Impact of Pandemic on Residential Real Estate and Economic Outlook

Lawrence Yun
Chief Economist and Senior Vice President
National Association of Realtors®
Biden Presidency

Homebuyer tax credit ... $15,000 at closing

1031 exchange ... land sales to developable lots

Fannie/Freddie’s Role

Looser Monetary Policy

Bigger Fiscal Policy ... extend mortgage forbearance?

Temporary Lockdown to contain virus?
Off-the-Chart Collapse and then Off-the-Chart Recovery
GDP still short of a prior peak
GDP Declines in Other Countries

<table>
<thead>
<tr>
<th>Country/Region</th>
<th>2020 Likely</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>-5%</td>
</tr>
<tr>
<td>China</td>
<td>+2%</td>
</tr>
<tr>
<td>Japan</td>
<td>-6%</td>
</tr>
<tr>
<td>Britain</td>
<td>-10%</td>
</tr>
<tr>
<td>Canada</td>
<td>-6%</td>
</tr>
<tr>
<td>Euro Area</td>
<td>-8%</td>
</tr>
<tr>
<td>Sweden</td>
<td>-4%</td>
</tr>
<tr>
<td>South Korea</td>
<td>-1%</td>
</tr>
</tbody>
</table>

Source: The Economist, November
GDP is Lower but Income boosted from stimulus checks
($ billion)
Savings Rate still elevated ... ready to pump up the economy after vaccine
Jobs Recovery need another 10 million to get us to prior peak
Zoom-in to 2020 ... Job Gains losing Momentum? What if New Lockdown?
All States with Fewer Jobs ... U.S. average decline of 6.4%
# Pandemic Impact on Women's Job

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>3.3%</td>
<td>6.7%</td>
<td>94.8%</td>
</tr>
<tr>
<td>Women</td>
<td>3.1%</td>
<td>6.5%</td>
<td>93.7%</td>
</tr>
</tbody>
</table>
# Consumer Price Inflation at only 1.2%

<table>
<thead>
<tr>
<th>Items</th>
<th>% Change From one year ago to October</th>
</tr>
</thead>
<tbody>
<tr>
<td>Used Car (New Car)</td>
<td>+11% (+1%)</td>
</tr>
<tr>
<td>Food Price</td>
<td>+3.9%</td>
</tr>
<tr>
<td>Pet Service</td>
<td>+3.8%</td>
</tr>
<tr>
<td>Cable Service</td>
<td>+3.8%</td>
</tr>
<tr>
<td>College Tuition</td>
<td>+0.6%</td>
</tr>
<tr>
<td>Clothes</td>
<td>-6%</td>
</tr>
<tr>
<td>Car Insurance</td>
<td>-7%</td>
</tr>
<tr>
<td>Lodging Away from Home</td>
<td>-16%</td>
</tr>
<tr>
<td>Gasoline</td>
<td>-18%</td>
</tr>
<tr>
<td>Airfare</td>
<td>-20%</td>
</tr>
</tbody>
</table>
Remarkable Housing Market
Existing Home Sales
New Home Sales
Pending Contract … Breaking Out Higher
30-Year Mortgage Rates

- Jan - Mar - May - Jul - Sep - Nov - Jan - Mar - May - Jul - Sep - Nov - Jan - Mar - May - Jul - Sep
% of Income for Mortgage Payment ... Steady for Now
Home Price Appreciation

NAR Median Price

FHFA Index

Case-Shiller

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>0.0</td>
<td>0.0</td>
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<tr>
<td>2.0</td>
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<tr>
<td>4.0</td>
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<td>4.0</td>
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<tr>
<td>6.0</td>
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<td>6.0</td>
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<tr>
<td>8.0</td>
<td>8.0</td>
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<td>8.0</td>
<td>8.0</td>
<td>8.0</td>
<td>8.0</td>
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</tr>
<tr>
<td>10.0</td>
<td>10.0</td>
<td>10.0</td>
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<td>10.0</td>
<td>10.0</td>
<td>10.0</td>
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<tr>
<td>12.0</td>
<td>12.0</td>
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<td>12.0</td>
<td>12.0</td>
<td>12.0</td>
</tr>
</tbody>
</table>
Housing Asset Valuation minus Mortgage Outstanding = $20.2 trillion
Cumulative Equity Gain from Purchased Year to 2020 on Typical Home

|$0| $20,000| $40,000| $60,000| $80,000| $100,000| $120,000| $140,000|

Homeownership Rate (Polling Error during Pandemic?)

