



REEF REPORT

REAL ESTATE & ECONOMIC FORECAST

UNITED STATES

EXECUTIVE SUMMARY

Labor Market Overview

The labor market maintains overall resilience with unemployment at 4.1%, reflecting continued strong labor demand across most sectors. However, the construction sector shows early warning signs, with job openings falling 36.4% YoY to 276,000. This disconnect between current employment and forward-looking indicators often precedes broader market adjustments, particularly in rate-sensitive sectors. Causal factors likely include rising interest rates impacting construction financing and growing builder caution about future demand. This weakness in construction employment indicators takes on added significance when viewed alongside the housing pipeline index's sharp decline to -221,670 units, suggesting a broader pullback in residential construction activity may be imminent.

Housing Market Dynamics

Housing affordability pressures continue mounting, with mortgage rates at 7.0% and median households now allocating 32.4% of income to mortgage payments—a concerning 54.3% increase over five years. This shift reflects the combined impact of elevated home prices, rising rates, and wage growth that hasn't kept pace with housing costs. The affordability squeeze becomes even more apparent when considered alongside the declining private sector quit rate (-11.0% YoY), which suggests reduced wage growth potential for prospective buyers.

The market faces a growing supply imbalance: new housing inventory has expanded to 8.5 months' supply, while existing home supply remains tight at 3.3 months (+6.5% YoY). This imbalance stems from rate lock-in effects keeping current homeowners from listing properties and builders working through excess inventory—a dynamic that helps explain the sharp decline in construction job openings discussed earlier.

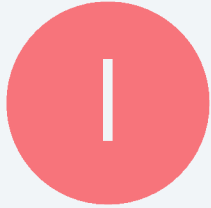
Economic Indicators

Core PCE inflation persists at 2.8% YoY, driven by resilient consumer spending and sticky service sector inflation. The Federal Reserve has begun pivoting toward easing, reducing the federal funds rate to 4.25 - 4.50% amid signs of cooling economic growth. This policy shift aims to support economic activity while managing inflation risks, though its impact on housing affordability may be limited in the near term. The persistence of core inflation above target helps explain why mortgage rates (7.0%) remain elevated despite the Fed's pivot, as market participants price-in ongoing inflation risk premiums.

Construction Activity

The construction sector shows mounting stress beneath surface-level stability. While residential construction employment remains steady at 960,500 workers (+2.7% YoY), the housing pipeline index has plunged to -221,670 units. This negative pipeline reading indicates builders are prioritizing completing existing projects over starting new ones, likely responding to higher financing costs and uncertain demand.

KEY DEVELOPMENTS



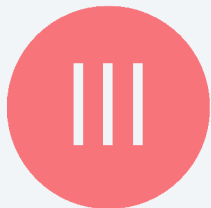
Labor Market Metrics

The labor market presents a complex picture of surface stability masking underlying stress, particularly in the construction sector. While overall unemployment remains low at 4.1% (-10.8% YoY), construction job openings have fallen dramatically (-36.4% YoY to 276,000), creating an unsustainable disconnect with current employment levels (960,500, +2.7% YoY). This pattern, where forward-looking indicators weaken while current employment remains stable, typically precedes significant sector adjustments—a dynamic that takes on added significance given mounting inventory pressures and deteriorating builder confidence.



Housing Market Indicators

Housing affordability continues to face significant headwinds as mortgage rates remain elevated at 6.96% (+2.7% YoY), driving nominal monthly payments to \$2,197 (+85.7% over five years). This cost pressure has fundamentally altered market dynamics, extending days on market to 70 days and creating a widening gap between buyer and seller expectations. The affordability challenge is particularly acute for first-time buyers, who face the combined impact of high rates, elevated prices, and lagging wage growth—a confluence of factors that threatens to reshape demographic homeownership patterns.



Housing Supply Dynamics

The market faces a striking imbalance between new and existing home supply (8.5 months versus 3.3 months respectively), reflecting distinct challenges in each segment. New home inventory continues to expand as builders grapple with slower absorption rates and accelerated project completions, while existing inventory remains constrained by rate lock-in effects and demographic demand pressures. This supply dichotomy has significant implications for pricing dynamics and builder strategies, contributing to growing concerns about market overvaluation and construction sector stability.

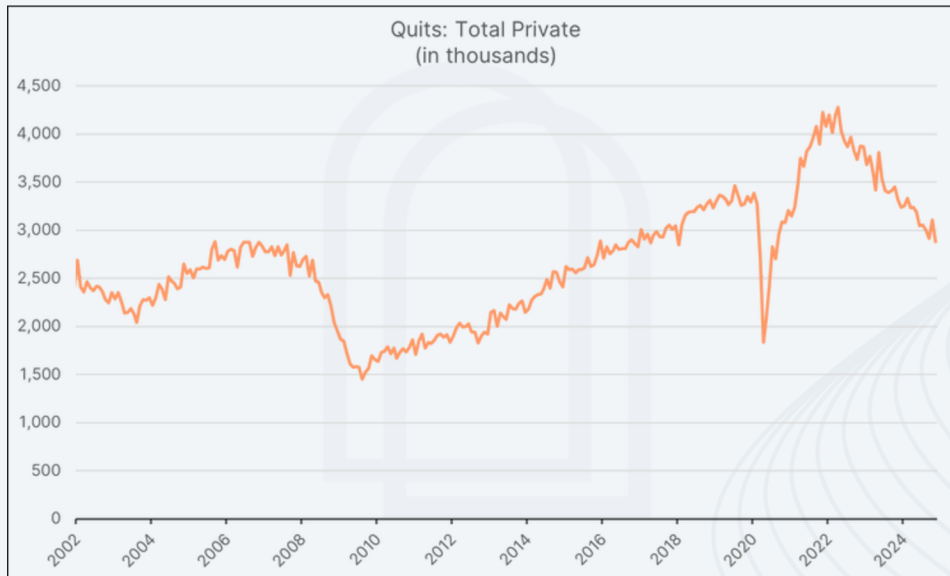


MACRO CONTEXT

LABOR MARKET INDICATORS



Source: U.S Bureau of Labor Statistics



Source: U.S. Bureau of Labor Statistics

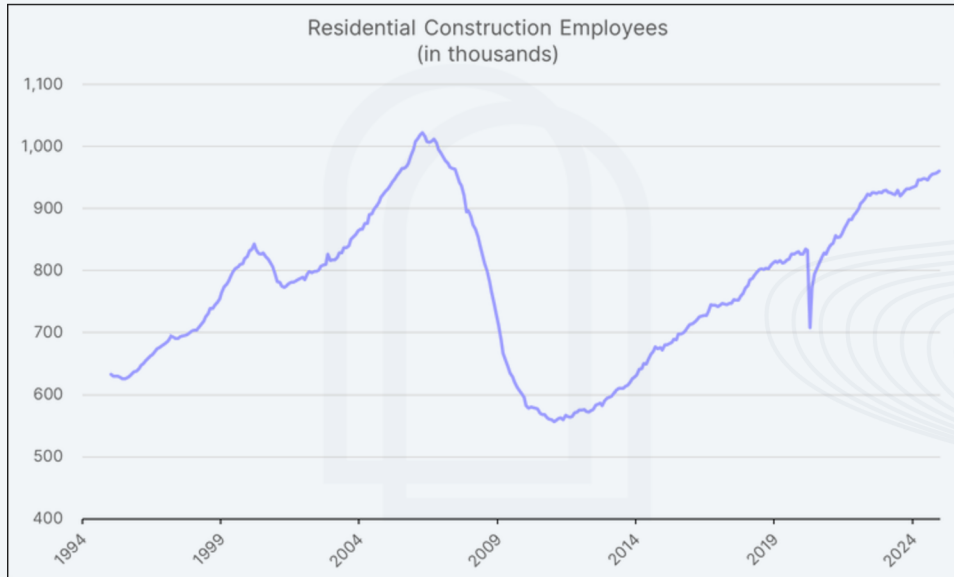
Unemployment Rate (4.1%, -10.8% YoY)

The historically low unemployment rate reflects continued robust labor demand across the broader economy, driven primarily by strong service sector growth and the ongoing post-pandemic recovery in leisure and hospitality. These positive trends are further amplified by demographic constraints from an aging workforce, which continues to limit labor supply and maintain downward pressure on the unemployment rate. However, beneath these seemingly strong headline figures, the pace of job growth has moderated notably, suggesting the labor market may be approaching a turning point. This moderation appears most pronounced in construction-related employment metrics, where job openings have fallen dramatically despite stable current employment levels—a disconnect that often precedes broader labor market adjustments.

Private Sector Quits (2,882,000, -11.0% YoY)

The decline in voluntary separations signals a pronounced weakening in worker confidence, a trend that connects directly to housing market dynamics through multiple channels. Workers are showing markedly reduced willingness to relocate for job opportunities, creating a direct dampening effect on housing demand in traditionally mobile labor markets. This declining mobility coincides with lower wage growth expectations, forcing potential buyers to revise their affordability calculations downward and further constraining demand. The impact extends to household formation rates, which have decreased notably, creating an additional drag on overall housing demand. This metric's decline takes on added significance when viewed alongside rising days on market and growing new home inventory, as the combination suggests a broader slowdown in housing market velocity that extends beyond mere affordability constraints to reflect deeper structural changes in labor market dynamics.

