

BofA US Home Sales Indicators

New and existing homes sales are still poised to improve despite rate headwinds

Industry Overview

BofA US New & Existing Home Sales Indicators improved

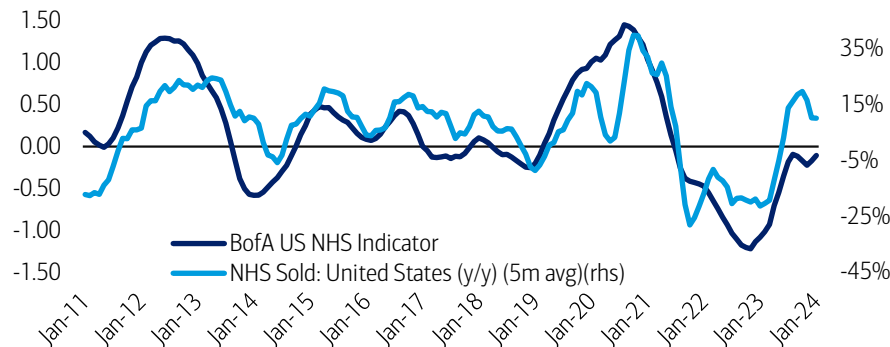
The BofA US New and Existing Home Sales Indicators have both improved sequentially as compared to [last month](#), as household formation and robust job growth offset stubbornly elevated mortgage rates. See the [BofA US Home Sales Indicators](#) launch note for an explanation of the methodology, disclaimers and limitations of the variables.

NHS Indicator uptick driven by builder confidence, supply

New home sales continue to grow YoY but moderated in January. We expect an acceleration in the key Spring selling season supported by the strong job market, favorable demographics (growing number of households), and low existing home supply. Despite higher mortgage rates and lower MBA mortgage applications this past month, 5 out of 8 variables are tracking neutral or positive and suggests growth will accelerate in 1Q24 after having had a brief slowdown at the end of 2023.

Exhibit 2: BofA US New Home Sales Indicator vs. new family houses sold year over year

The indicator leads new home sales by three months with a positive correlation (0.77) since 2013



Source: BofA Global Research, US Census Bureau. **Note:** The BofA US New Home Sales Indicator identified above is intended to be an indicative metric only and may not be used for reference purposes or as a measure of performance for any financial instrument or contract, or otherwise relied upon by third parties for any other purpose, without the prior written consent of BofA Global Research. This indicator was not created to act as a benchmark.

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EHS Indicator: buyer confidence turning more positive

Our EHS Indicator is still improving as 5 out of 7 variables are tracking neutral or positive, despite rising mortgage rates, lower MBA mortgage applications, and a flat number of respondents who say it's a good time to buy. Existing home sales rose in January, suggesting a potential trough after tracking at the lowest level since 2010 in December. The EHS indicator suggests inventory levels likely need to increase to get a significant (>15%) recovery in 2024. Existing home inventory is historically low with 79% of current homeowners locked in at <5% mortgage rates. Lower mortgage rates could be a catalyst to unlock additional supply.

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Refer to important disclosures on page 8 to 10.

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Exhibit 1: Trends of key inputs

Directional trends of indicators' inputs

BofA US New Home Sales Indicator	
Input	Trend
Financing and affordability	▼
Demographics	▲
Homebuyer confidence	■
Homebuilder confidence	▲
Housing supply	▲
Real-Time Trends	▼
BofA US Existing Home Sales Indicator	
Input	Trend
Financing and affordability	▼
Demographics	▲
Homebuyer confidence	■
Housing supply	▼
Real-Time Trends	■

Source: BofA Global Research

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MBA: Mortgage Bankers Association

BofA US New Home Sales Indicator

NHS Indicator driven by builder confidence and supply

New home sales continue their recovery in January, which we expect to continue into Spring selling. The strong job market, favorable demographics (growing number of households), and low existing home supply remain tailwinds to the new home market in our view. Despite higher mortgage rates and lower MBA applying inflecting negative this past month, our NHS Indicator is still rising with 5 out of 8 variables tracking neutral or positive and suggests growth will accelerate in 1Q24 after having had a brief slowdown at the end of 2023. The NHS Indicator ticked up to (0.11), as compared to (0.17) in December.

