

Health of Housing Markets (HoHM) Report

From Nationwide Economics

2018 Q2

(Data as of 2018 Q1)

Housing outlook falls to lowest level since the end of the housing bust

- The national LIHHM* fell to the lowest level since the end of the housing bust. Deteriorating housing affordability and below-average household growth lowered the outlook for sustainable growth.
- Damaged homes and displaced households from the 2017 hurricanes raised mortgage delinquency rates in Florida and Texas, helping to decrease the national LIHHM. This should be temporary and is unlikely to weigh on the national housing market in the long term. Without this temporary factor the national LIHHM would still be positive, but barely.
- Regional rankings paint a more optimistic picture for housing sector health. The majority of MSAs were ranked positive, indicative of ongoing sustainable growth in housing activity, while only 18 MSAs received a negative rating.
- Home price appreciation in over 75 percent of MSAs was above the local long-term average over the past year. After several years of rapid price gains, single-family housing has become increasingly less affordable in many metros, worsening the outlook for housing sustainability in those areas.

* *Leading Index of Healthy Housing Markets (LIHHM): A data-driven view of the near-term performance of housing markets for the nation as a whole as well as for 400 metropolitan statistical areas (MSAs) and divisions.*

Housing Market Health Status: **Moderating**

National LIHHM: **Neutral**

101.1

The LIHHM score is neutral – neither a positive or negative reading.

Markets: **Mixed**

Job gains remain the strongest driver for the housing markets, although rapid price appreciation, a temporary blip in delinquency rates, and weaker demographics weigh on the outlook.

Jobs: **Solid**

Demographics: **Average**

Prices: **Concerning**

Mortgage Market: **Weakening**

MSA Performance: **Positive**

The majority of local housing markets are healthy.



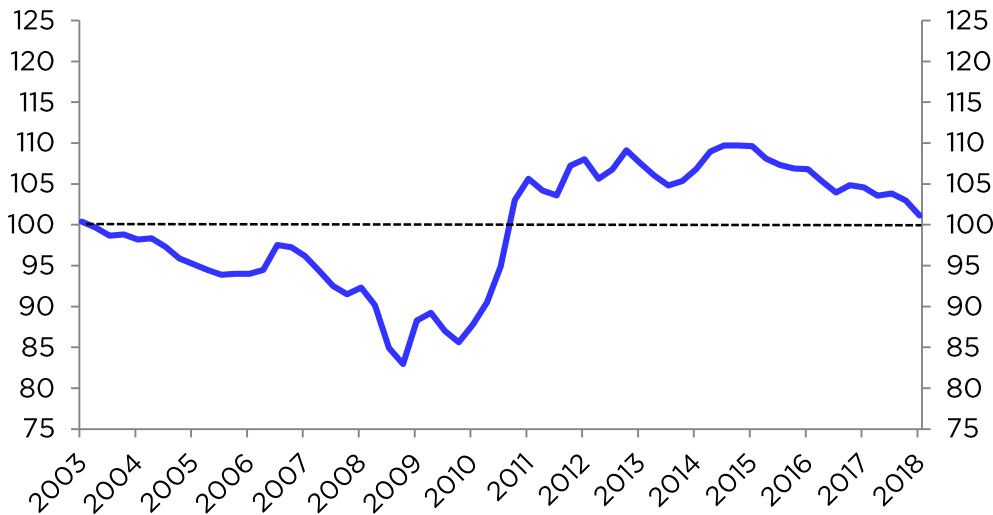
Negative: 18 Neutral: 160 Positive: 222

Delinquencies, affordability, and demographics pushed the LIHHM into neutral territory

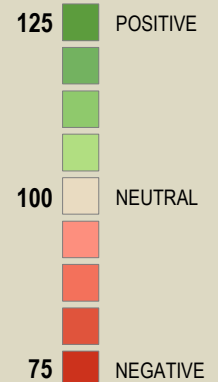
The national LIHHM continued to trend lower this quarter and dipped into neutral territory for the first time since 2004*. Worsening housing affordability and slower household formations caused the index to steadily pull back over the past year, along with a temporary rise in delinquencies (see below). House price gains have strengthened due to a lack of housing supply. These gains have also lowered affordability relative to incomes considerably. On the upside, the employment situation remains positive with a low unemployment rate and solid payroll gains supporting housing demand.

