

# CME S&P Case Shiller Futures

## Aug 2019 Review



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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.
- While my long-term interest has been on CME Case Shiller home price index futures, my sense is that there may be demand for hedging products for other regions. See <https://www.homepricefutures.com/hphf>



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# Observations for Aug 2019

- **Trading/Quotes/Spreads/Activity:**
  - There were 9 futures contracts traded during Aug 2019, across 3 expirations, and 4 regions (DEN, LAX, NYM and SFR). (page 8). No options have traded since the 7 lots in June.
  - Prices were modestly lower across all regions (except BOS) and bid/ask spreads compressed across front three contracts (page 5).
  - Third-party activity was very quiet.
  - With the expiration of the Aug '19 contract, only four expirations (X19, G20, X20 and X22) have open interest (OI) (page 9). I believe that on any product w/ low volume concentrating interest on fewer choices, improves limited liquidity. As such, I rarely post quotes for K21, X21, K22, X23, except for 10-city index contracts.
  - With Q19 expiring, the CME opened trading in the G21 (Feb '21) contract. I'll add this to the list of targeted expirations as the Feb '21 contract settles on the Dec '20 index and should promote discussion of HPA for 2020.
  - BOS , NYM and SFR are the only regions with > 10 lots traded in 2019.
  - With Q19 expiring four regions have no OI (DEN, LAX, MIA, and SDG). I'd be happy to facilitate trades in those regions.
  - I continue to tout OTC home price index agreements on other regions/home price indices. See [www.homepricefutures.com/HPHF](http://www.homepricefutures.com/HPHF) for details



# Price Changes/ Aug 30 v July 31

- Closes were modestly lower across all regions (except BOS) and all expirations.
- Shorter maturity bid/ask spreads tightened, contributing to net tighter spreads on the month.

	Bid	Ask	$\Delta$		Change*		
	$\Delta$	$\Delta$			Bid	Ask	
CUS	-9.8	-10.0	<b>0.2</b>	X19	-3.4	-10.0	<b>6.6</b>
BOS	1.6	0.2	<b>1.4</b>	G20	-3.6	-13.2	<b>9.6</b>
CHI	-0.6	-7.8	<b>7.2</b>	K20	-4.2	-13.4	<b>9.2</b>
DEN	-12.8	-13.8	<b>1.0</b>	Q20	-10.0	-8.6	<b>-1.4</b>
LAV	-6.0	-9.0	<b>3.0</b>	X20	-12.0	-10.0	<b>-2.0</b>
LAX	-9.2	-6.8	<b>-2.4</b>	G21	0.0	0.0	<b>0.0</b>
MIA	-6.6	-11.6	<b>5.0</b>	K21	-1.0	-0.6	<b>-0.4</b>
NYM	-12.8	-12.6	<b>-0.2</b>	X21	-16.8	-13.8	<b>-3.0</b>
SDG	-1.2	-3.2	<b>2.0</b>	K22	-1.0	-1.6	<b>0.6</b>
SFR	-6.6	-7.8	<b>1.2</b>	X22	-17.0	-18.4	<b>1.4</b>
WDC	-6.2	-8.4	<b>2.2</b>	X23	-1.2	-1.2	<b>0.0</b>
	<b>-70.2</b>	<b>-90.8</b>	<b>20.6</b>		<b>-70.2</b>	<b>-90.8</b>	<b>20.6</b>

\*Change -only for 2-sided mkts





# Price Changes/ Aug 30 v July 31

	Bid	Ask	Bid Δ	Ask Δ
<b>HCY</b>	230.58			
HCIX19	231.2	232.4	-0.6	-0.6
HCIG20	230.4	232.0	-0.6	-1.4
HCIK20	230.6	232.6	-0.6	-1.6
HCIQ20	232.2	234.6	-1.0	-0.6
HCIX20	233.2	235.0	-1.2	-0.6
HCIG21	232.2	235.2		
HCIK21	232.4	235.4	-1.0	-0.6
HCIX21	235.0	238.4	-1.2	-1.0
HCIK22	234.2	240.0	-1.0	-1.6
HCIX22	236.8	240.8	-1.4	-0.8
HCIX23	238.6	244.0	-1.2	-1.2

	Bid	Ask	Bid Δ	Ask Δ
<b>BOSY</b>	224.24			
BOSX19	224.8	226.8	0.8	0.2
BOSG20	224.0	226.6	0.8	0.2
BOSK20	224.2	227.2	0.8	0.0
BOSQ20	227.6	232.4	0.2	0.6
BOSX20	228.0	231.6	0.0	0.2
BOSG21	227.0	231.2		
BOSK21				
BOSX21	229.8	236.4	-1.0	-0.2
BOSK22				
BOSX22	233.4	239.4	0.0	-0.8
BOSX23				