Exhibit 3: Key inputs of BofA US New Home Sales Indicator

2 variables flipped to tracking negative and 1 variable improved to neutral in January, and now 5 out of 8 of the variables are tracking neutral or positive

Component	Data	Last Updated	Y/Y Direction	Sequential Direction	Discretionary Direction Classification	Direction Explanation
1) Financing and affordability						
Freddie Mac 30-year mortgage rate	6.77%	Weekly as of February 15th, 2024	↑	↑	▼	Mortgage rates edged up in January following two months of decreasing rates after October peak
% Consumer Confidence						Home buyer confidence declined further as mortgage rates went up in October, but should increase with the lower rates
Respondents Who Say Mortgage Rates Will: Go Up	28.0%	Monthly as of January 2024	↓	↓	■	Affordability remains historically low
Affordability: P&I by Median Household Income*	0.89	Monthly as of January 2024	↑	↑	▼	
2) Demographics						
Number of US Households (thousands)	131,206	Monthly as of January 2024**	↑	↓	▲	Household estimates are still higher than historical average
3) Homebuyer confidence						
% Respondents Who Say it is a Good Time to Buy	17%	Monthly as of January 2024	=	=	■	% of respondents that believe it is a bad time to buy stayed flat MoM, but should move up if mortgage rates fall further
4) Homebuilder confidence						
Homebuilder Confidence Survey: Single-Family Sales over next six-months	60	Monthly as of February 2024	↑	↑	▲	Homebuilder confidence has increased recently following mortgage rate decrease
5) Housing Supply						
Homeowner Vacancy Rate	0.90	Quarterly as of December 2023**	↑	=	▲	Historically low vacancy rates
6) Real-time trends						
Mortgage Banker's Association Mortgage Application Index	188	Weekly as of March 1st, 2024	↓	↓	▼	Home buying demand fell with mortgage rates rising in January

Source: BofA Global Research, Bloomberg, Freddie Mac, Fannie Mae, US Census Bureau, Mortgage Bankers Association, US Bureau of Economic Analysis

* Median P&I / Median Household income assumes New Home Median Price based on the 30yr FRM with 80% LTV. The monthly P&I is then divided by Median Household Income.

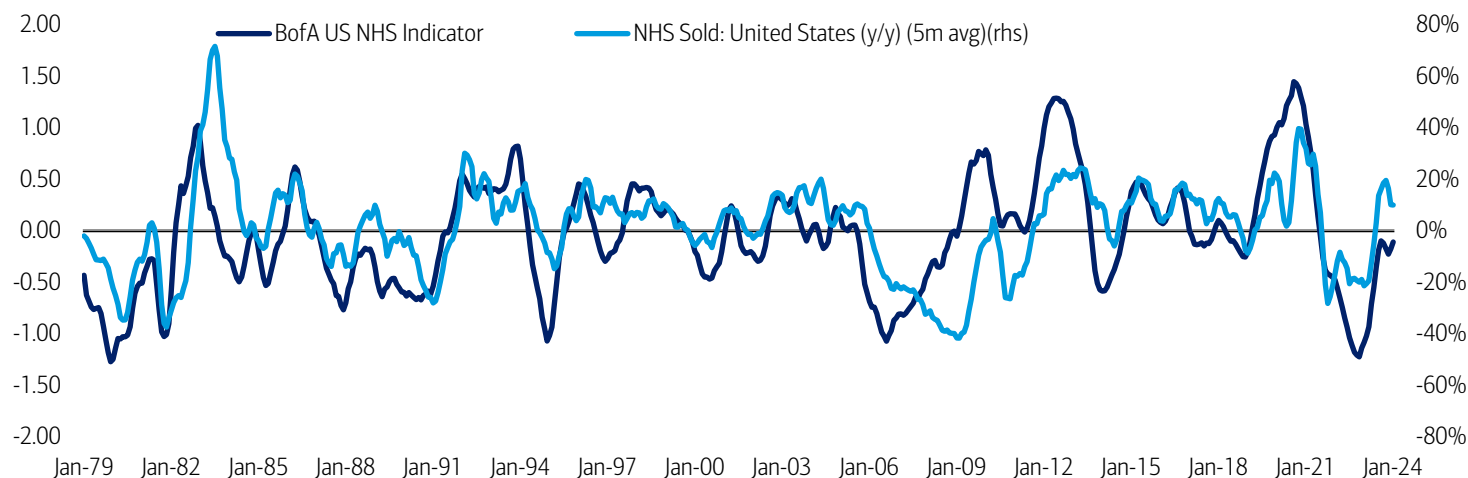
**December number of US households and homeowner vacancy rate is the rolling average of the past three months.

