Reef Report

Real Estate & Economic Forecast
United States

April 2025

Reef Insights

ReefInsights.com

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- Unemployment rate ticks upward

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Executive Summary

Before we dive into this month's report, we wanted to add a very blunt note on the current state of affairs.

This is the first week we'll see ships arrive at West Coast ports under the new reciprocal tariff increases, followed by a sharp decline in ships from China arriving in the U.S. This will undoubtedly carry consequences that are, for now, largely being dismissed as noise by executives and markets.

We firmly believe downside risks are fundamentally mispriced and present a particularly notable departure from reality.

At the end of the day, it all comes down to the physical world—atoms over bits. Where do software companies sell their software? What do service companies use to perform their services? The answer is that, at the end of the chain, someone, somewhere, must interact with the physical world—and they rely on software and services to improve their productivity.

This chain of circular dependencies functions well as a kind of leveraged return to the global economy. However, when cracks begin to appear, belts tighten, software seats get cut as headcount falls, and non-critical spending stops—the leveraged position exposes the same downside risk.

In summary, even if your outlook differs from ours, that does not mean risk is being properly accounted for in the pricing of risk assets.

If nothing else, we strongly recommend reading the Market Risks & Outlook section of this report.

Macro Context

Inflation Declines, But Fed Sees Resurgence

Macro Context

Headline Inflation

- Month-over-month, headline inflation saw a decline to 2.41%.
- Last year, headline inflation was measured at 3.47%.

Many see this as the beginning of the end of the inflation fight. We would argue that this is not so certain, hence the Fed's hesitation in cutting rates. We have seen global money supply increasing as stealth stimulus has entered the system. Additionally, while tariffs can be viewed as a singular price shock rather than a source of persistent inflation, the lags required for them to work through the system pose an upside risk. Furthermore, there is an argument that a recessionary deflation impulse could counteract any upward pressure on prices. However, we believe this is misleading, as the nature of the price increases stems not from demand growth but from increases in producers' costs of goods sold (COGS) being passed through to consumers.

Source: U.S. Bureau of Labor Statistics

Inflation Declines, But Fed Sees Resurgence

Macro Context

Core Inflation

- Month-over-month, core inflation saw a decline to 2.81%.
- Last year, core inflation was measured at 3.81%.

As mentioned above, the upside price risk is being driven by an increase in producer costs, not by a shift in demand (i.e., unlike the COVID demand shock coming out of a period of massive supply constraints). Given this inherently margin-squeezing dynamic, we don't believe that the demand destruction typically associated with recession will be effective in counteracting price movements. Additionally, many consumer necessities—particularly food—are being impacted, and these categories generally do not experience the same levels of demand destruction as discretionary segments.

Source: U.S. Bureau of Labor Statistics

Unemployment Rate Ticks Upward

Housing Market

Unemployment Rate

- The unemployment rate rose to 4.2%.
- Year-over-year, unemployment has risen 7.7%.

Unemployment is at an interesting point, as we find ourselves in a lull. It's a relatively quiet moment in the employment landscape, with soft layoffs (such as back-to-office mandates) increasing and uncertainty putting a pause on hiring. If one-year forward employment expectations are any indicator, people are taking notice and beginning to buckle in. We anticipate that as margin compression sets in—top-line growth stifled by economic headwinds and tariff-driven cost increases hitting as existing inventory is replaced—companies will pull the "easy" lever of belt-tightening and headcount reductions (see Meta's "getting fit" initiative for reference).

Source: U.S. Bureau of Labor Statistics

Housing Market

Mortgage Rates Remain Elevated

Housing Market

Mortgage Rates

- As of April 24, 2025, mortgage rates are at 6.81%.
- Mortgage rates have slightly declined from their 7.04% peak in January.

To start, we would like to address the claim that the Fed needs to cut rates to improve home affordability—a view that fundamentally misunderstands how mortgage rates are built. Mortgage rates begin with a longer-term benchmark, typically the 10-year Treasury yield, with a risk premium spread added on top. This spread fluctuates based on several factors: economic conditions, rate volatility, and, most importantly, the CDO market's appetite for mortgage-backed securities (MBS). Given the 10-year's departure from short-term rates (a steepening of the curve), we anticipate that any Fed cuts would only moderately benefit mortgage rates, and we still maintain an end-of-year expectation of rates around 6%.