LABOR MARKET INDICATORS



Source: U.S. Bureau of Labor Statistics



Source: U.S. Bureau of Labor Statistics

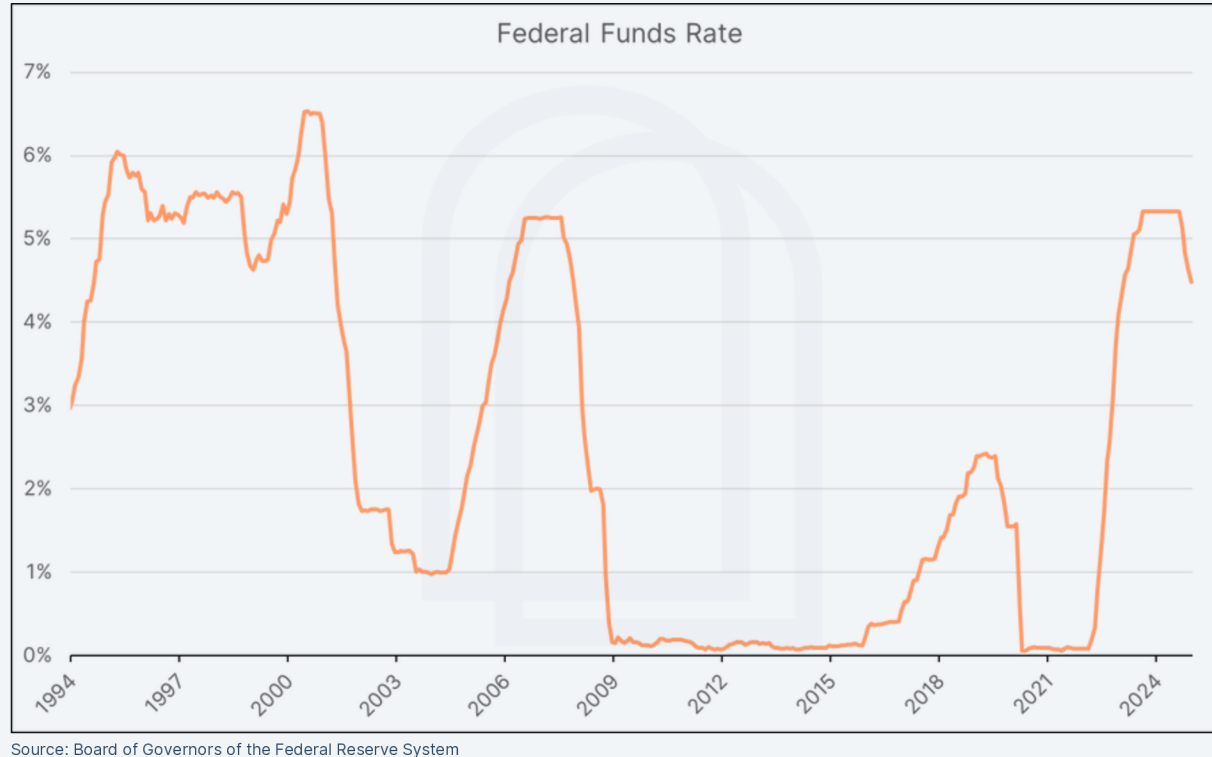
Construction Employment (960,500, +2.7% YoY)

Current construction employment remains elevated despite falling job openings, creating an unsustainable disconnect in the labor market. This imbalance stems from several intersecting factors: builders are maintaining workforce levels to complete ongoing work on previously started projects, while simultaneously showing reluctance to reduce their workforce until absolutely necessary—a hesitancy exacerbated by persistent skilled labor shortages that make firms particularly cautious about layoffs. This pattern of sustained employment despite weakening forward indicators often precedes eventual employment adjustments as project pipelines thin. The growing inventory of new homes (494,000 units, +10% YoY) suggests this elevated employment level may become increasingly difficult to maintain, potentially setting the stage for a more significant labor market adjustment in the construction sector.

Construction Job Openings (276,000, -36.4% YoY)

The sharp decline in construction job openings serves as an early warning indicator for the sector, reflecting heightened sensitivity to several key market factors. Interest rate changes have significantly impacted construction financing availability, while simultaneously affecting builder confidence in future demand. These concerns are further compounded by persistently high material and land costs, which continue to impact project viability. The magnitude of the decline in job openings suggests builders are preparing for a significant slowdown in activity, a view supported by the negative housing pipeline index discussed later in this report. This pullback in job openings takes on added significance when viewed alongside the expanding new home inventory levels, suggesting builders are actively reducing capacity in response to deteriorating market conditions.

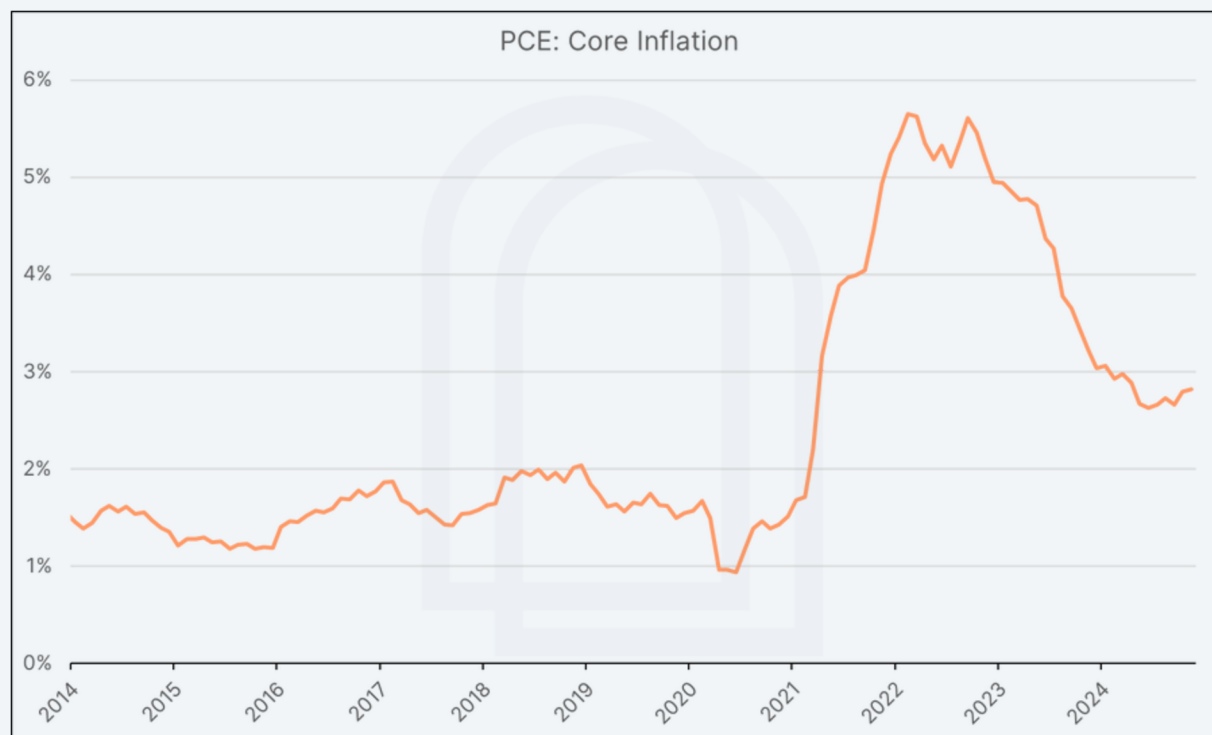
MONETARY POLICY & INFLATION



Federal Funds Rate (4.25 - 4.50%)

The Fed's pivot toward easing reflects growing economic concerns, though its impact has manifested unevenly across different market segments. Most notably, there has been limited transmission to mortgage rates, as ongoing inflation concerns continue to maintain upward pressure on lending costs despite the policy shift. While the easing stance potentially offers some support for builder financing, this benefit has been largely outweighed by mounting inventory concerns that continue to dampen construction activity. The policy shift has provided some relief in the commercial real estate sector, though this comes against a backdrop of rising delinquencies that have reached 1.52%, suggesting deeper structural challenges. The persistent widening gap between Fed policy rates and mortgage rates has become particularly significant, helping to explain why affordability challenges continue to face potential buyers despite the broader monetary easing environment—a disconnect that underscores the complex challenges facing the housing market.

MONETARY POLICY & INFLATION



Source: U.S. Bureau of Labor Statistics

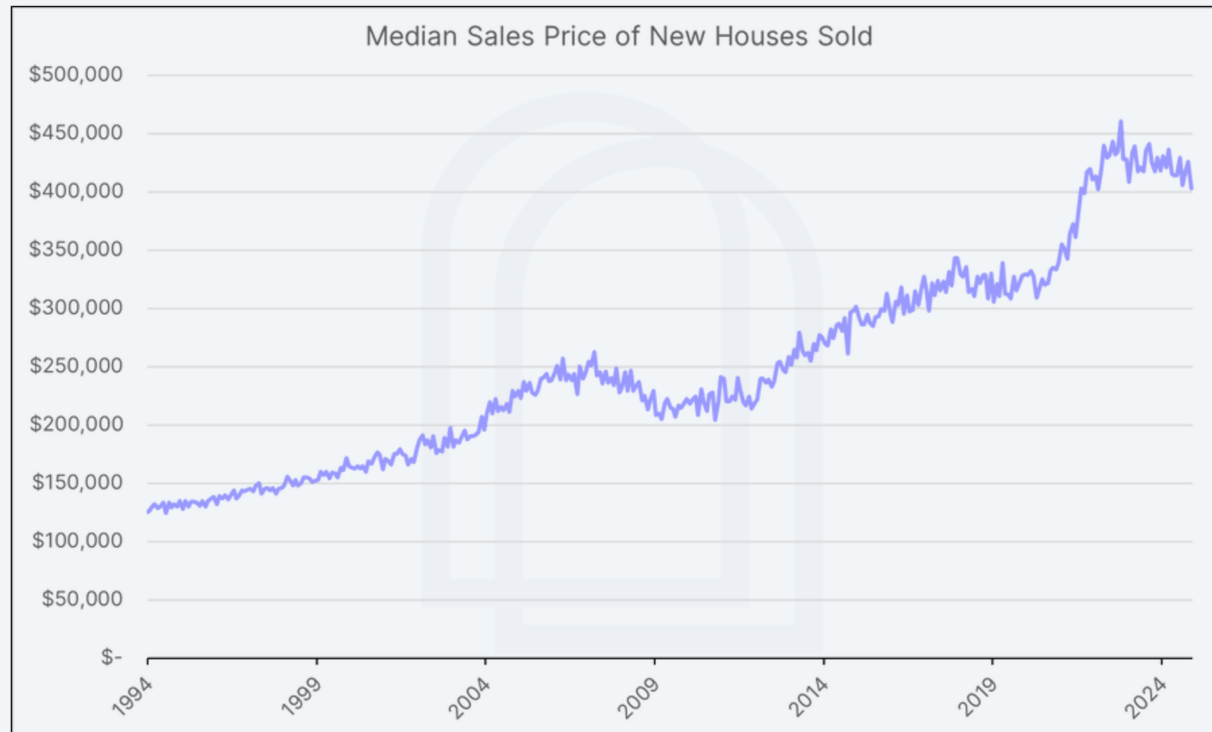
Core PCE Inflation (2.8% YoY)

Persistent inflation above target reveals complex market dynamics that continue to shape housing market conditions. Sticky service sector prices maintain consistent upward pressure on overall inflation, while robust consumer spending persists despite higher rates, indicating underlying economic resilience that may continue to fuel inflationary pressures. These trends are further reinforced by wage growth pressures that particularly affect service costs, creating a self-reinforcing cycle of price increases. This elevated inflation helps explain why mortgage rates remain stubbornly high despite Fed easing, creating a feedback loop that maintains significant pressure on housing affordability. The persistence of inflation has broader implications as well, notably influencing real housing costs and wage expectations—a dynamic that continues to complicate market valuation and affordability metrics.