The chart shows the homeownership rate from 2010 to 2020, with a notable spike in 2020-Q3.
Homeownership Rate ... 2019 Q3 and 2020 Q3 ... Gain

- White
- Black
- Asian
- Hispanic
Months Supply of Existing Home Inventory
Months Supply of Newly Constructed Home Inventory

[Graph showing the months supply of newly constructed home inventory from 2010 to 2020, with data points for each month from January to September for each year.]
Housing Starts ... Need a Huge Ramp Up

In thousand units
But Strong Demand for Land … Recreational and Residential

Land Sales of REALTORS® by Property Type (YoY % Chg)

- Timber: -3%
- Agri, cultivable, irrig: 1%
- Development, Brownfield: 1%
- Development, Greenfield: 2%
- Agri, cultivable, non-irrig: 2%
- Ranch: 3%
- For Industrial (developed): 3%
- Recreation: 4%
- Developed residential: 5%
- Other: 6%
- 2020.Q2: Blue bars
- 2020.Q3: Gray bars
Price of Softwood Lumber

PPI softwood lumber
Job Losses occurring in Low Wage Industries … Weekly Earnings

% from peak

- Hotel
- Restaurant
- Home
- Construction
- Trade
- Finance
- Insurance

$0 $200 $400 $600 $800 $1,000 $1,200 $1,400 $1,600

Leisure and Hospitality
Retail
Construction
Financial Activity

Weekly Earnings

0% from peak
Work-From-Home and Change in Location Preference?
Office Occupancy Falls (-74 million square feet in Q2 and Q3)

Net Absorption of Office Space

Source: Cushman and Wakefield
Half of Office-using Workers Still Working from Home

Percent of Workers Who Teleworked

<table>
<thead>
<tr>
<th>Industry</th>
<th>Percent of Workers Who Teleworked</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer and mathematical</td>
<td>64.8</td>
</tr>
<tr>
<td>Business and financial operations</td>
<td>54.7</td>
</tr>
<tr>
<td>Life, physical, and social science...</td>
<td>54</td>
</tr>
<tr>
<td>Legal</td>
<td>53.5</td>
</tr>
<tr>
<td>Architecture and engineering</td>
<td>48.7</td>
</tr>
<tr>
<td>Community and social services</td>
<td>47</td>
</tr>
<tr>
<td>Education, training, and library</td>
<td>42.5</td>
</tr>
<tr>
<td>Arts, design, entertain,.sports, and...</td>
<td>39.1</td>
</tr>
<tr>
<td>Management</td>
<td>35.5</td>
</tr>
<tr>
<td>Office and administrative support...</td>
<td>24</td>
</tr>
</tbody>
</table>

Source: BLS Covid-19 Supplement
Office Occupancy Losers and Gainers

### Losers

<table>
<thead>
<tr>
<th>City</th>
<th>2020 Q3</th>
<th>2020 Q2</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>New York</td>
<td>2,781,229</td>
<td>-2,781,229</td>
<td>0</td>
</tr>
<tr>
<td>San Francisco</td>
<td>-1,981,610</td>
<td>-1,981,610</td>
<td>0</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>-1,934,977</td>
<td>-1,934,977</td>
<td>0</td>
</tr>
<tr>
<td>Boston</td>
<td>-1,816,036</td>
<td>-1,816,036</td>
<td>0</td>
</tr>
<tr>
<td>Dallas</td>
<td>-1,419,947</td>
<td>-1,419,947</td>
<td>0</td>
</tr>
<tr>
<td>Houston</td>
<td>-1,395,596</td>
<td>-1,395,596</td>
<td>0</td>
</tr>
<tr>
<td>Seattle</td>
<td>-1,345,612</td>
<td>-1,345,612</td>
<td>0</td>
</tr>
<tr>
<td>Austin</td>
<td>-1,296,201</td>
<td>-1,296,201</td>
<td>0</td>
</tr>
<tr>
<td>Oakland/East Bay</td>
<td>-1,266,939</td>
<td>-1,266,939</td>
<td>0</td>
</tr>
<tr>
<td>New Jersey</td>
<td>-1,107,433</td>
<td>-1,107,433</td>
<td>0</td>
</tr>
<tr>
<td>Denver</td>
<td>-802,559</td>
<td>-802,559</td>
<td>0</td>
</tr>
<tr>
<td>Chicago</td>
<td>-698,693</td>
<td>-698,693</td>
<td>0</td>
</tr>
<tr>
<td>Atlanta</td>
<td>-374,632</td>
<td>-374,632</td>
<td>0</td>
</tr>
<tr>
<td>San Jose</td>
<td>-100,524</td>
<td>-100,524</td>
<td>0</td>
</tr>
<tr>
<td>Washington DC</td>
<td>-5,787,155</td>
<td>-5,787,155</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: Cushman and Wakefield

