

Monthly Survey of Real Estate Agents

June 2020

13 July 2020

Equity Research | Americas



Research Analysts

Adam Baumgarten

Senior Research Analyst

+1 212 325 2142

adam.baumgarten@credit-suisse.com

Dean Marriott

Research Analyst

+1 212 325 5081

dean.marriott@credit-suisse.com

Marius Morar

Research Analyst

+1 212 325 4354

marius.morar@credit-suisse.com

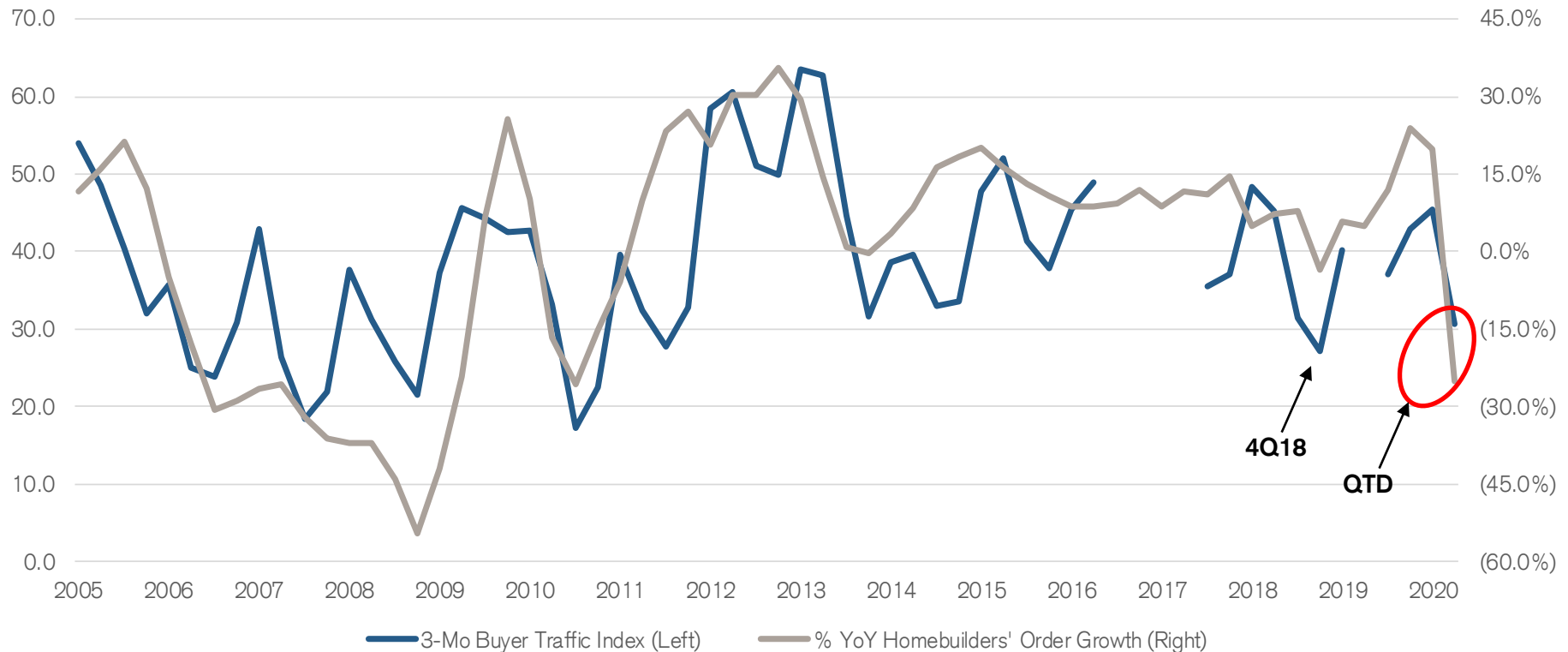
DISCLOSURE APPENDIX AT THE BACK OF THIS REPORT CONTAINS IMPORTANT DISCLOSURES, ANALYST CERTIFICATIONS, LEGAL ENTITY DISCLOSURE AND THE STATUS OF NON-US ANALYSTS. US Disclosure: Credit Suisse does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the Firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision.

Key Takeaways

- **Buyer traffic index surges, now near pre-COVID levels in June.** The national buyer traffic index continued its sharp recovery in June, jumping to ~54 from ~29 in May and an all-time low (15+ years) of ~9 in April (1-100 scale). The index is now roughly back to pre-COVID levels, recording the first better-than-expected result (50+) since February (60.7), and well above the 2019 average of ~40. The majority of MSAs saw double digit MoM improvements, led (in order) by Tucson, Philadelphia-Southern NJ, Indianapolis, Portland, and Raleigh. Notably, key markets for builders that had been more severely impacted by COVID-19 have also seen better-than-expected traffic, including Las Vegas (50, +38 MoM), Los Angeles (54, +30 MoM), Seattle (53, +28 MoM), and Houston (55, +28 MoM). Additionally, markets that have seen a recent spike in COVID-19 cases and new reopening restrictions also recorded improved results, especially Tucson, Phoenix, Miami, Dallas, and Houston. The continued recovery into June is consistent with recent builder commentary regarding June order trends - this improvement is likely reflective of pent-up demand for single family homes and migration out of urban centers toward the suburbs.
- **Home price index spikes to highest level since May 2018.** The national home price index rose to ~67 in June from ~53 in May, marking the best result in over two years. Almost all end markets saw a MoM increase (only Cincinnati and Orlando were negative), and the biggest increases (in order) were in Sacramento, Minneapolis, Raleigh, and Las Vegas. Digging into home prices by tier, all tiers saw better MoM trends, with low-tier continuing to lead the pack, returning to pre-COVID levels.
- **Below we highlight some of the most interesting comments from this month's respondents:**
 - **Atlanta, GA:** "Individuals are responding due to stability of income if they have to move and the lease is expiring. With the low interest rates, the hope is that it will stimulate the market"
 - **Austin, TX:** "Austin is seeing an influx of high dollar buyers relocating from NYC, San Francisco, Seattle, etc."
 - **Dallas, TX:** "The buyers I am talking with seem to be confident in their job and confident in the economy. They often seem to think the low interest rates will not hold for a very long time"
 - **Las Vegas, NV:** "I think this year has the potential to be a bigger year than last year. I am very optimistic about our local real estate market. I think there is more interest this year than last year for housing"
 - **New York, NY:** "Urban dwellers are moving to the suburbs because it's impossible to social distance in NYC as well as other urban locations. This is a fundamental change that, unlike 911 where it lasted for a month or two, will be with us for many years"
 - **Phoenix, AZ:** "Looking at statistics and a typical buying curve as well as talking to clients, it appears those who would have purchased 2 months ago are now shopping. Typically April and May are more of a peak for us and that has been pushed out ..."
 - **Raleigh, NC:** "Low interest rates. Decrease in resale inventory. Increase in land and home prices driving buyers to jump into the market now. Fear Of Missing Out"
 - **Seattle, WA:** "Low number of sellers coming on the market mainly because of the COVID-19 lockdown, many deciding to stay put for fear of not getting their price or not being able to find a replacement house. A high number of buyers both first time and downsizing, with cash to buy keeping a high demand on the market"

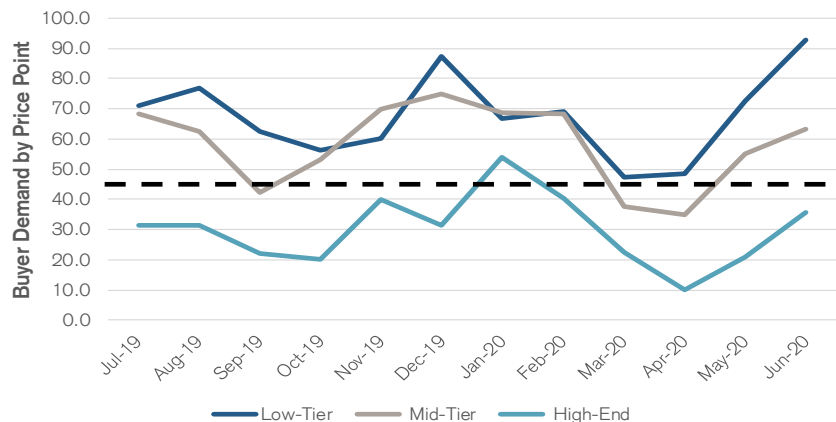
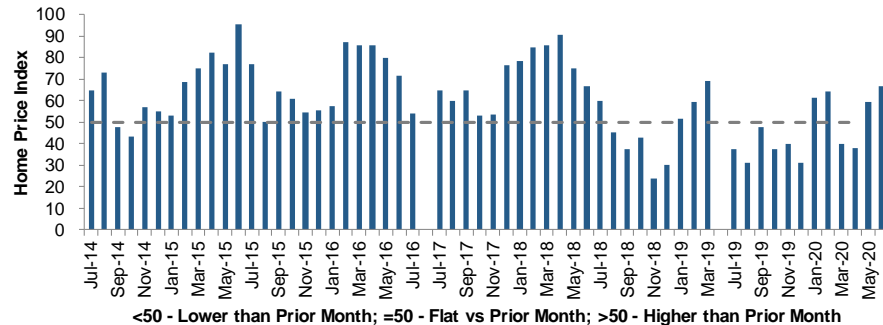
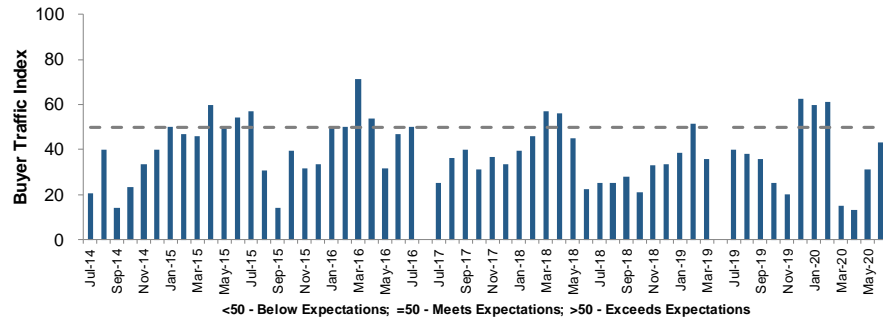
Buyer Traffic Index vs Builder Orders

Correlation between CS Buyer Traffic Index and largest homebuilders' orders: Looking back to 2005, excluding a couple gaps in our survey (August 2016 - June 2017, April - June 2019), the three-month average of our buyer traffic index has a ~65% correlation with the YoY % growth for the aggregate of the largest homebuilders' quarterly orders. Therefore, our buyer traffic index is a leading indicator for trends in builders' YoY order growth.



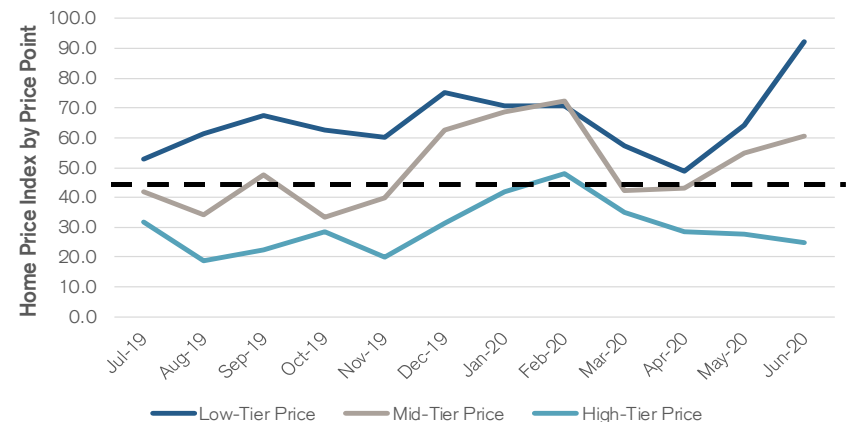
Homebuilders order growth through March 2020 represents aggregate of quarterly orders for DHI, LEN, PHM, TOL, KBH, MTH
Homebuilders QTD order growth represents the 2Q orders for KBH and LEN as well as the average order declines for DHI, PHM, MTH, TMHC, LGIH

Atlanta, GA

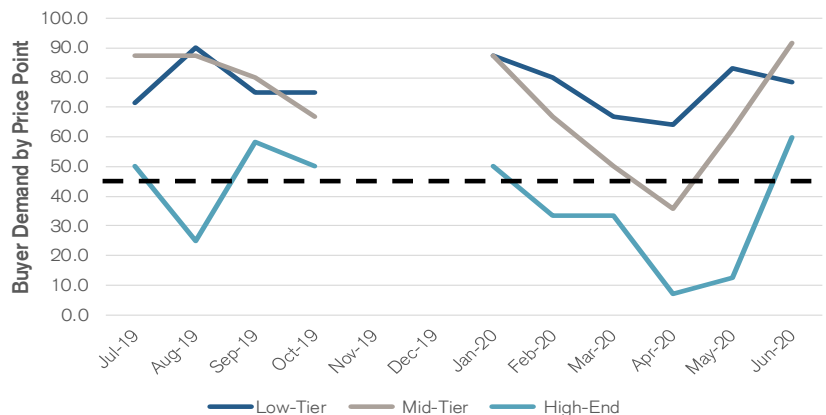
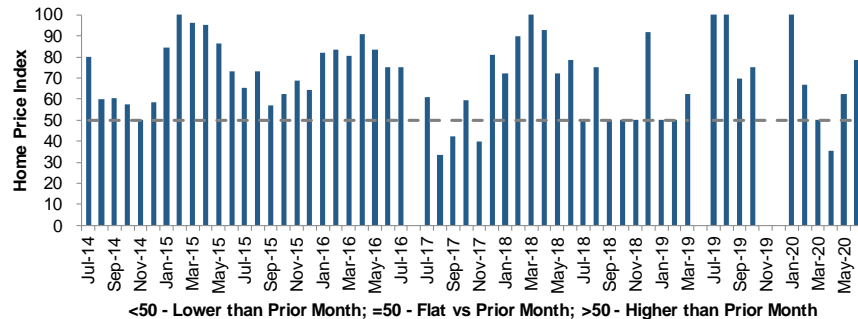
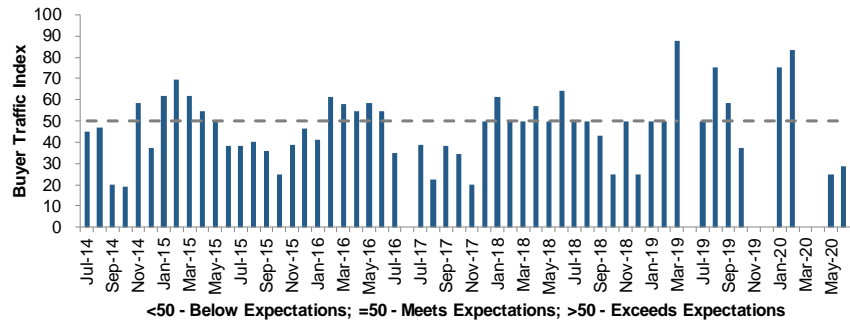


Comments from Real Estate Agents:

- “Expecting buyer demand to remain high and inventory to stay low. Prices continue to rise until we can get more Sellers into the market. Dealing with highest level of multiple offer scenarios in our 20 years in the business”
- “Individuals are responding due to stability of income if they have to move and the lease is expiring. With the low interest rates, the hope is that it will stimulate the market”
- “Unprecedented number of refinancing on existing homes with fewer homes for sale. COVID has impacted the workforce and buyers are sitting on fence despite eased qualifications and low rates”
- “Homebuyers are discouraged by the lack of inventory but continue to find properties because of the attractive interest rates”
- “The market pricing in our area is strong but we expect to see a downturn in sales activity if the market is not fed from the bottom up to allow people to move up to higher priced homes”