Source: Freddie Mac

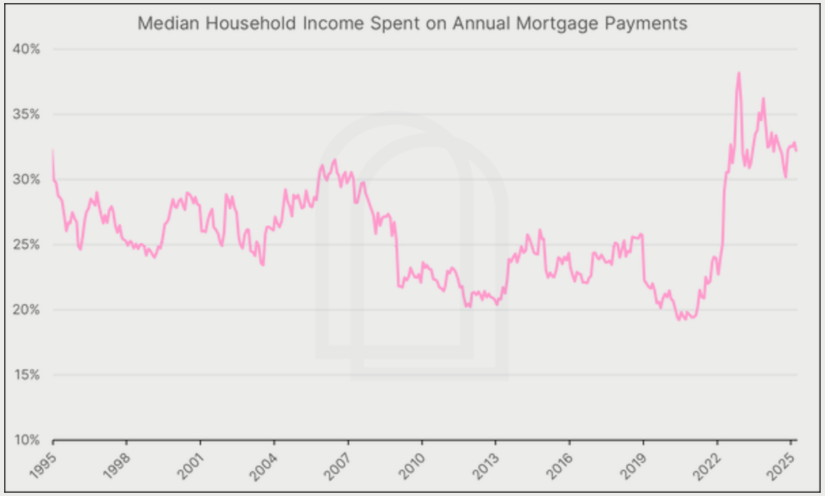
Affordability Continues to Remain an Issue

Housing Market

Mortgage Payments to Household Income Ratio

- Month-over-month, this metric slightly declined to 32.2%.
- Year-over-year, we saw a slight decline of 4.1%.
- When zooming out five years, we see a massive increase of 60.4%.

With our expectation that mortgage rates will remain in the 6–7% range this year, and with limited wage gains due to economic contraction, the only variable left to improve the mortgage payment-to-household income ratio is a decline in home prices.

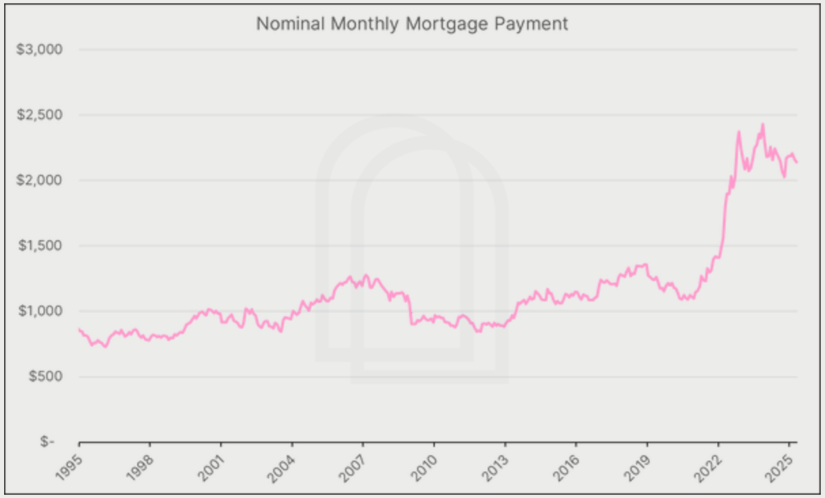


Source: Reef Insights

Housing Expense Change

- Month-over-month, the nominal monthly mortgage payment saw a slight decline to $2,141.
- Year-over-year, this metric has declined 0.86%.
- When zooming out five years, we see a massive increase of 94.42%.

Overall, we would expect an increase in nominal payments over the past five years given the inflation we have experienced. However, the magnitude of this increase has far outpaced inflation, and as mentioned above, we see only one remaining lever to return activity to the market: prices.