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HOUSING MARKET

PRICE DYNAMICS



Source: U.S. Census Bureau

Median Sales Price (\$402,600, -3.8% YoY)

The price decline reflects a nuanced market adjustment to affordability constraints, with the magnitude of adjustment varying significantly across market segments. New construction has experienced larger price adjustments as inventory continues to build, while the existing home market maintains stickier prices due to persistently limited supply. These broad trends are further complicated by substantial regional variations based on local economic conditions, creating a complex mosaic of price movements across different markets. This price moderation, when combined with the sharp rise in monthly mortgage payments, illustrates why days on market continue to lengthen despite price corrections, suggesting that current price adjustments may not yet be sufficient to restore market equilibrium.

PRICE DYNAMICS



Source: Freddie Mac

Mortgage Rates (6.96%, +2.7% YoY)

Current mortgage rates reflect a complex interplay between monetary policy and market risk premiums, shaped by multiple key influences in the financial markets. Federal Reserve policy decisions continue to set the baseline tone, while inflation expectations drive risk premiums higher despite recent Fed pivot signals. Market liquidity conditions and secondary market demand for mortgage-backed securities further influence rate dynamics, creating a sustained high-rate environment despite monetary easing. This elevated rate environment fundamentally alters housing affordability and market dynamics, with particularly notable effects on supply patterns. The current rate level helps explain both the expanding new home inventory and the reluctance of existing homeowners to list their properties, creating the supply constraints noted in our market overview—a dynamic that continues to reshape market fundamentals.

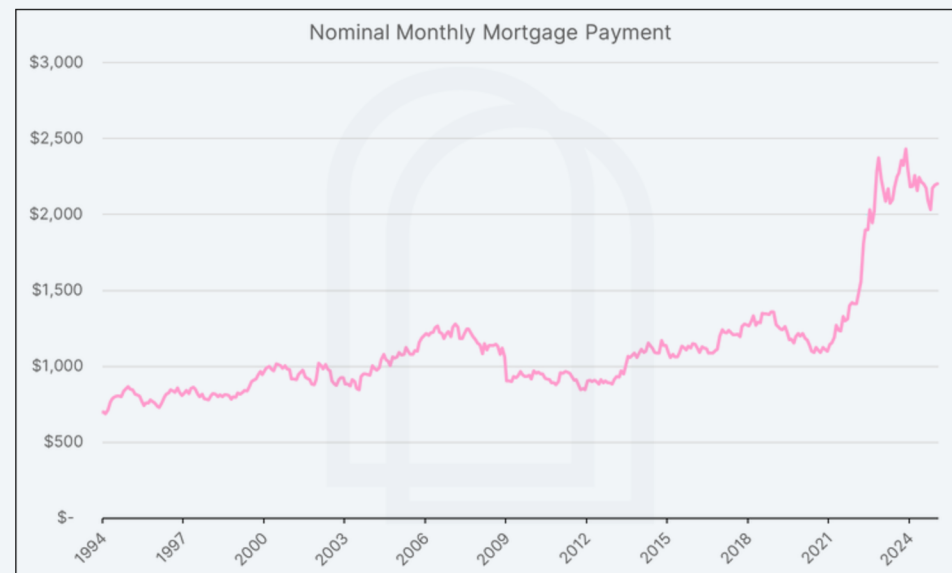
AFFORDABILITY METRICS

Nominal Monthly Mortgage Payment (\$2,197)

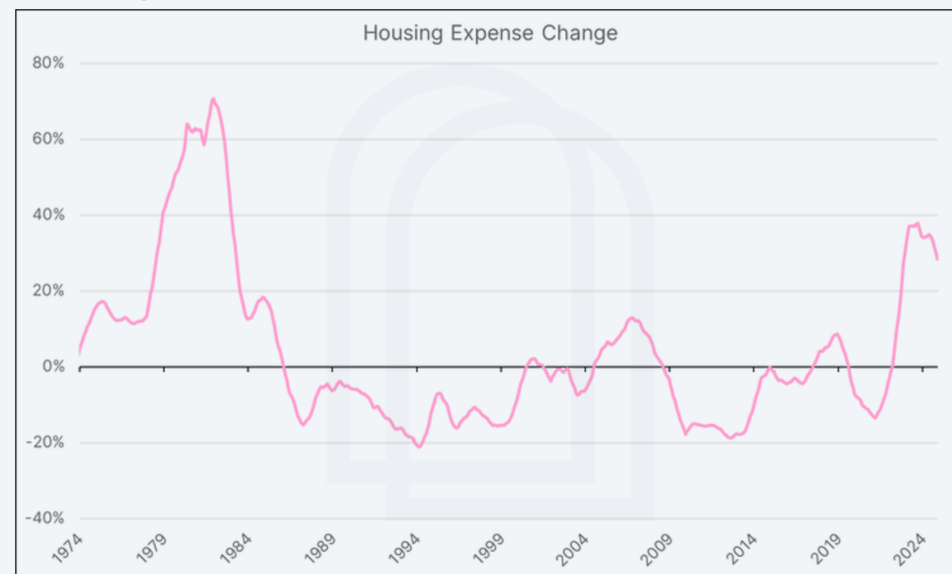
The dramatic rise in monthly payments reveals the compound impact of multiple market pressures converging simultaneously: sustained home price appreciation has combined with sharp interest rate increases, while wage growth continues to lag significantly behind housing costs. This confluence of factors has created particularly acute challenges for first-time buyers, who lack existing home equity to offset rising costs. The sharp increase in payment burden is now directly influencing market dynamics, helping to explain the lengthening days on market (70 days, +37.3%) as buyers increasingly struggle with affordability constraints. When viewed alongside the declining private sector quit rate, these affordability metrics paint a concerning picture of market accessibility. The combination of elevated housing costs and reduced wage growth potential suggests a potentially prolonged period of affordability challenges ahead, with implications for both transaction volumes and price stability.

Housing Expense Change (27%)

Elevated volatility in housing expenses reflects broad uncertainty across multiple market metrics, creating challenges for both buyers and sellers. Interest rate expectations continue to drive significant variations in financing costs, while price adjustment pressures from the ongoing inventory buildup create additional volatility in overall housing expenses. These dynamics are further complicated by rapidly changing buyer expectations amid market shifts, creating a complex and unpredictable expense environment. The high volatility helps explain declining transaction volumes and market hesitancy, connecting directly to broader affordability challenges and price stability concerns—a relationship that underscores the broader market uncertainty facing the housing sector.