	Bid	Ask	Bid Δ	Ask Δ
<b>CHIY</b>	146.48			
CHIX19	147.0	148.0	0.4	-0.8
CHIG20	145.6	147.4	0.4	-0.8
CHIK20	145.8	147.6	0.4	-0.8
CHIQ20	147.0	150.0	-0.2	-0.8
CHIX20	147.8	150.2	-0.6	-0.8
CHIG21	146.4	149.8		
CHIK21				
CHIX21	148.0	152.6	-0.6	-1.6
CHIK22				
CHIX22	148.6	153.2	-0.4	-2.2
CHIX23				

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

	Bid	Ask	Bid Δ	Ask Δ
<b>DENY</b>	223.68			
DENX19	224.0	225.8	-0.8	-1.4
DENG20	223.4	225.6	-0.4	-1.8
DENK20	223.6	226.4	-0.6	-1.8
DENQ20	226.0	230.4	-2.2	-2.0
DENX20	227.0	230.4	-2.6	-2.0
DENG21	225.8	230.6		
DENK21				
DENX21	229.2	234.6	-3.0	-2.2
DENK22				
DENX22	231.6	237.4	-3.2	-2.6
DENX23				

	Bid	Ask	Bid Δ	Ask Δ
<b>LAVY</b>	193.60			
LAVX19	194.2	196.2	-0.4	-0.8
LAVG20	193.8	196.4	-0.4	-1.2
LAVK20	194.2	197.0	-1.0	-1.0
LAVQ20	197.6	201.0	-1.0	-1.4
LAVX20	198.2	201.2	-1.0	-1.2
LAVG21	197.4	201.4		
LAVK21				
LAVX21	200.2	205.6	-1.0	-1.4
LAVK22				
LAVX22	202.2	209.0	-1.2	-2.0
LAVX23				

	Bid	Ask	Bid Δ	Ask Δ
<b>LAXY</b>	287.16			
LAXX19	287.6	289.0	-0.6	-1.0
LAXG20	287.0	289.0	-0.6	-1.4
LAXK20	287.0	289.4	-0.8	-1.4
LAXQ20	288.2	291.8	-1.6	-0.6
LAXX20	288.6	291.4	-1.4	0.0
LAXG21	288.0	291.6		
LAXK21				
LAXX21	289.6	295.0	-2.2	-0.8
LAXK22				
LAXX22	291.6	297.4	-2.0	-1.6
LAXX23				

	Bid	Ask	Bid Δ	Ask Δ
<b>MIAY</b>	243.22			
MIAX19	244.0	245.2	-0.2	-1.2
MIAG20	243.2	245.0	-0.4	-1.8
MIAK20	243.6	245.8	-0.2	-1.6
MIAQ20	245.2	249.0	-1.2	-1.2
MIAX20	246.2	248.6	-1.0	-1.8
MIAG21	245.2	248.4		
MIAK21				
MIAX21	247.6	253.0	-1.6	-1.6
MIAK22				
MIAX22	249.4	256.0	-2.0	-2.4
MIAX23				

	Bid	Ask	Bid Δ	Ask Δ
<b>NYMY</b>	200.23			
NYMX19	201.2	202.4	-1.4	-2.0
NYMG20	200.4	202.2	-1.8	-2.0
NYMK20	200.4	202.6	-1.6	-2.4
NYMQ20	201.8	204.8	-1.2	-0.6
NYMX20	202.2	204.8	-1.8	-1.4
NYMG21	201.4	204.6		
NYMK21				
NYMX21	203.4	207.8	-2.8	-2.0
NYMK22				
NYMX22	205.2	210.0	-2.2	-2.2
NYMX23				

	Bid	Ask	Bid Δ	Ask Δ
<b>SDGY</b>	261.86			
SDGX19	262.2	264.0	0.2	-0.4
SDGG20	261.6	264.0	0.2	-0.6
SDGK20	261.8	264.6	0.2	-0.6
SDGQ20	263.0	266.6	-0.2	-0.2
SDGX20	263.8	266.8	-0.4	-0.2
SDGG21	263.0	267.2		
SDGK21				
SDGX21	265.2	270.6	-0.4	-0.4
SDGK22				
SDGX22	267.4	273.6	-0.8	-0.8
SDGX23				

	Bid	Ask	Bid Δ	Ask Δ
<b>SFRY</b>	270.23			
SFRX19	270.8	272.0	-0.2	-1.0
SFRG20	270.0	271.8	-0.2	-1.0
SFRK20	270.4	272.6	-0.2	-1.0
SFRQ20	271.8	275.4	-0.6	-0.6
SFRX20	272.2	274.6	-1.0	-1.2
SFRG21	271.2	274.4		
SFRK21				
SFRX21	273.0	277.2	-2.0	-1.4
SFRK22				
SFRX22	274.8	281.0	-2.4	-1.6
SFRX23				