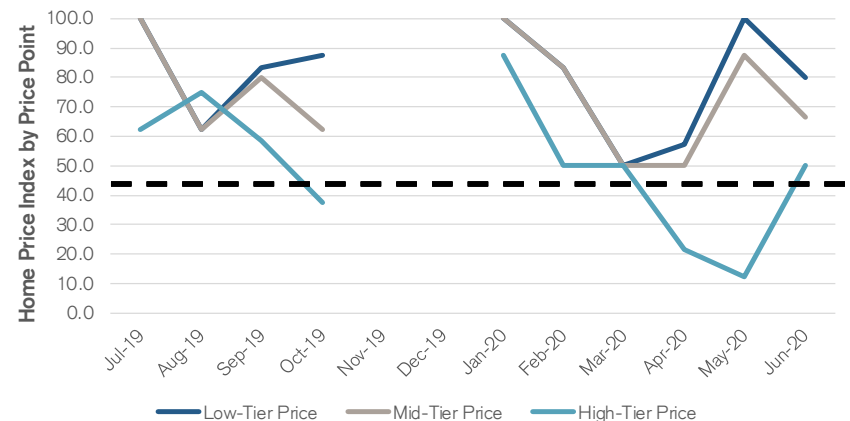


Austin, TX

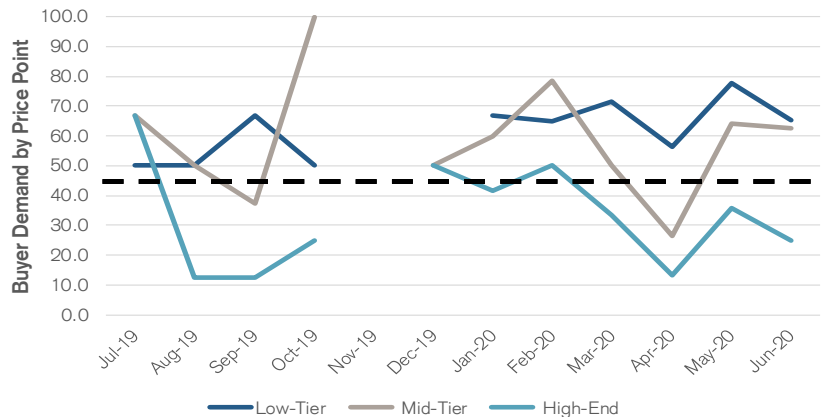
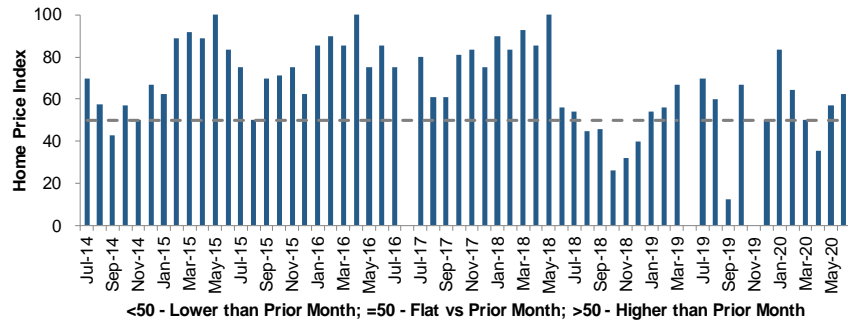
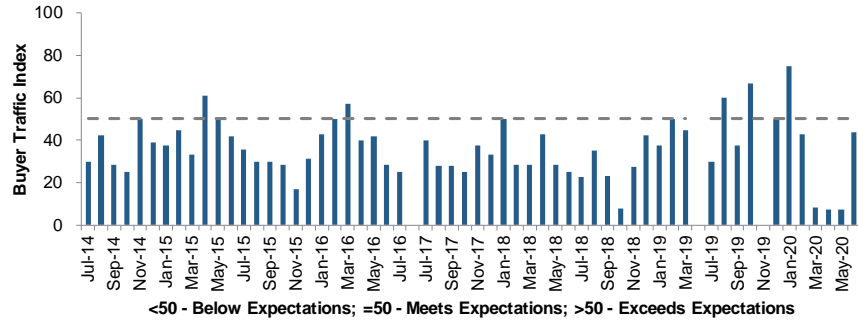


Comments from Real Estate Agents:

- "I think that the COVID situation has buyers scared but the lack of almost any affordable housing is also an issue in Austin TX"
- "Austin is seeing an influx of high dollar buyers relocating from NYC, San Francisco, Seattle, etc."
- Less-than-expected traffic due to "Virus and low inventory. Lots of sellers will not put their homes on the market, not wanting a bunch of strangers coming thru"
- "We feel very optimistic for the Austin, Texas housing market. Sentiment is up greatly since last month"
- "More [optimistic] if the builders can deliver the inventory"

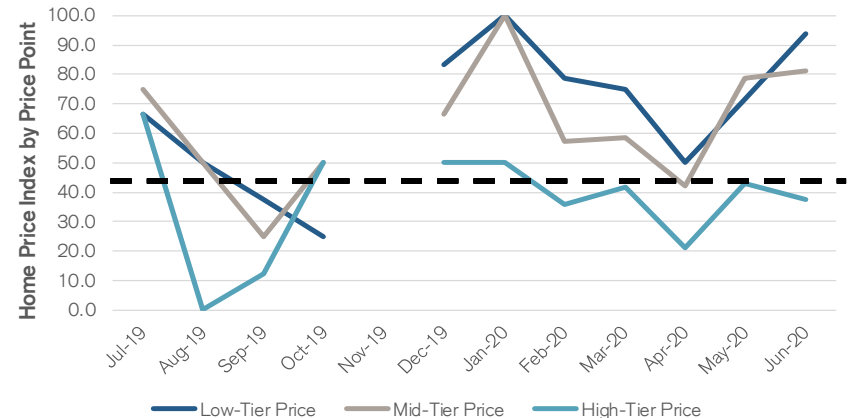


Charlotte, NC

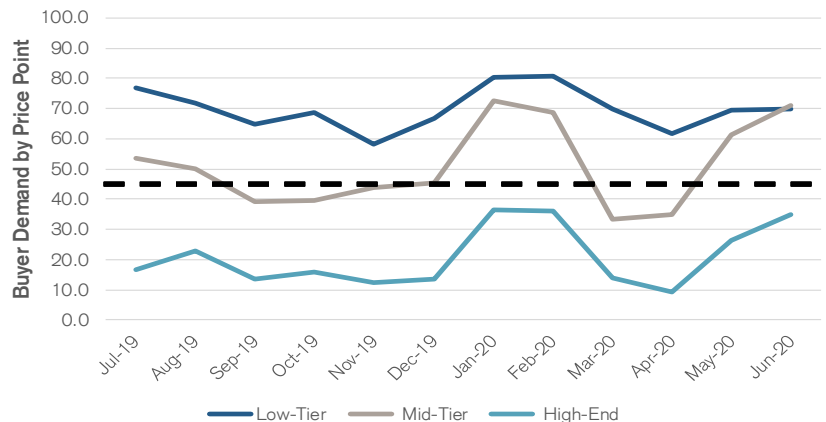
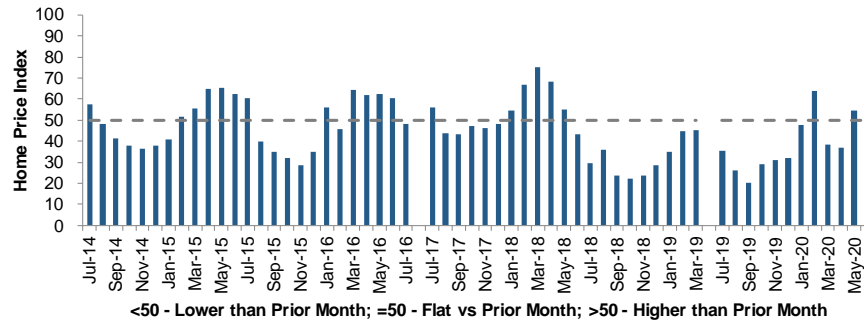
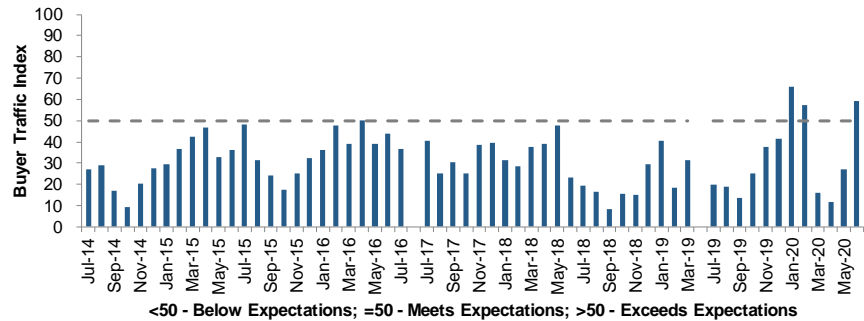


Comments from Real Estate Agents:

- “Some buyers continue to be nervous about making the purchase because of COVID”
- “More optimistic because we now can show homes other than just vacant homes”
- “Optimistic. Market is slower than previous years, but steady”
- “Less [optimistic]. Many people I work with are generally afraid to do anything right now”

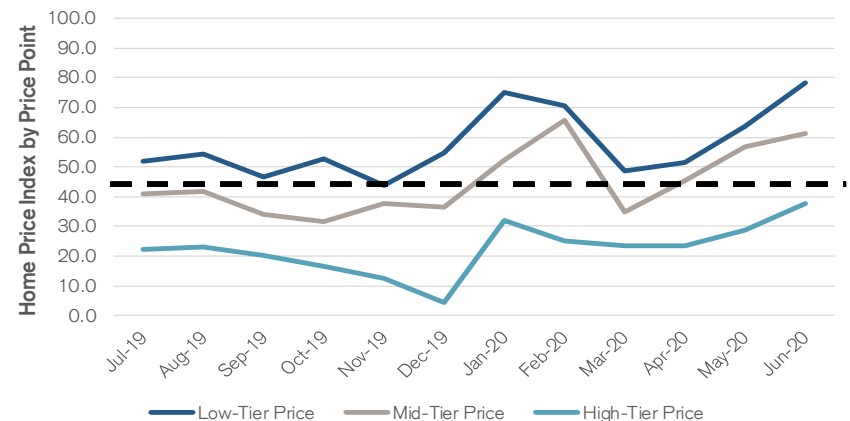


Chicago, IL

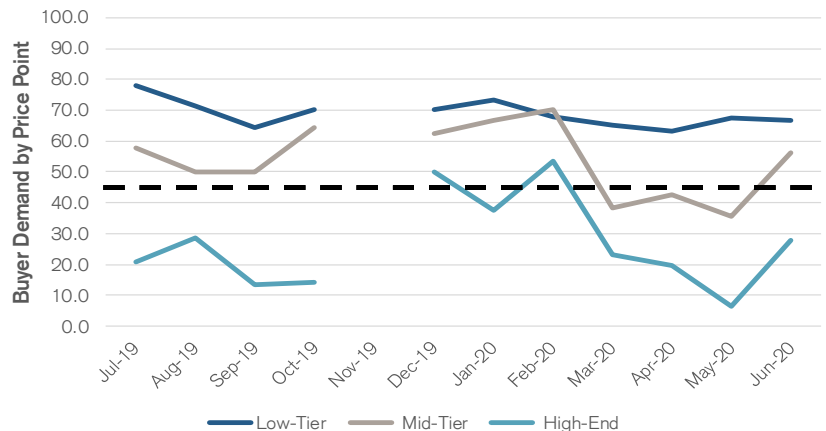
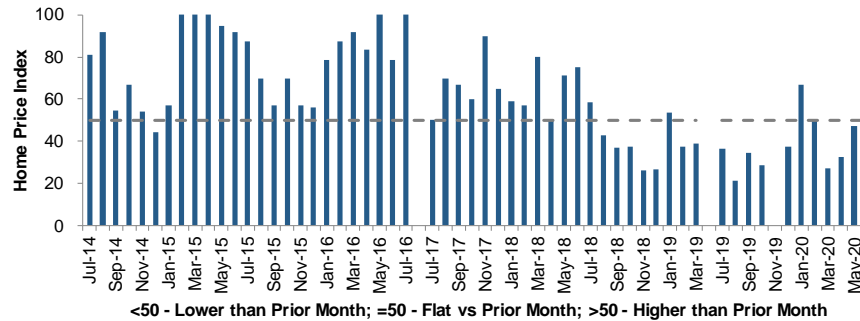
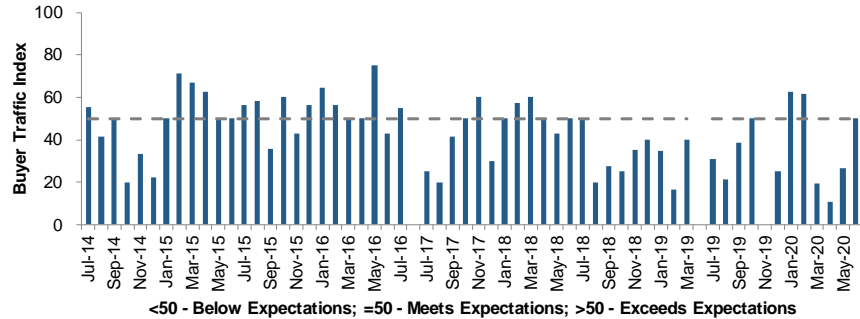


Comments from Real Estate Agents:

- “Election year and COVID-19 are going to determine the market moving forward. Many sellers are considering to relocate out of heavily taxed Illinois”
- “I have mixed feelings, I believe we will have a very strong 3rd quarter until a second wave of the pandemic arrives and then things will quiet down again”
- “Fear of COVID is real and some areas seeing fallout from protesting. Some are returning to normal, but large buildings can be tricky. Lack of inventory is keeping prices steady”

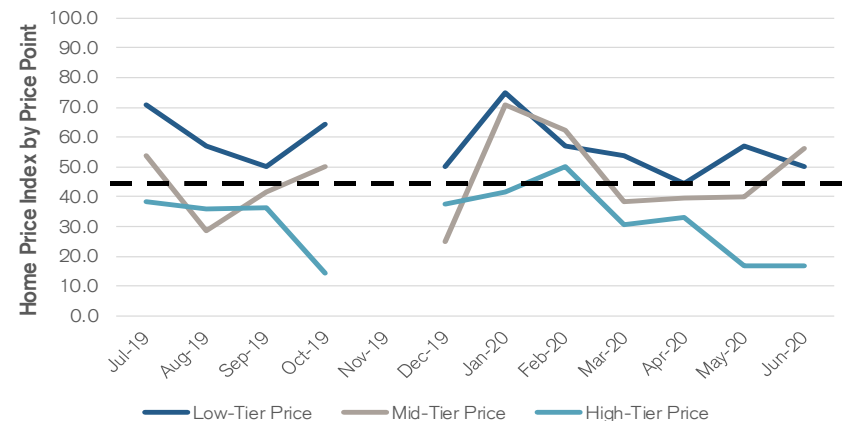


Dallas, TX

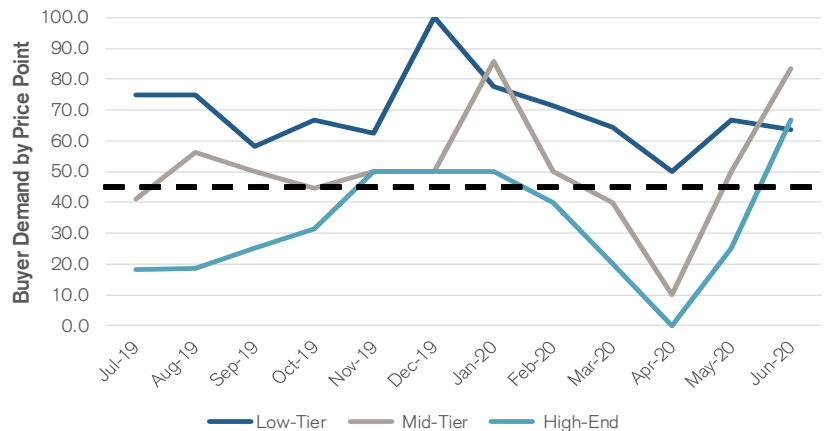
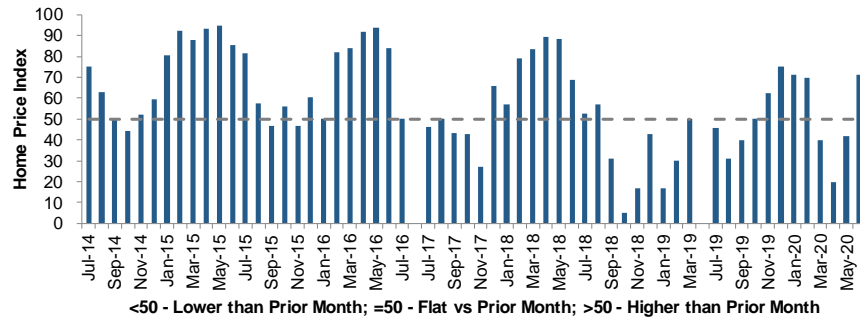
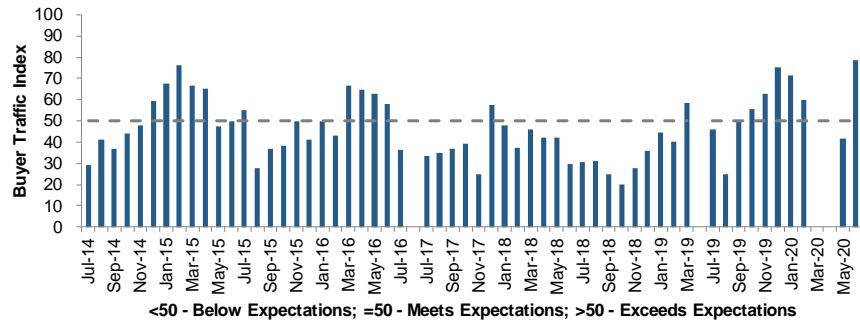