▲ = Favorable; ■ = Neutral; ▼ = Unfavorable

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Exhibit 4: US New Home Sales Indicator vs. new family homes sold year over year since 1979

The indicator leads new home sales by three months with a positive correlation (0.64) from 1979



Source: BofA Global Research. **Note:** The BofA US New Housing Indicator identified above is intended to be an indicative metric only and may not be used for reference purposes or as a measure of performance for any financial instrument or contract, or otherwise relied upon by third parties for any other purpose, without the prior written consent of BofA Global Research. This indicator was not created to act as a benchmark

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Potential stock implications of stronger new home sales

When the BofA US New Home Sales Indicator is rising, we see positive implications across multiple sectors from stronger new home demand and increased pace of new construction. In homebuilders and building products, we expect homebuilders and new construction leveraged building product distributors and manufacturers to outperform. In forest products/materials, lumber, panel, siding and distribution companies should benefit from an increase in housing starts. In consumer finance, mortgage insurers would likely benefit from higher origination of mortgages for new home sales, as well as lower affordability (causes increased mortgage insurance usage).

Exhibit 5: When the New Home Sales Indicator is rising...

BofA fundamental analysts see positive impact on these sub-sectors

Sector (Region)	Analyst	Sub-sector stock (Ticker)
Homebuilders (US)	Rafe Jadrosich	Homebuilders, new construction building products, distributors TopBuild (BLD US), Builders FirstSource (BLDR)
Paper, Packaging & Forest Products (US)	George Staphos	Lumber, panels, siding, distribution Weyerhaeuser (WY US), PotlatchDeltic (PCH US), Louisiana-Pacific (LPX US), Boise Cascade (BCC US)
Consumer Finance (US)	Mihir Bhatia	Mortgage Insurers
Australia Building Materials (AU)	Shaurya Visen	Building Products James Hardie (JHX AU)

Source: BofA Global Research

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January US new home sales at 661k vs. 656k long-term average

Reported by the US Census Bureau, US new home sales measures the sales of new single-family homes with seasonally adjusted rates. Since 1963, new home sales SAAR in the US have averaged at a rate of 656K. US home sales peaked in 2005 at 1.389mm homes sold during the housing bubble partially due to a drop in credit requirements that led to high mortgage demand. Post housing crash and the Global Financial Crisis, new home sales troughed at a rate of 270K in 2011. At present, we see a housing backdrop similar to the early 1980s, when interest rates spiked due to elevated inflation, and the 30-year fixed mortgage rate reached a peak of 18.4% in 1981. New home sales rebounded sharply and recovered to pre-mortgage rate spike levels by 1983. In January, new home sales SAAR rose to 661k, as compared to the revised 651k in December.



BofA US Existing Home Sales Indicator

Rising EHS Indicator driven by demographics

Rising mortgage rates, lower MBA mortgage applications, and a flat number of respondents who say it's a good time to buy inflected in the last month, but our EHS Indicator is still improving as 5 out of 7 variables are tracking neutral or positive. Existing home sales rose in January, suggesting an inflection after tracking at the lowest level since 2010 in December. The EHS indicator suggests inventory levels likely need to increase to get a significant (>15%) recovery in 2024. Existing home inventory is historically low with 79% of current homeowners locked in at <5% mortgage rates. Lower mortgage rates could be a catalyst to unlock additional supply. The EHS indicator score ticked up to (0.16), as compared to (0.24) in December.