	Bid	Ask	Bid Δ	Ask Δ
<b>WDCY</b>	234.90			
WDCX19	235.4	237.4	-0.6	-1.0
WDCG20	234.8	237.2	-0.6	-1.4
WDCX20	235.2	238.0	-0.6	-1.2
WDCQ20	238.6	242.8	-1.0	-1.2
WDCX20	239.4	243.0	-1.0	-1.0
WDCG21	238.6	242.6		
WDCX21	241.8	248.0	-1.0	-1.2
WDCX22				
WDCX22	244.0	251.0	-1.4	-1.4
WDCX23				



# Bid/Ask Spreads

- Tightest two bid/ask spreads (by expiration) in green/ widest two in red.
- Bid/ask spreads:
  - Bid/ask spreads tightened primarily in shorter-dated expirations.
  - Average bid/ask spread of 1.5 points for front contract (Nov '19) is much tighter than average, with three months to run. In the past, I've tried to drive this to ~1.0 but am now more focused on longer-dated contracts, which are better suited for hedging/speculation.
  - As such, average bid/ask for X20 (w/ ~15 months to run) of 2.8 points is much tighter than average reflecting role as benchmark expiration.

BID/ASK Spread													Bid/Ask Spreads			
													Avg	Narrow	Wide	
		CUS	BOS	CHI	DEN	LAV	LAX	MIA	NYM	SDG	SFR	WDC				
Nov '19	X19	1.2	2.0	1.0	1.8	2.0	1.4	1.2	1.2	1.8	1.2	2.0	X19	1.5	1.0	2.0
Feb '20	G20	1.6	2.6	1.8	2.2	2.6	2.0	1.8	1.8	2.4	1.8	2.4	G20	2.1	1.6	2.6
May '20	K20	2.0	3.0	1.8	2.8	2.8	2.4	2.2	2.2	2.8	2.2	2.8	K20	2.5	1.8	3.0
Aug '20	Q20	2.4	4.8	3.0	4.4	3.4	3.6	3.8	3.0	3.6	3.6	4.2	Q20	3.6	2.4	4.8
Nov '20	X20	1.8	3.6	2.4	3.4	3.0	2.8	2.4	2.6	3.0	2.4	3.6	X20	2.8	1.8	3.6
Feb '21	G21	3.0	4.2	3.4	4.8	4.0	3.6	3.2	3.2	4.2	3.2	4.0	G21	3.7	3.0	4.8
May '21	K21	3.0											K21	3.0	3.0	3.0
Nov '21	X21	3.4	6.6	4.6	5.4	5.4	5.4	5.4	4.4	5.4	4.2	6.2	X21	5.1	3.4	6.6
May '21	K22	5.8											K22	5.8	5.8	5.8
Nov '22	X22	4.0	6.0	4.6	5.8	6.8	5.8	6.6	4.8	6.2	6.2	7.0	X22	5.8	4.0	7.0
Nov '23	X23	5.4											X23	5.4	5.4	5.4



# Trading Activity: July/ 2019 YTD

- There were 9 trades in August across 3 expirations, and 4 regions.
- Third party interest during the month was quiet – in part because I was away on vacation for ten days.
- BOS, NYM and SFR are only regional contracts w/ > 10 lots traded in 2019.
- Trading continues to be focused on the 4 regions with OI, as I'm trying to concentrate limited inquiries to those contracts (and new G21 contract).

CME Case Shiller Trading 2019					
Futures					
Contract	Aug 9	YTD 90	Region	Aug 9	YTD 90
G19		1	HCI	0	24
K19		11	BOS	0	11
Q19	4	10	CHI	0	4
X19	4	15	DEN	1	2
G20	1	5	LAV	0	2
K20	0	0	LAX	1	5
Q20	0	0	MIA	0	1
X20	0	27	NYM	3	14
G21	0	0	SDG	0	4
K21	0	0	SFR	4	20
Q21	0	0	WDC	0	2
X21	0	0	TBA		1
X22	0	20			
X23	0	0			
TBA		1			





# Open Interest (OI)

- OI fell from 51 to 45, but 9 Aug '19 contracts expired so a net of plus 3.
- Average years-to-expiration remained about the same at ~1.9
- There are 4 regions with no OI (DEN, LAX, MIA and SDG). I'm very eager to do a trade in all of these.