Source: Reef Insights

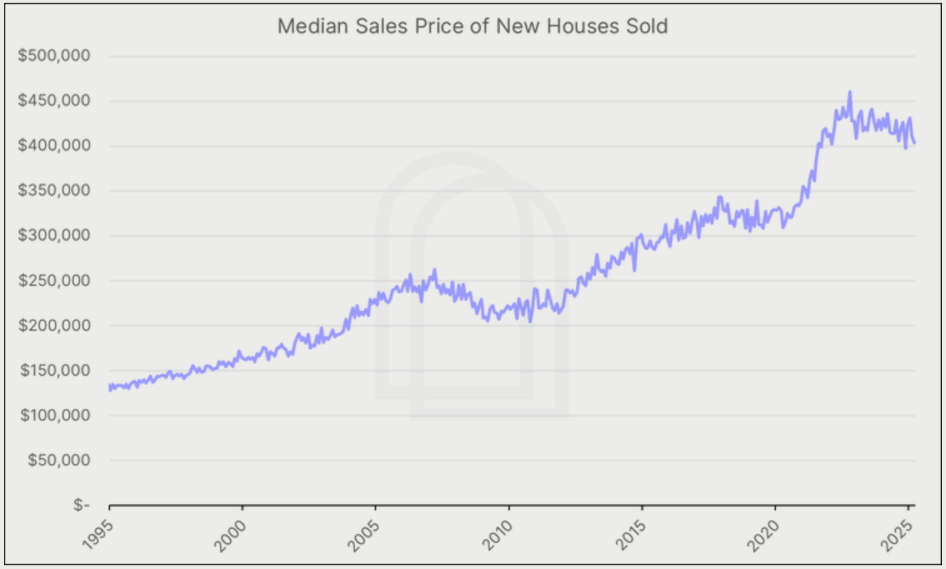
New Home Valuations Decline

Housing Market

Median Sales Price of New Houses Sold

- Month-over-month, the median sales price declined to $403,600.
- Year-over-year, the median sales prices declined by 7.52%.
- Of note, this does not include homebuilder buydowns.

Sales volume for new homes has hovered around the same level for the past few years, and relative to historical norms, this level is typical. However, inventory continues to rise as completions outpace sales, leading to increased pricing pressure.



Source: U.S. Census Bureau

Supply & Construction

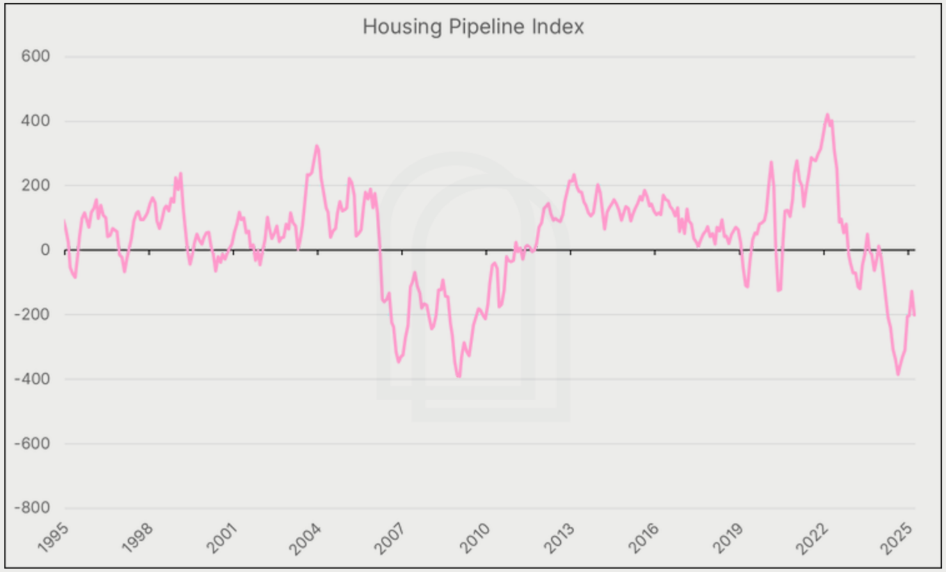
Housing Pipeline Signals Contraction and Caution

Supply & Construction

Housing Pipeline Index

- Month-over-month, the disparity grew to -200,000 units.
- After having seen a reversion toward the mean last month, the disparity is headed away again.

As expected, we view the improvement in the housing pipeline index as more noise than signal. Builders are sitting on a massive backlog of inventory, and we expect housing starts to continue lagging as in-progress builds move through to completion.



Source: Reef Insights

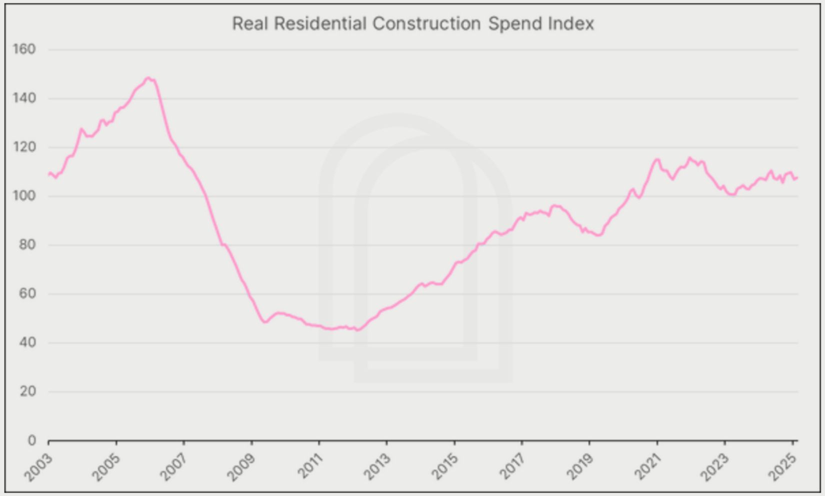
Construction Spending Flat Amid Inventory Surge

Supply & Construction

Real Residential Construction Spend

- Month-over-month, the index saw a slight increase to 107.7.
- Year-over-year, the index has increased by 0.37%.

