in March 2023, and 3.5 months in March 2020, the last comparable pre pandemic month (right panel). This indicates a continuing strong seller's market.
- Notwithstanding rates around 7%, the supply demand imbalance evidenced by continued tight months' supply will fuel continued upward price pressures (left panel).
- Given historical data, months' supply would need to increase to > 7 months to enter a buyer's market and to 8-9 months to trigger a national YoY decline in home price appreciation." Edward Pinto, Senior Fellow and Director and Tobias Peter, Research Fellow and Assistant Director, AEI Housing

Return TOC

U.S. Housing



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

"76% of real estate agents say buyers outnumber sellers nationally, per our survey. Limited new home construction doesn't add enough supply to meet buyer demand." – Alex Shaban, Research Analyst, John Burns Research & Consulting LLC

Mortgage Bankers Association (MBA) Climate, Sustainability Issues, and Real Estate Finance

"With Earth Day this past week, it seems an opportune time to discuss the intersection of climate/sustainability issues and real estate finance. MBA has been leading on these issues for more than half a decade, helping members through our work related to research, policy, and practice.

There are two central issues related to climate change and real estate finance: a) how a changing climate is affecting real estate and b) how real estate is affecting the climate.

Regarding how the changing climate is affecting real estate, MBA and its Research Institute for Housing America (RIHA) have been providing industry-leading research on the topic. RIHA has published papers including The Impact of Climate Change on Housing and Housing Finance, A Collection of Essays on Climate Risk and the Housing Market: Volume I, and A Collection of Essays on Climate Risk and the Housing Market: Volume 2. MBA's Research & Economics team contributed its own Who Owns Climate Risk in the U.S. Real Estate Market?

A key takeaway from all these reports is that the current system does a remarkably effective job of assessing, mitigating, and pricing physical climate risk (relying heavily on insurance markets to do so) but that the short-term insurance policies used to address long-term trends mean that transition risks pose a unique challenge. Increasingly, we are also hearing and seeing that new reporting and efficiency standards, particularly at the local level, as well as <u>financial regulatory requirements</u>, have the potential to raise new transition risks that could significantly impact property operations, values, and viability." — Mike Fratantoni, Chief Economist, Senior Vice President of Research and Industry Technology, Eddie Seiler, Associate Vice President for Housing Economics, and Jamie Woodwel, Vice President — Research and Economics Group; MBA

Mortgage Bankers Association (MBA) Climate, Sustainability Issues, and Real Estate Finance

"A key takeaway from all these reports is that the current system does a remarkably effective job of assessing, mitigating, and pricing physical climate risk (relying heavily on insurance markets to do so) but that the short-term insurance policies used to address long-term trends mean that transition risks pose a unique challenge. Increasingly, we are also hearing and seeing that new reporting and efficiency standards, particularly at the local level, as well as <u>financial regulatory requirements</u>, have the potential to raise new transition risks that could significantly impact property operations, values, and viability.

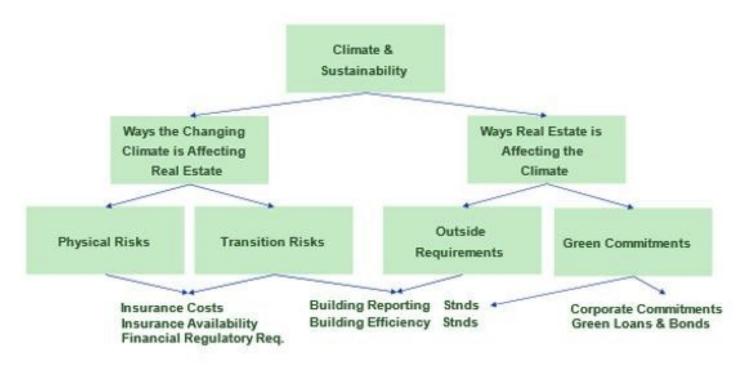
On how real estate is affecting the climate, given that we spend most of our waking (and sleeping) hours in real estate, it is not surprising that much of the greenhouse gas (GHG) emissions related to our energy use funnel through real estate; not just heating and cooling but also lighting, cooking, computer use, car charging, and more. Efforts to reduce those emissions come in two forms: a) green commitments and b) outside requirements.