**Futures Open Interest -a/o** 8/30/2019 \*current month -estimated

Contract	BOS	CHI	DEN	HCI	LAV	LAX	MIA	NYM	SDG	SFR	WDC	Total
Nov 19				0				3		2		5
Feb 20								5				5
May 20												0
Aug 20												0
Nov 20		2		5	2					7		16
Feb 21												0
May 21												0
Nov 21												0
May 22												0
Nov 22	10									7	2	19
Nov 23												0
<b>SUM</b>	<b>10</b>	<b>2</b>	<b>0</b>	<b>5</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>16</b>	<b>2</b>	<b>45</b>

Average Expiration (yrs) 1.90  
November Expiration 89%

## Open Interest

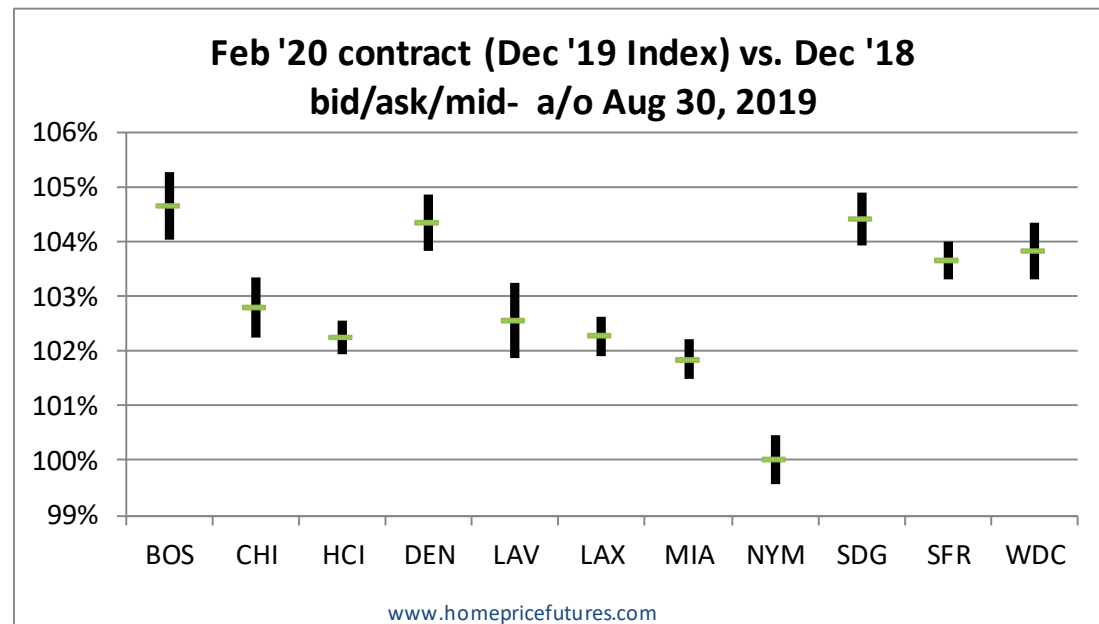
	Futures					
	2014	2015	2016	2017	2018	2019
Jan	89	63	44	53	36	
Feb	86	57	37	54	37	
Mar	95	64	37	66	33	56
Apr	107	71	51	69	40	59
May	88	57	42	48	35	45
June	88	58	43	51	39	45
July	89	58			44	51
Aug	77	49	36	61	48	45
Sept	78		42	45	47	
Oct	85	52	46	51	49	
Nov	54	35	38	34	32	
Dec	57	40	41	34	37	

	Options					
	2014	2015	2016	2017	2018	2019
				18	17	0
				0	2	0
				6	2	0
		18	6	2	0	
35	18	0	2	0		
35	18	0	2	7		
35	18	0	2	7		
35	18	10	2	7		
35	18	17	2			
35	18	17	2			
0	18	17	0			
	18	17	0			



# One-year forward markets~ implied HPA?

- Bars show bid/ask spread expressed as % of Dec '18 index values.
- CUS futures prices consistent with 2.2% gains for 2019 (but my sense is that contracts w/ > 6 months to expiration might trade at a slight discount to expected value.)
- BOS, DEN, SDG are priced for strongest gains/ NYM for weakest.



Mid E2019	4.7%	2.8%	2.2%	4.3%	2.6%	2.3%	1.9%	0.0%	4.4%	3.7%	3.8%
Actual:2018	5.2%	2.9%	3.6%	5.5%	11.4%	3.7%	5.2%	2.9%	2.2%	3.4%	2.7%
E(2019) v 2018	90%	98%	62%	79%	23%	62%	36%	1%	200%	107%	142%



# Regional X19/X20 Calendar Spreads

- Calendar spreads are useful for populating quotes on more than one contract (i.e. spread generates forward prices for second contract).
- Spreads available for other pairs (e.g. G20/G21) which may be useful for 2020 HPA expectations.

