

# CME S&P Case Shiller Futures

August 31, 2020 Snapshot



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# Overview

## Objective

- The purpose of this monthly report is to compile information from a variety of sources into one place, at a point in time, to facilitate the understanding, analysis, awareness, and hopefully trading of the CME Case Shiller Home Price futures (and options) and other housing derivative products. Feel free to contact me if you have an ideas for an outright trade, calendar spread, option or inter-city theme.

## Market Color/Discussion

- Resources: [www.homepricefutures.com](http://www.homepricefutures.com)
- Market Updates: Twitter @HomePriceFuture
- LinkedIn: There is a CME Case Shiller home price futures group, but I use Twitter and blogs more often.
- Note: Almost all of the bid/ask quotes that are used here are my record of end-of-trading day prices, and thus may differ from CME closes and quotes, which are tallied an hour earlier.
- I use CUS and HCI interchangeably for the 10-city index. Different trading platforms use different symbols. Sorry for any confusion.
- Based demand for hedging products for other regions I recently launched Home Price Hedging Fund <https://www.homepricefutures.com/hphf>  
Contact me with any interest in hedging Top 50 cities.



# Observations for Aug 2020

- **Trading/Quotes/Spreads/Activity:**
  - Activity for August included 18 lots traded, across 5 expirations, and 6 regions. No trades before Aug 13<sup>th</sup>. Rolling 12 month >300 lots.
  - Prices were generally higher across all regions. (Some regions had much stronger bids but slightly lower offers).
  - Bid/Ask spreads were tighter, with most of the improvement in Q21 contract (where there was third party activity) and G23 and G25 where a combination of IC and calendar spreads narrowed quotes.
  - Nov '20 contracts reflect current strong spot home price market, but then prices fall to 2021. While longer prices (e.g. G24, G25) are above G21, there's a wider variance on G22 and G23 levels.
  - I'm hearing from readers looking to hedge regions not covered by CME contracts (e.g. Seattle, Austin). I've tried to also steer many of those conversations to RP swaps.
  - Please feel free to DM me on ideas for trades:  
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# Price Changes/ Aug 31 v Aug 3\*

- Price changes only show markets with two-sided quotes. That's typically X20, G21, G23, and G25, although all 110 contracts had two-sided markets on Aug 31.
- Bids moved more than offers, tightening bid/asks spreads.
- \* I'm referencing Aug 3, as I was traveling July 31.

**CME S&P Case Shiller Home Price Futures:  
Aug 31 v Aug 3**

|     | Bid<br>Δ     | Ask<br>Δ    | Δ            |     | Change*<br>Bid | Ask         |              |
|-----|--------------|-------------|--------------|-----|----------------|-------------|--------------|
| CUS | 39.8         | 20.8        | <b>19.0</b>  | X20 | 16.2           | 5.4         | <b>10.8</b>  |
| BOS | 13.2         | 0.6         | <b>12.6</b>  | G21 | 35.6           | 21.4        | <b>14.2</b>  |
| CHI | 14.4         | -1.2        | <b>15.6</b>  | K21 | 11.4           | 5.0         | <b>6.4</b>   |
| DEN | 15.2         | 2.2         | <b>13.0</b>  | Q21 | 35.4           | 1.8         | <b>33.6</b>  |
| LAV | 19.2         | 10.2        | <b>9.0</b>   | X21 | 0.0            | 0.0         | <b>0.0</b>   |
| LAX | 44.8         | 19.2        | <b>25.6</b>  | G22 | 12.0           | 5.4         | <b>6.6</b>   |
| MIA | 22.8         | 8.2         | <b>14.6</b>  | X22 | 11.2           | 5.0         | <b>6.2</b>   |
| NYM | 18.6         | -3.2        | <b>21.8</b>  | G23 | 53.6           | 17.6        | <b>36.0</b>  |
| SDG | 16.6         | 9.8         | <b>6.8</b>   | G24 | 5.0            | 3.0         | <b>2.0</b>   |
| SFR | 20.0         | 8.4         | <b>11.6</b>  | G25 | 68.4           | 19.2        | <b>49.2</b>  |
| WDC | 24.2         | 8.8         | <b>15.4</b>  |     |                |             |              |
|     | <b>248.8</b> | <b>83.8</b> | <b>165.0</b> |     | <b>248.8</b>   | <b>83.8</b> | <b>165.0</b> |

\*Change -only for 2-sided mkts

\*- These prices are my best effort to collect end-of-day data and are not actual closing CME bids and offers.