Comments from Real Estate Agents:

- “Buyers seem to still be trying to figure out how you see homes during COVID restrictions. However, Buyers that are out now are serious and properties are moving quickly”
- “NY and CA peeps fleeing their states due to governments and high taxes”
- “Less [optimistic]; last month the outlook was much better in my opinion, now with the second round of shut downs, it doesn't seem so promising”
- “No optimism...Virus stopped buyers”
- “The buyers I am talking with seem to be confident in their job and confident in the economy. They often seem to think the low interest rates will not hold a very long time”

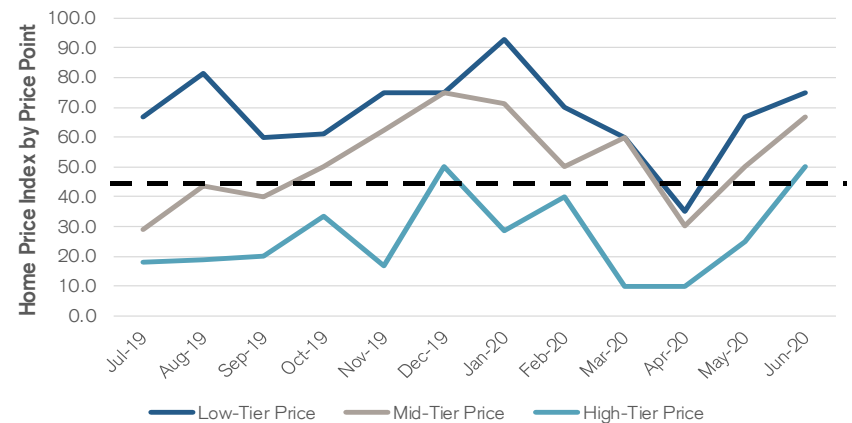


Denver, CO

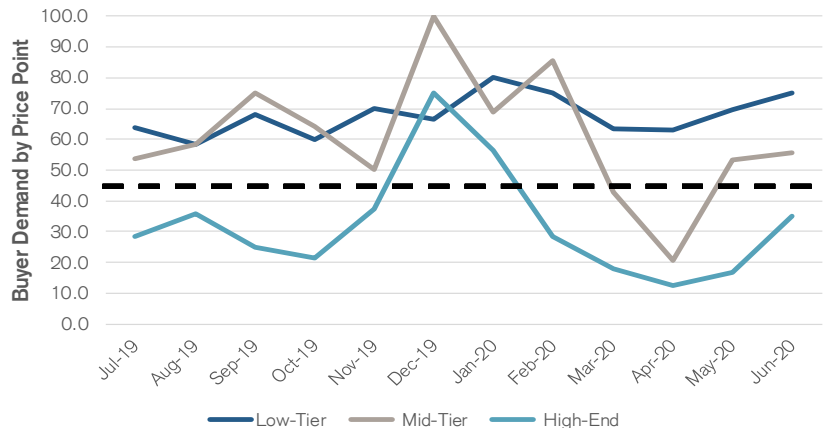
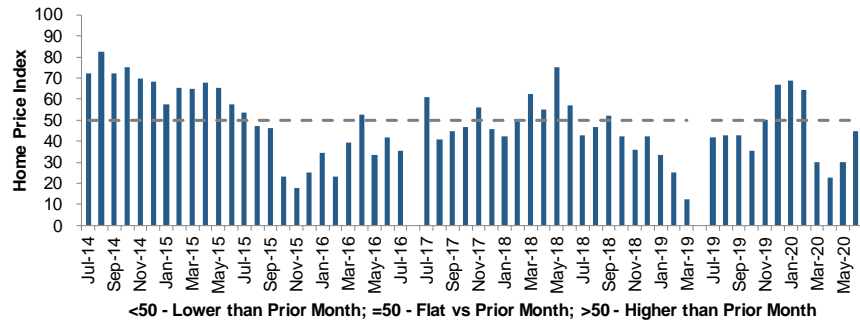
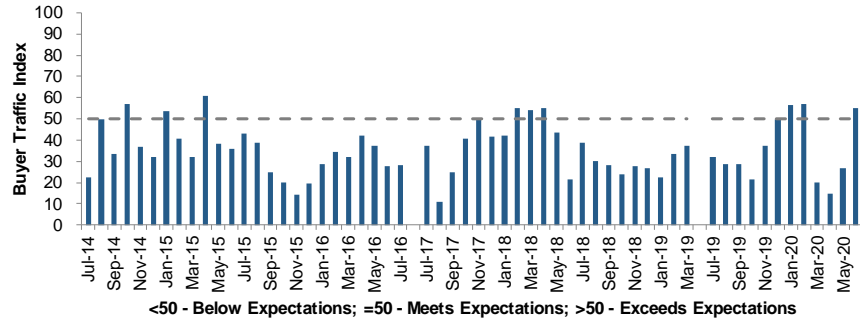


Comments from Real Estate Agents:

- “Better than anticipated, market appears to be moving forward”
- “[Market is] similar to a "relief rally." Pent up demand, buyers sick of lock-down, etc.”

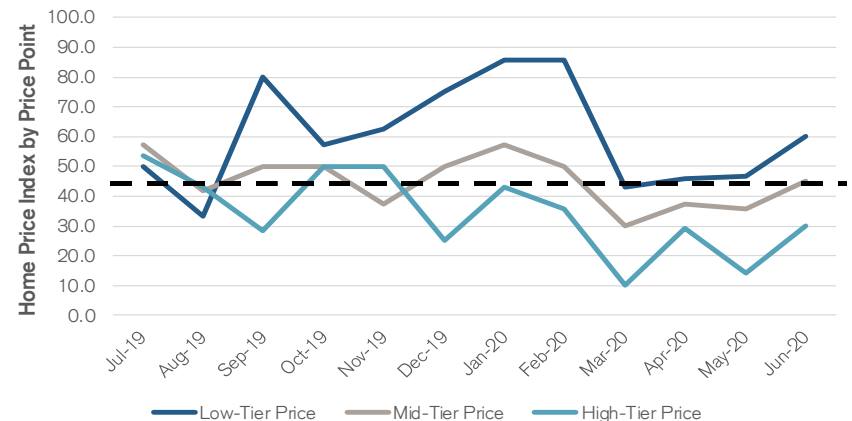


Houston, TX

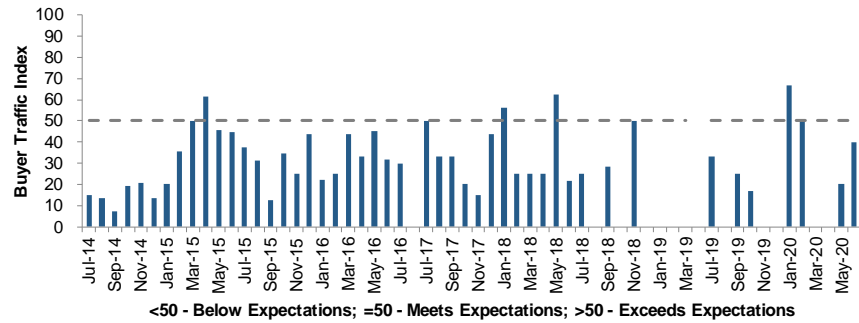


Comments from Real Estate Agents:

- More-than-expected traffic: “Summer time rush. Many people did nothing in March, April or May due to the COVID-19 virus and now I have seen a lot of new listings hit the market”
- “Catching up for the dead zone March-April created by COVID. Pent up demand”
- “I am more optimistic that both Buyer and Seller business will increase through the middle of October. Overall social attitudes are better this month”
- “[Outlook is] about the same. Buyer traffic is better than anticipated, but inventory numbers continue to hamper sales”

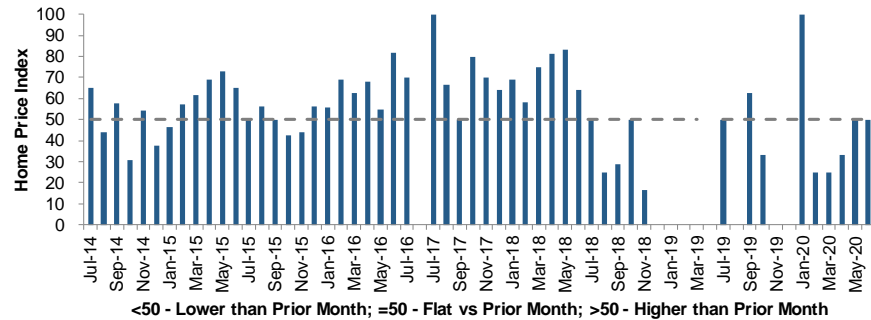


Inland Empire, CA

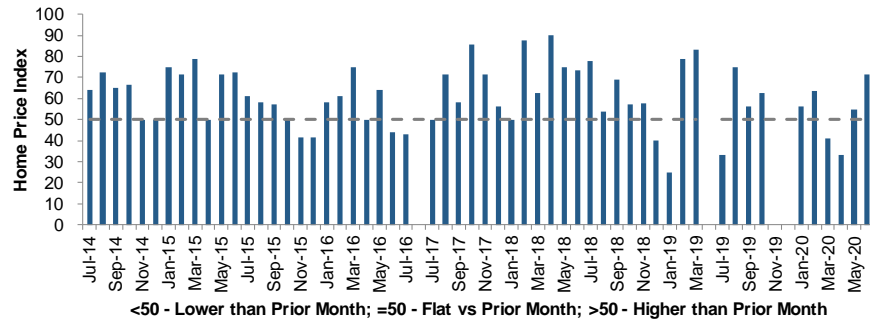
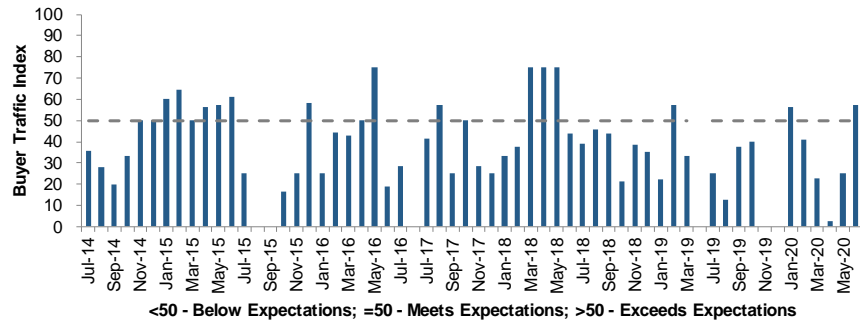


Comments from Real Estate Agents:

- Less-than-expected traffic due to "reluctance to go into occupied homes"



Jacksonville, FL

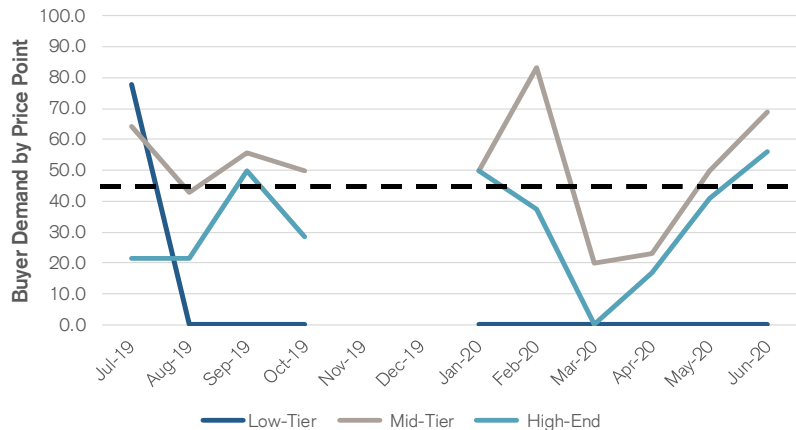
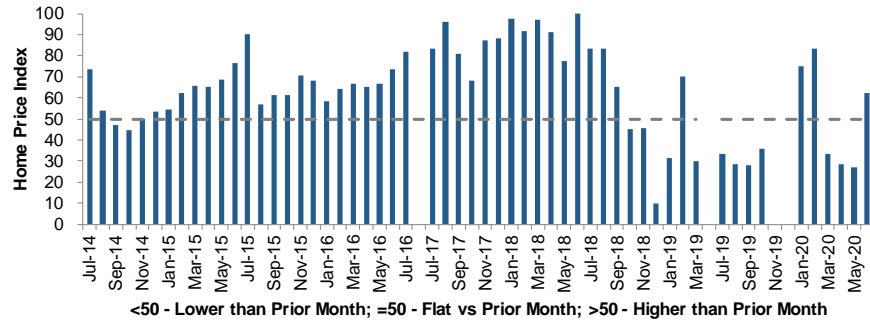
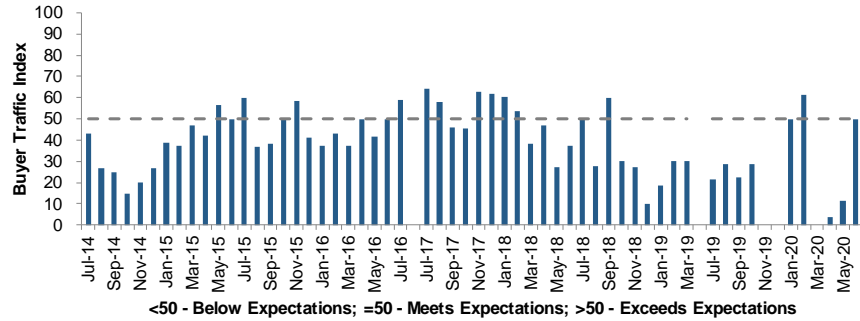


Comments from Real Estate Agents:

- “Consumers are a little more relaxed about the pandemic”
- “More active buyers than listings available”