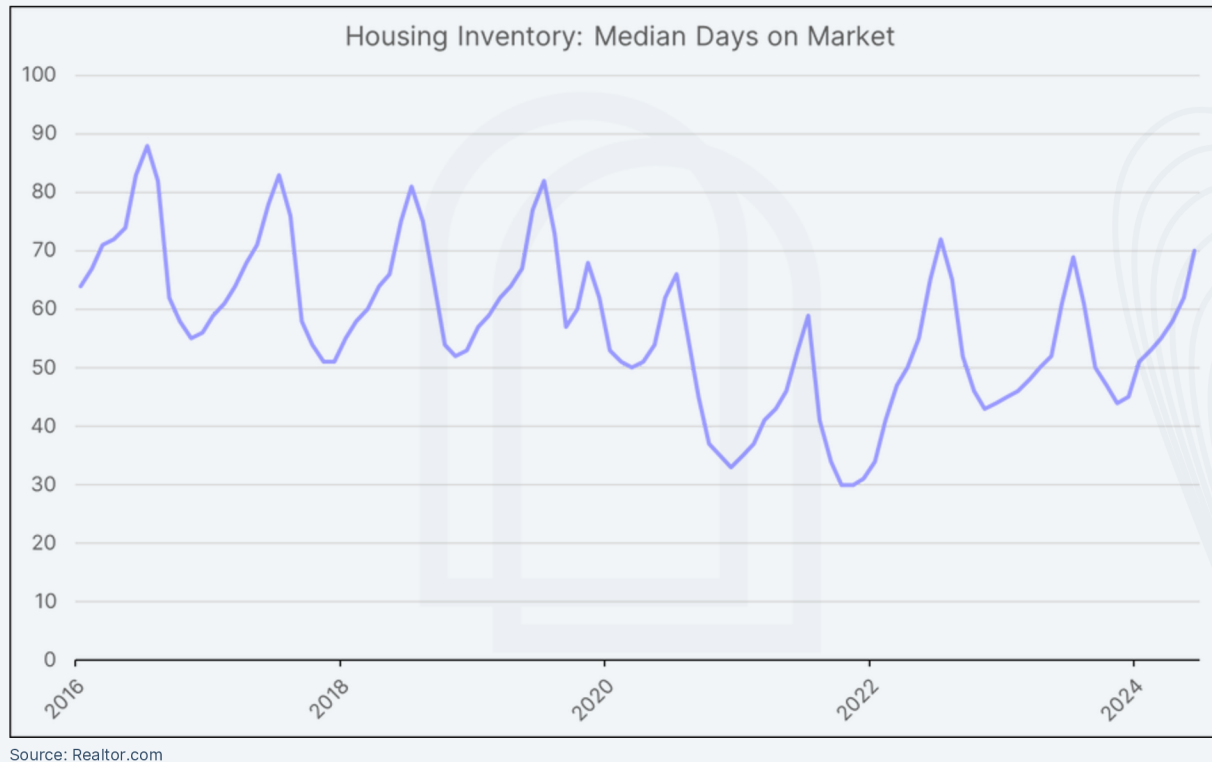


Source: Reef Insights LLC



Source: Reef Insights LLC

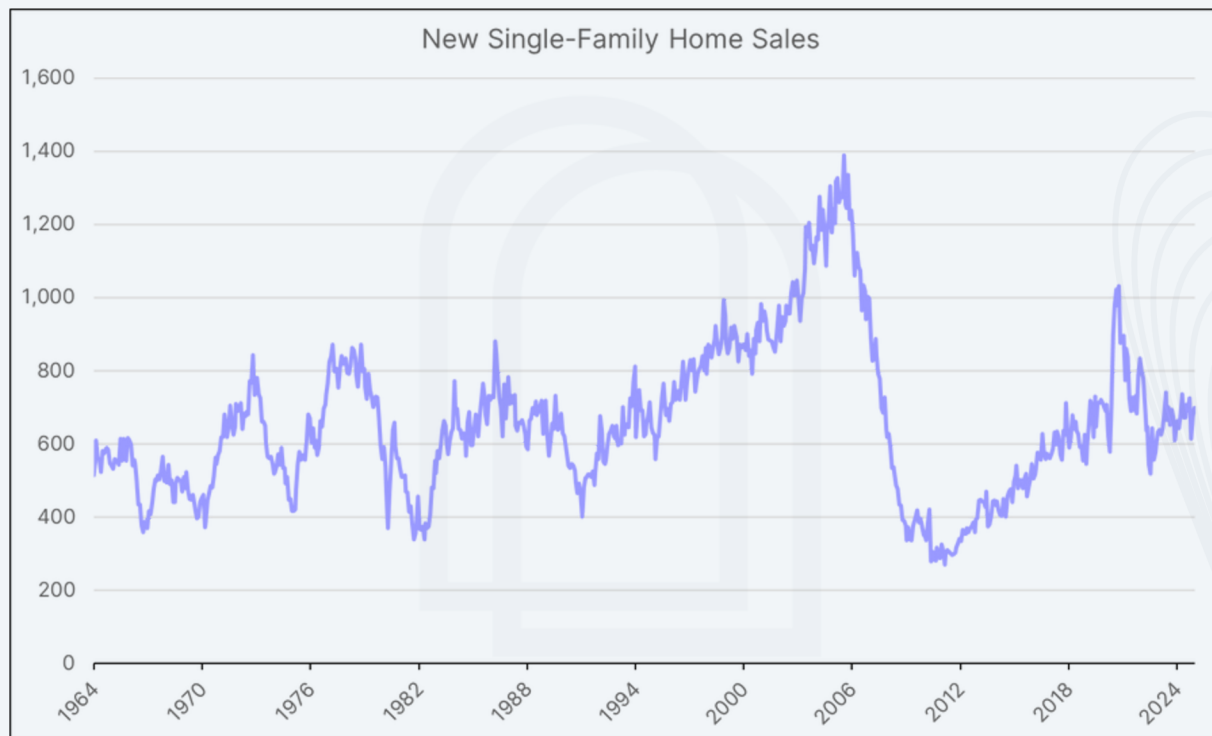
MARKET VELOCITY



Days on Market (70 days, +14.8% YoY)

The lengthening time to sell reflects fundamental shifts in market dynamics, as heightened buyer price sensitivity in the high-rate environment collides with a significantly reduced pool of qualified buyers. This situation is further complicated by persistent seller reluctance to adjust pricing expectations, creating a widening gap between buyer and seller expectations. As a leading indicator, this metric often precedes broader price movements in the market and helps explain the growing disparity between new and existing home inventory levels. The extended marketing time has particularly significant implications for builders, who face mounting carrying costs on completed inventory—a financial pressure that likely contributes to the sharp decline in construction job openings noted earlier. This interconnection between marketing time, inventory costs, and employment metrics underscores the broader stress building within the construction sector.

MARKET VELOCITY



Source: U.S. Census Bureau

New Home Sales (698,000 units, +6.7% YoY)

Sales volume data reveals growing market stress, with the quarterly decline serving as a particularly telling indicator of market direction. Deteriorating affordability continues to offset underlying demographic demand, forcing builders to rely increasingly on incentives to maintain volume—a strategy that supports transaction levels but puts significant pressure on margins. These dynamics are further complicated by seasonal factors, which have been notably amplified by current market uncertainty. The disparity between yearly and quarterly trends helps explain both the rising inventory levels and the sharp pullback in construction job openings, suggesting builders are actively adjusting their strategies in response to weakening market conditions.

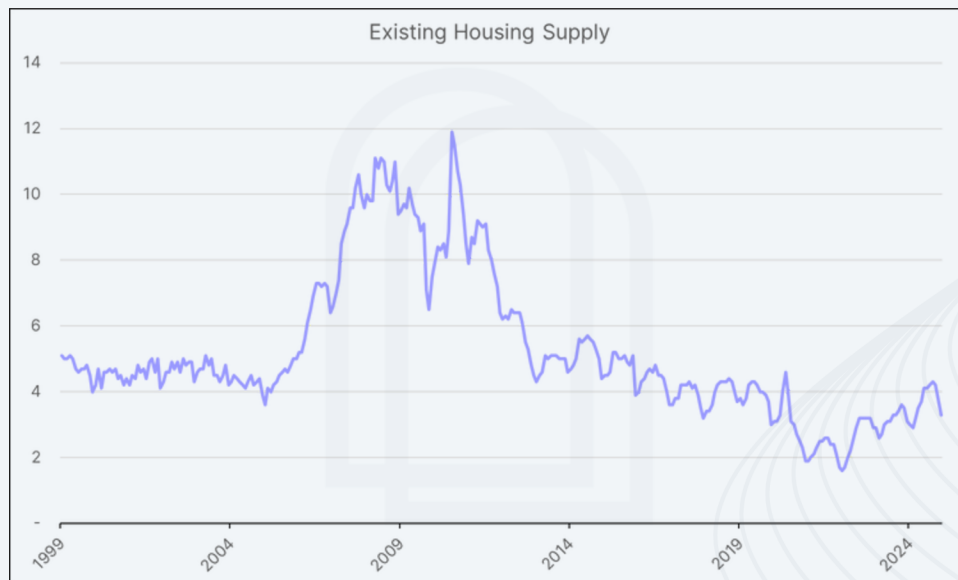
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SUPPLY & CONSTRUCTION

INVENTORY METRICS



Source: U.S. Census Bureau, U.S. Department of Housing and Urban Development



Source: National Association of Realtors

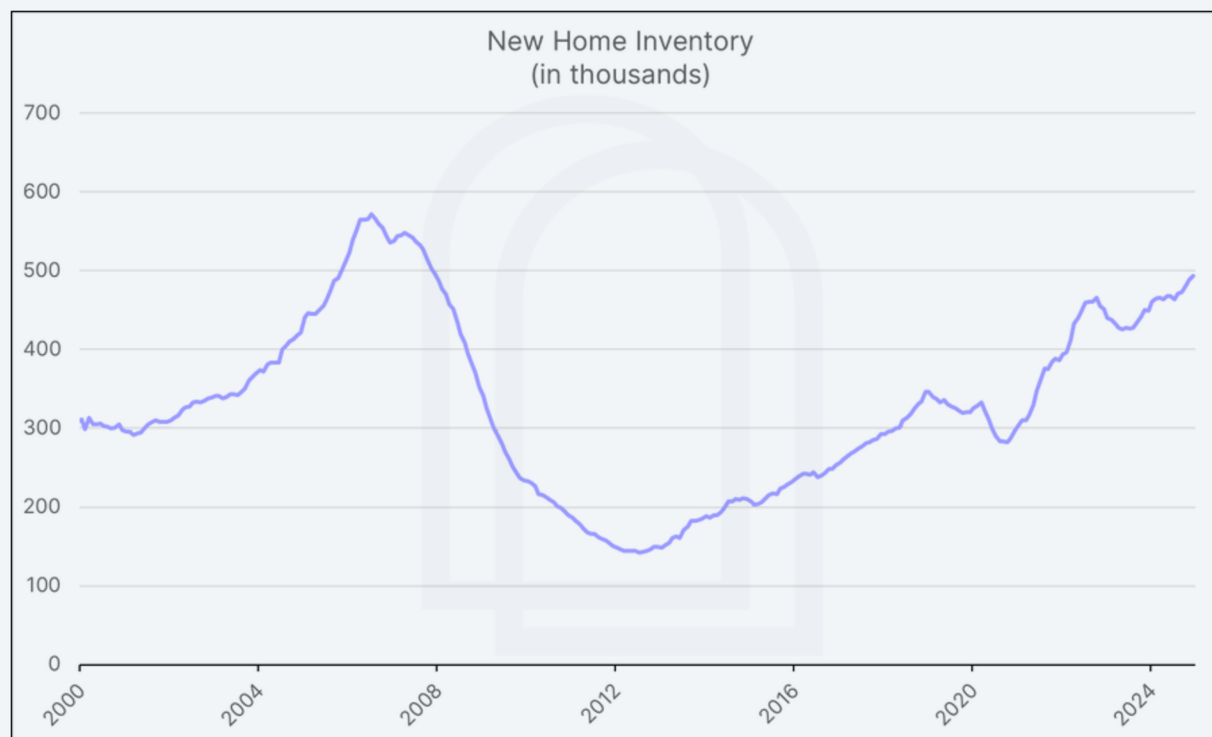
New Housing Supply (8.5 months)

The expansion in new home inventory stems from a confluence of market forces that have created a significant supply-demand imbalance. Builder overproduction relative to current demand has emerged as a key concern, exacerbated by higher rates that continue to shrink the qualified buyer pool. This situation has been further amplified by recent supply chain improvements that have enabled faster project completion rates, accelerating the pace of inventory accumulation. The elevated inventory level suggests mounting price pressure ahead, particularly when viewed alongside the lengthening days on market. This inventory buildup has become a crucial factor in builder strategy shifts, helping to explain the dramatic decline in construction job openings as builders increasingly pivot their focus from initiating new starts to selling existing inventory—a transition that could have lasting implications for construction sector employment.