The relatively flat year-over-year numbers are expected, as the in-progress pipeline continues to feed through the system. We anticipate that as this pipeline rolls over, the lack of new starts will contribute to a decrease in spending within the sector.

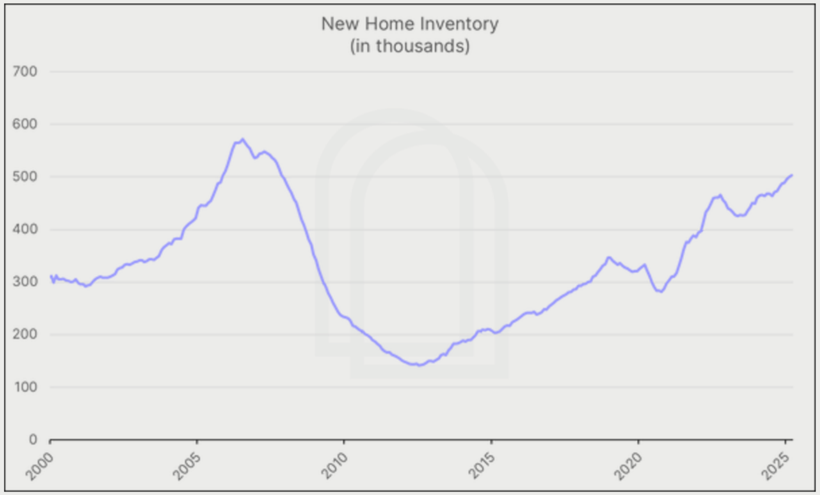


Source: Reef Insights

New Home Inventory

- Month-over-month, new home inventory rose to 503,000.
- Year-over-year, inventory has increased by 7.94%.
- The only other time inventory has been this high was leading up to the GFC.

500,000 new homes in inventory is a significant number, as there have only been a handful of times in recorded history that inventory has reached these levels. In fact, the only period when inventory was this high was from November 2005 to November 2007.



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

Housing Supply Continues to Rise

Supply & Construction

New Housing Supply

- Month-over-month, the months' supply declined to 8.3.
- Year-over-year, the months' supply increased by 1.22%.

Remember, these metrics are often seasonal, so we primarily need to consider the year-over-year change. A modest increase is a positive sign; however, 8.3 is still above historical averages, indicating that the new housing market continues to struggle.

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

Existing Housing Supply

- Month-over-month, the months' supply rose to 4.0.
- Year-over-year, the months' supply has risen 25%.

Sales volume for existing homes has remained below historical averages, and this, in part, is causing the months' supply of existing housing to rise as homeowners look to sell.

Source: National Association of Realtors

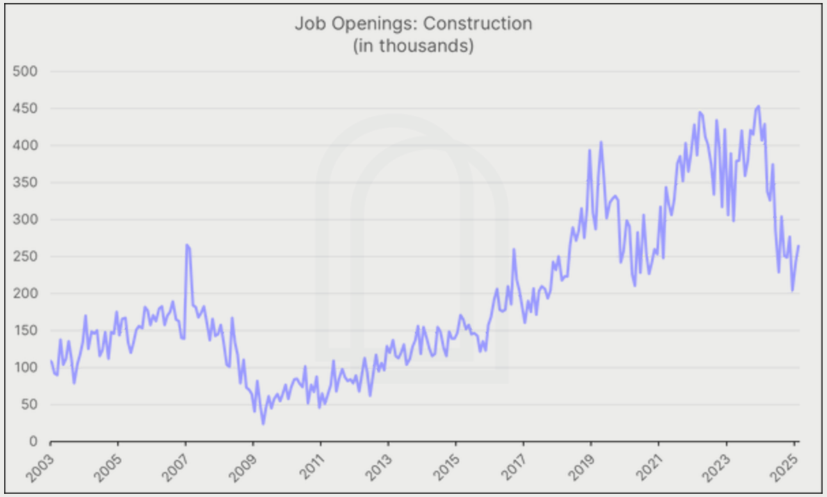
Job Openings Plummet Amid Shrinking Pipeline

Supply & Construction

Construction Job Openings

- Month-over-month, construction job openings rose to 264,000.
- Year-over-year, construction job openings have declined 38.5%.

The month-over-month increase in openings is likely more seasonal noise than an actual signal regarding employment in the sector, with year-over-year numbers still showing the construction sector in serious pain.