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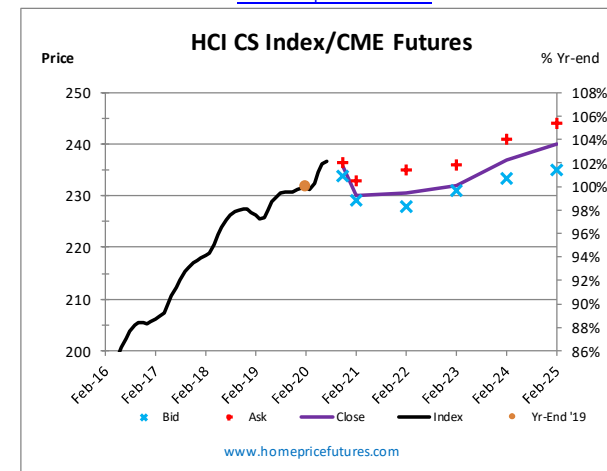
# Dip on intermediate contracts dominates

- The dip in prices post Nov '20 contracts seems to be the biggest takeaway from CME Case Shiller quotes.
- Nov '20 contracts seem to be focused on low inventory/ mortgage rates.
- Feb '21 prices reflect debate about a possible dip (with wider bid/ask). Dip is much smaller than 2-3 months ago. (see next page)
- Feb '24, '25 prices are driven by calendar spreads that seem based on a notion of “new normal”/prices rising with inflation.
- Timing of Covid recovery, and extension of spot prices, will define curve going forward.

HCI a/o 9/3/2020

| Contract | Expiration | Last   | Prices |       | Mkt % spot |        |
|----------|------------|--------|--------|-------|------------|--------|
|          |            |        | Bid    | Ask   | Bid        | Ask    |
| HCI      |            | 236.94 |        |       |            |        |
| HCIQ20   | Aug '20    |        |        |       |            |        |
| HCIx20   | Nov '20    | 235.8  | 233.8  | 236.4 | 98.7%      | 99.8%  |
| HCIg21   | Feb '21    | 230.0  | 229.0  | 233.0 | 96.6%      | 98.3%  |
| HCIg22   | Feb '22    | 230.6  | 228.0  | 235.0 | 96.2%      | 99.2%  |
| HCIg23   | Feb '23    | 232.0  | 231.0  | 236.0 | 97.5%      | 99.6%  |
| HCIg24   | Feb '24    | 237.0  | 233.4  | 241.0 | 98.5%      | 101.7% |
| HCIg25   | Feb '25    | 240.0  | 235.0  | 244.0 | 99.2%      | 103.0% |

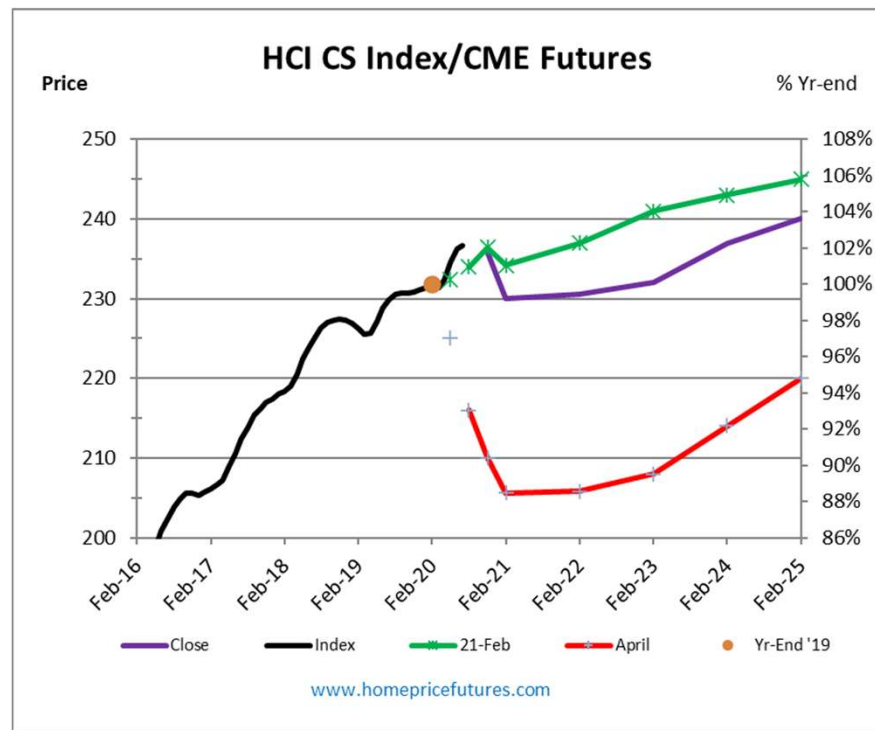
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# HCI Contracts: Feb, April, Today

- This graph reflects the changes in various HCI contracts from Feb (in green/pre-Covid) to April (in red, with the lowest prices the contract saw this year) to today (in purple).
- The graph shows actual CS #'s (in black) exceeding futures prices for May, August contracts from Feb 2020 (in green).