Exhibit 6: Key inputs of BofA US Existing Home Sales Indicator

2 variables flipped to negative, and 1 variable improved to neutral in January, and 5 out of 9 of the variables are tracking neutral or positive

Component	Data	Last Updated	Y/Y Direction	Sequential Direction	Discretionary Direction Classification	Direction Explanation
1) Financing and affordability						
Freddie Mac 30-year mortgage rate	6.77%	Weekly as of February 15th, 2024	↑	↑	▼	Mortgage rates edged up in January following two months of decreasing rates after October peak
% Consumer Confidence						Home buyer confidence declined further as mortgage rates went up in October, but should increase with the lower rates
Respondents Who Say Mortgage Rates Will: Go Up	28%	Monthly as of January 2024	↓	↓	■	
Affordability: P&I by Median Household Income*	0.89	Monthly as of January 2024	↑	↑	▼	Affordability remains historically low
2) Demographics						
Number of US Households (thousands)	131,206	Monthly as of January 2024**	↑	↓	▲	Household estimates are still higher than historical average
3) Homebuyer confidence						
% Respondents Who Say it is a Good Time to Buy	17%	Monthly as of January 2024	=	=	■	% of respondents that believe it is a bad time to buy stayed flat MoM, but should move up if mortgage rates fall further
4) Housing Supply						
Homeowner Vacancy Rate	0.90	Quarterly as of December 2023**	↑	=	■	Historically low vacancy rates
US Existing Homes Inventory (millions)	44.32	Monthly as of January 2024	↓	↓	▼	Inventory is still low compared to historical average
5) Real-time trends						
Mortgage Banker's Association Mortgage Application Index	188	Weekly as of March 1st, 2024	↓	↓	▼	Home buying demand fell with mortgage rates rising in January
Pending Home Sales Index (PHSI)	152.68	Monthly as of January 2024	↑	↑	▲	Pending sales have increased YoY

Source: BofA Global Research, Bloomberg, Freddie Mac, Fannie Mae, US Census Bureau, Mortgage Bankers Association, US Bureau of Economic Analysis

* Median P&I / Median Household income assumes New Home Median Price based on the 30yr FRM with 80% LTV. The monthly P&I is then divided by Median Household Income.

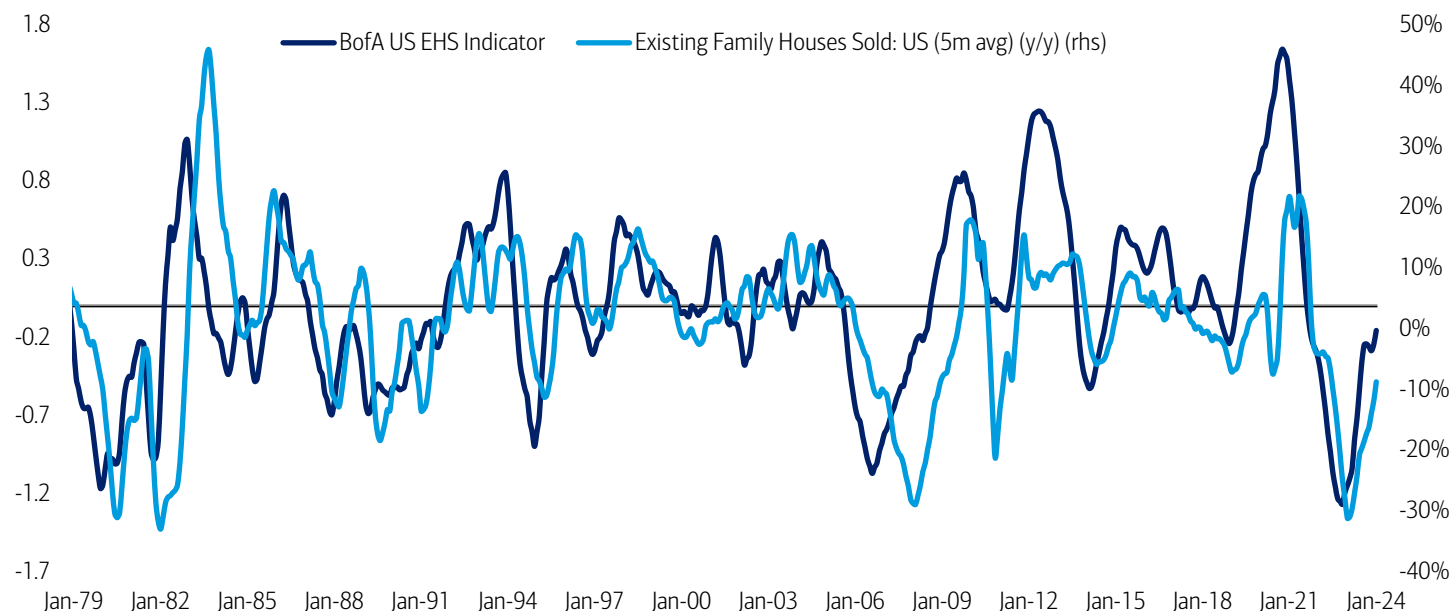
**December number of US households and homeowner vacancy rate is the rolling average of the past three months.