Spot	Outright Markets/ spot	Calendar Spreads:\$			Calendar Spreads:Implied HPA			Last 12 %	Bid/Ask			
		Bid	Ask	Mid	Bid	Mid	Ask					
<b>HCI</b> 230.58	HCIX19	231.4	232.4	231.9	-3.4	-2.4	-2.0	1.5%	1.0%	0.9%	1.8%	1.4
	HCIX20	233.6	235.0	234.3								
<b>BOS</b> 224.24	BOSX19	224.8	226.8	225.8	-4.8	-4.1	-3.4	2.1%	1.8%	1.5%	3.9%	1.4
	BOSX20	228.2	231.6	229.9								
<b>CHI</b> 146.48	CHIX19	147.0	148.0	147.5	-2.4	-1.6	-1.0	1.6%	1.1%	0.7%	1.5%	1.4
	CHIX20	148.0	150.2	149.1								
<b>DEN</b> 223.68	DENX19	224.0	225.8	224.9	-4.8	-4.0	-3.4	2.1%	1.8%	1.5%	3.4%	1.4
	DENX20	227.4	230.4	228.9								
<b>LAV</b> 193.60	LAVX19	194.2	196.2	195.2	-5.0	-4.7	-3.6	2.6%	2.4%	1.8%	5.5%	1.4
	LAVX20	198.6	201.2	199.9								
<b>LAX</b> 287.16	LAXX19	287.6	289.0	288.3	-2.6	-1.9	-1.4	0.9%	0.7%	0.5%	1.6%	1.2
	LAXX20	289.0	291.4	290.2								
<b>MIA</b> 243.22	MIAX19	244.0	245.2	244.6	-3.4	-2.9	-2.4	1.4%	1.2%	1.0%	2.8%	1.0
	MIAX20	246.4	248.6	247.5								
<b>NYM</b> 200.23	NYMX19	201.2	202.4	201.8	-2.6	-2.0	-1.6	1.3%	1.0%	0.8%	1.1%	1.0
	NYMX20	202.8	204.8	203.8								
<b>SDG</b> 261.86	SDGX19	262.2	264.0	263.1	-3.0	-2.3	-1.8	1.1%	0.9%	0.7%	1.3%	1.2
	SDGX20	264.0	266.8	265.4								
<b>SFR</b> 270.23	SFRX19	270.8	272.0	271.4	-2.6	-2.1	-1.6	1.0%	0.8%	0.6%	0.7%	1.0
	SFRX20	272.4	274.6	273.5								
<b>WDC</b> 234.90	WDCX19	235.4	237.4	236.4	-5.4	-4.8	-4.2	2.3%	2.0%	1.8%	2.9%	1.2
	WDCX20	239.6	242.8	241.2								

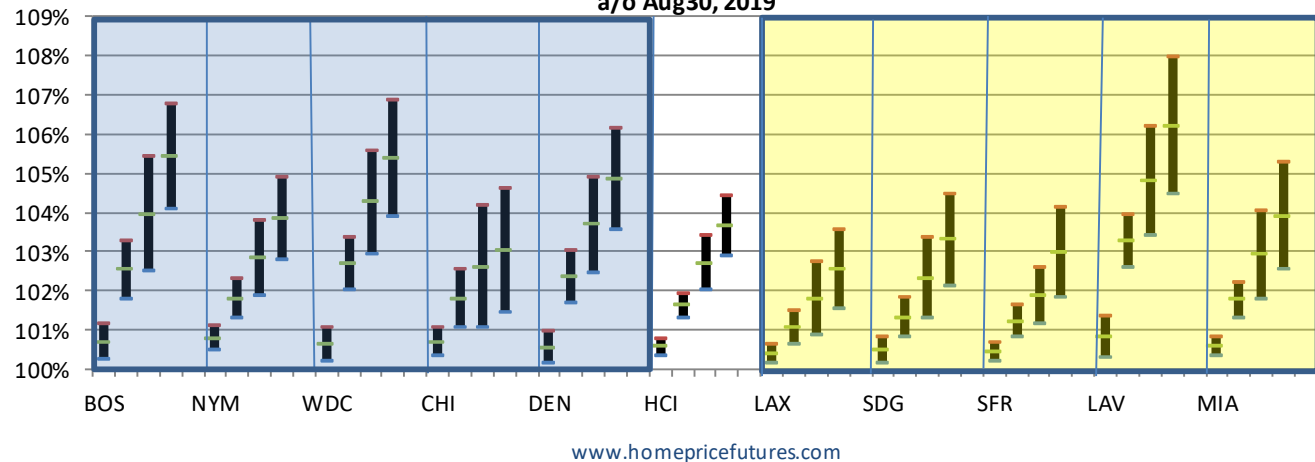
\*-See Oct 4, 2016 blog <http://www.homepricefutures.com/?p=3902> for more detailed explanation of Calendar spreads.  
 -Calendar spreads (orange/green) converted into % HPA change (right), which tend to bracket mid/mid-market-implied YOY HPA.  
 -Spreads quoted front contract vs. back, so higher forward prices =negative #'s



# Nov '19-'22 Contracts -across regions

- Height of bars reflects bid/ask spread expressed as percent of spot market and are denominated as cumulative price gains vs spot.
- Comparison of Nov v Nov vastly reduces influence of seasonal issues.
- Illustrates levels suggestive of:
  - higher HPA in BOS, DEN, LAV and WDC vs. LAX, NYM (>50% of CS 10-city index).