# Price Changes/ Aug 31 v Aug 3

## CME S&P Case Shiller Home Price Futures: Aug 31 v Aug 3

|            | 9      |       |       |       |       |       | 10                |       |       |       |       |       |      |
|------------|--------|-------|-------|-------|-------|-------|-------------------|-------|-------|-------|-------|-------|------|
|            | Bid    | Ask   | Bid   | Ask   | Bid Δ | Ask Δ | Bid               | Ask   | Bid   | Ask   | Bid Δ | Ask Δ |      |
| <b>HCI</b> | 236.94 |       |       |       |       |       | <b>BOS</b> 231.88 |       |       |       |       |       |      |
| HCIX20     | 233.8  | 236.4 | 233.0 | 236.4 | 0.8   | 0.0   | BOSX20            | 229.0 | 231.6 | 228.0 | 231.6 | 1.0   | 0.0  |
| HCIG21     | 229.0  | 233.0 | 226.0 | 230.0 | 3.0   | 3.0   | BOSG21            | 224.4 | 228.4 | 221.6 | 227.6 | 2.8   | 0.8  |
| HCIX21     | 226.2  | 230.6 | 221.6 | 228.2 | 4.6   | 2.4   | BOSK21            | 221.8 | 229.4 | 218.4 |       |       |      |
| HCIG22     | 228.4  | 231.0 | 223.0 | 230.0 | 5.4   | 1.0   | BOSQ21            | 224.4 | 229.0 | 220.4 |       |       |      |
| HCIX22     | 226.0  | 232.0 |       |       |       |       | BOSX21            | 221.8 | 229.6 |       |       |       |      |
| HCIG23     | 228.0  | 233.0 | 222.0 | 230.6 | 6.0   | 2.4   | BOSG22            | 223.4 | 230.4 | 218.4 |       |       |      |
| HCIX24     | 232.0  | 236.0 | 227.0 | 233.0 | 5.0   | 3.0   | BOSX22            | 226.4 | 236.4 | 223.4 |       |       |      |
| HCIG25     | 231.0  | 235.0 | 226.0 | 232.0 | 5.0   | 3.0   | BOSG23            | 229.2 | 233.4 | 224.0 | 233.6 | 5.2   | -0.2 |
|            | 233.4  | 240.0 | 228.4 | 237.0 | 5.0   | 3.0   | BOSX24            | 231.4 | 239.6 | 227.4 |       |       |      |
|            | 235.0  | 244.0 | 230.0 | 241.0 | 5.0   | 3.0   | BOSG25            | 234.6 | 244.2 | 230.4 | 244.2 | 4.2   | 0.0  |

|            | 9      |       |       |       |       |       |
|------------|--------|-------|-------|-------|-------|-------|
|            | Bid    | Ask   | Bid   | Ask   | Bid Δ | Ask Δ |
| <b>CHI</b> | 147.06 |       |       |       |       |       |
| CHIX20     | 143.8  | 146.6 | 143.4 | 147.2 | 0.4   | -0.6  |
| CHIG21     | 137.8  | 142.2 | 134.8 | 140.6 | 3.0   | 1.6   |
| CHIX21     | 134.6  | 141.2 |       | 143.2 |       |       |
| CHIG22     | 136.4  | 141.0 | 130.0 | 145.0 |       |       |
| CHIX22     | 135.0  | 143.0 |       |       |       |       |
| CHIG23     | 135.6  | 142.0 |       | 145.6 |       |       |
| CHIX24     | 136.6  | 145.2 |       | 148.8 |       |       |
| CHIG25     | 139.4  | 143.4 | 135.0 | 145.0 | 4.4   | -1.6  |
|            | 139.4  | 146.6 |       |       |       |       |
|            | 140.4  | 148.6 | 133.8 | 149.2 | 6.6   | -0.6  |

\*- These prices are my best effort to collect end-of-day data and are not actual closing CME bids

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# Price Changes/ Aug 31 v Aug 3