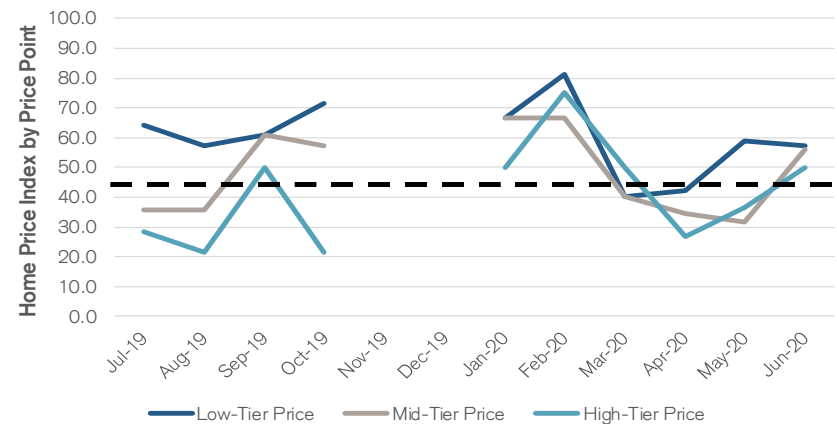


Las Vegas, NV

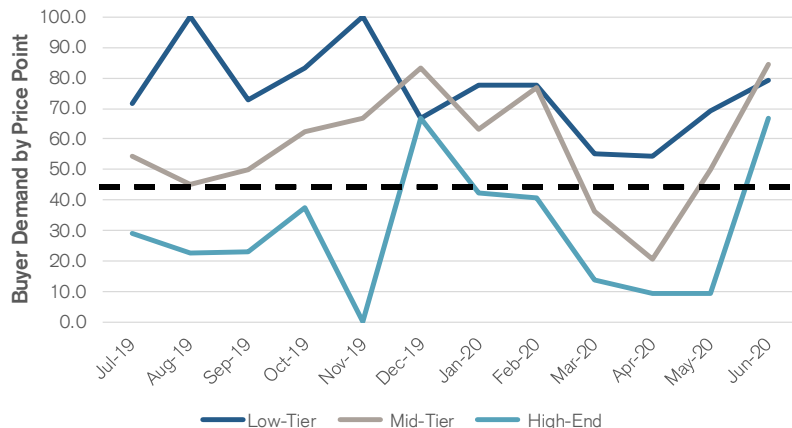
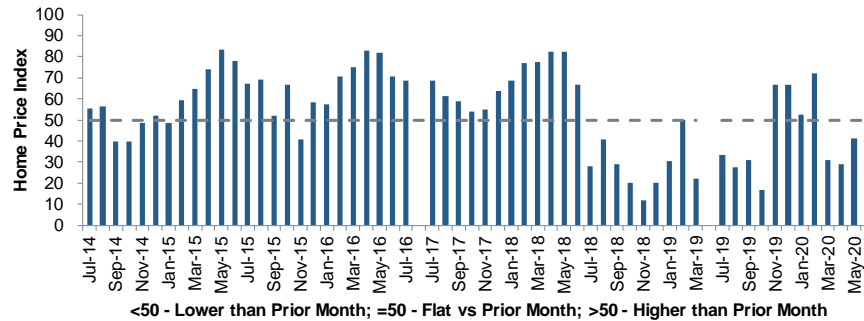
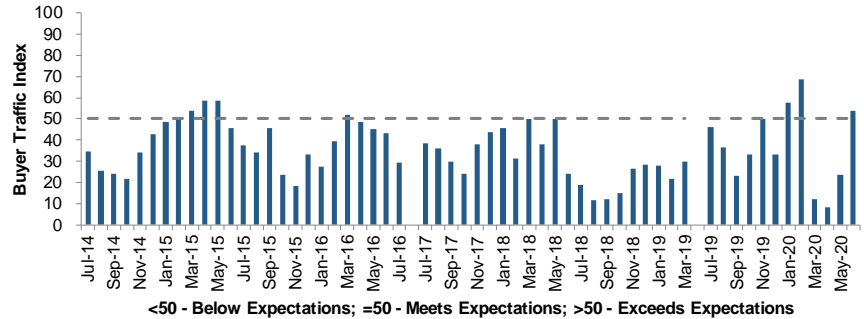


Comments from Real Estate Agents:

- "I think this year has the potential to be a bigger year than last year. I am very optimistic about our local real estate market. I think there is more interest this year than last year for housing"
- "With the removal of some quarantine restrictions and people going back to work. Buyers are now looking again"
- "Low interest rates as well as reasonable pricing in our marker is driving more buyers to purchase a home"
- "[I'm] very optimistic. Houses moving in a day."



Los Angeles, CA

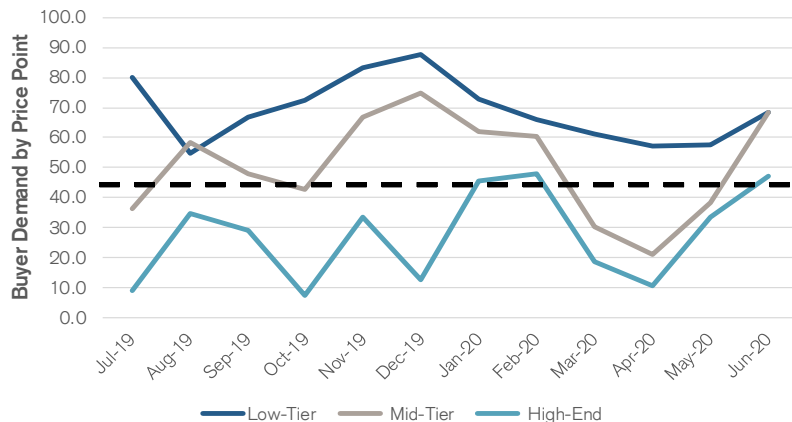
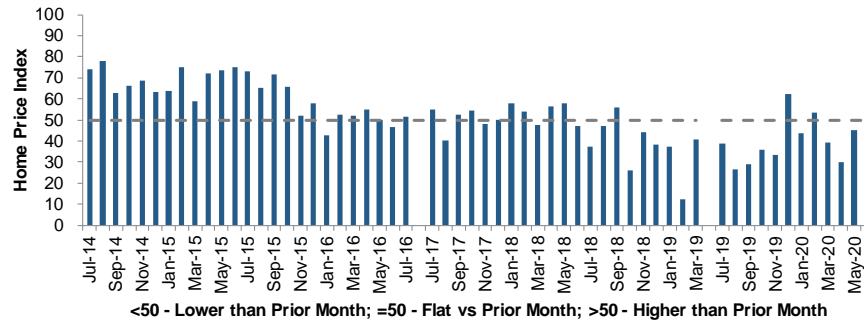
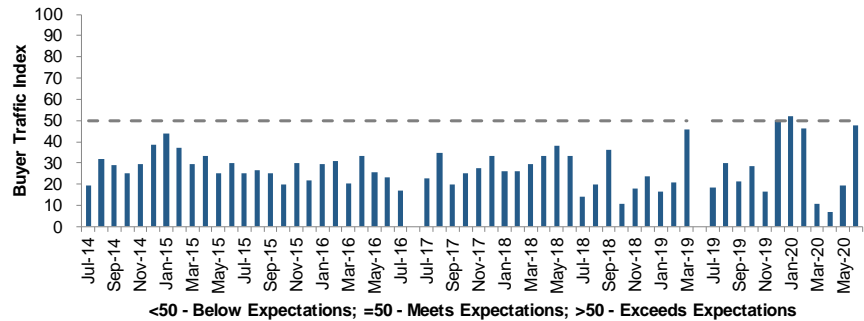


Comments from Real Estate Agents:

- “Buyer traffic has slightly increased over 30 days ago. The overall volume has decreased over last year obviously due to pandemic”
- “[Outlook is] less optimistic. I sense low inventory and low interest rates will keep buyer activity strong, but the continued economic slowdown could trickle into the market later in the year”
- More-than-expected traffic in: “Open houses via internet. Large number of buyers with demand for homes through all price ranges”
- “Until COVID restrictions are lifted completely some people have lost interest or simply find it too restrictive to bother”

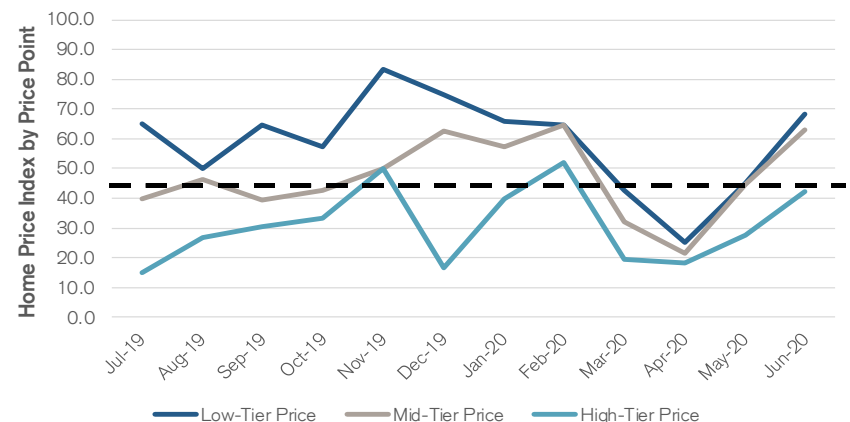


Miami, FL

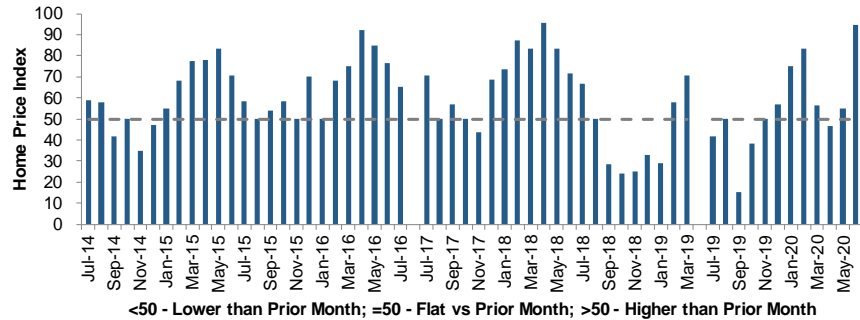
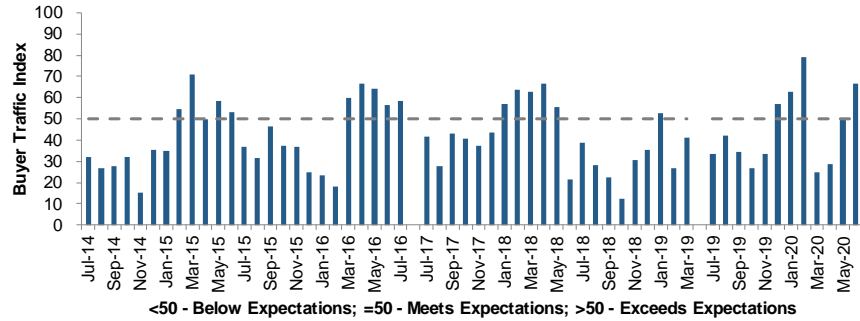


Comments from Real Estate Agents:

- “Buyers are moving here from New York and California. Condo dwellers want a house”
- “Inventories are very low and buyers are more active due to lower interest rates - creating an increase in values. I expect this to continue for the next quarter”
- “Our area is getting hit harder now than before with Virus cases, so everyone is super cautious”
- “[Outlook is] looking rather bleak; I have lots of interest but with the uptick in South Florida's COVID numbers, it's a pretty sketchy future”
- “I'm cautiously more optimistic. COVID is affecting market, but Buyers and Sellers are out there. I felt the same last month”
- “Some buyers are coming out, but the Virus has kept sellers from listing. Low inventory keeping prices okay”



Minneapolis, MN

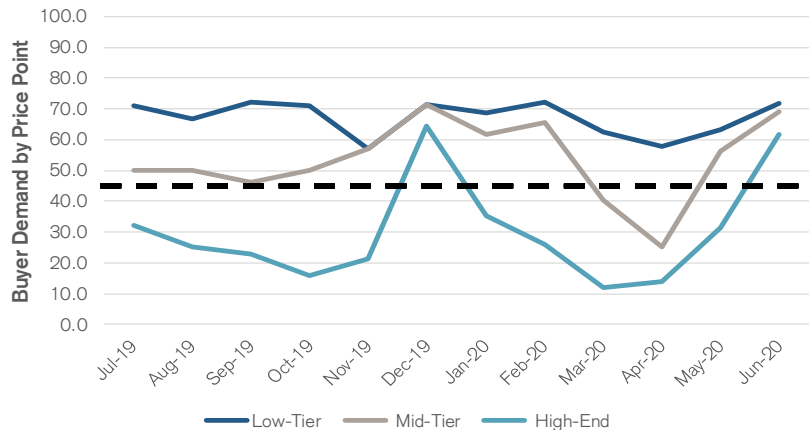
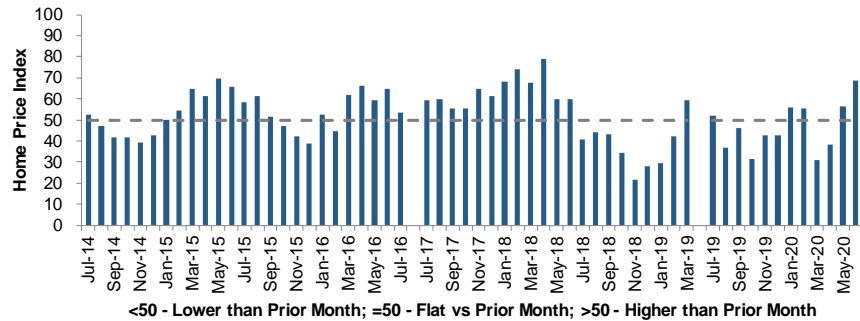
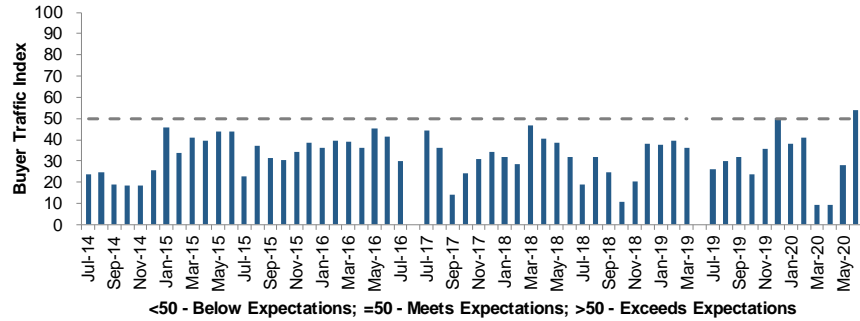


Comments from Real Estate Agents:

- “Higher rental rates are turning renters into buyers”
- “Spring started in May not March so no summer slowdown this year”

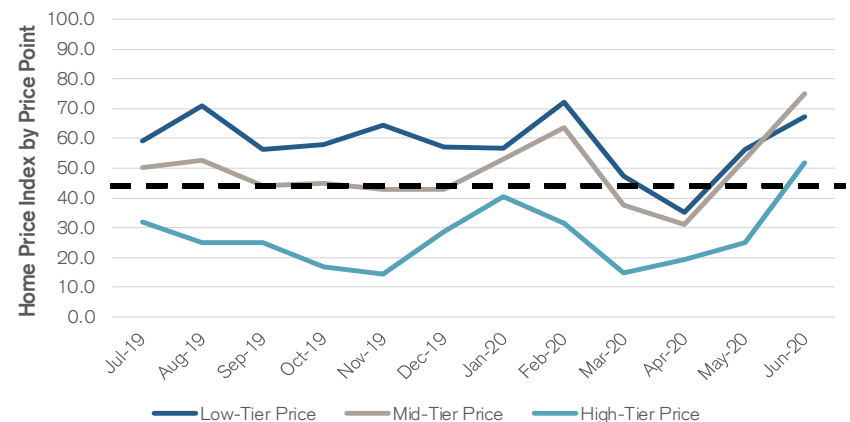


New York-Northern NJ

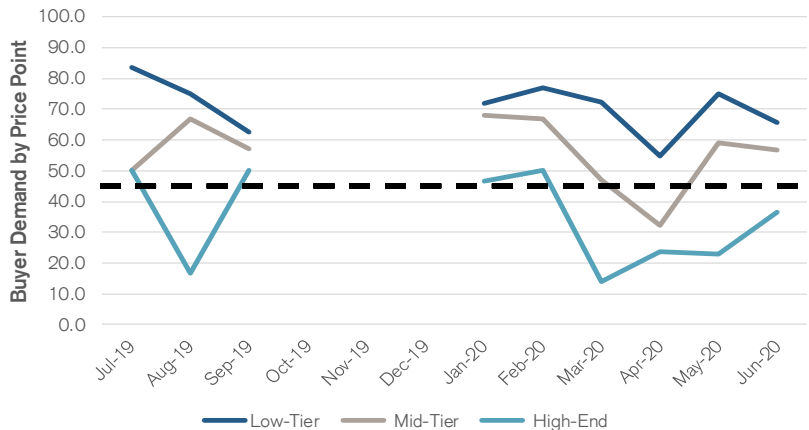
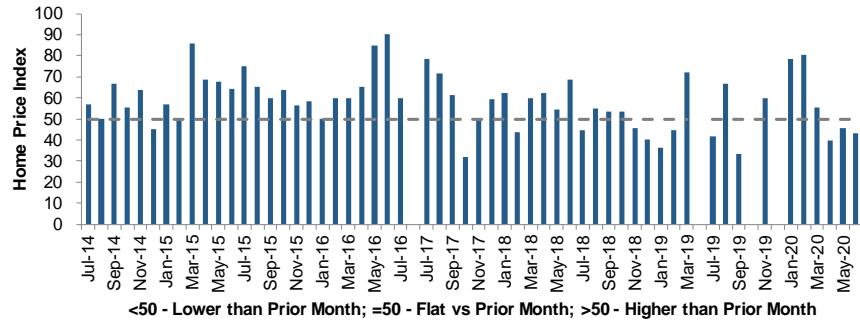
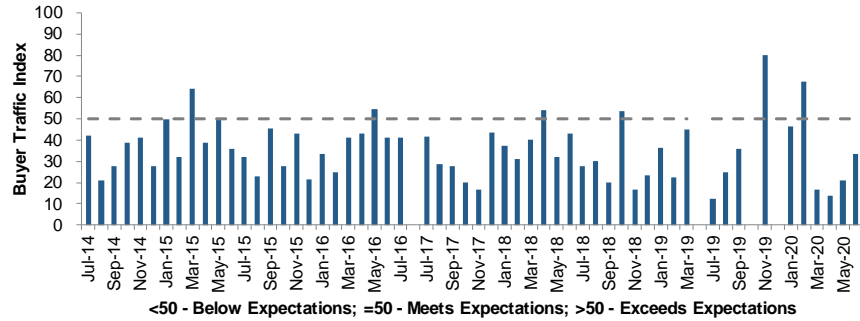