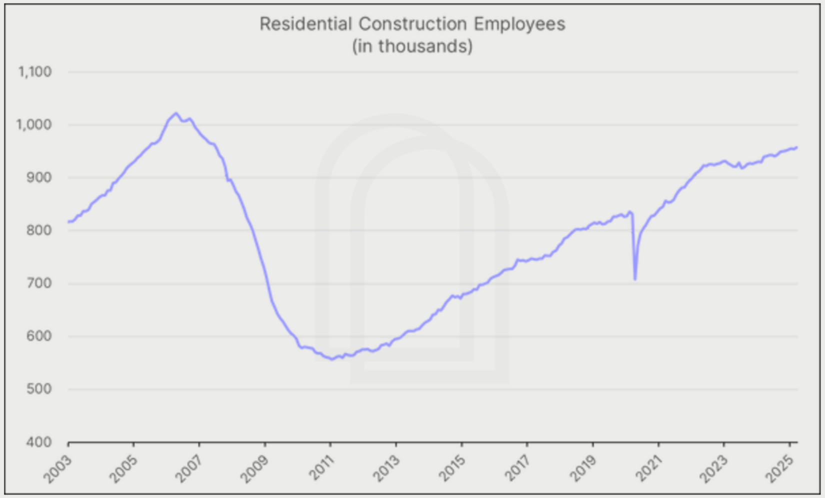


Source: U.S. Bureau of Labor Statistics

Residential Construction Employees

- Month-over-month, residential construction employees increased to 958,000 employees.
- Year-over-year, we've seen a 1.94% increase in employees.

A couple of factors we continue to consider are increases in remodeling, as people stay in their homes, and the repair of natural disaster damage in California and Florida (as well as other southeastern coastal states). The decline in openings is most likely reflecting the housing pipeline index, which shows a contraction in starts and in-progress builds reaching completion.



Source: U.S. Bureau of Labor Statistics

Market Risks & Outlook

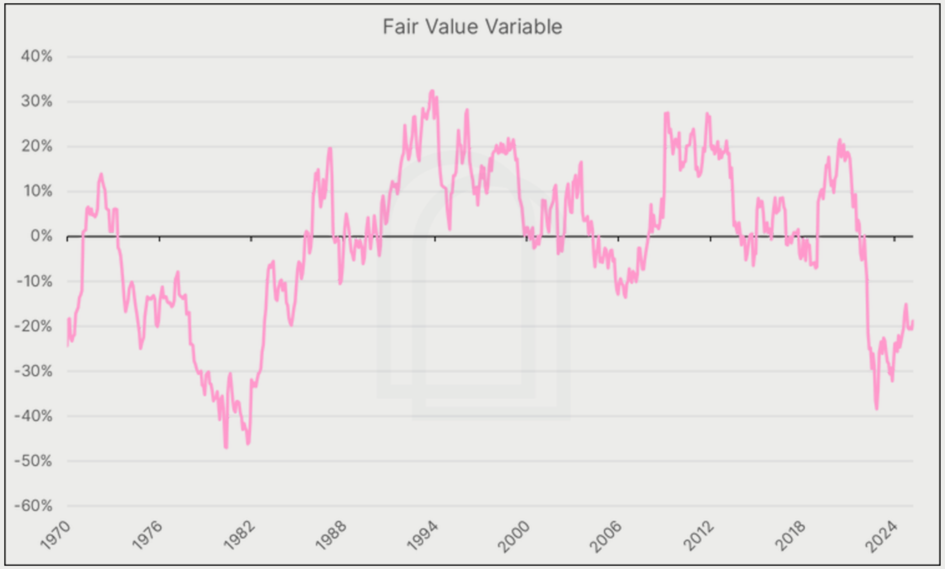
Deeply Overvalued FVV Territory

Market Risks & Outlook

Fair Value Variable

- Month-over-month, our FVV metric declined to 18.8%.
- The last time this metric was this low was in 1984.

We have been in deeply overvalued territory on the FVV indicator for some time, particularly since the increase in rates. Given the poor rate outlook, we believe the only mechanism to return the market to a more typical state will be price discovery. Since volume is incredibly low, this discovery process has taken longer than in other assets that trade more frequently. If we had a market like the stock market to benchmark the assets against, we would likely already see the declines that sellers are reluctant to accept and buyers need.