## CME S&P Case Shiller Home Price Futures: Aug 3 v June 30

|            | Bid    | Ask   | Bid   | Ask   | Bid Δ | Ask Δ |        | Bid        | Ask    | Bid   | Ask   | Bid Δ | Ask Δ |  |
|------------|--------|-------|-------|-------|-------|-------|--------|------------|--------|-------|-------|-------|-------|--|
| <b>DEN</b> | 232.64 |       |       |       |       |       |        | <b>LAV</b> | 199.92 |       |       |       |       |  |
| DENX20     | 229.2  | 231.8 | 227.2 | 231.2 | 2.0   | 0.6   | LAVX20 | 194.0      | 198.8  | 192.8 | 197.4 | 1.2   | 1.4   |  |
| DENG21     | 224.2  | 228.6 | 221.0 | 226.8 | 3.2   | 1.8   | LAVG21 | 186.0      | 193.0  | 181.2 | 189.0 | 4.8   | 4.0   |  |
| DENK21     | 221.6  | 230.4 |       | 230.8 |       |       | LAVK21 | 181.0      | 192.0  |       |       |       |       |  |
| DENQ21     | 223.6  | 228.2 |       | 233.8 |       |       | LAVQ21 | 182.4      | 191.0  |       |       |       |       |  |
| DENX21     | 221.2  | 228.8 |       |       |       |       | LAVX21 | 181.0      | 191.0  |       |       |       |       |  |
| DENG22     | 223.0  | 231.6 |       | 232.6 |       |       | LAVG22 | 180.0      | 192.0  |       |       |       |       |  |
| DENX22     | 226.0  | 233.8 |       | 234.2 |       |       | LAVX22 | 179.0      | 194.2  |       |       |       |       |  |
| DENG23     | 229.0  | 233.2 | 224.0 | 233.0 | 5.0   | 0.2   | LAVG23 | 182.0      | 190.0  | 178.0 | 188.0 | 4.0   | 2.0   |  |
| DENG24     | 231.2  | 239.4 |       |       |       |       | LAVG24 | 181.8      | 193.2  |       |       |       |       |  |
| DENG25     | 232.8  | 241.6 | 227.8 | 242.0 | 5.0   | -0.4  | LAVG25 | 182.0      | 193.0  | 172.8 | 190.2 | 9.2   | 2.8   |  |

|            | Bid    | Ask   | Bid   | Ask   | Bid Δ | Ask Δ |        | Bid        | Ask    | Bid   | Ask   | Bid Δ | Ask Δ |  |
|------------|--------|-------|-------|-------|-------|-------|--------|------------|--------|-------|-------|-------|-------|--|
| <b>LAX</b> | 297.89 |       |       |       |       |       |        | <b>MIA</b> | 253.04 |       |       |       |       |  |
| LAXX20     | 293.6  | 297.2 | 290.6 | 295.4 | 3.0   | 1.8   | MIAX20 | 249.6      | 252.4  | 247.8 | 251.8 | 1.8   | 0.6   |  |
| LAXG21     | 285.0  | 291.0 | 279.0 | 287.0 | 6.0   | 4.0   | MIAG21 | 244.0      | 248.8  | 240.2 | 246.6 | 3.8   | 2.2   |  |
| LAXK21     | 281.0  | 289.6 | 274.2 | 287.0 | 6.8   | 2.6   | MIAK21 | 241.0      | 248.0  |       |       |       |       |  |
| LAXQ21     | 282.8  | 288.0 | 277.0 | 288.0 | 5.8   | 0.0   | MIAQ21 | 241.0      | 247.6  | 236.0 | 248.0 | 5.0   | -0.4  |  |
| LAXX21     | 283.0  | 290.0 |       |       |       |       | MIAX21 | 240.2      | 248.0  |       |       |       |       |  |
| LAXG22     | 283.0  | 293.0 | 277.0 | 290.0 | 6.0   | 3.0   | MIAG22 | 241.6      | 249.6  |       |       |       |       |  |
| LAXX22     | 285.8  | 294.0 | 279.6 | 292.0 | 6.2   | 2.0   | MIAX22 | 245.0      | 252.8  |       |       |       |       |  |
| LAXG23     | 285.0  | 293.0 | 280.0 | 290.0 | 5.0   | 3.0   | MIAG23 | 244.6      | 251.6  | 239.6 | 248.6 | 5.0   | 3.0   |  |
| LAXG24     | 286.8  | 299.4 |       |       |       |       | MIAG24 | 245.4      | 257.0  |       |       |       |       |  |
| LAXG25     | 290.0  | 303.0 | 284.0 | 300.2 | 6.0   | 2.8   | MIAG25 | 248.0      | 259.0  | 240.8 | 256.2 | 7.2   | 2.8   |  |

\*- These prices are my best effort to collect end-of-day data and are not actual closing CME bids

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# Price Changes/ Aug 31 v Aug 3