Comments from Real Estate Agents:

- “Urban dwellers are moving to the suburbs because it's impossible to social distance in NYC as well as other urban locations. This is a fundamental change that, unlike 911 where it lasted for a month or two, will be with us for many years”
- “...Buyers and sellers were at a standstill. Now that the business has opened up and interest rates are at an all time low, there has been a shortage of homes on the market... Homes are being purchased sight unseen”
- “Many first time home buyers are being affected by the high taxes in NJ as far as qualifying for a mortgage. I feel there will be a big exit of people who want to live in NJ, which will drive down home prices. This will result in more people in NJ looking for cheaper states to live in”

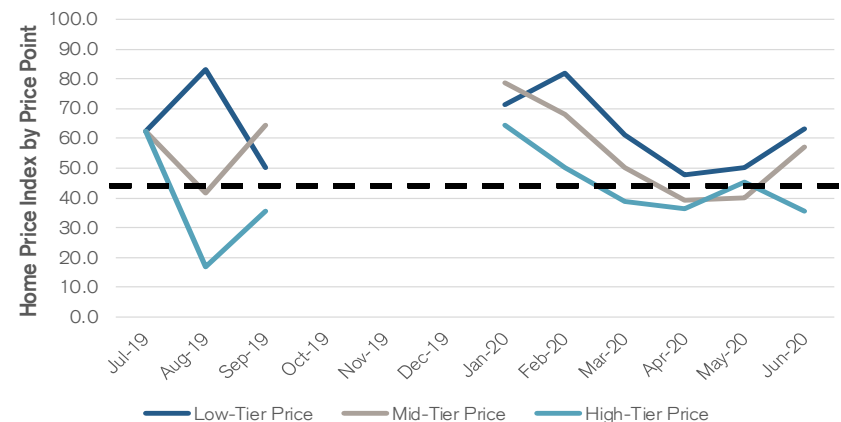


Orlando, FL

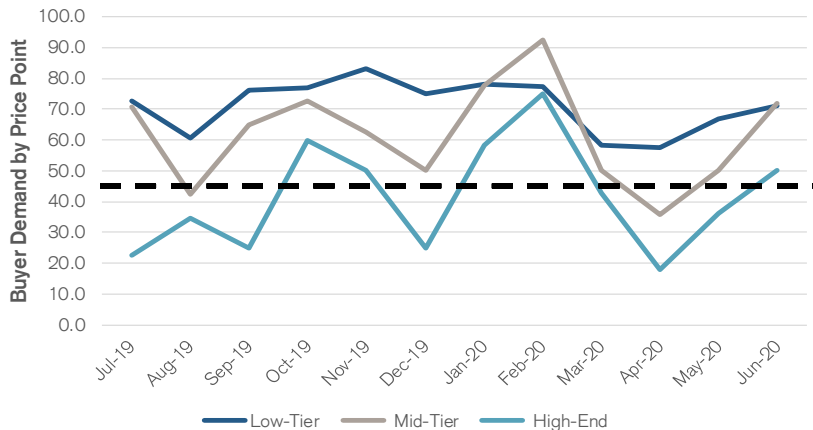
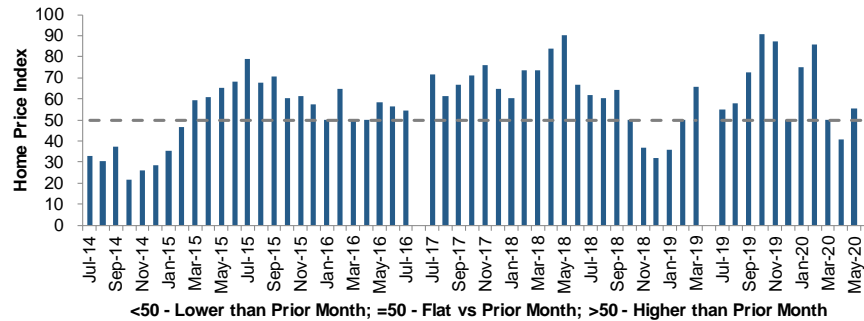
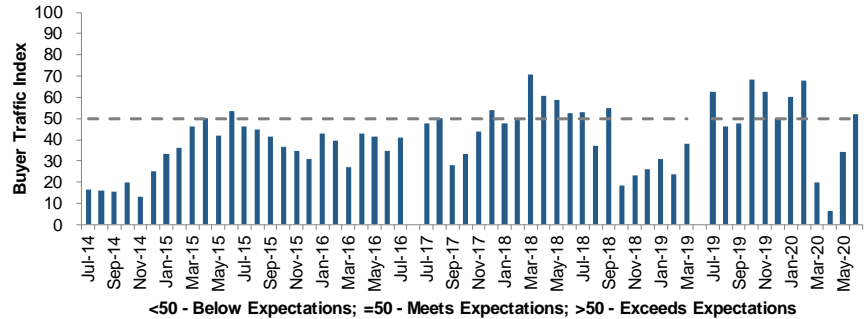


Comments from Real Estate Agents:

- “People who had been holding back decided to move forward”
- More-than-expected traffic due to “Relocation. Employees can work remotely. Also the interest rate is attractive to buyers”
- “[Outlook is] super optimistic, it's selling fast. I am looking for more listings”



Phoenix, AZ

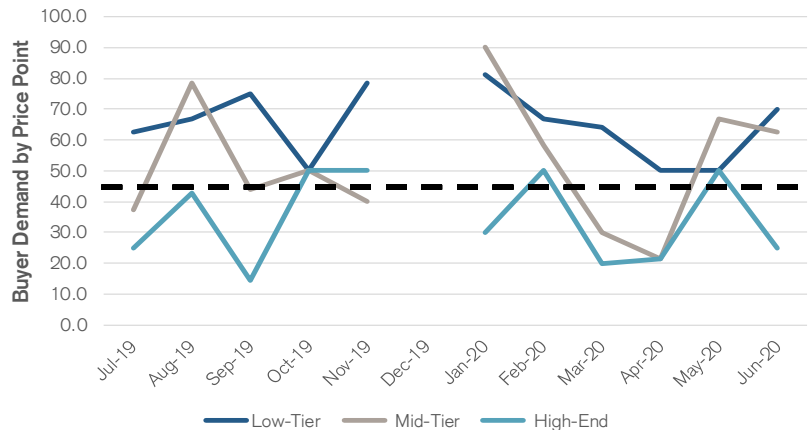
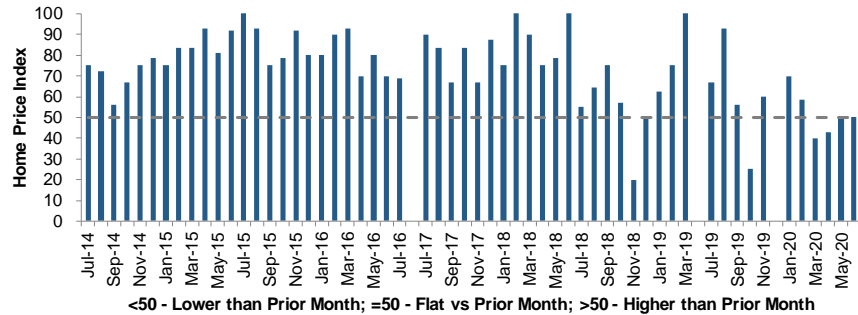
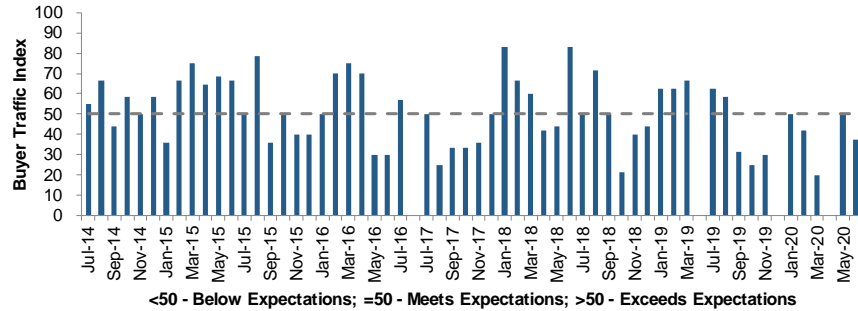


Comments from Real Estate Agents:

- “Looking at statistics and a typical buying curve, and talking to clients it appears those who would have purchased 2 months ago are now shopping. Typically April and May are more of a peak for us and that has been pushed out because of COVID”
- More-than-expected traffic due to “Migration from CA; residential and commercial relocations; Companies continue to choose AZ as their headquarters providing jobs”
- “[Outlook is] as optimistic as last year but higher velocities at present that will probably normalize as we continue through the year”
- “We have a strong pipeline of buyers and sellers through the remainder of the year. Feeling optimistic compared to a month ago”
- “With COVID numbers up again, I feel that there might be more job losses, resulting in buyers and sellers leaving the market
- “May 2020 home sales were 37% lower than may 2019, however June is showing some signs of life”

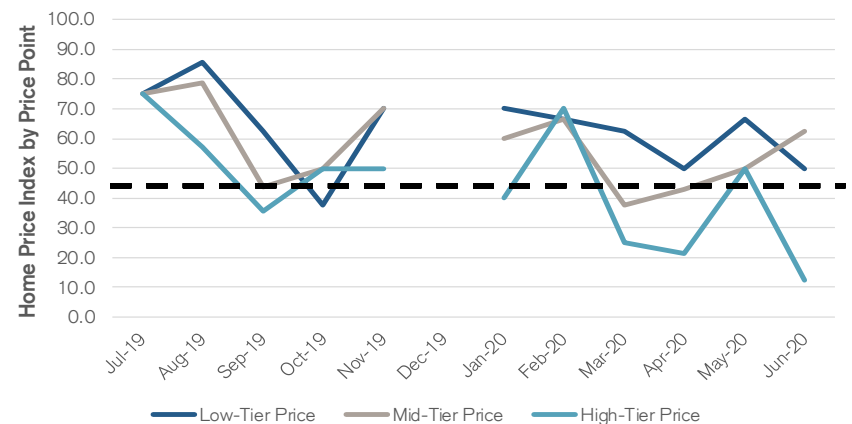


San Antonio, TX

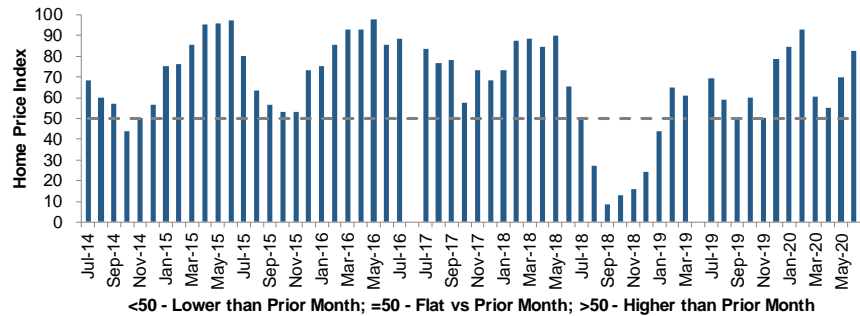
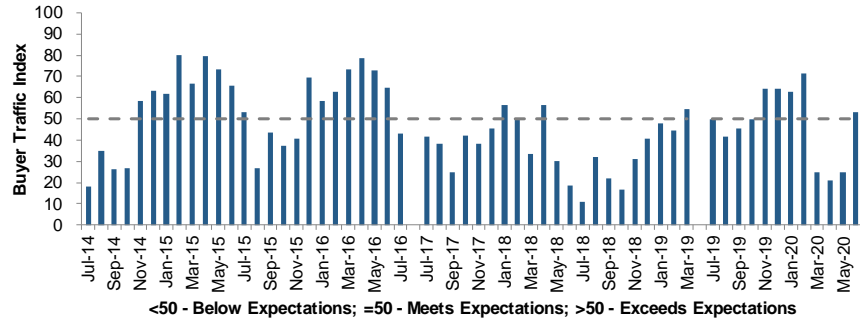


Comments from Real Estate Agents:

- “[Outlook is] optimistic. Same outlook as last month”
- More-than-expected traffic due to “Great local economy. Low interest rates. Relatively low prices compared to most large cities”

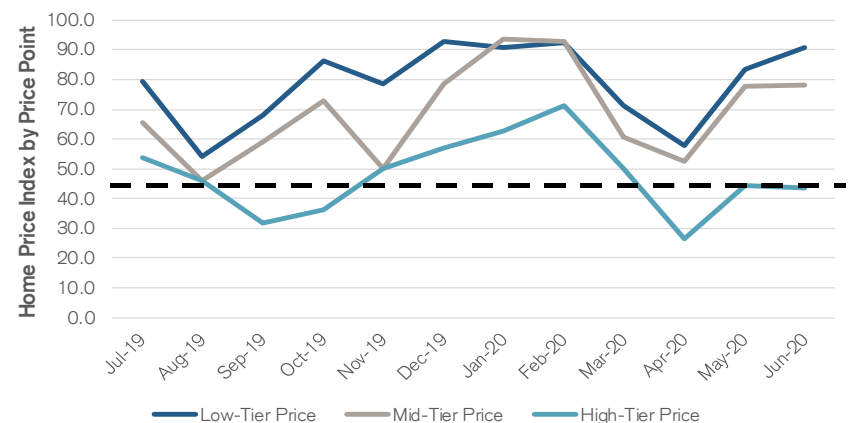


Seattle, WA

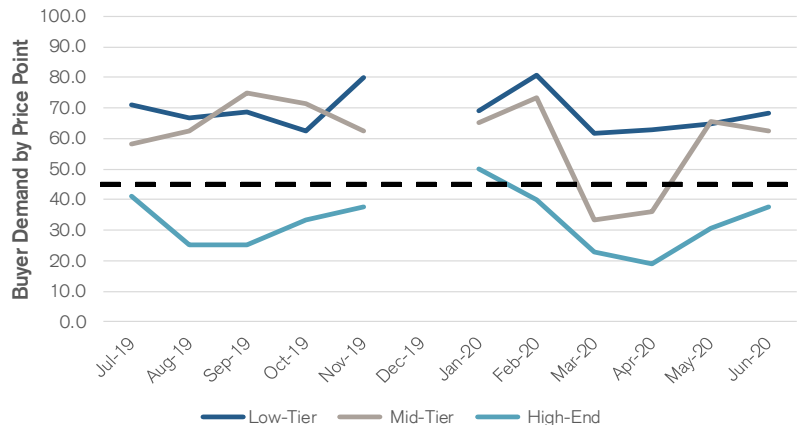
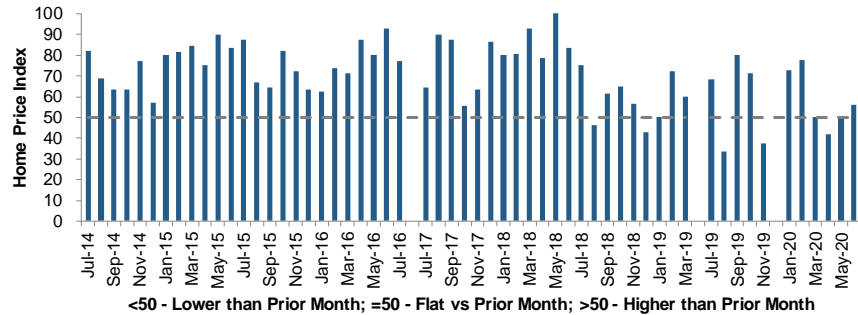
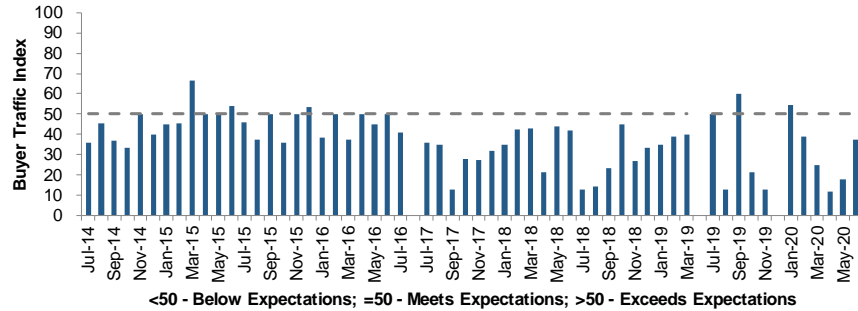