Existing Housing Supply (3.3 months, +6.5% YoY)

The persistent tightness in existing home inventory reflects a complex interplay of market forces that continue to constrain supply. The rate lock-in effect has emerged as a dominant factor, effectively deterring current homeowners from selling and giving up their favorable existing mortgages. This supply constraint is further intensified by sustained demographic demand from millennial buyers entering their prime homeownership years, while the limited pace of new construction in previous years has left the market with insufficient inventory to absorb this demand. This sustained supply constraint continues to support existing home prices despite mounting affordability challenges, creating a striking market dichotomy where new home builders face growing inventory pressures while existing home supply remains stubbornly scarce. The marked contrast between new and existing supply levels reflects fundamentally different supply-demand dynamics in each market segment.

INVENTORY METRICS



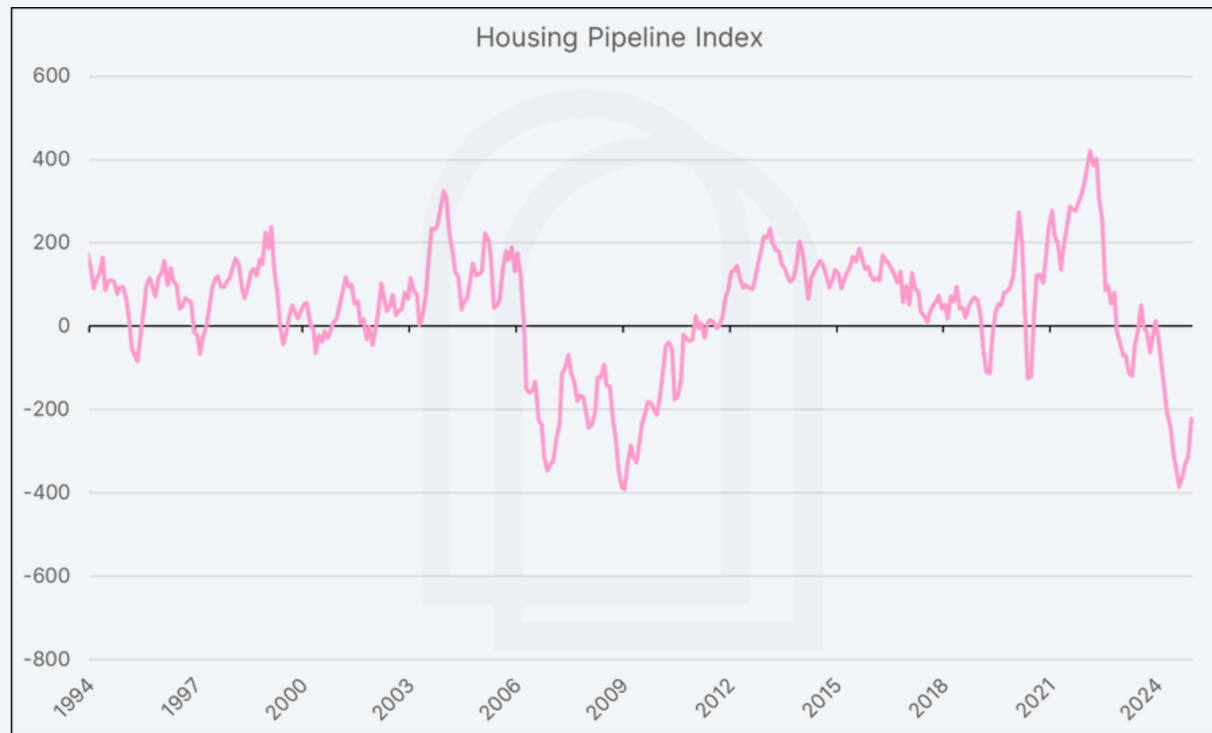
Source: U.S. Census Bureau, U.S. Department of Housing and Urban Development

New Home Inventory (494,000 units)

We have chosen to highlight the total new home inventory rather than the number of new homes for sale during a given period. In previous reports, we used the latter metric to illustrate the progress of completions; however, we are now focusing on showcasing the increase in total inventory.

New home inventory has climbed to 494,000 units as of December 2024, marking a concerning 10% increase from the previous year and reaching levels not seen since the aftermath of the 2008 financial crisis. This sharp rise comes amid mixed market signals – while housing starts remain somewhat robust, existing home inventory continues to face constraints due to the lock-in effect of homeowners with low mortgage rates. The divergence between new and existing inventory levels suggests a potential market imbalance. Industry experts project inventory growth to continue through 2025, with forecasts indicating a 15% further increase in available homes.

CONSTRUCTION ACTIVITY

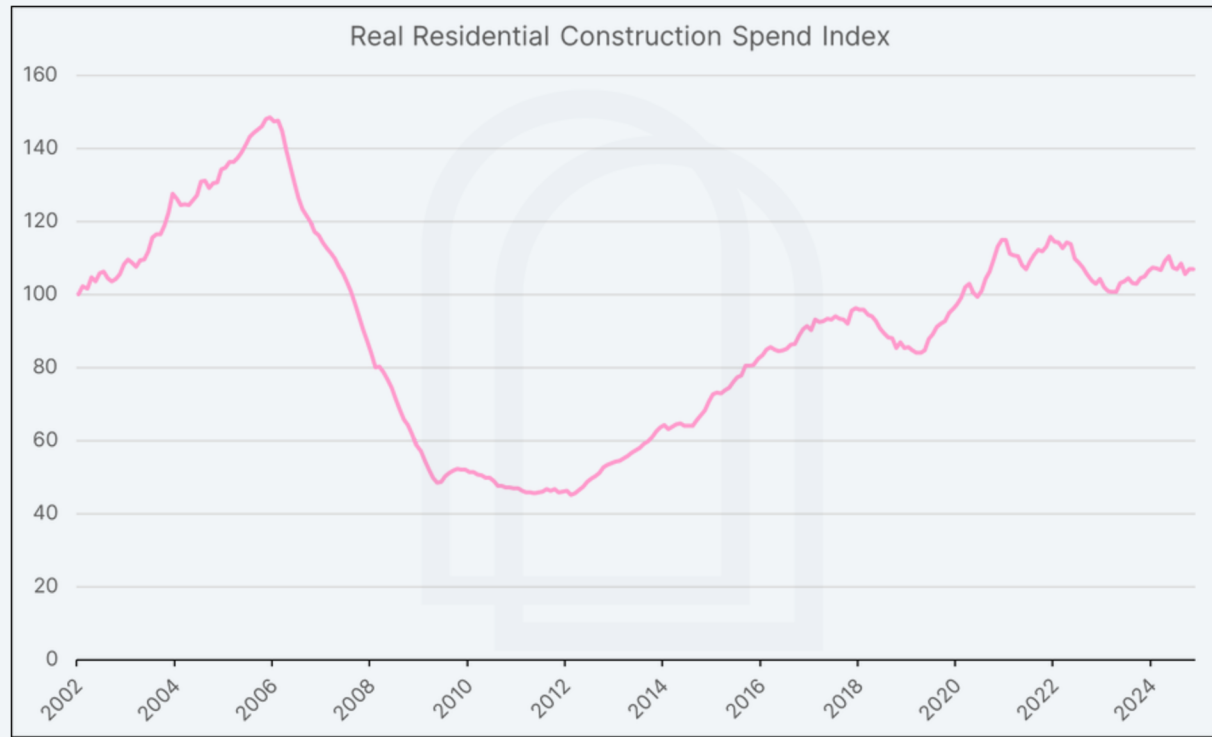


Source: Reef Insights LLC

Housing Pipeline Index (-221,670 units)

The negative pipeline reveals a fundamental shift in builder strategy that extends beyond typical market cyclicity. Builders have implemented an aggressive pullback in new starts despite stable current employment levels, while simultaneously focusing intensively on completing existing projects to reduce carrying costs. This strategic pivot has been further reinforced by rising financing costs, which continue to deter new project initiation across markets. This metric's sharp decline helps explain both the rising new home inventory and the disconnect between current construction employment and job openings. When viewed alongside lengthening days on market, it suggests builders are decisively prioritizing inventory reduction over new development—a strategy that could have lasting implications for market supply dynamics.