## CME S&P Case Shiller Home Price Futures: Aug 31 v Aug 3

|            | Bid    | Ask   | Bid   | Ask   | Bid Δ | Ask Δ |        | Bid        | Ask    | Bid   | Ask   | Bid Δ | Ask Δ |  |
|------------|--------|-------|-------|-------|-------|-------|--------|------------|--------|-------|-------|-------|-------|--|
| <b>NYM</b> | 203.82 |       |       |       |       |       |        | <b>SDG</b> | 274.91 |       |       |       |       |  |
| NYMX20     | 200.8  | 203.6 | 201.2 | 205.2 | -0.4  | -1.6  | SDGX20 | 271.4      | 274.2  | 269.2 | 273.2 | 2.2   | 1.0   |  |
| NYMG21     | 196.2  | 200.2 | 194.6 | 200.6 | 1.6   | -0.4  | SDGG21 | 264.6      | 269.4  | 261.0 | 266.4 | 3.6   | 3.0   |  |
| NYMK21     | 192.2  | 199.8 |       |       |       |       | SDGK21 | 262.0      | 269.8  |       | 271.0 |       |       |  |
| NYMQ21     | 196.4  | 201.2 | 190.0 | 202.0 | 6.4   | -0.8  | SDGQ21 | 264.4      | 270.0  |       | 270.0 |       |       |  |
| NYMX21     | 193.2  | 200.6 |       |       |       |       | SDGX21 | 262.6      | 270.0  |       |       |       |       |  |
| NYMG22     | 194.2  | 203.2 |       |       |       |       | SDGG22 | 263.6      | 270.6  |       | 271.2 |       |       |  |
| NYMX22     | 197.2  | 205.2 |       |       |       |       | SDGX22 | 266.2      | 274.0  |       | 274.6 |       |       |  |
| NYMG23     | 200.0  | 204.2 | 195.0 | 205.0 | 5.0   | -0.8  | SDGG23 | 266.0      | 273.0  | 261.0 | 270.0 | 5.0   | 3.0   |  |
| NYMG24     | 201.0  | 209.6 |       |       |       |       | SDGG24 | 267.8      | 278.4  |       |       |       |       |  |
| NYMG25     | 202.8  | 213.6 | 196.8 | 213.2 | 6.0   | 0.4   | SDGG25 | 269.6      | 282.4  | 263.8 | 279.6 | 5.8   | 2.8   |  |

|            | Bid    | Ask   | Bid   | Ask   | Bid Δ | Ask Δ |        | Bid        | Ask    | Bid   | Ask   | Bid Δ | Ask Δ |  |
|------------|--------|-------|-------|-------|-------|-------|--------|------------|--------|-------|-------|-------|-------|--|
| <b>SFR</b> | 274.01 |       |       |       |       |       |        | <b>WDC</b> | 243.20 |       |       |       |       |  |
| SFRX20     | 271.2  | 273.2 | 270.4 | 272.6 | 0.8   | 0.6   | WDCX20 | 240.0      | 242.8  | 236.6 | 241.2 | 3.4   | 1.6   |  |
| SFRG21     | 263.2  | 269.0 | 261.6 | 268.0 | 1.6   | 1.0   | WDCG21 | 234.0      | 238.0  | 231.8 | 237.6 | 2.2   | 0.4   |  |
| SFRK21     | 260.0  | 268.6 |       |       |       |       | WDCK21 | 231.6      | 237.8  |       |       |       |       |  |
| SFRQ21     | 263.4  | 270.0 | 257.0 | 269.0 | 6.4   | 1.0   | WDCQ21 | 233.4      | 239.0  | 227.0 | 238.0 | 6.4   | 1.0   |  |
| SFRX21     | 261.2  | 268.8 |       |       |       |       | WDCX21 | 232.0      | 239.0  |       |       |       |       |  |
| SFRG22     | 260.6  | 270.8 |       |       |       |       | WDCG22 | 233.0      | 240.0  |       |       |       |       |  |
| SFRX22     | 265.6  | 273.8 |       |       |       |       | WDCX22 | 235.4      | 243.0  |       |       |       |       |  |
| SFRG23     | 265.0  | 273.0 | 260.0 | 270.0 | 5.0   | 3.0   | WDCG23 | 235.0      | 242.0  | 230.0 | 239.0 | 5.0   | 3.0   |  |
| SFRG24     | 265.8  | 278.2 |       |       |       |       | WDCG24 | 238.0      | 247.0  |       |       |       |       |  |

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# Bid/Ask Spreads

- Tightest two bid/ask spreads (by expiration) in green/ widest two in red.
- Note two-sided spreads quoted now in five key expirations: Q20, X20, G21, G23 and G25. Quotes in many other expirations are either: a) to provide a fuller curve for 10-city index contracts, b) to provide quotes on contracts with OI, or c) as part of ongoing attempts by users to unwind open exposures.
- Bid/ask spreads are much tighter in G21, G23 than over most of the last two months, but still have room to run as many regional quotes are still being derived from Intercity Spread levels.