Many actors in this space have made corporate commitments to reduce emissions – whether Scope 1, 2, or 3. There is a range of standards available for property owners and others to measure their activities. In August 2022, MISMO, the real estate finance industry's standards-setting body, released a <u>Green Borrower Questionnaire</u> developed by a group of commercial real estate lenders who agreed to use a common set of questions to ask their borrowers about their Green bona fides.

But much of that early focus on green commitments has now been overshadowed by a focus on managing changing outside requirements from regulators and others, which has become a transition risk of its own. Proposals from the SEC and California have focused on reporting GHG emissions, while laws like Local Law 97 in New York have imposed local building efficiency standards. The impact these requirements will have on lenders is just beginning to be understood." – Mike Fratantoni, Chief Economist, Senior Vice President of Research and Industry Technology, Eddie Seiler, Associate Vice President for Housing Economics, and Jamie Woodwel, Vice President – Research and Economics Group; MBA

Mortgage Bankers Association (MBA)
Climate, Sustainability Issues, and Real Estate Finance

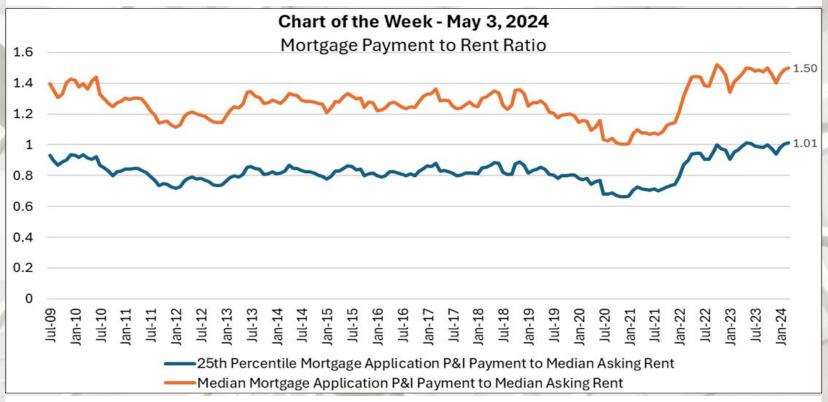
Chart of the Week – April 26, 2024 Climate, Sustainability, and Real Estate Finance



Source: Mortgage Bankers Association

Mortgage Bankers Association (MBA)

Mortgage Payment to Rent Ratio



"Last week, MBA released its March Purchase Applications Payment Index (PAPI) data which revealed that home buyer affordability took another hit in March with the typical home buyer's monthly payment eclipsing \$2,200 for the first time in the series. Median principal and interest (P&I) payments were 5.2% higher than in March 2023, and despite relatively strong usual weekly earnings growth of 3.5%, the median PAPI index (that controls for income growth) was up 1.6% year-on-year – further reducing the purchasing power of potential home buyers. This week's MBA Weekly Mortgage Applications Survey (WAS) data also revealed that interest rates hit a 5-month high at 7.29% and as home prices continue to climb, relief may be delayed until later in the year." – Eddie Seiler, Associate Vice President for Housing Economics; MBA

Mortgage Bankers Association (MBA) Mortgage Payment to Rent Ratio

"While home buyer affordability is challenging, increases in rents have slowed. According to U.S. Census Bureau Housing Vacancy Survey (HVS) data, median asking rents increased from \$1,465 in the fourth quarter of 2023 to \$1,469 in the first quarter of 2024. Indeed, HVS nominal median asking rents are up only 0.5% from the first quarter of 2023.

This week's MBA Chart of the Week examines the mortgage payment to rent ratio (MPRR) using WAS mortgage and HVS rent data. The orange line relates the median principal and interest payment to the median asking rent, and the blue line relates the 25th percentile mortgage application payment to the median asking rent (that may be a more suitable ratio for first-time home buyers).

The median P&I to median asking rent ratio was 1.50 in March, towards the upper end of the band since mortgage rates doubled in 2022. In the seven years prior to the pandemic, the orange series moved around 1.27. In other words, despite reported rent increases during the pandemic, the doubling in mortgage rates and continued house price appreciation kept typical mortgage payments relatively more expensive. Moreover, at the 25th percentile for monthly mortgage payments, the ratio is above 1.00, compared to an average of 0.83 in the seven years before the pandemic.

