Texas Economic & Housing Update

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TAR REALTORS® Conference

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The economy hasn’t been “Trumped” so far

Slow growth the “new norm” – 7 years avg. 2.1%; 2016 GDP growth 1.5%; 2017 ~2.2%

Interest rates will … maybe!

Inflation more likely: 2017 2% - 2.5%

Industrial production and manufacturing little help

U.S. Housing improving, not fully recovered

Jobs expand <2%; unemployment rate below 5.0%

Looking for a “Driver” for expansion
Texas and U.S. Economic Growth

Annual Percent Change in Real GDP

Sources: BEA; Real Estate Center at Texas A&M University
10-Year Treasury; Federal Funds & 30-Year FMR

Source: Haver Analytics; FHLMC; St. Louis FED; Real Estate Center at Texas A&M University
Weekly 30-Year Mortgage Rate

Source: FHLMC; Real Estate Center at Texas A&M University
Texas Economy

2017 Recovery Year – Doing Very Well

2018: Potentially Great/Difficult Year
Harvey Summary

- Approximately 185,000 houses damaged, 9,000 – 13,000 destroyed
- 10% - 15% employees impacted – can’t get to work
- HISD closed, 200 schools damaged, 50 significantly
- About half the buildings damaged not in flood zones
- No long-term damage to basic economic infrastructure
- Estimates run $60 - $190 Billion
- Historically, 3 months worst hit
- Expect 1 month significant job losses followed by 1-3 month recovery in jobs
Texas Economy slowed in 2016

2017 much better: energy, healthcare, business & professional services up

National economic expansion most positive factor

Energy sector downturn impacts mostly over; stabilizing – not a major negative

Texas job growth picking up, expect ~2.5%

Population expansion continues

Local Growth Issues becoming more pressing, causing greater strain on state and local resources
Texas Annual Jobs

2010-2015 +1,499,600 jobs; average 299,920/year

Sources: Texas Workforce Commission, Real Estate Center at Texas A&M University
Texas Business-Cycle Index
January 1987=100

Source: Federal Reserve Bank of Dallas
Weekly Active Texas Rig Count & Price of WTI

Source: Baker Hughes; EIA; RE Center at Texas A&M University
Current and Futures Price of WTI

Sources: EIA; Haver Analytics
Texas Demographics
2015 to 2016 Population Change

- **Texas** added 432,957 people; now 27,862,596;
  - 217,542 from in-migration: 125,703 Domestic
  - Since 2010 +2,618,286 (average 436,381/year)

- **DFW** added 143,400, now 7.23 million #4 MSA
  - D-P-I MD +97,839, more than any other MSA except Houston
  - Since 2010 +780,646 (average +130,000/year)

- **Houston** added 125,000, now 6.77 million #5 MSA
  - Only two MSAs to add > 100,000
  - Since 2010 +824,296 (average +137,382/year)

- **Austin** added 58,301; now 2,056,405;
  - #31 MSA edging out Cleveland and Columbus, Ohio
  - Since 2010 +328,749 (average 54,792/year)

Source: U.S. Census Bureau; Real Estate Center at Texas A&M University
From 1970 to 2010 (40 years), Texas added 13.9 million people – an average rate of 349,000 per year.

From 2010 to 2050 (40 years), Texas will add nearly 30 million people – an average rate of about 750,000 per year.

Sources: U.S. Census Bureau, Texas State Demographer 2014 Projections (2000-2010 Scenario)
Texas Housing Market
Harvey Housing Impact

• One quarter drop in new home construction & sales
• Repair/remodeling construction explodes
• New home building surges 2018-19 with much higher costs
• Construction labor costs rise significantly statewide
• Apartment concessions/vacancies disappear
• Home prices fall significantly in hard hit areas and flood prone areas going forward; non-flood prone prices increase even more
• Flood and property insurance rates escalate
Annual Texas Home Sales

Pre-Harvey:
Sales +3.7%
Price +5.9%

Post-Harvey
Sales -1.3%
Prices +6%

Source: TAR Data Relevance Program; Real Estate Center at Texas A&M University
While very good, the sales market really hasn’t come back to long-term trend.
Monthly Sales in Texas

- Through August Sales +3.3%
- Av. Pr. +4%
- Md. Pr. +4%

Interesting turn-down June to July in 2016 & 2017

Source: TAR Data Relevance Program; Real Estate Center at Texas A&M University
## Texas Sales by Price Distribution

<table>
<thead>
<tr>
<th>Price Range</th>
<th>Percent Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0 - $69,999</td>
<td>15.0</td>
</tr>
<tr>
<td>$70,000 - $99,999</td>
<td>12.5</td>
</tr>
<tr>
<td>$100,000 - $149,999</td>
<td>23.6</td>
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<tr>
<td>$150,000 - $199,999</td>
<td>17.5</td>
</tr>
<tr>
<td>$200,000 - $249,999</td>
<td>9.8</td>
</tr>
<tr>
<td>$250,000 - $299,999</td>
<td>6.9</td>
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<tr>
<td>$300,000 - $399,999</td>
<td>7.1</td>
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<td>$400,000 - $499,999</td>
<td>3.0</td>
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<tr>
<td>$500,000 - $749,999</td>
<td>2.7</td>
</tr>
<tr>
<td>$750,000 - $999,999</td>
<td>0.9</td>
</tr>
<tr>
<td>$1,000,000 +</td>
<td>0.9</td>
</tr>
</tbody>
</table>

Source: TAR Data Relevance Project; Real Estate Center at Texas A&M University
# Average Number of Households Unable to Afford a $1,000 Price Increase

<table>
<thead>
<tr>
<th>Home Price Intervals</th>
<th>Average Number of HH Per $1,000 Price Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>$50,000-$100,000</td>
<td>28,868</td>
</tr>
<tr>
<td>$100,000-$150,000</td>
<td>27,569</td>
</tr>
<tr>
<td>$150,000-$200,000</td>
<td>22,749</td>
</tr>
<tr>
<td>$200,000-$250,000</td>
<td>19,298</td>
</tr>
<tr>
<td>$250,000-$300,000</td>
<td>16,149</td>
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<tr>
<td>$300,000-$500,000</td>
<td>9,485</td>
</tr>
<tr>
<td>$500,000-$750,000</td>
<td>2,025</td>
</tr>
<tr>
<td>Average thru $250,000</td>
<td>25,385</td>
</tr>
<tr>
<td>Overall Average</td>
<td>21,379</td>
</tr>
</tbody>
</table>

20% down; 4.15% interest; 35% qualifying ratio; and 6% taxes, insurance & utilities

Source: TAR Data Relevance Program; Real Estate Center at Texas A&M University
Texas SF Building Permits

1990-2015 average 95,106/year

2014 +10%
2015 +2%
2016 +1%
2017YTD +14%

Source: US Census Bureau, Real Estate Center at Texas A&M
2008-2016, added 1.33 million HHs. Would have built 1.1 million SF homes at average/year; actually built 776k. About 315,000 units short.

1995-2015 average 820/year

Source: US Census Bureau, Real Estate Center at Texas A&M
Texas MF Building Permits: Making Up the Difference?

1995-2015 average 40,766/year

2014 +20%
2015 +4%
2016 -16%
2017YTD -5%

Nationally, ~12.5% are Class B/C

Source: US Census Bureau, Real Estate Center at Texas A&M
Texas Residential Construction Leading and Coincident Indexes

Jan 2000=100

Leading Index

Coincident Index

Total Housing Permits (12-MMA)

Source: Real Estate Center at Texas A&M University