|         |     | BID/ASK Spread |      |     |     |      |      |      |      |      |      |      |
|---------|-----|----------------|------|-----|-----|------|------|------|------|------|------|------|
|         |     | CUS            | BOS  | CHI | DEN | LAV  | LAX  | MIA  | NYM  | SDG  | SFR  | WDC  |
| Nov '20 | X20 | 2.6            | 2.6  | 2.8 | 2.6 | 4.8  | 3.6  | 2.8  | 2.8  | 2.8  | 2.0  | 2.8  |
| Feb '21 | G21 | 4.0            | 4.0  | 4.4 | 4.4 | 7.0  | 6.0  | 4.8  | 4.0  | 4.8  | 5.8  | 4.0  |
| May '21 | K21 | 4.4            | 7.6  | 6.6 | 8.8 | 11.0 | 8.6  | 7.0  | 7.6  | 7.8  | 8.6  | 6.2  |
| Aug '21 | Q21 | 2.6            | 4.6  | 4.6 | 4.6 | 8.6  | 5.2  | 6.6  | 4.8  | 5.6  | 6.6  | 5.6  |
| Nov '21 | X21 | 6.0            | 7.8  | 8.0 | 7.6 | 10.0 | 7.0  | 7.8  | 7.4  | 7.4  | 7.6  | 7.0  |
| Feb '22 | G22 | 5.0            | 7.0  | 6.4 | 8.6 | 12.0 | 10.0 | 8.0  | 9.0  | 7.0  | 10.2 | 7.0  |
| Nov '22 | X22 | 4.0            | 10.0 | 8.6 | 7.8 | 15.2 | 8.2  | 7.8  | 8.0  | 7.8  | 8.2  | 7.6  |
| Feb '23 | G23 | 4.0            | 4.2  | 4.0 | 4.2 | 8.0  | 8.0  | 7.0  | 4.2  | 7.0  | 8.0  | 7.0  |
| Feb '24 | G24 | 6.6            | 8.2  | 7.2 | 8.2 | 11.4 | 12.6 | 11.6 | 8.6  | 10.6 | 12.4 | 9.0  |
| Feb '25 | G25 | 9.0            | 9.6  | 8.2 | 8.8 | 11.0 | 13.0 | 11.0 | 10.8 | 12.8 | 12.0 | 11.0 |



# Trading Activity: Aug./Rolling-12 mon

- There were 18 lots traded in August across 5 expirations, and 6 regions.
- SFR remains the most active regional contract over the last 12 months.
- My tallies differ from CME by 1-2 lots in 2020 YTD and rolling 12.



## Volume: CME S&P Case Shiller

| CME Case Shiller Trading |        |                 |        |        |                 | Contracts Traded |            |            |           |            |            |            |            |            |
|--------------------------|--------|-----------------|--------|--------|-----------------|------------------|------------|------------|-----------|------------|------------|------------|------------|------------|
| Futures                  |        |                 |        |        |                 | By Month         |            |            |           |            |            |            |            |            |
| Contract                 | Aug 18 | Trailing 12 302 | Region | Aug 18 | Trailing 12 302 | 2013             | 2014       | 2015       | 2016      | 2017       | 2018       | 2019       | 2020       |            |
| X19                      | 0      | 15              | HCI    | 7      | 89              | Jan              | 8          | 15         | 8         | 9          | 25         | 9          | 3          | 16         |
| G20                      | 0      | 26              | BOS    | 0      | 33              | Feb              | 7          | 21         | 4         | 8          | 8          | 3          | 2          | 38         |
| K20                      | 0      | 62              | CHI    | 2      | 16              | Mar              | 26         | 10         | 12        | 2          | 13         | 9          | 42         | 79         |
| Q20                      | 3      | 34              | DEN    | 0      | 17              | Apr              | 11         | 14         | 14        | 14         | 5          | 9          | 19         | 50         |
| X20                      | 4      | 59              | LAV    | 5      | 8               | May              | 17         | 52         | 6         | 16         | 12         | 7          | 3          | 13         |
| G21                      | 7      | 32              | LAX    | 2      | 11              | June             | 4          | 2          | 2         | 3          | 13         | 15         | 2          | 21         |
| K21                      | 2      | 2               | MIA    | 1      | 8               | July             | 18         | 2          | 5         | 9          | 6          | 5          | 10         | 9          |
| Q21                      | 2      | 3               | NYM    | 0      | 27              | Aug              | 12         | 19         | 5         | 5          | 18         | 8          | 9          | 18         |
| X21                      | 0      | 0               | SDG    | 1      | 24              | Sept             | 29         | 1          | 3         | 11         | 22         | 2          | 19         |            |
| G22                      | 0      | 0               | SFR    | 0      | 46              | Oct              | 68         | 15         | 9         | 17         | 9          | 22         | 19         |            |
| X22                      | 0      | 47              | WDC    | 0      | 20              | Nov              | 23         | 10         | 15        | 46         | 2          | 11         | 14         |            |
| G23                      | 0      | 3               | TBA    | 0      | 3               | Dec              | 7          | 5          | 10        | 7          | 3          | 10         | 6          |            |
| G24                      | 0      | 16              |        |        |                 | <b>Total</b>     | <b>230</b> | <b>166</b> | <b>93</b> | <b>147</b> | <b>136</b> | <b>110</b> | <b>148</b> | <b>244</b> |
| G25                      | 0      | 0               |        |        |                 |                  | Running 12 |            |           |            |            |            | 302        |            |
| TBA                      | 0      | 3               |        |        |                 |                  |            |            |           |            |            |            |            |            |