▲ = Favorable; ■ = Neutral; ▼ = Unfavorable

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Exhibit 7: BofA US Existing Home Sales Indicator vs. existing family houses sold year over year

The EHS indicator leads existing home sales by five months with a positive correlation (0.70 since 1979)



Source: BofA Global Research, National Association of Realtors. **Note:** The BofA US Existing Housing Indicator identified in this report is intended to be an indicative metric only and may not be used for reference purposes or as a measure of performance for any financial instrument or contract, or otherwise relied upon by third parties for any other purpose, without the prior written consent of BofA Global Research. This indicator was not created to act as a benchmark

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Potential stock implications of stronger existing home sales

When the BofA US Existing Home Sales Indicator is rising, we see positive potential implications across multiple sectors to stronger existing home sales. In building products, we expect repair and remodel focused building products companies to benefit from turnover driven renovation projects. In Hardline/Retail, home improvement retailers, mattresses, and home furnishings could all benefit from homeowners making large purchases around housing turnover. In Internet, online real estate would benefit from increased housing transactions. In consumer finance, mortgage insurers and mortgage originators would benefit from an increase mortgage activity. In real estate, self-storage companies would benefit from an increase in homeowners moving homes.

Exhibit 8: When the Existing Home Sales Indicator is rising...

BofA fundamental analysts see positive impact in these sub-sectors

Sector (Region)	Analyst	Sub-sector stock (Ticker)
Building Products (US)	Rafe Jadrosich	Building Products, mattresses Mohawk (MHK US), Masco (MAS US), Tempur Sealy International (TPX US)
Hardline Retail (US)	Robert Ohmes	Home improvement retailers, home furnishings
Paper, Packaging & Forest Products (US)	George Staphos	Lumber, panels, siding, distribution Weyerhaeuser (WY US), Potlatchdeltic (PCH US), Louisiana-Pacific (LPX US), Boise Cascade (BCC US)
Internet (US)	Curtis Nagle	Online Real Estate, home furnishings Zillow Group (ZG US), Redfin (RDFN US), Opendoor Technologies (OPEN US)
Consumer Finance (US)	Mihir Bhatia	Mortgage insurers & Mortgage originators
REITs (US)	Jeff Spector	Self-Storage Public Storage (PSA)
Australia Building Materials (AU)	Shaurya Visen	Building Products James Hardie (JHX AU), Reliance (RWC)

Source: BofA Global Research

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January US existing single family home sales at 3.6mm vs. 3.8mm average

Reported by the National Association of Realtors, existing home sales data measures the sales and prices of existing single-family homes for the United States overall at a seasonally adjusted annual rate (SAAR). Existing home sales SAAR in the United States averaged 3.77mm from 1969 to 2024, reaching an all-time high of 6.34mm in



September 2005 and a record low of 1.37mm in March 1970. Like new home sales, we see a similar backdrop as the early 1980s when mortgage rates spiked following a period of high inflation and significant home price appreciation. Due to the lock-in effect of mortgage rates, existing home supply remains depressed.

Methodology, Risks and Disclaimers

Components of the Indicators (New Home Sales)

We worked with our Predictive Analytics team to analyze over 200 data series to build a proprietary indicator for the New Home Sales as reported by US Census Bureau.

We tested each variable with different lag periods to determine the best fit and identified eight variables that are not only intuitive drivers of house building activity, but also have good correlation with the S&P S15HOME Index. We then selected metrics that met key criteria including consistency, promptness of reporting (relative to month end), and economic significance. We focused on data that is available monthly with a reasonable length of history (five variables since 1976 and rest with more than 10 years of history). The indicator in its full form with all eight variables begins in December 2010. We believe this indicator helps deepen the understanding of New Home Sales with U.S. macro factors.