An increase in mortgage delinquencies also lowered the national LIHHM score this quarter. Spikes in delinquency rates were concentrated along the coastal regions of Florida and Texas following the hurricanes of 2017. The uptick in delinquencies is not representative of a national problem, suggesting the national score could move higher in coming quarters as hurricane-affected areas recover.

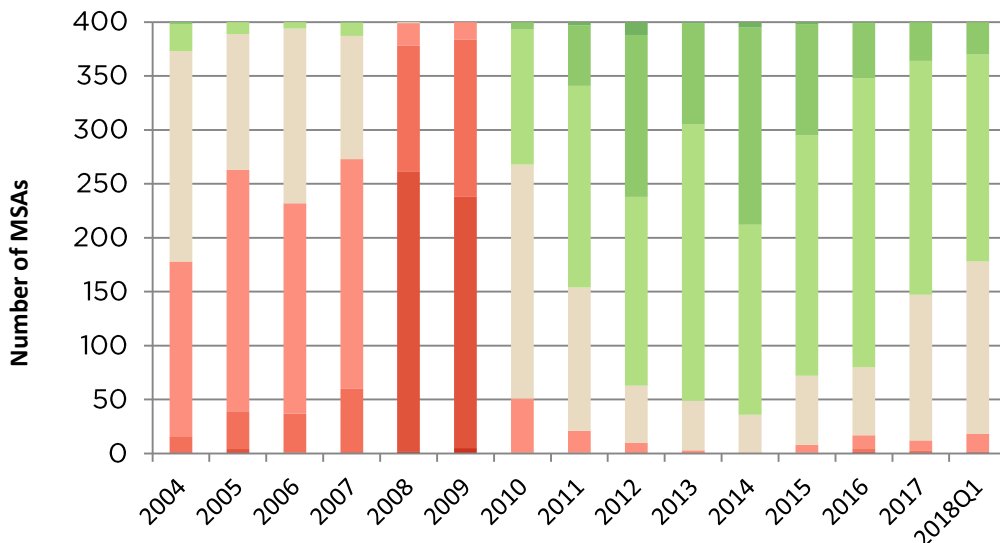
National LIHHM



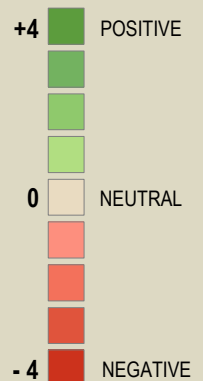
LIHHM Scores



MSA LIHHM Performance Rankings



Performance Rankings

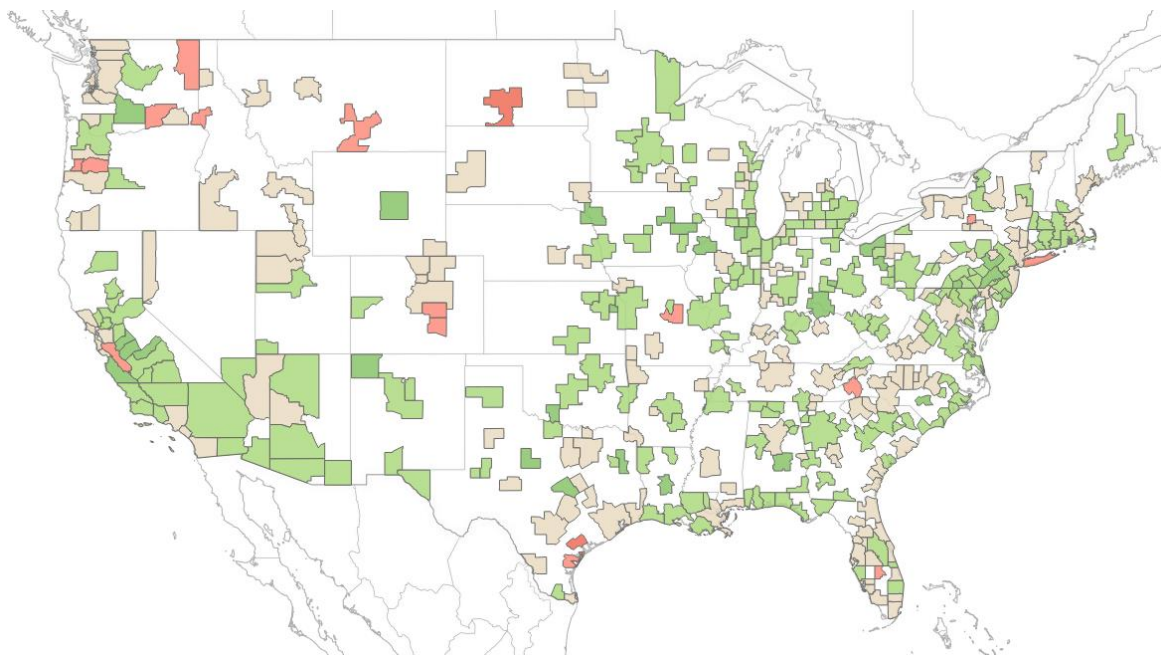
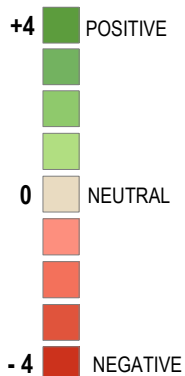