### Gainers/Holding On

<table>
<thead>
<tr>
<th>City</th>
<th>2020 Q3</th>
<th>2020 Q2</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philadelphia</td>
<td>442,495</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raleigh</td>
<td>191,179</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boise</td>
<td>58,153</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rochester NY</td>
<td>40,419</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minneapolis</td>
<td>18,048</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indianapolis</td>
<td>14,211</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indianapolis</td>
<td>13,424</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roanoke</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Cushman and Wakefield
Linkedin Change of Job Profile

2020’s Migration Trends: Smaller cities gain ground

With the onset of COVID-19, many cities’ ratios of population inflows to outflows have changed markedly from April to August 2020 compared to last year.

Biggest gains in net arrivals

<table>
<thead>
<tr>
<th>Rank</th>
<th>City</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Jacksonville</td>
<td>+ 10.7%</td>
</tr>
<tr>
<td>2.</td>
<td>Salt Lake City</td>
<td>+ 9.6%</td>
</tr>
<tr>
<td>3.</td>
<td>Sacramento</td>
<td>+ 7.6%</td>
</tr>
<tr>
<td>4.</td>
<td>Milwaukee</td>
<td>+ 4.5%</td>
</tr>
<tr>
<td>5.</td>
<td>Kansas City, MO</td>
<td>+ 3.9%</td>
</tr>
</tbody>
</table>

Steepest decline in net arrivals

<table>
<thead>
<tr>
<th>Rank</th>
<th>City</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>New York City</td>
<td>- 23.4%</td>
</tr>
<tr>
<td>2.</td>
<td>San Francisco Bay Area</td>
<td>- 21.1%</td>
</tr>
<tr>
<td>3.</td>
<td>Seattle</td>
<td>- 10.6%</td>
</tr>
<tr>
<td>4.</td>
<td>Boston</td>
<td>- 9.9%</td>
</tr>
<tr>
<td>5.</td>
<td>Portland, OR</td>
<td>- 9.67%</td>
</tr>
</tbody>
</table>

Source: LinkedIn Economic Graph Research
USPS ... Dynamics of Change of Address (March to October)

States with the most people moving in and out:
- New Jersey: 2,032
- South Carolina: 1,439
- Maryland: 1,035
- Iowa: 679
- Connecticut: 545
- Nevada: 416
- Arizona: 386
- New Mexico: 338
- Ohio: 334
- Mississippi: 282

Top 10 states with the most gains:
- New Jersey
- South Carolina
- Maryland
- Iowa
- Connecticut
- Nevada
- Arizona
- New Mexico
- Ohio
- Mississippi

Top 10 states with the most losses:
- Texas
- New York
- California
- North Carolina
- District of Columbia
- Pennsylvania
- Illinois
- Minnesota
- West Virginia
- Florida

Source: NAR Calculations of USPS data
California to Where?

Most of Californians moved to Texas and Nevada in 2020:
- TX: 278
- NV: 274
- OR: 131
- AZ: 94
- FL: 79
- MA: 79
- ID: 54
- IL: 41
- WA: 40
- CO: 40
- CT: 33
- UT: 29
- MI: 26
- NM: 25
- NY: 18
- KS: 18
- VA: 14
- TN: 13
- SC: 13
- NC: 12
- MO: 12
- DE: 12
- NH: 11
- AK: 11

Most of Californians moved to Arizona and Nevada in 2019:
- AZ: 82
- NV: 75
- TX: 56
- FL: 53
- IL: 46
- HI: 29
- WA: 28
- MN: 26
- UT: 23
- NM: 22
- SC: 19
- IA: 15
- WI: 14
- VA: 12
- KS: 12
- CA: 12
- CT: 12
- TN: 11
- OR: 11
- MT: 11
- AK: 11