Exhibit 10: Components of the BofA New Home Sales and Existing Home Sales Indicators

The New Home Sales and Existing Home Sales Indicators are comprised of eight and nine components, respectively

Component	Source	Measure of	Indicator
1) Financing and affordability			
Freddie Mac Enhanced PMMS US 30 Year FMR	Freddie Mac, Bloomberg	30-year-fixed-rate mortgage	Both
Respondents Who Say Mortgage Rates Will: Go Up	Fannie Mae, Bloomberg	Home purchase sentiment	Both
Affordability: P&I by Median Household Income	US Bureau of Economic Analysis	Income and US affordability	Both
2) Demographics			
Household Estimates	US Census Bureau	Number of US Households (thousands)	Both
3) Homebuyer confidence			
Net Percent of Respondents Who Say it is a Good Time to Buy (%Bal)	Fannie Mae	Housing market sentiment	Both
4) Homebuilder confidence			
Homebuilder Confidence Survey: Single-Family Sales over next six-months	US Census Bureau	Future single family housing sales	New Home Sales Indicator
5) Housing Supply			
Homeowner Vacancy Rate	US Census Bureau	US Housing market	Both
US Existing Homes Inventory	NAR, Redfin.com	Existing home sales activity	Existing Home Sales Indicator
6) Real-time trends			
MBA US FRM Index NSA	Mortgage Bankers Association, Bloomberg	US single-family loan application activity	Both
Pending Home Sales Index (PHSI)	NAR, Redfin.com	Pending home sales activity	Existing Home Sales Indicator

Source: BofA Global Research

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Weighting of variables (New Home Sales)

The BofA New Home Sales Indicator is constructed by taking an equal-weighted average of the smoothened z-scores of the eight input variables. Our historical backtested correlation analysis indicates that these eight variables in aggregate have a strong correlation with New Home Sales growth, and we believe the New Home Sales can be an effective proxy to gauge New Home Builders Index. As a best practice, we believe the indicator should be viewed in context of several months, and general directionality, rather than focusing solely on monthly readings that can fluctuate.

Components of the Indicators (Existing Home Sales)

We worked with our Predictive Analytics team to analyze over 200 data series to create a proprietary indicator for the Existing Home Sales as reported by US Census Bureau.

We tested each variable with different lag periods to determine the best fit and identified nine variables that are not only intuitive drivers of Existing Home Sales activity, but also have good correlation with their S&P S15BUILX Index. We then selected metrics that met key criteria including consistency, promptness of reporting (relative to month end) and economic significance. We focused on data that is available on a monthly basis with a reasonable length of history (five variables since 1976 and rest with more than 10 years of history). The indicator in its full form with all eight variables begins in December 2010. We believe this indicator helps deepen the understanding of Existing Home Sales relationship with U.S. macro factors.

Weighting of variables (Existing Home Sales)

The BofA Existing Home Sales Indicator is constructed by taking an equal-weighted average of the smoothened z-scores of the eight input variables. Our historical correlation analysis indicates that these nine variables in aggregate have a strong correlation with Existing Home Sales growth, and we believe the Existing Home Sales can be an effective proxy to gauge Building Materials Index. As a best practice, we believe the indicator should be viewed in context of several months, and general directionality, rather than focusing solely on monthly readings that can fluctuate.

Disclaimers, Risks and Limitations

The composition of our indicator will be subject to review every 6 - 12 months. We will monitor the continued relevance, availability, and timing of each variable and evaluate the inclusion of additional data series. We reserve the right to modify the setup of the, but do not intend to make frequent changes. However, any future modifications will be made to increase the statistical performance of our indicator. When the inputs have been released with a delay, we have used the last available data point for our calculation. Historical correlation may not result in future correlation.

Another risk can be attributed to divergence of the target variable from underlying components of the indicator. For example, during the period of Oct-92 to Mar-93 the NHS slowed from 22% to 3% even though the mortgage rates and affordability improved considerably and our indicator remained flat as Household Estimates deteriorated.

Equal weighting of variables could overlook potential disproportionate impact on demand from certain variables. Changes in these inputs may significantly impact the indicator. Additionally, there could be potential correlations not accounted for among our set of variables, meaning that prediction in New Home Sales demand changes could be amplified.

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Investment rating	Total return expectation (within 12-month period of date of initial rating)	Ratings dispersion guidelines for coverage cluster ^{R1}
Buy	≥ 10%	≤ 70%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

^{R1} Ratings dispersions may vary from time to time where BofA Global Research believes it better reflects the investment prospects of stocks in a Coverage Cluster.

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