Comments from Real Estate Agents:

- “Lack of homes on market brings out more buyers this time of year, and they are willing to follow the new rules on private showings. The tech giants in our area are bringing in hundreds of new people who want the same housing that everyone else wants, so loads of multiple offers”
- “Low number of sellers coming on the market mainly because of the COVID-19 lockdown, many deciding to stay put for fear of not getting their price or not being able to find a replacement house. A high number of buyers both first time and downsizing, with cash to buy keeping a high demand on the market”
- “Until the COVID virus is totally gone, it will be a hard year. Awareness is better than last month, but it is hard to get clients to wear masks all the time”
- “[Outlook is] less optimistic, until virus totally goes away. Those who are furloughed from their jobs may not qualify for their loans anymore”



Tampa, FL

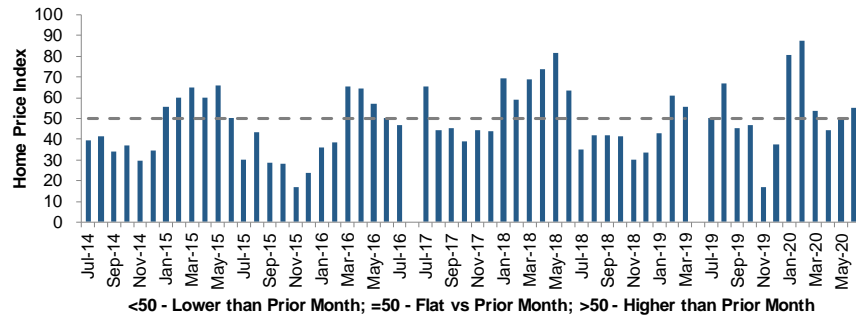
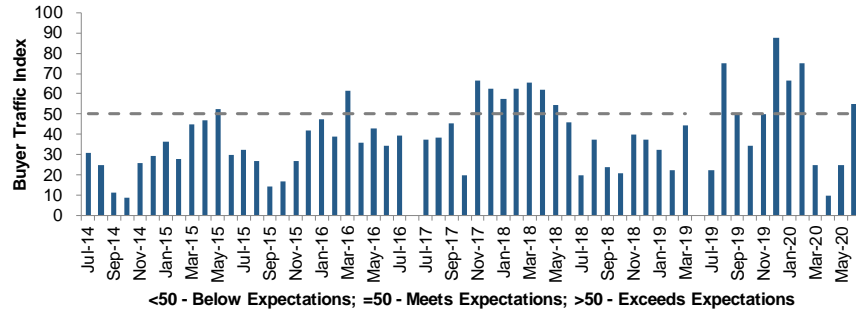


Comments from Real Estate Agents:

- More-than-expected traffic due to “Buyers from the northern US states seeking a home in a town with a less dense population. Buyers tend to be married couples, and one or both partners are “at-or-beyond retirement age””
- “Demand is strong in my market. Jobs are steady other than hospitality/tourism. Our market has a wide variety of jobs”
- “[Outlook is] More optimistic. Homes are going under contract in days and still closing under 45 days. Sentiment is about the same as last month”
- “More optimistic. Buyers are willing to risk COVID for another house”



Washington, DC



Comments from Real Estate Agents:

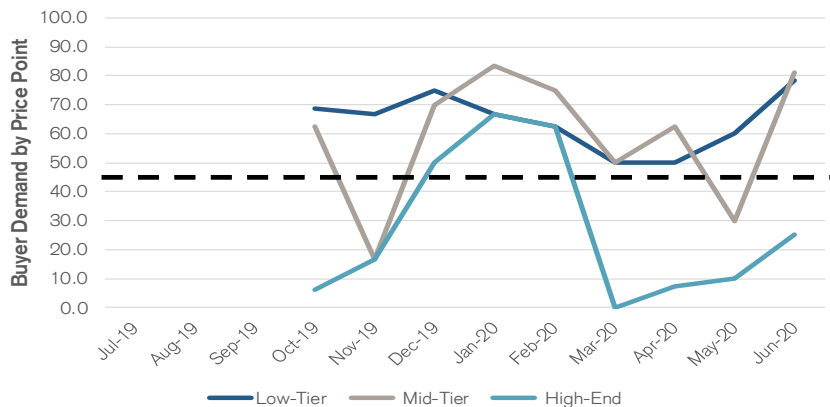
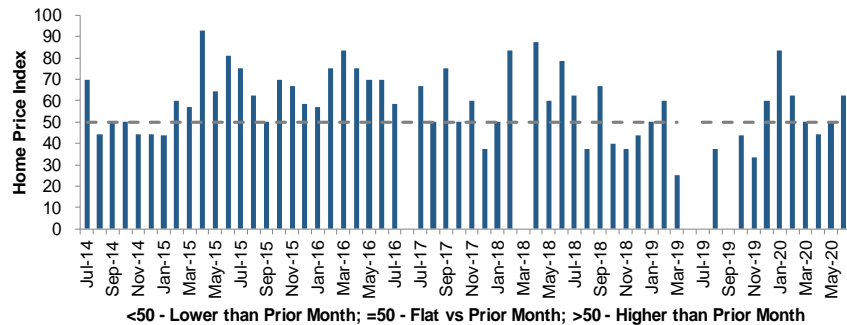
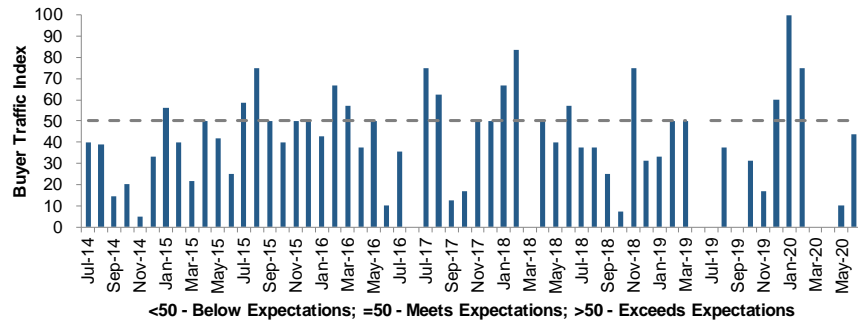
- “I’m feeling less confident. Unfortunately due to spikes in the virus, consumers appear to be more conservative with purchasing new homes”
- “Lots of buyers. Acute shortage of inventory. So owners that are staying in their houses longer hamper sales”



Other Key Markets

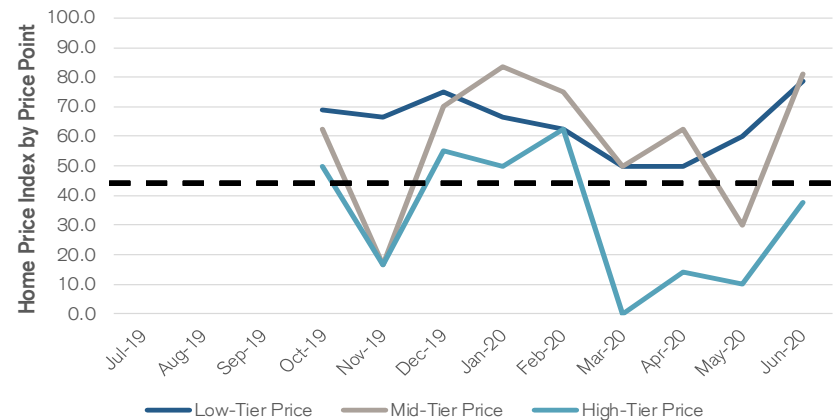


Baltimore, MD

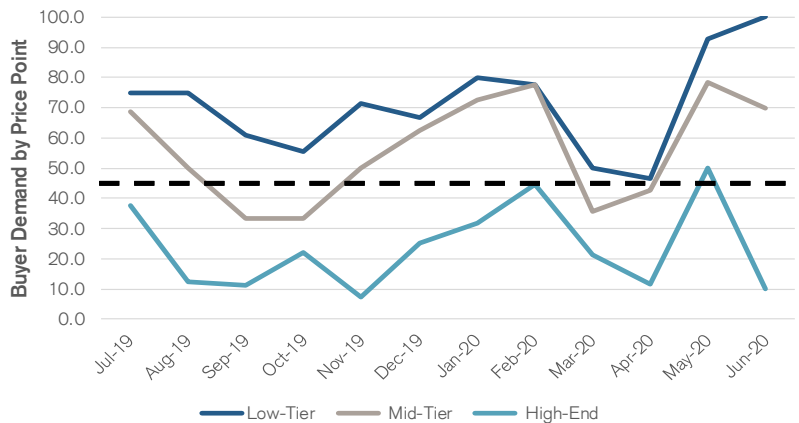
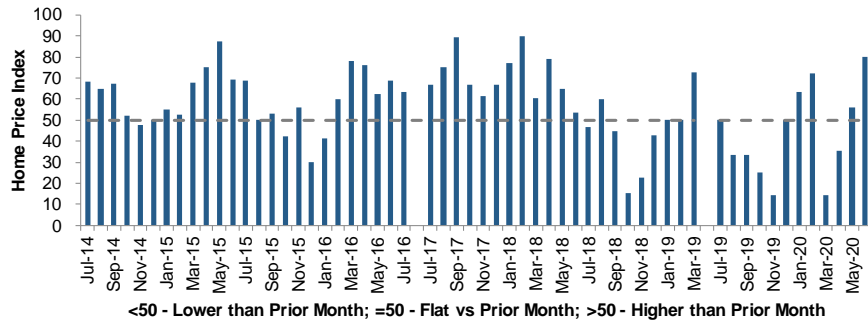
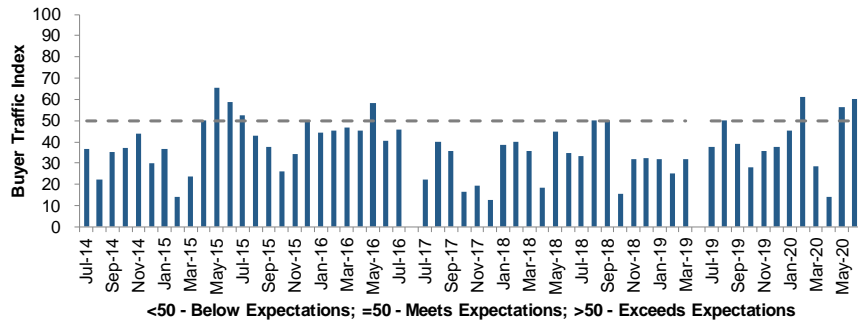


Comments from Real Estate Agents:

- “A shortage of re-sale inventory has caused multiple contracts to be presented in many cases. There are more Buyers than Sellers, presently, because of the Coronavirus Pandemic”



Boston, MA

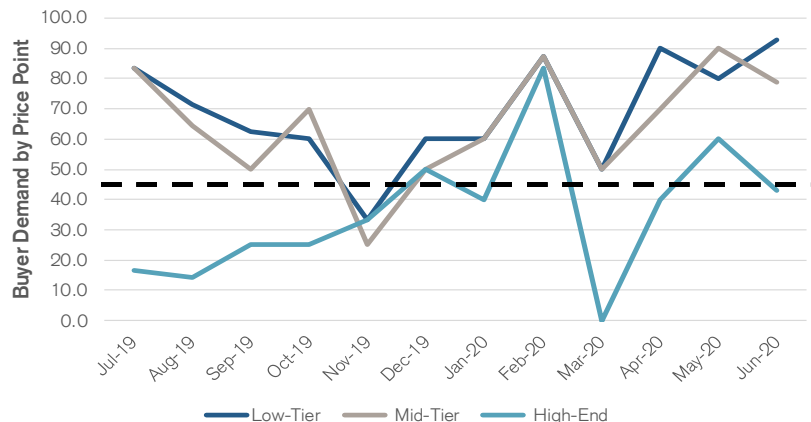
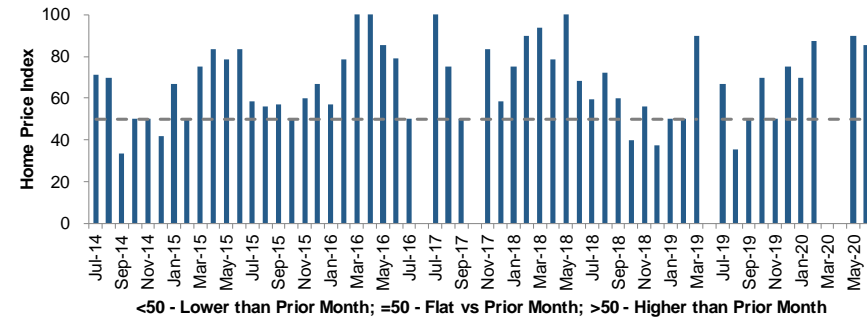
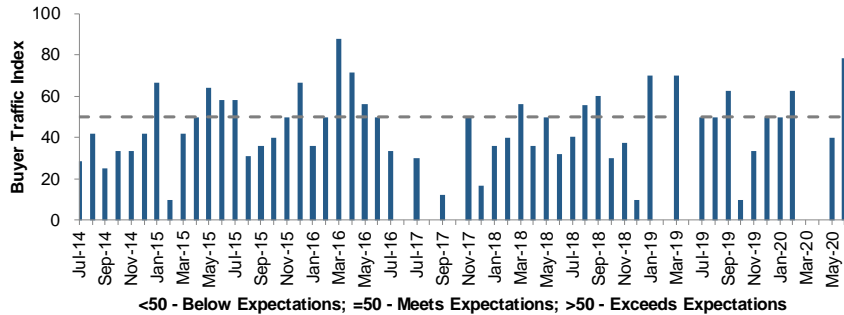


Comments from Real Estate Agents:

- “A delayed Spring market looks to translate into a solid Summer due to the Corona delay”