* Note that the national LIHHM went directly from negative to positive during the housing recovery

Regional LIHHM rankings show sustainable housing trends in most housing markets

- The LIHHM performance rankings suggest that the majority of metro areas across the country are healthy. Still, the number of MSAs with a positive ranking continued to decline as house prices increase faster than average across the country.
- There are 160 MSAs with a neutral ranking, suggestive of a mixed outlook for housing growth.
- There are 18 local housing markets areas with a negative ranking, mostly due to overheated price environments that are reducing housing affordability. Delinquency rates rose sharply in a few MSAs along the Gulf Coast of Texas and in Florida as a result of 2017 hurricanes, lowering the rankings for these areas.

Performance Rankings[†]



Top 10 MSAs

Rank	Metropolitan Statistical Area
1	Casper WY
2	Farmington NM
3	Alexandria LA
4	Canton-Massillon OH
5	Springfield OH
6	Cedar Rapids IA
7	Montgomery County PA
8	Trenton NJ
9	Killeen-Temple TX
10	Lawrence KS

Bottom 10 MSAs

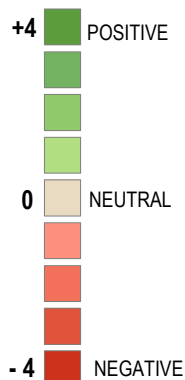
Rank	Metropolitan Statistical Area
400	Bismarck ND
399	Victoria TX
398	Anchorage AK
397	Lewiston ID-WA
396	Corpus Christi TX
395	Billings MT
394	Pueblo CO
393	San Jose-Santa Clara CA
392	Kennewick-Richland WA
391	Nassau/Suffolk County NY

[†] Data as of 2018 Q1

One of the top 40* largest MSAs has a negative LIHHM performance ranking, while an additional 21 are neutral. These lower scores are primarily the result of unsustainable house price gains. The remaining major U.S. housing markets show healthy trends with little chance of a downturn in the near term.

MSAs by size (Top 40), with corresponding performance rankings

Performance Rankings:



	Metropolitan Statistical Area	Performance Rankings		
		Current†	Prior Qtr	Prior Year
1	New York-Jersey City-White Plains NY-NJ	0	1	1
2	Los Angeles-Long Beach-Glendale CA	0	0	1
3	Chicago-Naperville-Arlington Heights IL	1	1	1
4	Houston-The Woodlands-Sugar Land TX	0	0	0
5	Atlanta-Sandy Springs-Roswell GA	1	1	1
6	Washington-Arlington-Alexandria DC-VA	0	0	1
7	Phoenix-Mesa-Scottsdale AZ	1	1	1
8	Dallas-Plano-Irving TX	0	0	0
9	Minneapolis-St. Paul-Bloomington MN-WI	0	1	1
10	Riverside-San Bernardino-Ontario CA	1	1	1
11	Tampa-St. Petersburg-Clearwater FL	0	0	1
12	San Diego-Carlsbad CA	0	0	1
13	Seattle-Bellevue-Everett WA	0	0	1
14	St Louis MO-IL	1	1	1
15	Denver-Aurora-Lakewood CO	0	0	1
16	Baltimore-Columbia-Towson MD	1	1	1
17	Anaheim-Santa Ana-Irvine CA	0	0	1
18	Warren-Troy-Farmington Hills MI	1	1	1
19	Pittsburgh PA	1	2	2
20	Oakland-Hayward-Berkeley CA	0	0	1
21	Portland-Vancouver-Hillsboro OR-WA	0	0	1
22	Nassau County-Suffolk County NY	-1	0	0
23	Charlotte-Concord-Gastonia NC-SC	0	0	0
24	Miami-Miami Beach-Kendall FL	0	1	1
25	Orlando-Kissimmee-Sanford FL	1	1	1
26	Cambridge-Newton-Framingham MA	0	0	0
27	Newark NJ-PA	1	1	2
28	Fort Worth-Arlington TX	0	0	0
29	Cleveland-Elyria OH	2	1	1
30	Cincinnati OH-KY-IN	2	1	1
31	San Antonio-New Braunfels TX	0	0	0
32	Sacramento-Roseville-Arden-Arcade CA	1	1	1
33	Philadelphia PA	2	1	1
34	Kansas City MO-KS	1	1	1
35	Columbus OH	1	1	2
36	Las Vegas-Henderson-Paradise NV	1	1	2
37	Indianapolis-Carmel-Anderson IN	1	1	1
38	Boston MA	0	0	1
39	Fort Lauderdale-Pompano Beach-FL	0	1	1
40	Austin-Round Rock TX	0	0	0