CONSTRUCTION ACTIVITY



Source: Reef Insights LLC

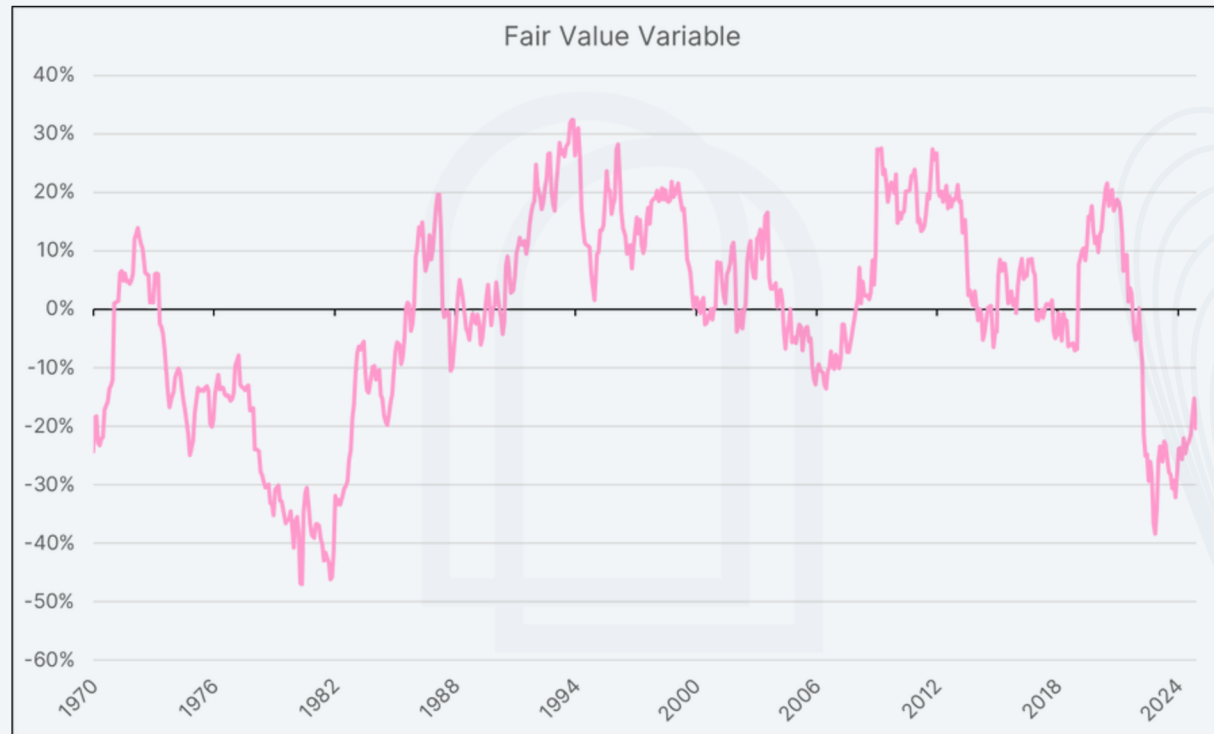
Real Residential Construction Spend Index (107.01, +1.9% YoY)

Construction spending maintains modest growth despite market headwinds, though this apparent resilience masks underlying market stress. The continued spending growth primarily reflects the completion of previously started projects, while higher construction costs are inflating nominal values, creating a potentially misleading signal of market health. Persistent labor market constraints continue to support elevated wage costs, further contributing to the spending levels. The disconnect between current spending levels and the negative pipeline index suggests current activity levels may be unsustainable, supporting forecasts of potential construction employment reductions by mid-2025—a prediction that aligns with broader indicators of sector stress.



MARKET RISKS & OUTLOOK

MARKET VALUATION METRICS

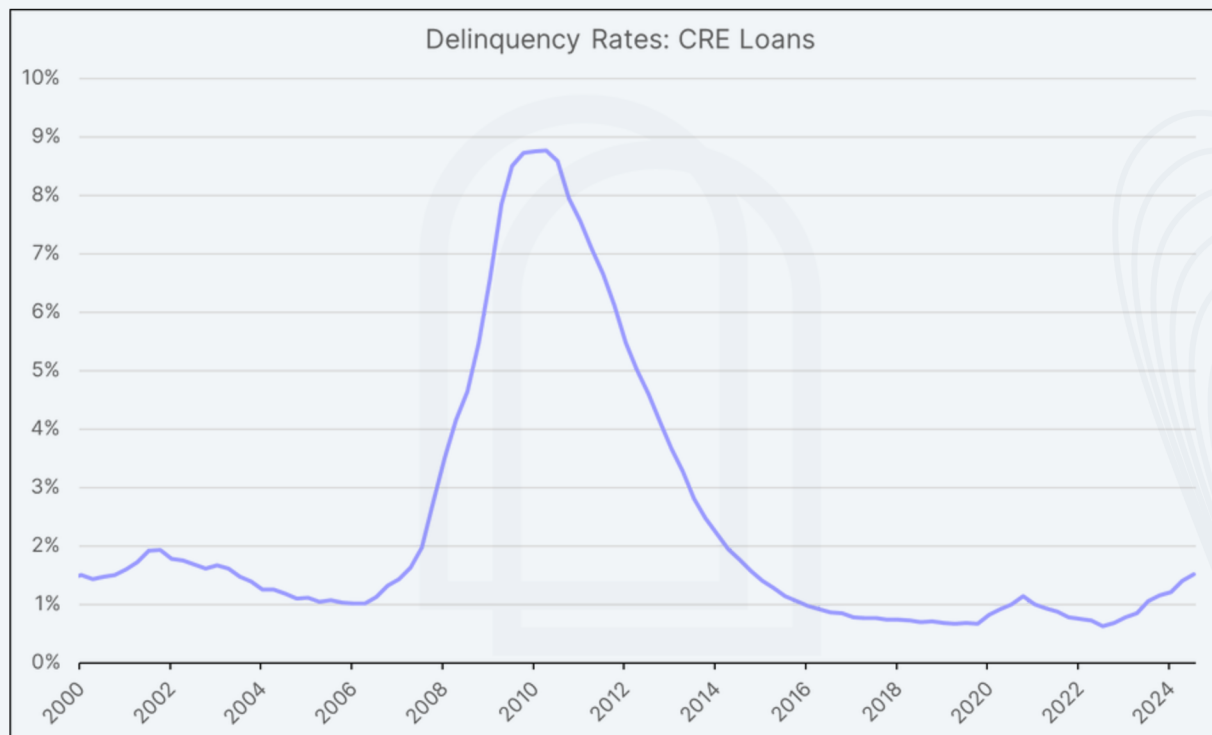


Source: Reef Insights LLC

Fair Value Variable (-20.4%)

The significant overvaluation indicated by the Fair Value Variable suggests fundamental structural market imbalances that could drive future adjustments. The metric reveals a persistent disconnect between prices and household incomes, exacerbated by the current rate environment's impact on affordability. When viewed alongside rising new home inventory and declining construction job openings, this overvaluation signal suggests builders are actively responding to valuation risks through adjusted production and pricing strategies. The metric takes on particular significance in the current environment, where the marked contrast between new and existing home supply dynamics creates distinct valuation pressures in each market segment. This overvaluation risk may become increasingly relevant as the market continues to adjust to changing monetary policy and evolving supply-demand dynamics.

CREDIT MARKET HEALTH



Source: Board of Governors of the Federal Reserve System

Commercial Real Estate Delinquencies (1.52%, +31.0% YoY)

Rising delinquencies signal broader market stress that could have significant spillover effects into residential sectors. Office sector challenges are creating particular concerns for housing markets in urban cores, where shifting work patterns continue to reshape demand dynamics. These pressures are compounded by mounting stress in retail properties, which indicates broader systemic stress across real estate markets rather than sector-specific challenges. Current refinancing difficulties in commercial markets may presage similar challenges emerging in residential markets, particularly as rates remain elevated. The sharp increase in delinquencies, when considered alongside declining construction job openings and rising new home inventory, suggests growing caution among real estate lenders that could further constrain construction financing—a development that may accelerate the ongoing pullback in residential construction activity.



Varying Pricing Pressures Based on Region

The buildup in the supply of new housing has a regional component that will lead to varying pricing pressures. For example, the South and West regions have experienced historically high inventory levels, which will increase pressure on homeowners looking to sell their properties. Construction activity is expected to face continued downward pressure, particularly in these regions, as builders work through their existing pipeline while remaining cautious about starting new projects. We would also expect to see construction employment decline over the course of the year as new home completions taper off.



Elevated Mortgage Rates

Despite the Federal Reserve's shift toward monetary easing, the 10-year yield has moved in the opposite direction during this rate-cutting cycle. This divergence has caused mortgage rates to defy expectations, though we anticipate this trend will stabilize throughout 2025. Mortgage rates are likely to remain higher than many had expected, and any decline in rates would likely coincide with a weakening labor market. Should this occur, the housing market could benefit from increased affordability while simultaneously experiencing reduced demand due to the softer labor market.

DATA TABLE

Metric	This Period	Last Period	Year Ago	Latest Release
Housing Starts: Total Units	1,499	1,294	1,568	Dec-24
New Housing Supply	8.50	8.70	8.20	Dec-24
Existing Housing Supply	3.30	3.80	3.10	Dec-24
Nominal Median Sales Price of Houses Sold	\$ 419,200	\$ 415,300	\$ 423,200	Oct-24
New Building Permit Authorizations: Total Units	1,482	1,493	1,530	Dec-24
Case-Shiller Index	324.22	324.79	312.96	Oct-24
Residential Construction Employees	961	957	934	Dec-24
Nominal Mortgage Rates	6.85	6.81	6.61	Jan-25
Delinquency Rates: Single-Family	1.73	1.73	1.70	Jul-24
Delinquency Rates: Commercial	1.52	1.41	1.06	Jul-24
PPI: Residential Construction	323	323	313	Dec-24
Construction Spending: Residential	\$ 918	\$ 917	\$ 890	Nov-24
Housing Inventory: Median Days on Market	70	62	69	Dec-24
Nominal Monthly Mortgage Payment	\$ 2,197	\$ 2,189	\$ 2,183	Jan-25
Real Mortgage Payment Index	586.21	580.83	616.79	Dec-24
Median Household Income Spent on Annual Mortgage Payments	32.58	32.28	34.28	Dec-24
Fair Value Variable	(20.63)	(20.22)	(28.05)	Dec-24