Source: Reef Insights

Massive Manufacturing Contraction

Market Risks & Outlook

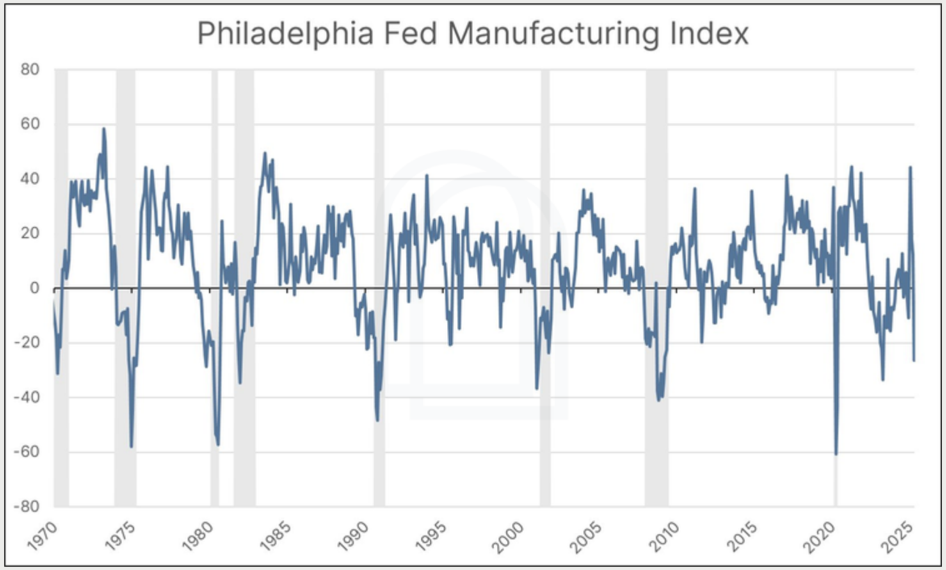
The Federal Reserve Bank of Philadelphia publishes a monthly Manufacturing Business Outlook Survey.

There have only been two instances where this index declined more than the most recent drop: during the COVID-19 pandemic and the Great Financial Crisis.

In March 2025, the index measured -26.4, significantly lower than both the expected value of 2.2 and the previous reading of 12.5.

The month-over-month change of -38.9 was only surpassed in March and April of 2020, and in October 2008.

The manufacturing sector is experiencing a significant contraction as companies navigate the uncertainty created by the administration's tariff policy.



Source: Federal Reserve Bank of Philadelphia

China’s Positioning (1/2)

Market Risks & Outlook

The market is likely assuming that this tariff policy will be short-lived, but the assumption that the trade war with China will end soon may be misguided.

While we represent 13.9% of China's total exports, China represents 7.3% of our total exports. The impact that the administration has stated this trade conflict will have on China will also be felt by everyday Americans. Chinese Foreign Ministry spokesperson Lin Jian has conveyed that applying extreme pressure on China is misguided. He emphasized that if the U.S. insists on continuing the tariff war, China is prepared to "fight to the end," urging the U.S. to abandon its confrontational approach and return to constructive dialogue.

China remained the United States' third-largest goods export market in 2023. Key export categories included soybeans, crude petroleum, and petroleum gas.

Soybeans are expected to be among the hardest-hit commodities in the Chinese market, mirroring the fallout from Trump’s first trade war.

The Midwest states of Iowa, Illinois, and Minnesota collectively sold about $12.8 billion worth of soybeans to China in 2024. That figure is now at risk due to China’s retaliatory measures. In addition to domestic ramifications, China has been engaging in talks with European leaders to foster stronger trade relations.

China’s Positioning (2/2)

Market Risks & Outlook

High-level meetings, such as President Xi Jinping's discussion with Spanish Prime Minister Pedro Sanchez, have focused on collaboration against unilateral U.S. actions and exploring trade opportunities in sectors like electric vehicles and agriculture.

This pivot puts us at a disadvantage, as the countries we would turn to in order to decouple from China have been visited by President Xi this month.

President Xi Jinping embarked on a diplomatic tour of Vietnam, Malaysia, and Cambodia, aiming to position China as a stabilizing force in Asia. During this tour, China signed multiple agreements with Vietnam and Malaysia, focusing on infrastructure, technology, and semiconductor supply chains.

These efforts are part of China's strategy to counteract U.S. protectionist policies and to present itself as a reliable partner in the region. This global tariff war will have far-reaching consequences for Americans, and the prevailing market assumption that it will end soon may be fostering optimism that could soon begin to sour.

Strategic Exemptions (1/3)

Market Risks & Outlook

Show me an incentive, and I'll show you an outcome.

The most outstanding blunder, aside from all the other mishaps in the reciprocal tariff plan, is the lack of strategic exemptions. If the goal is to bring back manufacturing to the US, there are a few things that need to happen to make it viable—namely exemptions.

