Economic & Housing Market Overview

Room to Grow: Housing for a New Economy

FRB of Dallas-Texas A&M

Frank Nothaft
CoreLogic Chief Economist
February 21, 2020
Housing and Credit Update

• Economic growth continues, recession risk low but rises over time

• No national price bubble but overvaluation risk & price declines in select areas

• Shelter costs up & housing inventory low, especially for lower-priced homes

• Areas hit by Natural Disasters see delinquency spike, faster price & rent growth
Coronavirus (COVID-19) Lowers Economic Growth Forecast

• U.S. growth in 2020 lower by 0.1 to 0.4 percentage points
  - Less U.S. exports as global growth slows
  - Supply-chain disruption slows U.S. production (electronics, durable goods)
  - Less commercial travel, less Chinese tourism/visitors in U.S.
  - Uncertainty over severity and length of viral outbreak leads to wide estimate of impact

• On the other hand....
  - Oil, fuel prices are lower, inflation remains below Fed target
  - 10-year Treasury yields and Mortgage rates remain low(er)
Fed Focus Shifts Between Job Creation and Inflation Risk

- Congressional dual mandate:
  - Maximum employment
  - Price stability

- U.S. Unemployment rate 3.6% (Jan.)
  - Dallas-Ft. Worth 3.1% (Dec.)
  - 2019 U.S.: 50-year low
  - “Full employment”: 4.3-4.4%

- Fed’s “price stability” definition:
  - 2% annual (PCE)
  - Avg. inflation 1.8% since 2000

- Fed funds target now 1.50-1.75%
  - Another quarter-point cut?

Source: BLS (unemployment rate), BEA (PCE price index), IHS Market (unemployment forecast), NABE Outlook (PCE forecast), CBO (NAIRU, January 28, 2020)
Long-Term Rates Lower than A Year Ago, Expect Slow Rise

30-year Fixed-Rate Home Mortgage today at 3.5%, 10-year Treasury at 1.6%

Interest Rate or Yield

Source: Freddie Mac Primary Mortgage Market Survey®, Federal Reserve Board; forecast is average of IHS Markit, MBA, Fannie Mae, Freddie Mac, NAHB and NAR.
Millennials Add to Renter and Home-Buyer Demand

Millennials exceed Gen X’s by more than 112,000 in Dallas Metro

Dallas Metro 2019 Population by age group (in thousands)

Source: Census Bureau

Millennials (aged 23-38)    Gen X (aged 39-54)
U.S. Home Price Growth Projected to Rise....
Price growth: 3.6% in 2019; forecast 4.6% in 2020 (annual average)

Source: CoreLogic Home Price Index and HPI Forecast for U.S., February 4, 2020 release
…But Home Prices Fall in Some Metros

Prices fell in about 5-7% of urban places each year since 2014

Source: CoreLogic Home Price Index for U.S. and 954 Core-Based Statistical Areas.
Predictions: Riskiest Metros
Home Price Declines over the next 12 months through December 2020

Market Risk Indicator gives 12-month probability of price decline for two severities:
- Price decline <10%
- Price decline ≥10%

Dallas Home Price & Rent Gain Outpace Inflation Since 2014

Average Annual growth 6.8% (home prices), 3.5% (rent) and 1.3% (inflation) since 2014

Source: CoreLogic Home Price Index and HPI Forecast for U.S. (February 4, 2020 release), Single-Family Rent Index; BEA PCE
Price-to-Income is High in 32% of Metros
MCI compares current ratio relative to 1976-2003 level by metro

"Overvalued" metro is one in which home prices are at least 10% higher than the long-term, sustainable level

Source: CoreLogic Market Condition Indicators, February 4, 2020
‘Real’ Mortgage P&I Less Than 20 years Ago

Lower Rates Have Kept "Mortgage Payment" to buy median-priced home low in Dallas metro