**CME Case Shiller futures as % of CS Spot index**  
 Nov '19, '20, '21 and '22 contracts showing bid/ask/mid  
 a/o Aug30, 2019



Comparison of mid/mid-market levels

	BOS	NYM	WDC	CHI	DEN	HCI	LAX	SDG	SFR	LAV	MIA
Nov '19/'20	2.12%	1.19%	2.27%	1.49%	2.04%	1.12%	0.83%	0.98%	0.96%	2.55%	1.39%
Nov '20/'21	2.07%	1.46%	2.14%	1.60%	1.82%	1.45%	1.24%	1.50%	0.95%	2.19%	1.77%
Nov '21/'22	1.27%	1.06%	1.21%	0.39%	1.19%	1.01%	0.81%	1.11%	1.52%	1.65%	1.19%

\*- bar graphs reflect when 2-sided markets are quoted



# Calendar Spread Markets: YOY/HPA

- Calendar spread quotes (top) converted into % HPA change (below), which “tend” to bracket mid/mid-market-implied YOY HPA.
- Mid price is front vs back (so negative number = higher forward prices).
- Calendar spreads are a) a way of playing the pace of home price changes, and b) a very useful tool for having one quote populate multiple markets.
- Available for other regions upon request.

Outright Markets				Calendar Spreads												
	Bid	Ask	Mid	X20			X21			X22			X23			
				Bid	Mid	Ask	Bid	Mid	Ask	Bid	Mid	Ask	Bid	Mid	Ask	
<b>HCI</b>		<b>230.58</b>														
HCIX19	231.4	232.4	231.9	-3.4	-2.4	-2.0	-6.8	-4.9	-3.8	-9.4	-7.1	-5.6	#VALUE!	-9.5	#VALUE!	
HCIX20	233.6	235.0	234.3				-3.4	-2.5	-1.4	-5.8	-4.7	-3.6	-9.0	-7.1	-4.6	
HCIX21	235.2	238.4	236.8							-3.6	-2.2	-1.8	#VALUE!	-4.6	#VALUE!	
HCIX22	237.2	240.8	239.0										-4.0	-2.4	-1.8	
HCIX23	238.8	244.0	241.4													
				Annualized % Change												
HCIX19				1.5%	1.0%	0.9%	1.5%	1.1%	0.8%	1.3%	1.0%	0.8%	na	1.0%	na	
HCIX20							1.5%	1.1%	0.6%	1.2%	1.0%	0.8%	1.3%	1.0%	0.6%	
HCIX21										1.5%	0.9%	0.8%	na	1.0%	na	
HCIX22													1.7%	1.0%	0.8%	
HCIX23																

See March 7, 2014 blog for review of calendar spreads for explanation - <http://www.homepricefutures.com/?p=3020>





# Inter-City (IC) X20 Spreads

- IC contracts priced consistent with BOS, DEN, LAV, WDC outperforming HCI, with LAX, SDG, SFR underperforming, and CHI, MIA, and NYM, neutral.
- Regional IC spreads (e.g. LAX v SDG) may also be quoted (but not shown). (Tables for other expirations available.)\*

		Index	Spot	Exp	InterCity		Bid/Ask
					Bid	Ask	
Front	HCI	230.58	X20	3.4	5.6	2.2	
Back	BOS	224.24		-1.4%	-0.4%		
Front	HCI	230.58	X20	84.8	86.8	2.0	
Back	CHI	146.48		-0.6%	0.7%		
Front	HCI	230.58	X20	3.8	6.2	2.4	
Back	DEN	223.68		-1.4%	-0.4%		
Front	HCI	230.58	X20	33.0	35.0	2.0	
Back	LAV	193.60		-2.4%	-1.4%		
Front	HCI	230.58	X20	-56.6	-54.6	2.0	
Back	LAX	287.16		0.4%	1.1%		
Front	HCI	230.58	X20	-14.6	-12.6	2.0	
Back	MIA	243.22		-0.7%	0.1%		
Front	HCI	230.58	X20	29.2	31.2	2.0	
Back	NYM	200.23		-0.8%	0.1%		
Front	HCI	230.58	X20	-31.6	-29.4	2.2	
Back	SDG	261.86		0.1%	0.9%		
Front	HCI	230.58	X20	-40.0	-38.0	2.0	
Back	SFR	270.23		0.1%	0.9%		
Front	HCI	230.58	X20	-8.4	-6.0	2.4	
Back	WDC	234.90		-1.7%	-0.7%		

\*-Showing IC spreads where HCI contract is one side. Numbers (percentages) represent my calculation of difference in gain in one forward price vs. current spot, to same calculation for the second region.\* (e.g. -2.4%/-1.0% in HCI/BOS → Buyer looking for HCI to underperform BOS by Nov '20 expiration by 1.0%/seller willing to sell BOS at implied gains of 2.4% (relative to HCI).  
See Sept 28, 2016 blog <http://www.homepricefutures.com/?p=3882> re IC spreads.  
Also <http://www.homepricefutures.com/?p=3359>, and <http://www.homepricefutures.com/?p=3318> (1/6/15) for more detailed explanations