DATA TABLE

Metric	This Period	Last Period	Year Ago	Latest Release
Housing Expense Change	27.01	27.96	34.40	Dec-24
Nominal Median Household Income	\$ 80,610	\$ 74,580	\$ 74,580	2023
Headline Inflation	2.90	2.73	3.32	Dec-24
Core Inflation	3.25	3.30	3.91	Dec-24
Unemployment Rate	4.10	4.20	3.80	Dec-24
Federal Funds Rate	4.48	4.64	5.33	Dec-24
Personal Savings Rate	4.40	4.50	4.60	Nov-24
Jobless Claims	223,000	217,000	221,000	Jan-25
10-Year U.S. Treasury Yield Minus 2-Year U.S. Treasury	(0.34)	(0.26)	(1.21)	Jan-25
Residential Rental Vacancy Rate	6.90	6.60	6.60	Jul-24
Real Residential Construction Spend Index	107.01	106.83	104.99	Nov-24
Household Savings	\$ 1,162	\$ 711	\$ 711	2023
Bank Credit: All Commercial Banks	\$ 18,001	\$ 18,010	\$ 17,389	Jan-25
Delinquency Rates: Credit Card	3.23	3.24	2.97	Jul-24
Gross Domestic Product (GDP)	\$ 29,375	\$ 29,017	\$ 27,968	Jul-24
M2 (Money Supply)	\$ 21,448	\$ 21,312	\$ 20,676	Nov-24
Federal Reserve's Balance Sheet	\$ 6,832	\$ 6,834	\$ 7,677	Jan-25

DATA TABLE

Metric	This Period	Last Period	Year Ago	Latest Release
PCE: Headline Inflation	2.44	2.31	2.70	Nov-24
PCE: Core Inflation	2.82	2.79	3.22	Nov-24
Debt-to-GDP	120.73	120.04	118.59	Jul-24
Real GDP	\$ 23,400	\$ 23,224	\$ 22,781	Jul-24
Trucking Employees	1,546	1,547	1,552	Dec-24
Industrial Production	103	102	103	Dec-24
Credit Card Interest Rates	21.47	21.76	21.47	Nov-24
Charge-Off Rate: Credit Card Loans	4.37	4.73	3.49	Jul-24
Charge-Off Rate: Business Loans	0.56	0.49	0.40	Jul-24
Charge-Off Rate: Commercial Real Estate Loans	0.23	0.27	0.13	Jul-24
Yield Curve	0.10	0.12	(0.38)	Dec-24
Total Assets: Money Market Funds	\$ 6,839,054	\$ 6,548,352	\$ 6,142,962	Jul-24
Federal Government Interest Payments	\$ 1,117	\$ 1,097	\$ 968	Jul-24
CPI: Rent in U.S. City Average	428	427	411	Dec-24
Consumer Loans: Credit Card Debt	\$ 1,089	\$ 1,082	\$ 1,040	Jan-25
New Single-Family Home Sales	698	674	654	Dec-24
New Housing Units Completed	1,544	1,621	1,557	Dec-24

DATA TABLE

Metric	This Period	Last Period	Year Ago	Latest Release
Job Openings: Construction	276	259	454	Nov-24
New Homes: Median Square Footage	2,171	2,101	2,221	Jul-24
Median Sales Price of New Houses Sold	\$ 402,600	\$ 425,300	\$ 418,300	Nov-24
Job Openings: Total Nonfarm	8,098	7,839	8,931	Nov-24
Housing Inventory: Active Listing Count	871,509	953,452	714,176	Dec-24
New Home Inventory	494	488	449	Dec-24
Quits: Total Private	2,882	3,105	3,319	Nov-24

SOURCES

Metric	Frequency	Sources	Notes
Housing Starts: Total Units	Monthly	U.S. Census Bureau, U.S. Department of Housing and Urban Development	As provided by the Census, start occurs when excavation begins for the footings or foundation of a building. All housing units in a multifamily building are defined as being started when this excavation begins. Beginning with data for September 1992, estimates of housing starts include units in structures being totally rebuilt on an existing foundation.
New Housing Supply	Monthly	U.S. Census Bureau, U.S. Department of Housing and Urban Development	The months' supply is the ratio of new houses for sale to new houses sold. This statistic provides an indication of the size of the new for-sale inventory in relation to the number of new houses currently being sold. The months' supply indicates how long the current new for-sale inventory would last given the current sales rate if no additional new houses were built.
Existing Housing Supply	Monthly	National Association of Realtors	The National Association of Realtors monthly housing indicators are based on a representative sample of local boards and multiple listing services. Sales volume, inventory, and price levels for existing homes are measured for the US in aggregate and by census region. Existing homes, unlike new homes, are homes that are owned and occupied before coming onto the market. Inventory indicates the number of properties marked as "active" on the market or those pending sales. When a seller lists a property, it becomes counted as inventory.
Nominal Median Sales Price of Houses Sold	Quarterly	U.S. Census Bureau, U.S. Department of Housing and Urban Development	The purpose of the Survey of Construction (SOC) is to provide national and regional statistics on starts and completions of new single-family and multifamily housing units and statistics on sales of new single-family houses in the United States. The United States Code, Title 13, authorizes this survey and provides for voluntary responses. The Department of Housing and Urban Development partially funds this survey. The SOC also provides statistics on characteristics of new privately-owned residential structures in the United States. Data included are various characteristics of new single-family houses completed, new multifamily housing completed, new single-family houses sold, and new contractor-built houses started.
New Building Permit Authorizations: Total Units	Monthly	U.S. Census Bureau, U.S. Department of Housing and Urban Development	Starting with the 2005-02-16 release, the series reflects an increase in the universe of permit-issuing places from 19,000 to 20,000 places.
Case-Shiller Index	Monthly	S&P Dow Jones Indices LLC	The S&P CoreLogic Case-Shiller Home Price Indices measure the price level of existing single-family homes in the U.S.
Residential Construction Employees	Monthly	U.S. Bureau of Labor Statistics	Construction employees in the construction sector include: Working supervisors, qualified craft workers, mechanics, apprentices, helpers, laborers, and so forth, engaged in new work, alterations, demolition, repair, maintenance, and the like, whether working at the site of construction or in shops or yards at jobs (such as precutting and preassembling) ordinarily performed by members of the construction trades.
Nominal Mortgage Rates	Weekly	Freddie Mac	On November 17, 2022, Freddie Mac changed the methodology of the Primary Mortgage Market Survey® (PMMS®). The weekly mortgage rate is now based on applications submitted to Freddie Mac from lenders across the country. For more information regarding Freddie Mac's enhancement, see their research note.
Delinquency Rates: Single-Family	Quarterly	Board of Governors of the Federal Reserve System	The charge-off rates are annualized and are calculated net of recoveries. Delinquent loans and leases encompass those that are past due by thirty days or more and are still accruing interest, as well as those in nonaccrual status. This comprehensive approach provides insight into the financial health and performance metrics of these major banks, considering both charge-offs and delinquencies in their loan portfolios.

SOURCES

Metric	Frequency	Sources	Notes
Delinquency Rates: Commercial Real Estate	Quarterly	Board of Governors of the Federal Reserve System	The charge-off rates are annualized and are calculated net of recoveries. Delinquent loans and leases encompass those that are past due by thirty days or more and are still accruing interest, as well as those in nonaccrual status. This comprehensive approach provides insight into the financial health and performance metrics of these major banks, considering both charge-offs and delinquencies in their loan portfolios.
PPI: Residential Construction	Monthly	U.S. Bureau of Labor Statistics	The Producer Price Index (PPI) program measures the average change over time in the selling prices received by domestic producers for their output. The prices included in the PPI are from the first commercial transaction for many products and some services.
Construction Spending: Residential	Monthly	U.S. Census Bureau	Construction work done each month on new structures or improvements to existing structures for private and public sectors (in 50 states and the District of Columbia).
Housing Inventory: Median Days on Market	Monthly	Realtor.com	With the release of its September 2022 housing trends report, Realtor.com® incorporated a new and improved methodology for capturing and reporting housing inventory trends and metrics. The new methodology updates and improves the calculation of time on market and improves handling of duplicate listings. Most areas across the country will see minor changes with a smaller handful of areas seeing larger updates. As a result of these changes, the data released since October 2022 will not be directly.
Nominal Monthly Mortgage Payment	Monthly	Reef Insights LLC	The nominal monthly mortgage payment is determined based on the current prevailing mortgage rate and the median sales price of houses sold. Our calculations are grounded in the following assumptions: a 20 percent down payment, a 30-year maturity period, and a fixed interest rate.
Real Mortgage Payment Index	Monthly	Reef Insights LLC	The real mortgage payment index is calculated by dividing the nominal monthly mortgage payment by the prevailing CPI index value.
Median Household Income Spent on Annual Mortgage Payments	Monthly	Reef Insights LLC	To determine the median household income spent on annual mortgage payments, we have annualized the prevailing nominal monthly mortgage payment and divided that payment by the prior years' median household income.
Fair Value Variable	Monthly	Reef Insights LLC	The analysis incorporates three distinct rolling averages signifying the percentage of median household income allocated to annual mortgage payments. These averages span 5 years, 10 years, and 15 years, respectively. In the determination of a 'fair value' premium or discount for each period, the established averages are divided by the prevailing percentage of median household income dedicated to annual mortgage payments. The resultant values are subsequently averaged to ascertain a premium or discount, which is applicable to the prevailing median sales price of houses sold.
Housing Expense Change	Monthly	Reef Insights LLC	The computed values have been obtained through the division of the rolling 1-year average for the percentage of median household income allocated to annual mortgage payments by the rolling 10-year average.
Nominal Median Household Income	Annually	U.S. Census Bureau	The median divides the income distribution into two equal parts: one-half of the cases falling below the median income and one-half above the median. For households and families, the median income is based on the distribution of the total number of households and families including those with no income. The median income for individuals is based on individuals 15 years old and over with income. Median income for households, families, and individuals is computed on the basis of a standard distribution.