Cincinnati, OH

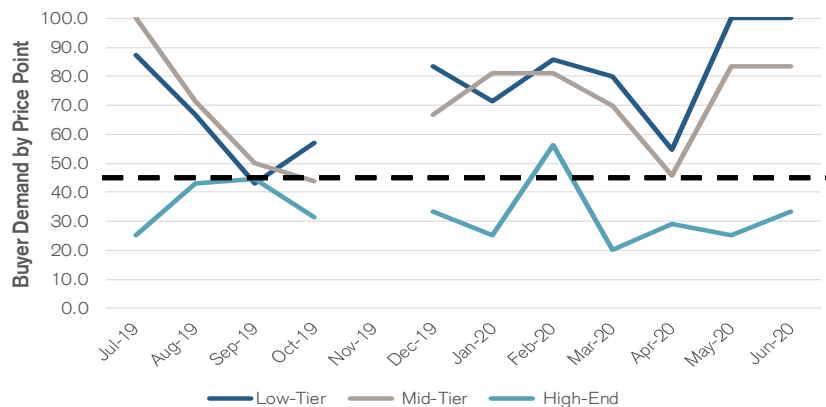
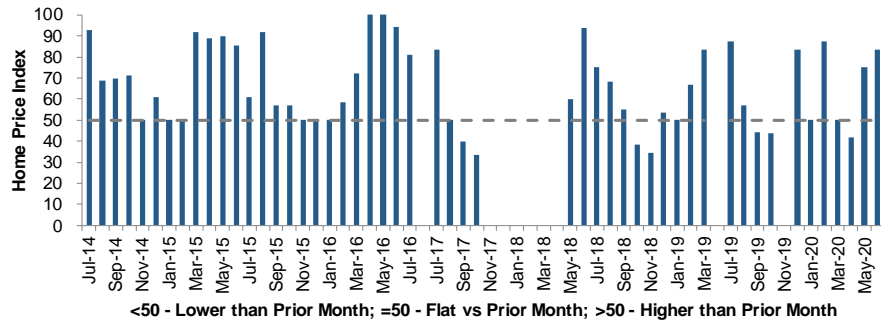
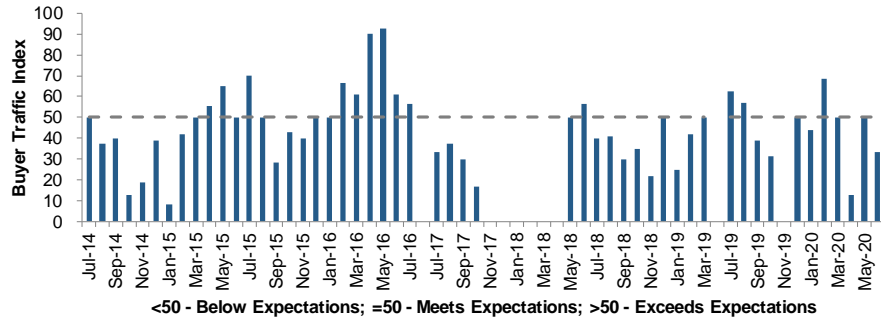


Comments from Real Estate Agents:

- “COVID-19 may have affected many property sales areas, but not the Greater Cincinnati Marketplace Area. Listings are selling within hours”
- “Already high demand added to by potential buyers who are now comfortable to come out from COVID-19”
- “I’m excited about the prospects...I/All agents need more listings. The buyers are plentiful!”
- “Need inventory. Plenty of buyers. Need a flood of inventory to settle down demand. Sellers are in control”

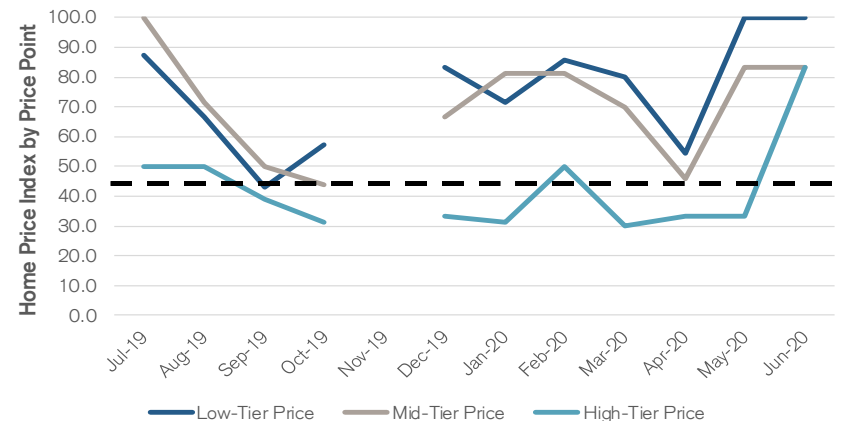


Columbus, OH

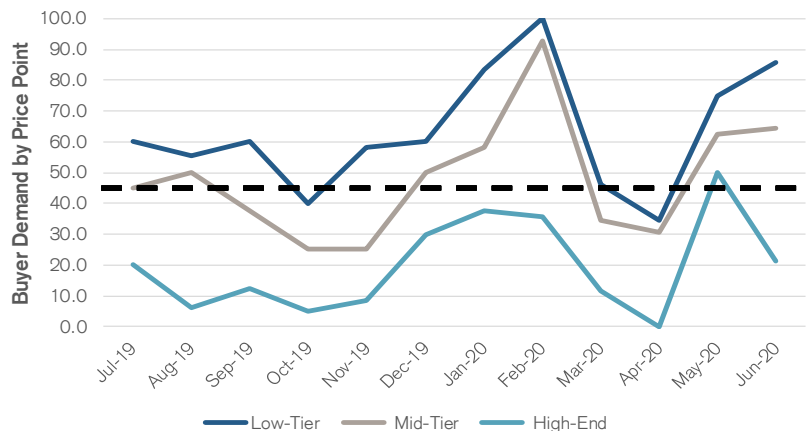
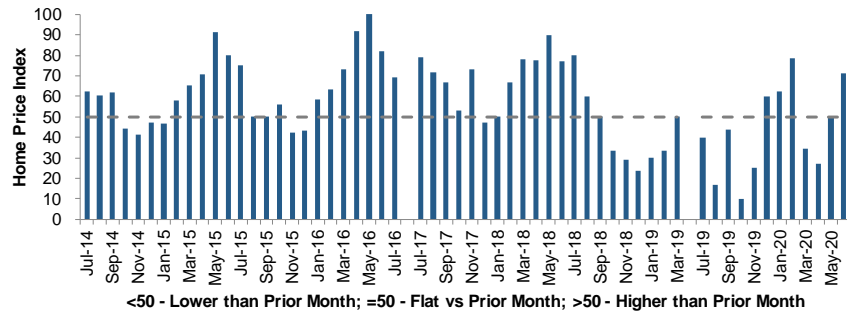
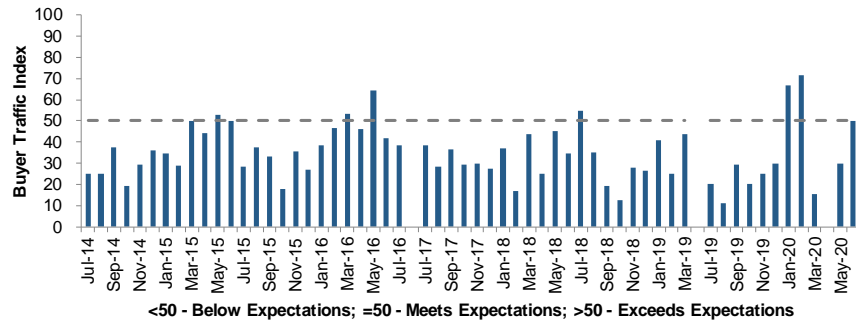


Comments from Real Estate Agents:

- “Continued low inventory, continued multi offers even with COVID-19”
- “I have been very busy but starting to get them all closed now. Still problems with COVID-19”
- “Rates will continue to be favorable. Continued low inventory and multi offers the rest of the year”



Detroit, MI

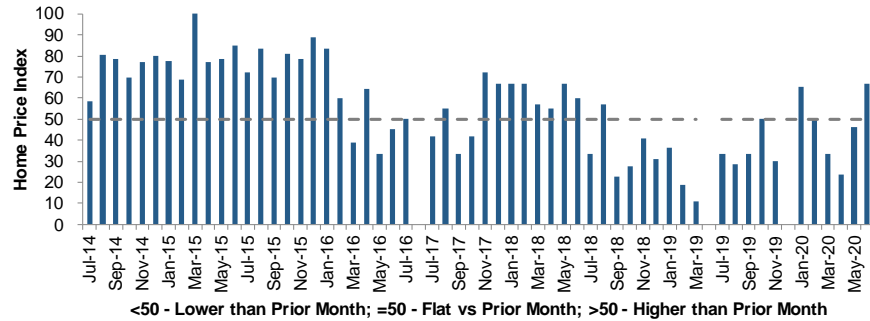
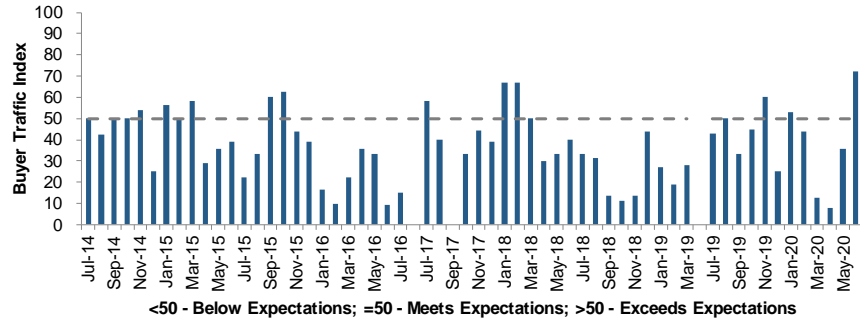


Comments from Real Estate Agents:

- “There is a rush on housing. Probably since COVID is over and we are usually crazy busy right now”
- “[Outlook is] optimistic, but if there is a surge in COVID-19 in the fall, there may be restrictions on our business that could reduce activity”



Fort Myers, FL

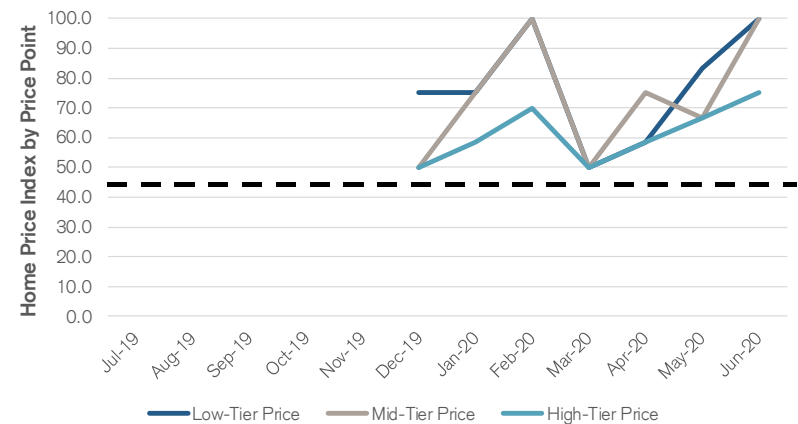
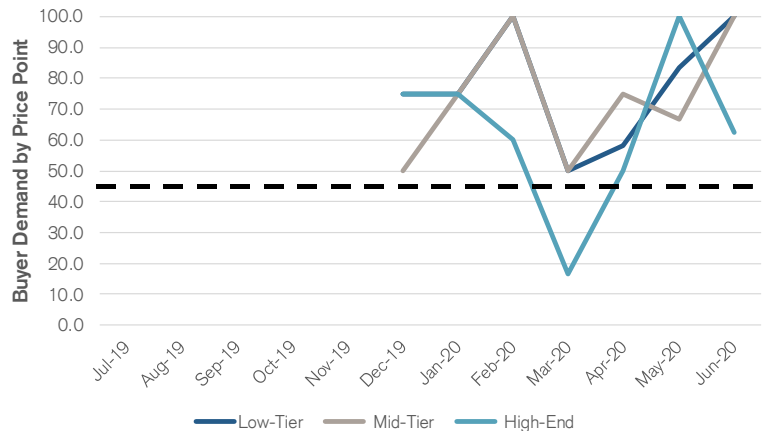
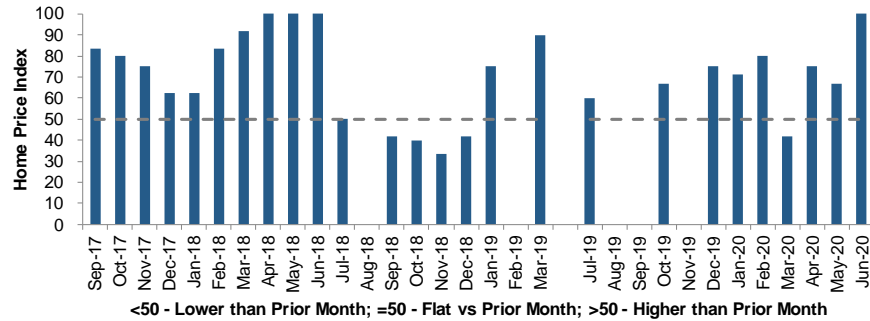
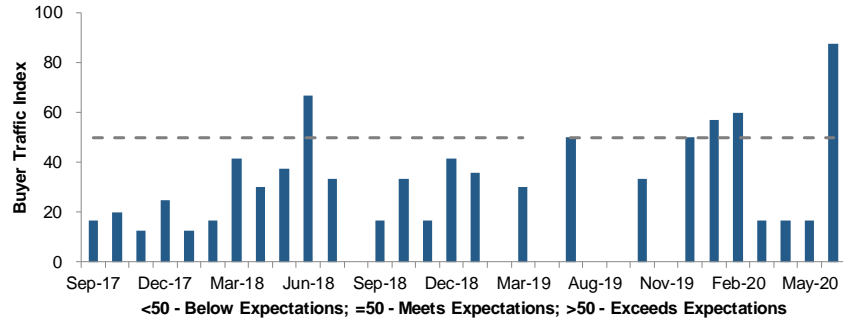


Comments from Real Estate Agents:

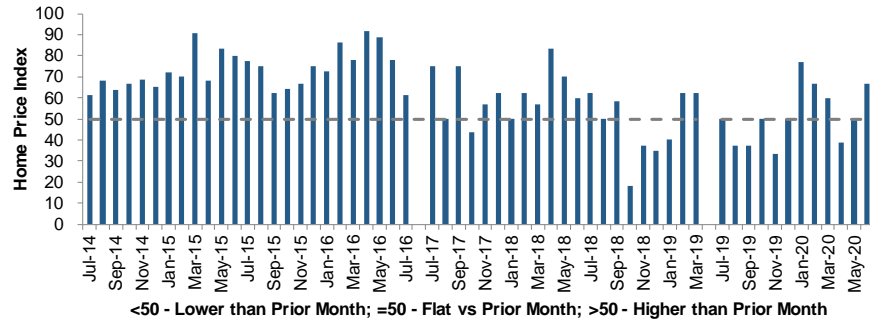
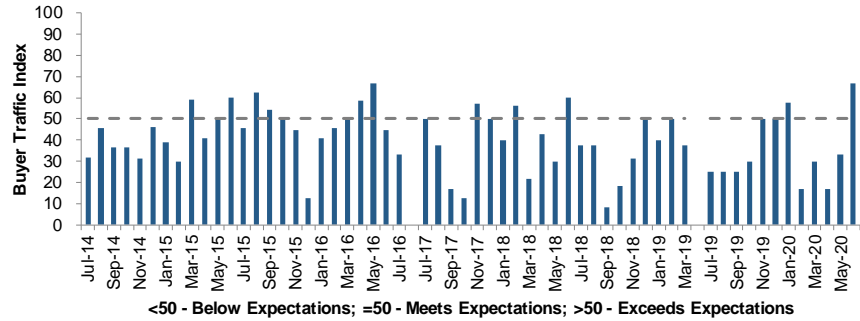
- More-than-expected traffic due to “Continued interest from Northerners and West-coast folks in second/retirement homes”
- “[Outlook] WAS positive but with COVID surging in Florida, I am now negative”
- “More optimistic. Less inventory will keep buyers active. They can't wait for something better or cheaper”