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



# Options/ Puts/ Strike ~ Spot

- CME put options for Feb '20 and Feb '21 contracts (that will settle on 2019 and 2020 year-end indices) are my focus
- Other inquiries are possible, as puts/calls can be created on any 5-point interval, on any region, for any expiration.
- Option strategies (e.g. vol plays, bear/bull spreads, calendar spreads etc.) can be arranged.
- 7 puts traded in June in HCI, MIA contracts.

Expiration: 2/28/2020		G20				30-Aug-19			
		Futures		Index		Puts		Ask as %	
		Bid	Ask	Mid	Close	Spot	Bid	Ask	Spot
<b>HCIG20</b>	<b>CS 10-city</b>	230.6	232.0	231.3	231.2	230.58	<b>2.3</b>	<b>4.3</b>	1.7%
<b>BOSG20</b>	<b>Boston</b>	224.0	226.6	225.3	224.0	224.24	<b>1.1</b>	<b>3.2</b>	1.5%
<b>CHIG20</b>	<b>Chicago</b>	145.6	147.2	146.4	145.6	146.48	<b>1.3</b>	<b>3.3</b>	2.1%
<b>DENG20</b>	<b>Denver</b>	223.4	225.6	224.5	224.4	223.68	<b>1.2</b>	<b>3.6</b>	1.6%
<b>LAVG20</b>	<b>Las Vegas</b>	193.8	196.4	195.1	195.0	193.60	<b>1.7</b>	<b>4.7</b>	2.2%
<b>LAXG20</b>	<b>Los Angeles</b>	287.0	289.0	288.0	287.6	287.16	<b>2.1</b>	<b>4.9</b>	1.7%
<b>MIAG20</b>	<b>Miami</b>	243.2	245.0	244.1	245.0	243.22	<b>2.1</b>	<b>4.1</b>	1.8%
<b>NYMG20</b>	<b>New York</b>	200.4	202.2	201.3	202.0	200.23	<b>2.2</b>	<b>4.7</b>	2.3%
<b>SDGG20</b>	<b>San Diego</b>	261.6	264.0	262.8	261.6	261.86	<b>1.9</b>	<b>4.9</b>	1.9%
<b>SFRG20</b>	<b>San Francisco</b>	270.0	271.8	270.9	270.8	270.23	<b>4.5</b>	<b>8.3</b>	2.9%
<b>WDCG20</b>	<b>Washington, DC</b>	234.8	237.2	236.0	235.4	234.90	<b>1.6</b>	<b>3.9</b>	1.8%

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Expiration: 2/28/2021		G21				30-Aug-19			
		Futures		Index		Puts		Ask as %	
		Bid	Ask	Mid	Close	Spot	Bid	Ask	Spot
<b>HCIG21</b>	<b>CS 10-city</b>	232.6	235.2	233.9	234.6	230.58	<b>3.0</b>	<b>7.0</b>	3.4%
<b>BOSG21</b>	<b>Boston</b>	227.0	231.2	229.1	234.6	224.24			4.3%
<b>CHIG21</b>	<b>Chicago</b>	146.4	149.8	148.1	149.0	146.48	<b>2.4</b>	<b>5.4</b>	4.3%
<b>DENG21</b>	<b>Denver</b>	226.4	230.0	228.2	230.0	223.68			4.1%
<b>LAVG21</b>	<b>Las Vegas</b>	197.4	201.2	199.3	200.4	193.60			4.6%
<b>LAXG21</b>	<b>Los Angeles</b>	288.2	291.6	289.9	290.0	287.16	<b>4.7</b>	<b>9.5</b>	4.2%
<b>MIAG21</b>	<b>Miami</b>	245.4	248.4	246.9	248.4	243.22			3.7%
<b>NYMG21</b>	<b>New York</b>	202.0	204.6	203.3	204.6	200.23	<b>3.5</b>	<b>8.0</b>	4.4%
<b>SDGG21</b>	<b>San Diego</b>	263.2	266.8	265.0	264.2	261.86			4.6%
<b>SFRG21</b>	<b>San Francisco</b>	271.4	274.4	272.9	274.4	270.23			5.8%
<b>WDCG21</b>	<b>Washington, DC</b>	238.6	242.6	240.6	241.0	234.90			4.2%