† Data as of 2018 Q1

* Largest 40 determined by number of households

Affordability concerns are rising in many MSAs

House prices gains continue to accelerate as homebuyers vie for the few homes available on the market. Moreover, rapid prices gains and tight inventory levels are widespread across the country. According to data from Black Knight, price growth over the past four quarters in over 75 percent of metros was faster than the long-term average for those areas.

If sustained, above-trend price growth can significantly reduce homebuyer affordability if household incomes do not keep pace with the cost of housing. This can price consumers, especially first-time homebuyers, out of the market and lead to higher levels of indebtedness for those that do make a purchase. Over time, this can place strain on local housing markets and economies.

Within the LIHHM rankings, relative affordability (as measured by trends in house prices and income per capita) has deteriorated in the vast majority of MSAs since 2015. The discrepancy in the growth rates for house prices and incomes over the past three years has been particularly severe in metro areas across the West and in parts of the Northeast. At the extreme, the cumulative increase in house prices since 2015 tripled that of incomes in a few metro areas.

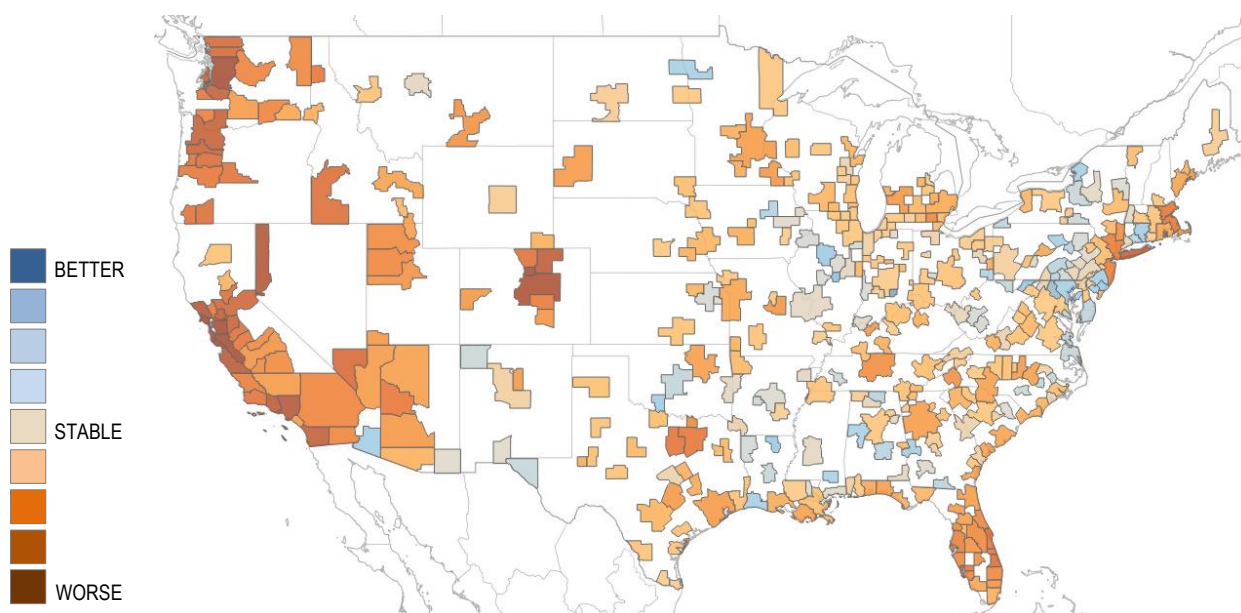
For these areas with unsustainable price movements, the outlook for future housing growth is not as optimistic — only a few maintain a positive ranking. The rest show neutral or slightly negative ratings, suggestive of limited growth prospects for the housing sector over the next year or two.