Given recent economic data, the Fed appears to be in no hurry to change its stance on monetary policy. Our latest forecast expects mortgage rates to decline to 6.4% this year – neither as far nor as fast as we previously had predicted. Meanwhile, with multifamily completions expected to remain high, which would ease rents further, it is plausible that the mortgage payment to rent ratio may further increase going forward." – Eddie Seiler, Associate Vice President for Housing Economics; MBA

U.S. Real Estate Finance

BOARD OF GOVERNORS of the FEDERAL RESERVE SYSTEM Senior Loan Officer Opinion Survey on Bank Lending Practices

"The April 2024 Senior Loan Officer Opinion Survey on Bank Lending Practices (SLOOS) addressed changes in the standards and terms on, and demand for, bank loans to businesses and households over the past three months, which generally correspond to the first quarter of 2024.

Regarding loans to businesses, survey respondents reported, on balance, tighter standards and weaker demand for commercial and industrial (C&I) loans to firms of all sizes over the first quarter. Meanwhile, banks reported tighter standards and weaker demand for all commercial real estate (CRE) loan categories.

Banks also responded to a set of special questions about changes in lending policies and demand for CRE loans over the past year. For all CRE loan categories, banks reported having tightened all queried lending policies, including the spread of loan rates over the cost of funds, maximum loan sizes, loan-to-value ratios, debt service coverage ratios, and interest-only payment periods.

For loans to households, banks reported that lending standards tightened across some categories of residential real estate (RRE) loans while remaining unchanged for others on balance. Meanwhile, demand weakened for all RRE loan categories. In addition, banks reported tighter standards and weaker demand for home equity lines of credit (HELOCs). Moreover, for credit card, auto, and other consumer loans, standards reportedly tightened and demand weakened.

While banks, on balance, reported having tightened lending standards further for most loan categories in the first quarter, lower net shares of banks reported tightening lending standards than in the fourth quarter of last year across most loan categories. ..." – Solveig Baylor and Luke Morgan, Division of Monetary Affairs, Board of Governors of the Federal Reserve System

U.S. Real Estate Finance

BOARD OF GOVERNORS of the FEDERAL RESERVE SYSTEMSenior Loan Officer Opinion Survey on Bank Lending Practices

"Questions on commercial real estate lending. Over the first quarter, significant net shares of banks reported tightening standards for all types of CRE loans. Such tightening was more widely reported by other banks than by large banks. Meanwhile, a moderate net share of banks reported weaker demand for construction and land development loans, while significant net shares of banks reported weaker demand for loans secured by nonfarm nonresidential and multifamily residential properties. Similar to domestic banks, a significant net share of foreign banks reported tighter standards for CRE loans. However, in contrast to domestic banks, a modest net share of foreign banks reported stronger demand for CRE loans over the first quarter.. ...

Questions on residential real estate lending. Over the first quarter, banks reported having tightened lending standards for some RRE loan categories. Modest net shares of banks reported tightening standards for non-qualified mortgage (QM) jumbo, non-QM non-jumbo, subprime, and QM non-jumbo non-government-sponsored enterprise (GSE)-eligible mortgage loans. However, lending standards remained basically unchanged for GSE-eligible mortgages, government mortgages, and QM jumbo mortgages. While large banks reported net easing of standards, other banks reported net tightening of standards for most RRE loan types. In addition, a moderate net share of banks reported tightening lending standards for HELOCs.

Meanwhile, banks reported weaker demand, on balance, for all categories of RRE loans and HELOCs over the first quarter. Significant net shares of banks reported weaker demand for subprime and non-QM mortgages, while moderate net shares of banks reported weaker demand for most other RRE loan categories. Similarly, a moderate net share of banks reported weaker demand for HELOCs. ..." – Solveig Baylor and Luke Morgan, Division of Monetary Affairs, Board of Governors of the Federal Reserve System

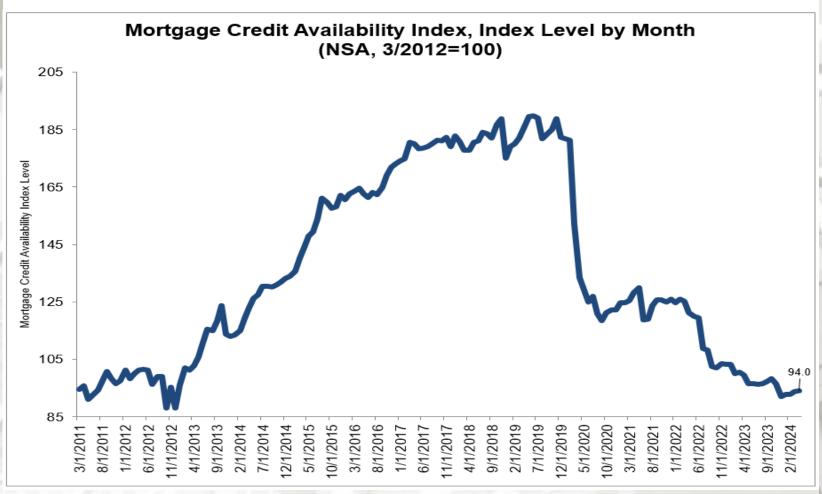
Mortgage Bankers Association Mortgage Credit Availability Increased in April