Exemptions can be used in a strategic way to make the barrier to new entrants and current participants expanding capacity domestically more feasible. Let's take a look at a couple examples to illustrate the point, but by no means is this an exhaustive list.

Perhaps the largest non-land/building asset required to produce goods is machinery and equipment. The thing that makes the things. By not providing exemptions for key pieces of equipment necessary to increase domestic capacity, we are trying to sprint forward with a parachute on our back—it's doable, however the economics required to make this work require basically free cost of capital or sale prices too high for the market's demand. For example, an injection molding press from Japan, prior to the pause, would have faced a 24% tariff. This means a $300,000 machine would cost an additional $72,000. For every four presses purchased, that's the equivalent of one extra press's worth of capital going toward tariffs.

For another example, an industrial robotic arm from South Korea used in production automation would be subject to a pre-pause total tariff rate of 27.5%. Once again, this illustrates that for every four robotic arms purchased, one is effectively lost to tariffs—capital that could otherwise be used to boost productivity.

Strategic Exemptions (2/3)

Market Risks & Outlook

Along with equipment, tooling is another large asset purchase required to make things. Whether it is injection molding, blow molding, thermoforming, stamping, die cutting, pressing, etc. Anything that requires someone to take a raw material and shape it into something most likely requires some form of tooling. The issue arises when companies have existing tooling in other countries. For example, if an injection molding company has tooling in China—and has had it there for decades—it, along with its customer, faces a difficult decision: do they pay the steep tariffs to bring production back to the U.S., or do they relocate the tooling to a lower-tariff country and absorb the increased per-piece cost? If the cost of either option proves unfeasible for the project, the project is effectively set up to fail.

If there were an exemption for bringing tooling back to U.S. manufacturers, there would at least be a chance it could happen. For example, a steel injection molding tool from China now has a 198% tariff rate. Let’s say you did have that tool in China, and its value is currently $100,000. You would now have to face a $198,000 bill to customs to bring that manufacturing back to the US. Depending on the volume of parts being produced, this simply is too large of a cost to pass along.

One of the biggest advantages the U.S. has over other countries is the enormous amount of capital available. This capital gives U.S. manufacturers the opportunity to compete globally by investing in production, quality improvements, and automation to enhance both product quality and productivity. Renovating and building modern manufacturing facilities requires a wide range of machines—many of which are not made in the U.S. And in cases where they are, they often aren't produced in the quantities needed to accelerate the reshoring of production.

Strategic Exemptions (3/3)

Market Risks & Outlook

To support this transition, we need to exempt robotics and automation equipment from increased trade barriers so that U.S. manufacturers can scale efficiently and remain competitive. For example, an industrial robotic arm from South Korea used in production automation would be subject to a pre-pause total tariff rate of 27.5%. Once again, this illustrates that for every four robotic arms purchased, one is effectively lost to tariffs—capital that could otherwise be used to boost productivity.

If the U.S. is serious about revitalizing domestic manufacturing, strategic exemptions must be part of the plan. Tariffs without nuance are blunt instruments—they fail to distinguish between what hinders our competitiveness and what enhances it.

Machinery, tooling, and automation are not luxury imports; they are the foundational investments required to produce goods efficiently and at scale. Penalizing companies for acquiring the very tools they need to compete only undermines the broader goal of reshoring. Again, we need the thing that makes the things.

Forecasts

Given the uncertainty and rapidly changing environment, we are foregoing making forecasts this month. Truly, we wish you the best of luck out there.

We have supplied as much useful information as we can throughout the report and that is probably enough to get you some directional vibes on where things are headed.

If anything is to be expected, more certainty is likely not one.

– The Reef Insights Team

Data Table

Metric	This Period	Last Period	Year Ago	Latest Release
Housing Starts: Total Units	1,324	1,494	1,299	Mar-25
New Housing Supply	8.30	8.90	8.20	Mar-25
Existing Housing Supply	4.00	3.50	3.20	Mar-25
Nominal Median Sales Price of Houses Sold	$ 416,900	$ 419,300	$ 426,800	Jan-25
New Building Permit Authorizations: Total Units	1,467	1,459	1,485	Mar-25
Case-Shiller Index	323.54	323.33	310.86	Jan-25
Residential Construction Employees	958	955	940	Mar-25
Nominal Mortgage Rates	6.65	6.76	6.79	Apr-25
Deliquency Rates: Single-Family	1.77	1.74	1.71	Oct-24
Deliquency Rates: Commercial	1.57	1.51	1.17	Oct-24
PPI: Residential Construction	326	325	317	Mar-25
Construction Spending: Residential	$ 941	$ 929	$ 925	Feb-25
Housing Inventory: Median Days on Market	53	66	47	Mar-25
Nominal Monthly Mortgage Payment	$ 2,141	$ 2,165	$ 2,160	Apr-25
Real Mortgage Payment Index	579.85	591.18	604.61	Mar-25