Largest 50 MSAs with steepest declines in relative affordability

Rank*	Metropolitan Statistical Area
400	San Jose CA
399	San Francisco CA
398	Seattle WA
393	Oakland CA
392	Denver CO
389	Los Angeles CA
385	San Diego CA
382	Portland OR
381	Nassau/Suffolk County NY
377	Sacramento CA
374	Las Vegas NV
360	Boston MA
359	Fort Worth-Arlington TX
356	Dallas TX

* 400 MSAs ranked in order by decline in affordability; 2015Q1 to 2018Q1

Change in housing affordability since 2015

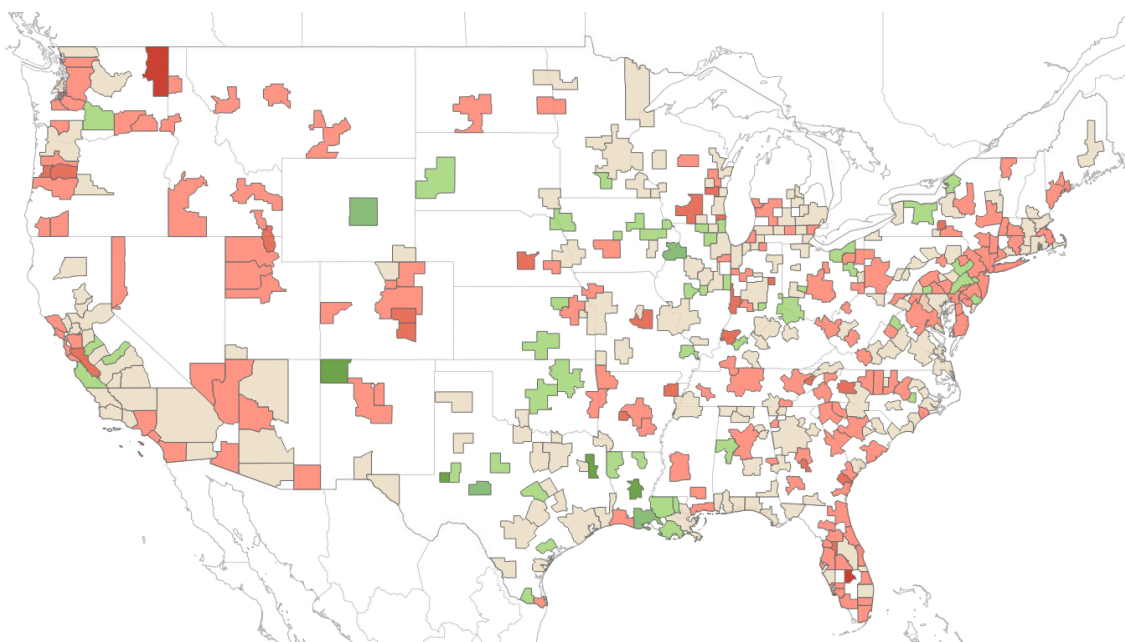


See more at blog.nationwide.com/housing

The LIHHM ranking in nearly half of MSAs has declined over the past four quarters

- The near-term sustainability of housing markets is best measured by the current LIHHM (page 3), but looking at shifts in the LIHHM over the course of a year can provide additional insights.
- Approximately 40 percent of MSAs saw their rankings drop over the past year, although the majority of these pulled back by only one ranking. The MSAs with declines usually had a common trait: reduced affordability as home price gains outpace income growth.
- Another 40 percent of LIHHM rankings were unchanged over the past year — suggesting little change in the outlooks for these housing markets. The remainder saw their rankings climb in part driven by improved employment, especially in oil-intensive markets.