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

The MCAI rose by 1.1 percent to 93.9 in March. A decline in the MCAI indicates that lending standards are tightening, while increases in the index are indicative of loosening credit. The index was benchmarked to 100 in March 2012. The Conventional MCAI increased 2.1 percent, while the Government MCAI decreased by 0.1 percent. Of the component indices of the Conventional MCAI, the Jumbo MCAI increased by 2.6 percent, and the Conforming MCAI rose by 1.2 percent.

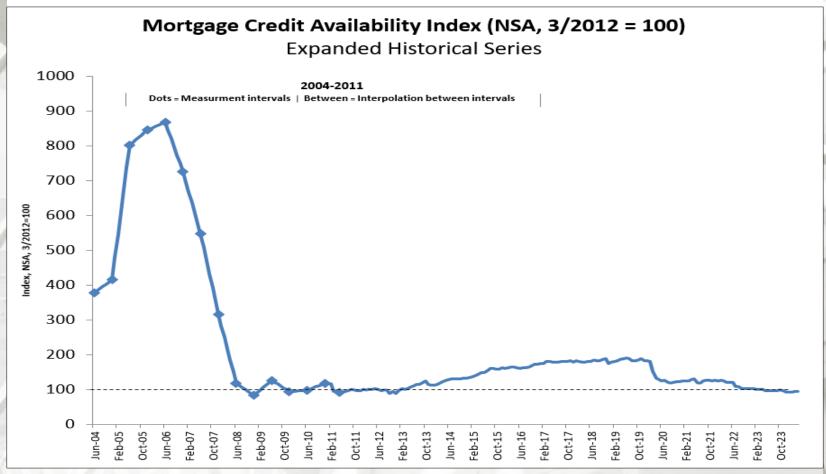
Credit availability increased in March, driven by growth in conventional credit. There were increased offerings of cash-out refinance loan programs across fixed rate and ARM loans, as well as for all occupancy types. Although credit supply increased for the third consecutive month, it remains low at nearly 7 percent below a year ago and still close to 2012 lows. The jumbo index grew 2.6 percent last month and was the only component seeing credit supply higher than a year ago. Growth in jumbo credit availability was driven by both non-QM and super conforming loan programs." – 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)