# Open Interest (OI)

- OI rose from 36 to 42.
- Three regions (BOS, DEN, and WDC ) have no OI.
- OI has skewed toward shorter contracts (see average “time to expiration” < 1.0) as debate on near-term price forecasts dominate trading.
- Three expirations (G22, G25 and newly opened X21) have no OI

|            |          | 8/31/2020 |          |           |          |          |          |          |          |          |          |           |
|------------|----------|-----------|----------|-----------|----------|----------|----------|----------|----------|----------|----------|-----------|
| Contract   | BOS      | CHI       | DEN      | HCI       | LAV      | LAX      | MIA      | NYM      | SDG      | SFR      | WDC      | Total     |
| Nov 20     |          | 3         | 0        | 2         | 3        | 3        |          |          | 2        | 6        |          | 19        |
| Feb 21     |          |           |          | 5         | 1        | 1        | 1        |          | 1        |          |          | 9         |
| May 21     |          | 1         |          | 1         |          |          | 1        |          |          |          |          | 3         |
| Aug 21     |          |           |          |           | 1        |          |          |          | 1        |          |          | 2         |
| Nov 21     |          |           |          |           |          |          |          |          |          |          |          | 0         |
| Feb 22     |          |           |          |           |          |          |          |          |          |          |          | 0         |
| Nov 22     | 0        |           |          | 2         |          | 2        |          | 0        |          | 2        | 0        | 6         |
| Feb 23     |          |           |          | 0         |          |          |          | 1        |          |          |          | 1         |
| Feb 24     | 0        |           |          | 2         |          |          |          |          |          |          |          | 2         |
| Feb 25     |          |           |          |           |          |          |          |          |          |          |          | 0         |
| <b>SUM</b> | <b>0</b> | <b>4</b>  | <b>0</b> | <b>12</b> | <b>5</b> | <b>6</b> | <b>2</b> | <b>1</b> | <b>4</b> | <b>8</b> | <b>0</b> | <b>42</b> |

Average Expiration (yrs) 0.89

| Open Interest: 2013-2020 |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|
|                          | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
| Jan                      | 109  | 89   | 63   | 44   | 53   | 36   |      | 54   |
| Feb                      | 89   | 86   | 57   | 37   | 54   | 37   |      | 49   |
| Mar                      | 102  | 95   | 64   | 37   | 66   | 33   | 56   | 41   |
| Apr                      | 109  | 107  | 71   | 51   | 69   | 40   | 59   | 42   |
| May                      | 85   | 88   | 57   | 42   | 48   | 35   | 45   | 34   |
| June                     | 85   | 88   | 58   | 43   | 51   | 39   | 45   | 35   |
| July                     | 96   | 89   | 58   |      |      | 44   | 51   | 36   |
| Aug                      | 83   | 77   | 49   | 36   | 61   | 48   | 45   | 42   |
| Sept                     | 105  | 78   |      | 42   | 45   | 47   | 53   |      |
| Oct                      | 149  | 85   | 52   | 46   | 51   | 49   | 60   |      |
| Nov                      | 81   | 54   | 35   | 38   | 34   | 32   | 53   |      |
| Dec                      | 85   | 57   | 40   | 41   | 34   | 37   | 54   |      |



# Price Discovery -CME Contracts

- I continued to update price thoughts to my website : ([www.homepricefutures.com/quotes](http://www.homepricefutures.com/quotes)) where I share indications of where I'd buy/sell Nov '20 and Feb '21 contracts.
- I try to update 2-3 days/week.
- In addition I started posting trading axes that users had shared, and activity.

| Nov 2020 (X20) |        |              |            |            |              |                   |
|----------------|--------|--------------|------------|------------|--------------|-------------------|
| X20            | Spot   | Bid          | Bid % spot | Ask % spot | Ask          | Outright Bid/ Ask |
| HCI            | 236.94 | <b>233.8</b> | 98.7%      | 99.8%      | <b>236.4</b> | 2.6               |
| BOS            | 231.88 | 229.0        | 98.8%      | 99.9%      | 231.6        | 2.6               |
| CHI            | 147.06 | 143.8        | 97.8%      | 99.7%      | 146.6        | 2.8               |
| DEN            | 232.64 | 229.2        | 98.5%      | 99.6%      | 231.8        | 2.6               |
| LAV            | 199.92 | 194.0        | 97.0%      | 99.4%      | 198.8        | 4.8               |
| LAX            | 297.89 | 293.6        | 98.6%      | 99.8%      | 297.2        | 3.6               |
| MIA            | 253.04 | 249.6        | 98.6%      | 99.7%      | 252.4        | 2.8               |
| NYM            | 203.82 | 200.8        | 98.5%      | 99.9%      | 203.6        | 2.8               |
| SDG            | 274.91 | 271.4        | 98.7%      | 99.7%      | 274.2        | 2.8               |
| SFR            | 274.01 | 271.2        | 99.0%      | 99.7%      | 273.2        | 2.0               |
| WDC            | 243.2  | 240.0        | 98.7%      | 99.8%      | 242.8        | 2.8               |