Nominal and ‘Real’ Monthly Mortgage Payment To Buy Dallas median-priced home

Source: CoreLogic, IHS Markit, Freddie Mac, Fannie Mae; and IHS, National Association of Home Builders, Mortgage Bankers Association and National Association of Realtors for averaging mortgage rate forecasts. Chart forecast period begins Dec-19.
Bubbles? Market Conditions Indicator, Market Risk Indicator, Price-to-Rent, and Payment-to-Rent, by Metro

<table>
<thead>
<tr>
<th>Metro Area</th>
<th>Market Conditions Indicator: 2019Q1</th>
<th>Probability of a Home Price Decline in 12 months</th>
<th>Price-to-Rent: Growth 2001Q1 to 2019Q1 Above or Below 65%</th>
<th>Payment-to-Rent: Growth 2001Q1 to 2019Q1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Los Angeles, CA</td>
<td>Normal</td>
<td>8%</td>
<td>Above</td>
<td>32%</td>
</tr>
<tr>
<td>Jacksonville, FL</td>
<td>Overvalued</td>
<td>25%</td>
<td>Above</td>
<td>17%</td>
</tr>
<tr>
<td>Seattle, WA</td>
<td>Normal</td>
<td>17%</td>
<td>Above</td>
<td>16%</td>
</tr>
<tr>
<td>New York, NY</td>
<td>Overvalued</td>
<td>9%</td>
<td>Below</td>
<td>11%</td>
</tr>
<tr>
<td>San Francisco, CA</td>
<td>Normal</td>
<td>7%</td>
<td>Above</td>
<td>11%</td>
</tr>
<tr>
<td>Washington, DC</td>
<td>Overvalued</td>
<td>15%</td>
<td>Above</td>
<td>10%</td>
</tr>
<tr>
<td>Raleigh, NC</td>
<td>Normal</td>
<td>10%</td>
<td>Below</td>
<td>6%</td>
</tr>
<tr>
<td>Phoenix, AZ</td>
<td>Overvalued</td>
<td>23%</td>
<td>Above</td>
<td>4%</td>
</tr>
<tr>
<td>Dallas, TX*</td>
<td>Overvalued</td>
<td>24%</td>
<td>Below</td>
<td>3%</td>
</tr>
<tr>
<td>Tucson, AZ</td>
<td>Normal</td>
<td>19%</td>
<td>Below</td>
<td>-1%</td>
</tr>
<tr>
<td>Houston, TX</td>
<td>Overvalued</td>
<td>27%</td>
<td>Below</td>
<td>-11%</td>
</tr>
<tr>
<td>U.S.*</td>
<td>Normal</td>
<td>Not Available</td>
<td>Below</td>
<td>-18%</td>
</tr>
</tbody>
</table>

* Dallas metro price-to-rent and payment-to-rent analysis begin 2003Q1; U.S. price-to-rent and payment-to-rent analysis begins 2004Q1

Source: CoreLogic MCI, MRI, HPI (low price tier), median sales price, Single-Family Rent Index; Freddie Mac PMMS for 30-year FRM.
Equity Gain Supports Spending, Especially on the Home

Record $327 billion spent on home improvement & repair in 2019

Home Equity per Borrower (thousands of $)

2010 2013 2016 2019

Dallas metro: $5k avg. gain (Sep. 2019, YOY)

Source: CoreLogic Home Equity Report & Public Records; Joint Center for Housing Studies Leading Indicator of Remodeling Activity
Single-family Rents Are Rising Too: U.S. Up 2.9%
Single-Family Rent Growth (annual percent change, December 2019)

Source: CoreLogic Single-Family Rent Index release February 18, 2020
Price Growth Strongest For Lowest-Priced Dallas Houses

Cumulative Price Growth Through December 2019 (percent)

Since December 2018

- More Than 25% Below Median: 6%
- 25% or Less Below Median: 4%
- Up to 25% Above Median: 2%
- More Than 25% Above Median: 1%

Since 2011 Trough

- 120%
- 100%
- 80%
- 60%
- 40%
- 20%
- 0%

Price Growth Since:

- One Year Ago
- Price Trough

Source: CoreLogic HPI, Single-family Detached (February 4, 2020 release); Dallas HPI trough occurred March 2011.
Dallas Inventory Tighter for Entry-Level Buyers

Source: CoreLogic MLS data, November 2019, months’ supply was 4.7 months across all price tiers

Entry Level Supply

<table>
<thead>
<tr>
<th>Price Tier (percent of median price)</th>
<th>Months’ Supply for Sale by Price Tier: Existing Homes</th>
</tr>
</thead>
<tbody>
<tr>
<td>50-75</td>
<td>3</td>
</tr>
<tr>
<td>75-100</td>
<td>4</td>
</tr>
<tr>
<td>100-125</td>
<td>4</td>
</tr>
<tr>
<td>125-150</td>
<td>5</td>
</tr>
<tr>
<td>150-175</td>
<td>7</td>
</tr>
<tr>
<td>175-200</td>
<td>7</td>
</tr>
</tbody>
</table>

Source: CoreLogic MLS data, November 2019, months’ supply was 4.7 months across all price tiers
New-Home Sales Levels Highest in the South

Annual Number of New Home Sales (October 2018 to September 2019)

Source: CoreLogic, new homes sold October 2018 through September 2019 by Metropolitan Statistical Area (label reflects primary city of MSA).
New Construction Adds More to Supply of Premium Homes

Nationally, 2% of Entry sales were new homes, 12% of Premium sales

Source: CoreLogic public records, January-June 2019 home sales
Cost of Building Materials Up More than Inflation

Percent Increase, December 2016 to December 2019

- Inflation: 5%
- Lumber & Steel: 6%
- Drywall & Insulation: 9%
- Plumbing & Electrical: 10%
- Masonry & Roofing (except fixtures): 11%

Source: Bureau of Economic Analysis (PCE all items), CoreLogic construction cost indexes
Delinquency Rates Jump After a Disaster

Serious Delinquency Rate (as a multiple of rate in month of disaster)

<table>
<thead>
<tr>
<th>Hurricane/Disaster</th>
<th>t-6</th>
<th>t-3</th>
<th>t</th>
<th>t+3</th>
<th>t+6</th>
<th>t+9</th>
<th>t+12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Houston (Harvey)</td>
<td>0.8</td>
<td>1.1</td>
<td>1.4</td>
<td>1.7</td>
<td>2.0</td>
<td>2.3</td>
<td>2.6</td>
</tr>
<tr>
<td>Wilmington (Florence)</td>
<td>0.8</td>
<td>1.1</td>
<td>1.4</td>
<td>1.7</td>
<td>2.0</td>
<td>2.3</td>
<td>2.6</td>
</tr>
<tr>
<td>Chico (Camp)</td>
<td>0.8</td>
<td>1.1</td>
<td>1.4</td>
<td>1.7</td>
<td>2.0</td>
<td>2.3</td>
<td>2.6</td>
</tr>
<tr>
<td>Panama City (Michael)</td>
<td>0.8</td>
<td>1.1</td>
<td>1.4</td>
<td>1.7</td>
<td>2.0</td>
<td>2.3</td>
<td>2.6</td>
</tr>
</tbody>
</table>

Source: CoreLogic TrueStandings; serious delinquency rate is the percent of loans 90-or-more days delinquent or in foreclosure

Months before or after Disaster (t is month of Disaster)


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Rent & Price Growth Quicken After a Disaster

**Annual Rent Growth**
- Sonoma Co.
- Butte Co.

**Annual Home Price Growth Differential**
- Sonoma Co.
- Butte Co.

Source: CoreLogic Rental Trends (2-bedroom median rent, 3-month moving average) and Home Price Index (3-month moving average)

Months before or after Wildfire (t is month of Wildfire)
Houston: Rent Growth Quickened After Hurricane Harvey

Source: CoreLogic Single-Family Rent Index for Houston-The Woodlands-Sugar Land, TX metro

Harvey: Landfall in TX
August 25, 2017
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Where to find more information

Look for regular updates to our housing forecast, commentary and data at

http://www.corelogic.com/blog

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