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

MBA Mortgage Finance Forecast

MBA Mortgage Finance Forecast

April 18, 2024

| | 2023 | | | | | 2024 | | | | | 25 | | | | | |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | Q1 | Q2 | Q3 | Q4 | Ql | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | 2023 | 2024 | 2025 | 2026 |
| Housing Measures | | | | | | | | | | | | | | | | |
| Housing Starts (SAAR, Thous) | 1,385 | 1,450 | 1,371 | 1,485 | 1,415 | 1,432 | 1,430 | 1,422 | 1,426 | 1,444 | 1,450 | 1,432 | 1,423 | 1,425 | 1,438 | 1,440 |
| Single-Family | 834 | 930 | 967 | 1,055 | 1,069 | 1,064 | 1,072 | 1,085 | 1,105 | 1,128 | 1,142 | 1,130 | 946 | 1,073 | 1,126 | 1,142 |
| Two or More | 552 | 520 | 403 | 430 | 346 | 368 | 358 | 337 | 321 | 316 | 308 | 302 | 476 | 352 | 312 | 299 |
| Home Sales (SAAR, Thous) | | | | | | | | | | | | | | | | |
| Total Existing Homes | 4,327 | 4,250 | 4,020 | 3,797 | 4,190 | 4,225 | 4,353 | 4,440 | 4,543 | 4,685 | 4,758 | 4,812 | 4,099 | 4,302 | 4,700 | 5,024 |
| New Homes | 638 | 691 | 703 | 652 | 668 | 728 | 763 | 782 | 802 | 815 | 813 | 808 | 671 | 735 | 809 | 816 |
| FHFA US House Price Index (YOY % Change) | 4.6 | 3.3 | 5.6 | 6.4 | 6.1 | 5.5 | 4.7 | 4.1 | 3.6 | 3.4 | 3.2 | 3.3 | 6.4 | 4.1 | 3.3 | 3.9 |
| Median Price of Total Existing Homes (Thous \$) | 366.7 | 397.5 | 400.9 | 387.3 | 385.3 | 395.8 | 392.1 | 383.6 | 381.4 | 392.6 | 392.8 | 390.5 | 388.1 | 389.2 | 389.3 | 388.6 |
| Median Price of New Homes (Thous \$) | 434.8 | 418.7 | 434.3 | 417.9 | 417.7 | 419.2 | 424.4 | 425.6 | 421.5 | 434.4 | 433.4 | 429.6 | 426.4 | 421.7 | 429.7 | 429.6 |
| Interest Rates | | | | | | | | | | | | | | | | |
| 30-Year Fixed Rate Mortgage (%) | 6.4 | 6.5 | 7.0 | 7.3 | 6.8 | 6.7 | 6.6 | 6.4 | 6.3 | 6.2 | 6.1 | 5.9 | 7.3 | 6.4 | 5.9 | 5.5 |
| 10-Year Treasury Yield (%) | 3.6 | 3.6 | 4.2 | 4.4 | 4.2 | 4.3 | 4.2 | 4.1 | 4.0 | 4.0 | 3.8 | 3.7 | 4.4 | 4.1 | 3.7 | 3.6 |
| Mortgage Originations | | | | | | | | | | | | | | | | |
| Total 1- to 4-Family (Bil \$) | 333 | 463 | 444 | 399 | 377 | 439 | 508 | 491 | 462 | 552 | 567 | 546 | 1,639 | 1,815 | 2,127 | 2,330 |
| Purchase | 267 | 371 | 363 | 324 | 291 | 346 | 392 | 364 | 324 | 408 | 416 | 394 | 1,325 | 1,393 | 1,542 | 1,685 |
| Refinance | 66 | 92 | 81 | 75 | 86 | 93 | 116 | 127 | 138 | 144 | 151 | 152 | 314 | 422 | 585 | 646 |
| Refinance Share (%) | 20 | 20 | 18 | 19 | 23 | 21 | 23 | 26 | 30 | 26 | 27 | 28 | 19 | 23 | 28 | 28 |
| FHA Originations (Bil \$) | | | | | | | | | | | | | 198 | 204 | 210 | 204 |
| Total 1- to 4-Family (000s loans) | 895 | 1,239 | 1,165 | 1,034 | 968 | 1,109 | 1,273 | 1,226 | 1,154 | 1,356 | 1,383 | 1,325 | 4,333 | 4,576 | 5,217 | 5,531 |
| Purchase | 686 | 948 | 913 | 804 | 709 | 832 | 932 | 856 | 756 | 944 | 954 | 897 | 3,350 | 3,329 | 3,550 | 3,752 |
| Refinance | 210 | 291 | 252 | 230 | 259 | 277 | 341 | 370 | 398 | 412 | 429 | 428 | 983 | 1,247 | 1,667 | 1,779 |
| Refinance Share (%) | 23 | 23 | 22 | 22 | 27 | 25 | 27 | 30 | 35 | 30 | 31 | 32 | 23 | 27 | 32 | 32 |
| Mortgage Debt Outstanding | | | | | | | | | | | | | | | | |
| 1- to 4-Family (Bit \$) | 13,680 | 13,778 | 13,901 | 13,994 | 14,071 | 14,144 | 14,236 | 14,332 | 14,427 | 14,533 | 14,640 | 14,735 | 13,994 | 14,332 | 14,735 | 15,118 |

Notes:

As of the August 2023 forecast, 2022 ofigination volume was revised based on the 2022 Home Mortgage Disclosure Act data. Total 1-to-4-family originations and refinance share are MBA estimates. These exclude second mortgages and home equity loans. Mortgage rate forecast is based on Freddie Mac's 30-Yr fixed rate which is based on predominantly home purchase transactions. The 10-Year Treasury Yield and 30-Yr mortgage rate are the average for the quarter, but annual columns show Q4 values. The FHFA US House Price Index is the forecasted year over year percent change of the FHFA Purchase-Only House Price Index. Copyright 2024 Mortgage Bankers Association. All rights reserved.