Data Table

Metric	This Period	Last Period	Year Ago	Latest Release
Median Household Income Spent on Annual Mortgage Payments	32.24	32.87	33.61	Mar-25
Fair Value Variable	(18.78)	(20.66)	(25.69)	Mar-25
Housing Expense Change	25.42	26.30	34.38	Mar-25
Nominal Median Household Income	$ 80,610	$ 74,580	$ 74,580	2023
Headline Inflation	2.41	2.81	3.47	Mar-25
Core Inflation	2.81	3.14	3.81	Mar-25
Unemployment Rate	4.20	4.10	3.90	Mar-25
Federal Funds Rate	4.33	4.33	5.33	Mar-25
Personal Savings Rate	4.60	4.30	5.40	Feb-25
Jobless Claims	222,000	216,000	209,000	Apr-25
10-Year U.S. Treasury Yield Minus 2-Year U.S. Treasury	(0.34)	(0.26)	(0.84)	Apr-25
Residential Rental Vacancy Rate	6.90	6.90	6.60	Oct-24
Real Residential Construction Spend Index	107.66	106.97	107.26	Feb-25
Household Savings	$ 1,162	$ 711	$ 711	2023
Bank Credit: All Commercial Banks	$ 18,302	$ 18,223	$ 17,523	Apr-25

Data Table

Metric	This Period	Last Period	Year Ago	Latest Release
Delinquency Rates: Credit Card	3.08	3.20	3.10	Oct-24
Gross Domestic Product (GDP)	$ 29,724	$ 29,375	$ 28,297	Oct-24
M2 (Money Supply)	$ 21,763	$ 21,671	$ 20,901	Mar-25
Federal Reserve's Balance Sheet	$ 6,727	$ 6,727	$ 7,402	Apr-25
PCE: Headline Inflation	2.54	2.52	2.59	Feb-25
PCE: Core Inflation	2.79	2.66	2.93	Feb-25
Debt-to-GDP	121.85	120.73	120.16	Oct-24
Real GDP	$ 23,542	$ 23,400	$ 22,961	Oct-24
Trucking Employees	1,526	1,516	1,531	Mar-25
Industrial Production	104	104	103	Mar-25
Credit Card Interest Rates	21.37	21.47	21.59	Feb-25
Charge-Off Rate: Credit Card Loans	4.48	4.37	4.07	Oct-24
Charge-Off Rate: Business Loans	0.50	0.55	0.41	Oct-24
Charge-Off Rate: Commercial Real Estate Loans	0.26	0.23	0.24	Oct-24
Yield Curve	0.24	0.36	(0.34)	Mar-25

Data Table

Metric	This Period	Last Period	Year Ago	Latest Release
Total Assets: Money Market Funds	$ 7,243,180	$ 6,839,054	$ 6,357,551	Oct-24
Federal Government Interest Payments	$ 1,124	$ 1,117	$ 1,031	Oct-24
CPI: Rent in U.S. City Average	432	431	415	Mar-25
Consumer Loans: Credit Card Debt	$ 1,095	$ 1,089	$ 1,056	Apr-25
New Single-Family Home Sales	724	674	683	Mar-25
New Housing Units Completed	1,549	1,582	1,491	Mar-25
Job Openings: Construction	264	242	429	Feb-25
New Homes: Median Square Footage	2,157	2,169	2,199	Oct-24
Median Sales Price of New Houses Sold	$ 403,600	$ 411,500	$ 436,400	Mar-25
Job Openings: Total Nonfarm	7,568	7,762	8,445	Feb-25
Housing Inventory: Active Listing Count	892,561	847,825	694,844	Mar-25
New Home Inventory	503	500	466	Mar-25
Quits: Total Private	2,998	3,078	3,276	Feb-25

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.

Sources

Metric	Frequency	Sources	Notes
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.
Deliquency 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.
Deliquency 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.

Sources

Metric	Frequency	Sources	Notes
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.
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.

Sources

Metric	Frequency	Sources	Notes
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.
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.

Sources

Metric	Frequency	Sources	Notes
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.
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.

Sources

Metric	Frequency	Sources	Notes
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.
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 Invetory: 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.

About

Changing the Future Requires Understanding the Present.

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We also send out a daily newsletter called, Reef Daily, which provides a quick summary of notable real estate transactions across the country and highlighting any notable events in real estate and economics.

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