SOURCES

Metric	Frequency	Sources	Notes
CPI: Headline Inflation	Monthly	U.S. Bureau of Labor Statistics	The CPIs are based on prices for food, clothing, shelter, and fuels; transportation fares; service fees (e.g., water and sewer service); and sales taxes. Prices are collected monthly from about 4,000 housing units and approximately 26,000 retail establishments across 87 urban areas. To calculate the index, price changes are averaged with weights representing their importance in the spending of the particular group. The index measures price changes (as a percent change) from a predetermined reference date. In addition to the original unadjusted index distributed, the Bureau of Labor Statistics also releases a seasonally adjusted index. The unadjusted series reflects all factors that may influence a change in prices. However, it can be very useful to look at the seasonally adjusted CPI, which removes the effects of seasonal changes, such as weather, school year, production cycles, and holidays.
CPI: Core Inflation	Monthly	U.S. Bureau of Labor Statistics	The "Consumer Price Index for All Urban Consumers: All Items Less Food & Energy" is an aggregate of prices paid by urban consumers for a typical basket of goods, excluding food and energy. This measurement, known as "Core CPI," is widely used by economists because food and energy have very volatile prices.
Unemployment Rate	Monthly	U.S. Bureau of Labor Statistics	The unemployment rate represents the number of unemployed as a percentage of the labor force. Labor force data are restricted to people 16 years of age and older, who currently reside in 1 of the 50 states or the District of Columbia, who do not reside in institutions (e.g., penal and mental facilities, homes for the aged), and who are not on active duty in the Armed Forces.
Federal Funds Rate	Monthly	Board of Governors of the Federal Reserve System	The federal funds market consists of domestic unsecured borrowings in U.S. dollars by depository institutions from other depository institutions and certain other entities, primarily government-sponsored enterprises.
Personal Savings Rate	Monthly	U.S. Bureau of Economic Analysis	Personal saving as a percentage of disposable personal income (DPI), frequently referred to as "the personal saving rate," is calculated as the ratio of personal saving to DPI. Personal saving is equal to personal income less personal outlays and personal taxes; it may generally be viewed as the portion of personal income that is used either to provide funds to capital markets or to invest in real assets such as residences.
Jobless Claims	Weekly	U.S. Employment and Training Administration	An initial claim is a claim filed by an unemployed individual after a separation from an employer. The claim requests a determination of basic eligibility for the Unemployment Insurance program.
10-Year U.S. Treasury Yield Minus 2-Year U.S. Treasury	Weekly	Board of Governors of the Federal Reserve System	This particular yield curve is derived by subtracting the 10-year U.S. Treasury by the 2-Year U.S. Treasury.
Residential Rental Vacancy Rate	Quarterly	U.S. Census Bureau	The rental vacancy rate is the proportion of the rental inventory that is vacant for rent.
Real Residential Construction Spend Index	Monthly	Reef Insights LLC	This index is constructed by dividing the Total Construction Spending: Residential by the CPI: Residential Construction.
Household Savings	Annually	U.S. Bureau of Economic Analysis	To calculate the amount of household savings, the BEA starts with personal income, and then subtracts from that personal taxes to derive disposable personal income. Then, personal outlays are subtracted from disposable income. This results in an estimate of household savings.

SOURCES

Metric	Frequency	Sources	Notes
Bank Credit: All Commercial Banks	Weekly	Board of Governors of the Federal Reserve System	The H.8 release provides an estimated weekly aggregate balance sheet for all commercial banks in the United States. The release also includes separate balance sheet aggregations for several bank groups: domestically chartered commercial banks; large domestically chartered commercial banks; small domestically chartered commercial banks; and foreign-related institutions in the United States
Delinquency Rates: Credit Card	Quarterly	Board of Governors of the Federal Reserve System	For more information, check out the Charge-Off and Delinquency Rates on Loans and Leases at Commercial Banks release.
Gross Domestic Product (GDP)	Quarterly	U.S. Bureau of Economic Analysis	Gross domestic product (GDP), the featured measure of U.S. output, is the market value of the goods and services produced by labor and property located in the United States.
M2 (Money Supply)	Monthly	Board of Governors of the Federal Reserve System	Beginning May 2020, M2 consists of M1 plus (1) small-denomination time deposits (time deposits in amounts of less than \$100,000) less IRA and Keogh balances at depository institutions; and (2) balances in retail MMFs less IRA and Keogh balances at MMFs. Seasonally adjusted M2 is constructed by summing savings deposits (before May 2020), small-denomination time deposits, and retail MMFs, each seasonally adjusted separately, and adding this result to seasonally adjusted M1.
Federal Reserve's Balance Sheet	Weekly	Board of Governors of the Federal Reserve System	For more information, check out the H.4.1 release.
PCE: Headline Inflation	Monthly	U.S. Bureau of Economic Analysis	Table 9.1U - Comparison of the PCE Price Index with the CPI reconciles the changes in the personal consumption expenditures (PCE) chain-type price index, prepared by the Bureau of Economic Analysis (BEA), with changes in the consumer price index for all urban consumers (CPI), prepared by the Bureau of Labor Statistics (BLS).
PCE: Core Inflation	Monthly	U.S. Bureau of Economic Analysis	Table 9.1U - Comparison of the PCE Price Index with the CPI reconciles the changes in the personal consumption expenditures (PCE) chain-type price index, prepared by the Bureau of Economic Analysis (BEA), with changes in the consumer price index for all urban consumers (CPI), prepared by the Bureau of Labor Statistics (BLS).
Debt-to-GDP	Quarterly	U.S. Office of Management and Budget	Federal Debt: Total Public Debt as Percent of Gross Domestic Product (GFDEGDQ188S) was first constructed by the Federal Reserve Bank of St. Louis in October 2012.
Real GDP	Quarterly	U.S. Bureau of Economic Analysis	Real gross domestic product is the inflation adjusted value of the goods and services produced by labor and property located in the United States.
Trucking Employees	Monthly	U.S. Bureau of Labor Statistics	Each month, CES surveys approximately 119,000 businesses and government agencies, representing approximately 629,000 individual worksites.
Industrial Production	Monthly	Board of Governors of the Federal Reserve System	The industrial production (IP) index measures the real output of all relevant establishments located in the United States, regardless of their ownership, but not those located in U.S. territories.

SOURCES

Metric	Frequency	Sources	Notes
Credit Card Interest Rates	Monthly	Board of Governors of the Federal Reserve System	This release is generally issued on the fifth business day of each month.
Charge-Off Rate: Credit Card Loans	Quarterly	Board of Governors of the Federal Reserve System	The 100 largest banks are measured by consolidated foreign and domestic assets. Charge-offs are the value of loans and leases removed from the books and charged against loss reserves. Charge-off rates are annualized, net of recoveries. Delinquent loans and leases are those past due thirty days or more and still accruing interest as well as those in nonaccrual status.
Charge-Off Rate: Business Loans	Quarterly	Board of Governors of the Federal Reserve System	The 100 largest banks are measured by consolidated foreign and domestic assets. Charge-offs are the value of loans and leases removed from the books and charged against loss reserves. Charge-off rates are annualized, net of recoveries. Delinquent loans and leases are those past due thirty days or more and still accruing interest as well as those in nonaccrual status.
Charge-Off Rate: Commercial Real Estate Loans	Quarterly	Board of Governors of the Federal Reserve System	The 100 largest banks are measured by consolidated foreign and domestic assets. Charge-offs are the value of loans and leases removed from the books and charged against loss reserves. Charge-off rates are annualized, net of recoveries. Delinquent loans and leases are those past due thirty days or more and still accruing interest as well as those in nonaccrual status.
Yield Curve	Daily	Federal Reserve Bank of St. Louis	Starting with the update on June 21, 2019, the Treasury bond data used in calculating interest rate spreads is obtained directly from the U.S. Treasury Department. Series is calculated as the spread between 10-Year Treasury Constant Maturity (BC_10YEAR) and 2-Year Treasury Constant Maturity (BC_2YEAR). Both underlying series are published at the U.S. Treasury Department.
Total Assets: Money Market Funds	Quarterly	Board of Governors of the Federal Reserve System	For more information about the Flow of Funds tables, see the Financial Accounts Guide.
Federal Government Interest Payments	Quarterly	U.S. Bureau of Economic Analysis	For more information about this series, please see http://www.bea.gov/national/ .
CPI: Rent in U.S. City Average	Monthly	U.S. Bureau of Labor Statistics	The Consumer Price Index (CPI) is a measure of the average change over time in the prices paid by urban consumers for a market basket of consumer goods and services. Indexes are available for the U.S. and various geographic areas. Average price data for select utility, automotive fuel, and food items are also available.
Consumer Loans: Credit Card Debt	Monthly	Board of Governors of the Federal Reserve System	For further information, please refer to the Board of Governors of the Federal Reserve System's H.8 release.
New Single-Family Home Sales	Monthly	U.S. Census Bureau	For further further information, please refer to the New Residential Sales report that is published by the U.S. Census Bureau.
Hew Housing Unit Completed	Monthly	U.S. Census Bureau	This metric's official title is New Privately-Owned Housing Units Completed: Total Units, and further information can be found on the New Residential Construction report that is published by the U.S. Census Bureau.
Job Openings: Construction	Monthly	U.S. Bureau of Labor Statistics	This data can be found in the Job Openings and Labor Turnover Survey report that is published by the U.S. Bureau of Labor Statistics.
New Homes: Median Square Footage	Quarterly	U.S. Census Bureau, U.S. Department of Housing and Urban Development	For further information, please refer to the Quarterly Starts and Completions by Purpose of Design release.
Median Sales Price of New Houses Sold	Monthly	U.S. Census Bureau	For further further information, please refer to the New Residential Sales report that is published by the U.S. Census Bureau.

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Metric	Frequency	Sources	Notes
Job Openings: Total Nonfarm	Monthly	U.S. Bureau of Labor Statistics	Total Nonfarm Job Openings are a measure of all jobs that are not filled on the last business day of the month. A job is considered open if a specific position exists and there is work available for it, the job can be started within 30 days, and there is active recruiting for the position.
Housing Inventory: Active Listing Count	Monthly	Realtor.com	The count of active single-family and condo/townhome listings for a given market during the specified month (excludes pending listings).
New Homes For Sale	Monthly	U.S. Census Bureau, U.S. Department of Housing and Urban Development	For further information, please refer to the New Residential Sales release.
Quits: Total Private	Monthly	U.S. Bureau of Labor Statistics	For further information, please refer to the Job Openings and Labor Turnover Survey release.

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Real Estate Economic Forecast - Monthly
Forecast Evaluation - Semi-Annual

On a semi-annual basis, we will be releasing a report that evaluates our past forecasts. We believe it's important to gauge our performance, and we intend to do it publicly so that you can determine if our forecasts are worth your consideration.

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