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MBA Economic Forecast

MBA Economic Forecast

April 18, 2024

| | 2023 | | | | | 2024 | | | | | 25 | | | | | |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | 2023 | 2024 | 2025 | 2026 |
| Percent Change, SAAR | | | | | | | | | | | | | | | | |
| Real Gross Domestic Product | 2.2 | 2.1 | 4.9 | 3.4 | 1.5 | 1.3 | 1.1 | 1.3 | 1.3 | 1.4 | 1.3 | 1.5 | 3.1 | 1.3 | 1.4 | 1.7 |
| Personal Consumption Expenditures | 3.8 | 0.8 | 3.1 | 3.3 | 2.4 | 1.9 | 1.1 | 1.8 | 1.5 | 1.5 | 1.1 | 1.6 | 2.7 | 1.8 | 1.4 | 2.0 |
| Business Fixed Investment | 5.7 | 7.4 | 1.4 | 3.7 | 1.1 | 1.5 | 1.5 | 1.9 | 1.7 | 1.5 | 1.2 | 1.1 | 4.6 | 1.5 | 1.4 | 1.7 |
| Residential Investment | -5.3 | -2.2 | 6.7 | 2.8 | 9.3 | 0.8 | -1.8 | -0.5 | 2.7 | 3.2 | 3.3 | 3.0 | 0.4 | 1.9 | 3.1 | 2.1 |
| Govt. Consumption & Investment | 4.8 | 3.3 | 5.8 | 4.6 | 1.2 | 1.5 | 0.8 | 0.3 | 0.2 | 0.3 | 0.3 | 0.3 | 4.6 | 0.9 | 0.3 | 0.3 |
| Net Exports (Bil. Chain 2012\$) | -1048.8 | -1039.0 | -1043.1 | -1032.7 | -1093.3 | -1116.0 | -1124.2 | -1130.6 | -1139.8 | -1141.3 | -1133.6 | -1128.5 | -1040.9 | -1116.0 | -1135.8 | -1131.0 |
| Inventory Investment (Bil. Chain 2012\$) | 24.1 | 13.2 | 68.9 | 48.6 | 54.6 | 50.4 | 57.8 | 53.8 | 55.1 | 54.8 | 56.7 | 56.8 | 38.7 | 54.2 | 55.8 | 59.5 |
| Consumer Prices (YOY) | 5.7 | 4.0 | 3.6 | 3.2 | 3.3 | 3.3 | 3.0 | 2.8 | 2.4 | 2.3 | 2.2 | 2.2 | 3.2 | 2.8 | 2.2 | 2.0 |
| | | | | | | | | | | | | | | | | . |
| Percent | | | | | | | | | | | | | | | | . |
| Unemployment Rate | 3.5 | 3.6 | 3.7 | 3.8 | 3.8 | 3.9 | 4.1 | 4.2 | 4.4 | 4.5 | 4.6 | 4.7 | 3.6 | 4.0 | 4.6 | 4.6 |
| Federal Funds Rate | 4.875 | 5.125 | 5.375 | 5.375 | 5.375 | 5.375 | 5.125 | 4.875 | 4.625 | 4.375 | 4.125 | 3.875 | 5.375 | 4.875 | 3.875 | 3.375 |
| 10-Year Treasury Yield | 3.6 | 3.6 | 4.2 | 4.4 | 4.2 | 4.3 | 4.2 | 4.1 | 4.0 | 4.0 | 3.8 | 3.7 | 4.4 | 4.1 | 3.7 | 3.6 |

Notes:

The Fed Funds Rate forecast is shown as the mid point of the Fed Funds range at the end of the period.

All data except interest rates are seasonally adjusted

The 10-Year Treasury Yield is the average for the quarter, while the annual value is the Q4 value

Forecast produced with the assistance of the Macroeconomic Advisers' model

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MORTGAGE BANKERS ASSOCIATION

Summary

In conclusion:

Housing data, month-over-month and year-over-year, exhibited extreme negativity. On a month-over-month basis single-family under construction and new house sales were positive. Year-over-year, single-family starts, new house sales, and total and single-family construction spending were positive. The influence of increased mortgage rates is evident, as aggregate costs have decreased affordability and influenced the "lock-in" effect.

Pros:

1) The desire to own a house remains positive.

Cons:

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

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