Note: Moves between March-October.
Source: NAR Calculations of USPS data.
Rental Vacancy Rates

- Rural Area
- City Center
- Suburbs

2020 - Q1 | 2020 - Q2 | 2020 - Q3
REALTOR® Survey about their Clients Residential Choice

Which best describes the locations of the homes in which these clients are now interested in purchasing? (Check all that apply)

- Suburb/Subdivision: 47%
- Rural area: 39%
- Small town: 25%
- Urban area/Central city: 14%
- Resort community/Recreation area: 13%
Home Sales in Vacation Counties much Stronger
Confidence about Paying Rent ... Troubling according to Census Survey

27% of Renters (14.7 Million) Have No or Little Confidence They Can Pay Rent, Rent Is/Will Be Deferred
Source: US Census Bureau Household Pulse Survey Week of October 12
Actually Paying Rent … Not Troubling according to NMHC

Rent Payment Tracker: Weekly Results

**Data collected from between 11.1 - 11.5 million apartment units each month**

![Rent Payment Tracker Chart](chart.png)
Real Estate Investors’ Market Share of Home Sales ... Stepping Back
## Economic Forecast

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2020 Forecast</th>
<th>2021 Forecast</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP Growth</td>
<td>2.3%</td>
<td>-5%</td>
<td>+4%</td>
</tr>
<tr>
<td>Job Gains</td>
<td>+2.2 million</td>
<td>- 7 million</td>
<td>+ 3 million</td>
</tr>
<tr>
<td>10-Year Treasury</td>
<td>2.1%</td>
<td>0.9%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Consumer Price Inflation</td>
<td>1.8%</td>
<td>1.0%</td>
<td>1.6%</td>
</tr>
</tbody>
</table>
# Housing Market Forecast

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2020 Forecast</th>
<th>2021 Forecast</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mortgage Rates</td>
<td>3.9%</td>
<td>3.0%</td>
<td>3.1%</td>
</tr>
<tr>
<td>New Home Sales</td>
<td>+11%</td>
<td>+20%</td>
<td>+23%</td>
</tr>
<tr>
<td>Existing Home Sales</td>
<td>0%</td>
<td>3%</td>
<td>9%</td>
</tr>
<tr>
<td>Home Price</td>
<td>4.9%</td>
<td>6%</td>
<td>3%</td>
</tr>
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PREVIEW

2020 Economic & Real Estate Summit:
Post-Election Outlook

December 10, 2020
Keynote Speaker

Jared Bernstein

- Senior Fellow at the Center on Budget and Policy Priorities
- Was Chief Economist & Economic Advisor to Vice President Biden
- Likely Appointment at National Economic Council
Economic Outlook Panel

Dr. David Berson
Senior Vice President and Chief Economist, Nationwide Mutual

Dr. Nela Richardson
Principal, Investment Strategist, Edward Jones

Dana Peterson
Chief Economist, The Conference Board
Commercial Real Estate Panel

Dr. Timothy Savage
New York University Schack Institute of Real Estate
Distinguished Fellow, NAIOP Research Foundation

Jeanette Rice
Head of Multifamily Research, CBRE

Dr. Igor Popov
Chief Economist, Apartment List
Residential Real Estate Panel

John Burns
Chief Executive Officer,
John Burns Real Estate Consulting

Danielle Hale
Chief Economist,
realtor.com

Ali Wolf
Chief Economist,
Meyers Research
Demographics Panel

Dr. Rodney Harrell
Vice President, Family, Home & Community
AARP

Dr. Richard Fry
Senior Researcher,
Pew Research Center

Dr. Jessica Lautz
Vice President, Demographics &
Behavioral Insights
National Association of Realtors®
### Most Biden States versus Most Trump States

<table>
<thead>
<tr>
<th>State</th>
<th>Biden</th>
<th>Trump</th>
</tr>
</thead>
<tbody>
<tr>
<td>D.C.* (non-state)</td>
<td>93%</td>
<td>5%</td>
</tr>
<tr>
<td>Vermont</td>
<td>66%</td>
<td>31%</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>66%</td>
<td>33%</td>
</tr>
<tr>
<td>West Virginia</td>
<td>30%</td>
<td>69%</td>
</tr>
<tr>
<td>Wyoming</td>
<td>27%</td>
<td>70%</td>
</tr>
</tbody>
</table>
THANK YOU!

NARAnnual | conference.realtor

THAT’S WHO WE