[www.homepricefutures.com](http://www.homepricefutures.com)

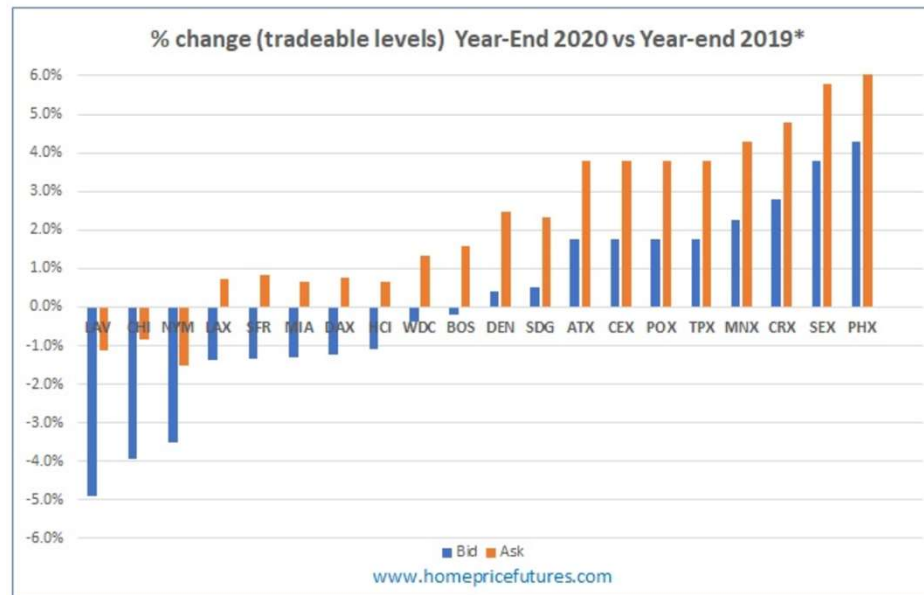
| Feb 2021 (G21) |        |              |            |            |              |                   |
|----------------|--------|--------------|------------|------------|--------------|-------------------|
| G21            | Spot   | Bid          | Bid % spot | Ask % spot | Ask          | Outright Bid/ Ask |
| HCI            | 236.94 | <b>229.0</b> | 96.6%      | 98.3%      | <b>233.0</b> | 4.0               |
| BOS            | 231.88 | 224.4        | 96.8%      | 98.5%      | 228.4        | 4.0               |
| CHI            | 147.06 | 137.8        | 93.7%      | 96.7%      | 142.2        | 4.4               |
| DEN            | 232.64 | 224.0        | 96.3%      | 98.3%      | 228.6        | 4.6               |
| LAV            | 199.92 | 186.0        | 93.0%      | 96.5%      | 193.0        | 7.0               |
| LAX            | 297.89 | 285.0        | 95.7%      | 97.7%      | 291.0        | 6.0               |
| MIA            | 253.04 | 244.0        | 96.4%      | 98.3%      | 248.8        | 4.8               |
| NYM            | 203.82 | 196.2        | 96.3%      | 98.2%      | 200.2        | 4.0               |
| SDG            | 274.91 | 264.6        | 96.2%      | 98.0%      | 269.4        | 4.8               |
| SFR            | 274.01 | 263.2        | 96.1%      | 98.2%      | 269.0        | 5.8               |
| WDC            | 243.20 | 234.0        | 96.2%      | 97.9%      | 238.0        | 4.0               |

[www.homepricefutures.com](http://www.homepricefutures.com)



# Price Discovery -other cities

- There was much social media discussion during August as to how one city might perform against another. I blogged how HPHF Relative Performance Agreements might be a useful template for expressing such views.  
<https://www.homepricefutures.com/posts/different-cities-different-levels-where-home-price-risk-clears>
- Key to discussion is acceptance that different cities already may have forward price markets.



\* CME Contracts for BOS, CHI, DEN, LAV, LAX, MIA, NYM, SDG, SFR and WDC  
HPHF Relative Performance quotes for the rest  
All referencing Case Shiller index Feb '20 release (Dec '19 index) v Feb '21 release  
DEX (Detroit) omitted as no recent data





# Disclosures

## Risk Factors/Disclosure

- This report was prepared by an independent market maker of the CME Case Shiller futures contracts. The views expressed are his own and should not be construed to represent the views of the CME, S&P , CoreLogic, or any other entity.
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- The information gathered was at a point in time. The bids/offers described here are dated and may not exist in the current market.
- The quotes shown are for a minimum of one lot. There is no guarantee as to the depth of the market, nor is there any guarantee that an on-going bid/ask spread will be made in every market.
- The observations made herein is for informational purposes and should not be considered investment advice nor a recommendation to trade futures. Futures trading may be risky and one should consult a futures broker before trading.
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