Current LIHHM
4Q change [†]



Largest Increase

Rank	Metropolitan Statistical Area
1	Odessa TX
2	Farmington NM
3	Alexandria LA
4	Longview TX
5	San Angelo TX
6	Casper WY
7	Lafayette LA
8	Davenport-Moline IA-IL
9	Midland TX
10	Watertown-Fort Dum NY

Largest Decrease

Rank	Metropolitan Statistical Area
400	Sebring FL
399	Spokane-Spokane Valley WA
398	Hinesville GA
397	Pueblo CO
396	Jonesboro AR
395	Hot Springs AR
394	The Villages FL
393	Grand Island NE
392	Muncie IN
391	Fond du Lac WI

[†] Change in performance ranking; Data as of 2018 Q1

Appendix

Leading Index of Healthy Housing Markets (LIHHM)

Nationwide's LIHHM is a data-driven view of the near-term performance of housing markets based upon current health indicators for the national housing market and 400 metropolitan statistical areas (MSAs*) and divisions across the country. For each MSA, the LIHHM uses local-level data to incorporate the idiosyncratic characteristics of regional housing markets. The focus of the LIHHM is on the entire housing market's health, rather than a projection of house prices or home sales.

Nationwide Economics LIHHM methodology

The LIHHM is calculated using a number of variables that describe many of the drivers of the housing market for each MSA. In order to provide the best indicator of housing health, the included variables and corresponding weights for each provide the optimal leading perspective on future housing markets for each MSA. The drivers can be grouped into the following categories:

1. Employment
2. Demographics
3. Mortgage Market
4. House Prices

As an illustration, if job growth increases in an MSA, then the resulting rise in incomes creates additional housing demand. Consumers have a greater ability to earn and save for home purchases, increasing sales and pushing up house prices. The LIHHM measures the movements in the included employment, demographic, mortgage market, and house price variables versus the long-term trends within each MSA.

These drivers are used to derive an overall LIHHM score on a scale from 75 to 125 centered around a neutral value of 100. These values are placed into performance rankings to allow for better comparisons across MSAs. These performance rankings are the key metric in comparing the MSAs both to each other and across time. Raw LIHHM values are used for calculation purposes only and will only be shown on the national level as the national score is standalone and is not compared to other areas.

* MSA: Geographical region with high population density and close economic ties throughout the nearby area, capturing 85-90% of the U.S. population

Authored by Nationwide Economics



DAVID BERSON, PhD

Senior Vice President, Chief Economist

David holds a doctorate in Economics and a master's degree in Public Policy from the University of Michigan. Prior to Nationwide, David served as Chief Economist, Strategist and Head of Risk Analytics for The PMI Group, Inc., and Vice President and Chief Economist for Fannie Mae. David has also served as Chief Financial Economist at Wharton Econometrics and visiting scholar at the Federal Reserve Bank of Kansas City. His government experience has included roles with the President's Council of Economic Advisors, U.S. Treasury Department and the Office of Special Trade Representative. He is a past President of the National Association for Business Economics.



BRYAN JORDAN, CFA

Deputy Chief Economist

Bryan is a frequent author and knowledgeable source on economic topics, and has been featured in The Wall Street Journal and New York Times. Bryan holds degrees in Economics and Political Science from Miami University and has earned the Chartered Financial Analyst designation. He currently serves as Chairman of the Ohio Council on Economic Education and is a member of the Ohio Governor's Council of Economic Advisors, the National Association for Business Economics, and the Bloomberg monthly economic forecasting panel.



BEN AYERS, MS

Senior Economist

Ben authors periodic economic analyses from the Nationwide Economics team, as well as commentary on key economic topics. Ben is also responsible for understanding and analyzing the enterprise business drivers to assist the strategic planning process. He holds a Master of Science in Economics from the Ohio State University, specializing in applied economic analysis, and a BSBA from the Fisher College of Business at the Ohio State University, with a focus on economics and international business.

Additional contributors: Ankit Gupta, CFA, Steve Hall, and Aaron Reincheld

The information in this report is provided by Nationwide Economics and is general in nature and not intended as investment or economic advice, or a recommendation to buy or sell any security or adopt any investment strategy. Additionally, it does not take into account any specific investment objectives, tax and financial condition or particular needs of any specific person.

The economic and market forecasts reflect our opinion as of the date of this report and are subject to change without notice. These forecasts show a broad range of possible outcomes. Because they are subject to high levels of uncertainty, they will not reflect actual performance. We obtained certain information from sources deemed reliable, but we do not guarantee its accuracy, completeness or fairness.

Nationwide, the Nationwide N and Eagle and Nationwide is on your side are service marks of Nationwide Mutual Insurance Company.

NFM-13575AO.3

See more at blog.nationwide.com/housing