# Home Price Index Agreements

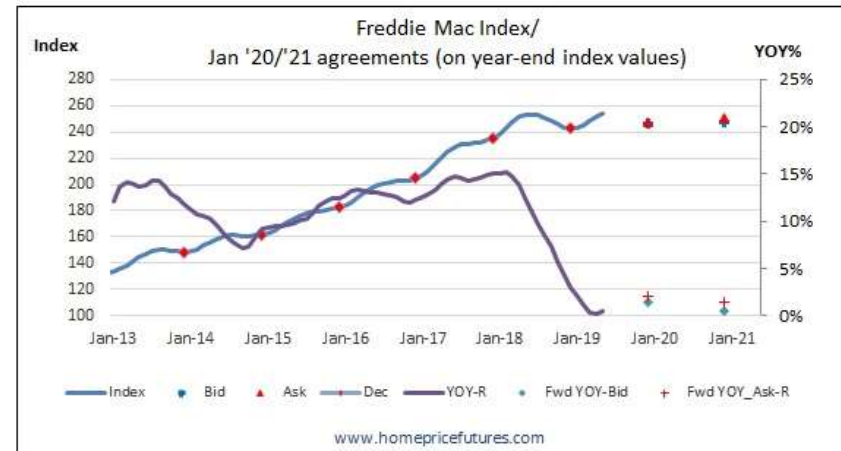
- I've launched HPHF (Home Price Hedging Fund) <https://www.homepricefutures.com/hphf> to facilitate trading in OTC home price index agreements.
- I'm open to constructing trades on 2019/2020 year-end index values on many of the >300 Freddie Mac home price NSA indices.
- DM me if you'd like to see quotes.
- Note that I've also posted quotes on Canadian indices (for Vancouver and Toronto). I'd be open to other cities in Canada or world-wide.
- Note 2 that this example is from July.

## Seattle-Tacoma-Bellevue, WA

### Home Price Hedging Agreement

a/o  
7/29/2019

Contract	Expiration	Last	Bid	Ask	Mkt % spot	Implied HPA		
Seattle-Tacoma-Bellevue, WA		254.39				Dec '18 Index	242.39	
	Jan '20		246.0	247.5	96.7%	97.3%	2019	1.500%
	Jan '21		247.3	250.9	97.2%	98.6%	2020	0.500%
Value/Point:	\$100	Notional Value/Agreement:		\$24,603	HPA last 12 mon		0.48%	



<sup>^1</sup> -Bid/Ask shown for one agreement. Subject to change

<sup>^2</sup> -<http://www.freddiemac.com/research/indices/house-price-index.page>

<https://www.homepricefutures.com/posts/introducing-home-price-hedging-fund-hphf>



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		HPHF (Home Price Index Agreements)											
		Release of Dec 31, 2019/ Jan 1 2020 Index (during Feb 2020)				Release of Dec 31, 2020/ Jan 1 2021 Index (during Feb 2021)				a/o 7/29/2019			
Freddie-defined range	Dec '18 index	Cur Spot	2019 HPA		2019 HPA		2020 HPA		2020 HPA		19-'20 Cum HPA	19-'20 Cum HPA	
			Bid	Ask	Bid	Ask	Bid	Ask	Bid	Ask	Bid	Ask	
Madison, WI	166.57	174.57	3.88%	4.38%	173.0	173.9	3.00%	3.75%	178.2	180.4	7.0%	8.3%	
Omaha, NE	151.44	161.45	8.00%	9.00%	163.6	165.1	5.00%	6.00%	171.7	175.0	13.4%	15.5%	
El Paso, Tx	162.83	168.24	2.75%	3.35%	167.3	168.3	2.00%	2.75%	170.7	172.9	4.8%	6.2%	
Odessa, TX	277.14	299.82	12.25%	13.25%	311.1	313.9	7.75%	9.25%	335.2	342.9	20.9%	23.7%	
Bakersfield, CA	202.23	210.59	4.75%	5.38%	211.8	213.1	4.00%	4.75%	220.3	223.2	8.9%	10.4%	
Oklahoma City, OK	171.47	178.41	4.88%	5.50%	179.8	180.9	4.13%	4.75%	187.2	189.5	9.2%	10.5%	
Grand Rapids-Wyoming, MI	150.40	160.91	8.13%	9.00%	162.6	163.9	5.50%	6.50%	171.6	174.6	14.1%	16.1%	
Raleigh, NC	171.33	177.97	3.63%	4.25%	177.5	178.6	2.50%	3.38%	182.0	184.6	6.2%	7.8%	
Seattle-Tacoma-Bellevue, WA	242.39	254.39	1.50%	2.13%	246.0	247.5	0.50%	1.38%	247.3	250.9	2.0%	3.5%	
Denver-Aurora-Lakewood, CO	210.83	218.73	1.50%	2.00%	214.0	215.0	0.50%	1.38%	215.1	218.0	2.0%	3.4%	

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# Disclosures

## Risk Factors/Disclosure

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- The quotes shown are for a minimum of one lot. There is no guarantee as to the depth of the market, not is there any guarantee that an on-going bid/ask spread will be made in every market.
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