Indianapolis, IN



Nashville, TN

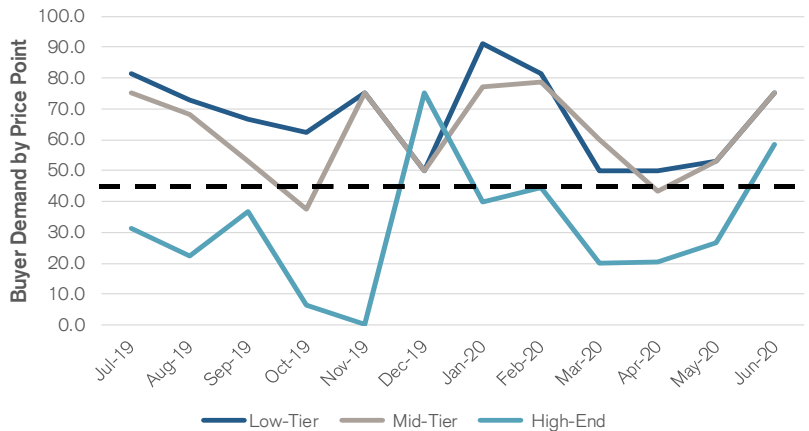
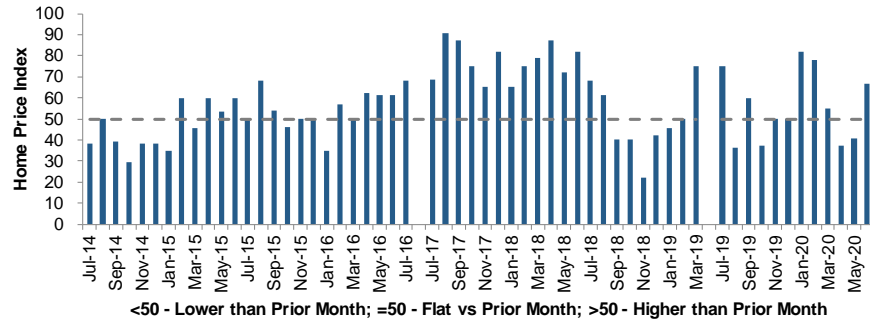
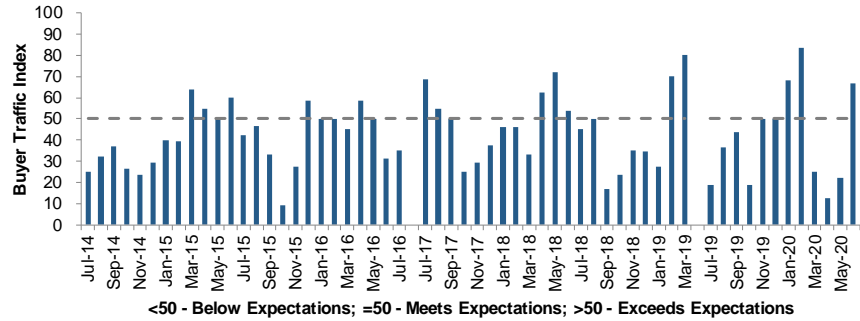


Comments from Real Estate Agents:

- More-than-expected traffic due to “interest rates, price points, and people moving to Nashville”
- “Less [optimistic]. A little less favorable situation. Nashville is accelerating in new COVID-19 cases and government is returning to Phase 2 from Phase 3 which did not last long”



Philadelphia-Southern NJ

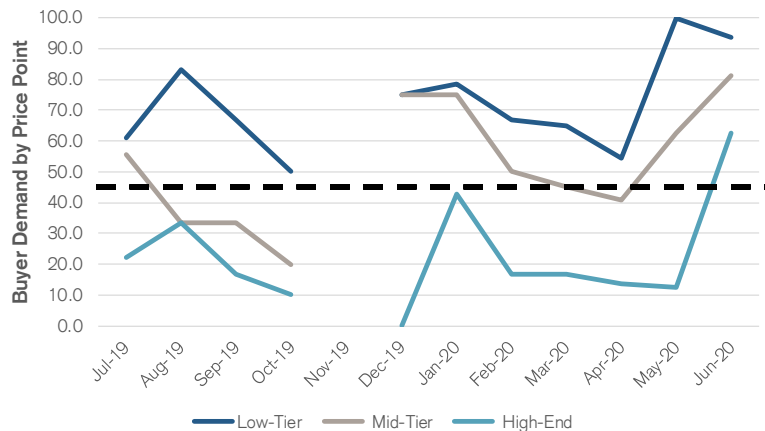
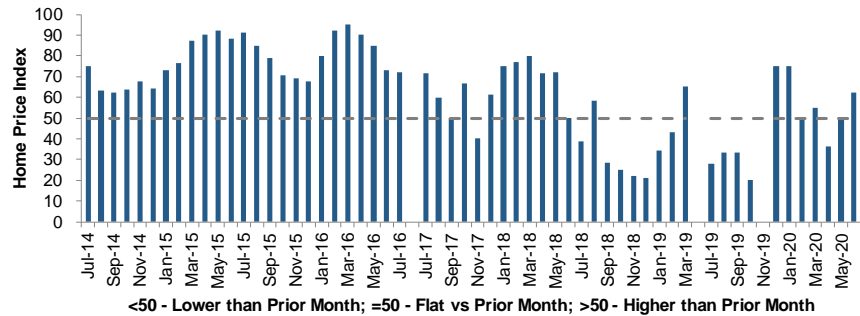
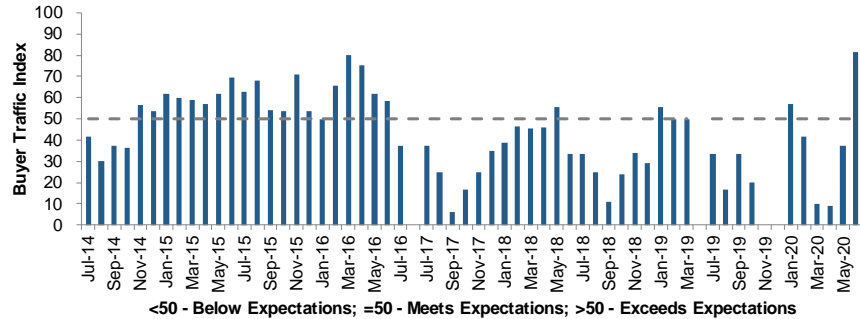


Comments from Real Estate Agents:

- “More optimistic given strength we are seeing in the market now – it should carry through the rest of the year”
- “Extremely strong bounce back from the COVID closure”

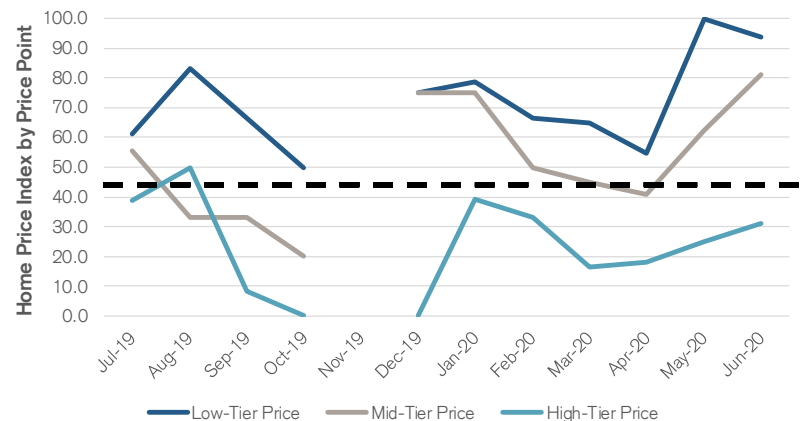


Portland, OR

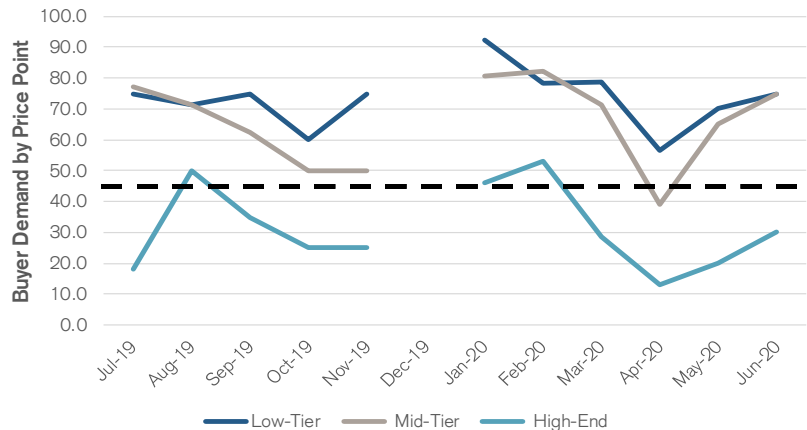
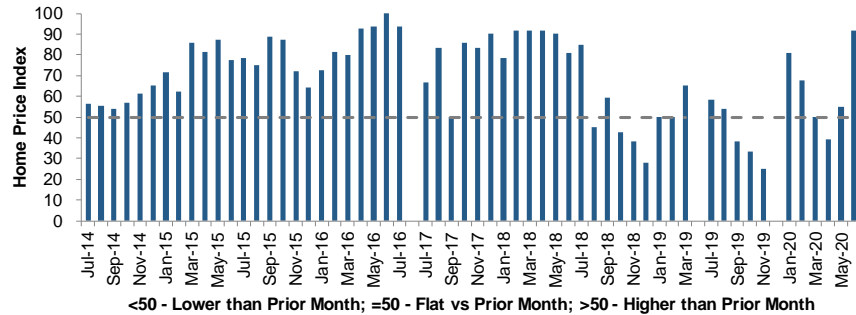
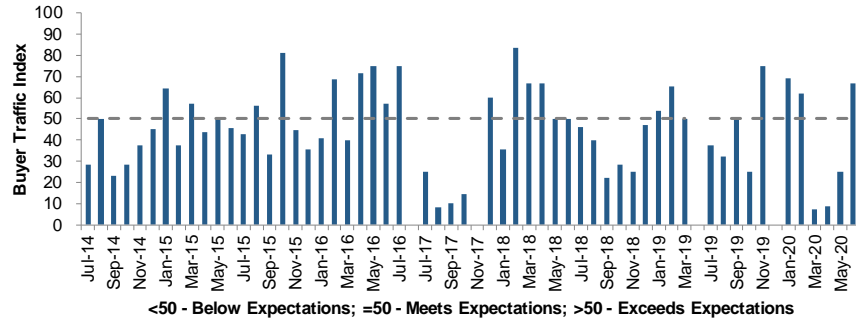


Comments from Real Estate Agents:

- More-than-expected traffic due to “Pent-up demand and historically low interest rates. Although COVID has been with us for the last 4 months, I have had robust sales throughout the year. With more people working remotely, I'm seeing more homeowners considering moving into larger homes (to accommodate home offices) or moving to other areas all together”
- “Condo market is seeing some slowing as buyers are having to qualify for HOA plus purchase. This is making many buyers rethink the Condo versus Single-family residential properties”
- “I had more sellers than typical for the first six months of the year. Now I'm seeing an uptick in buyers because of the low rates. I think once we get into the election cycle in mid-October, we may see a pause because of uncertainty”

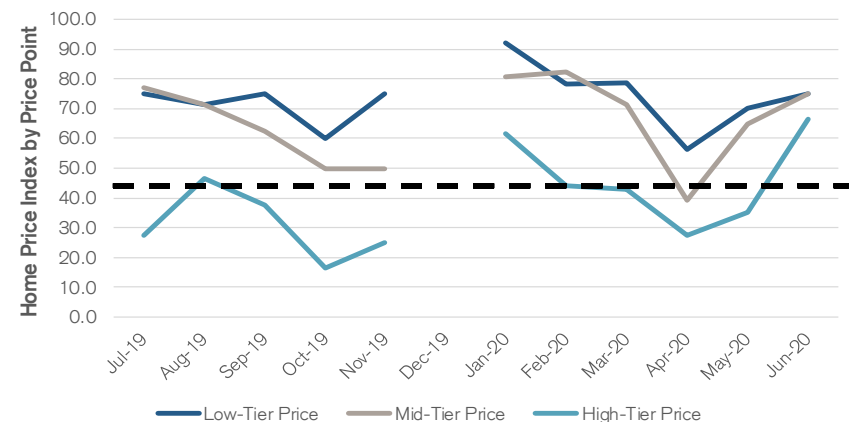


Raleigh, NC

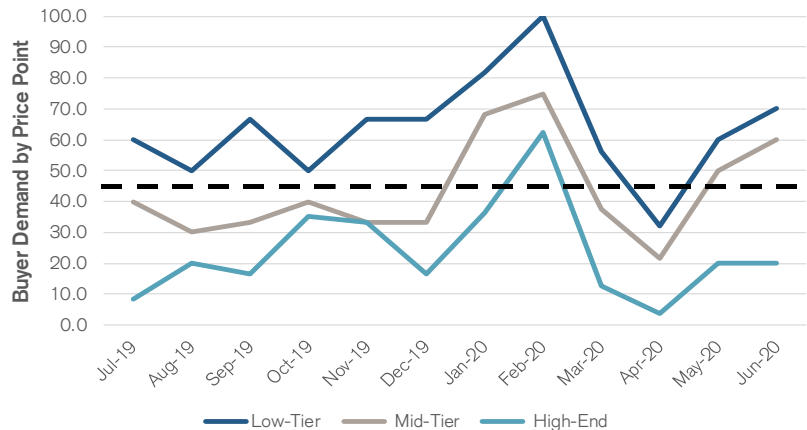
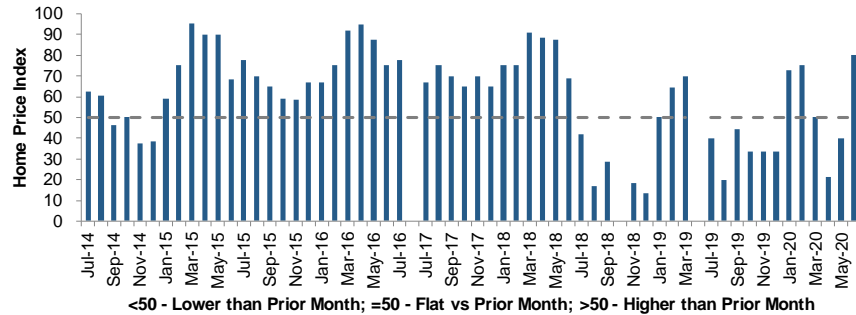
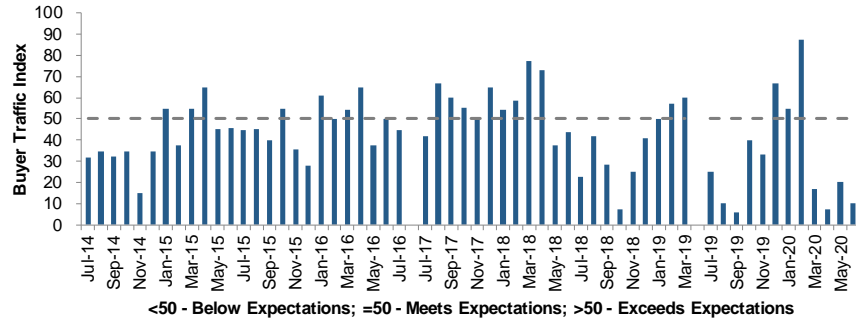


Comments from Real Estate Agents:

- “Low interest rates. Decrease in resale inventory. Increase in land and home prices driving buyers to jump into the market now. Fear Of Missing Out”
- “Low inventory and low interest rates, very serious buyers competing for fewer available homes”
- “Less [optimistic]. Growing concerned about what will happen when government stimulus runs out”
- “Thanks to record low interest rates and despite low inventory, I'm optimistic about the market. Demand outstrips supply. Expecting price increases”
- “Clients and systems are adjusting to the new normal. Homes are still selling, some without in-person tours”



Sacramento, CA

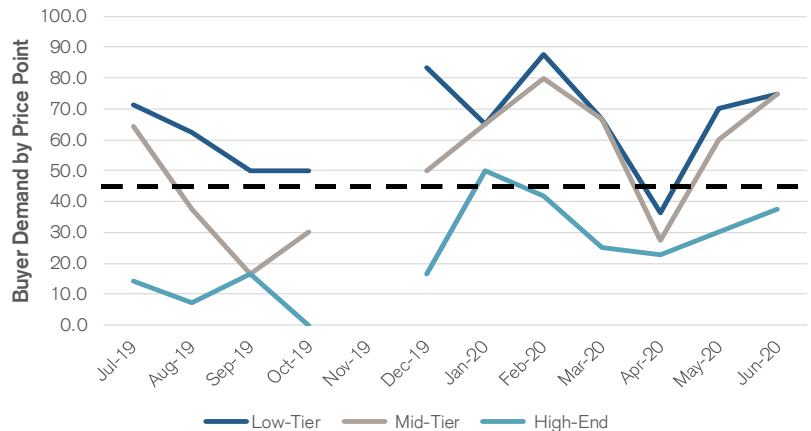
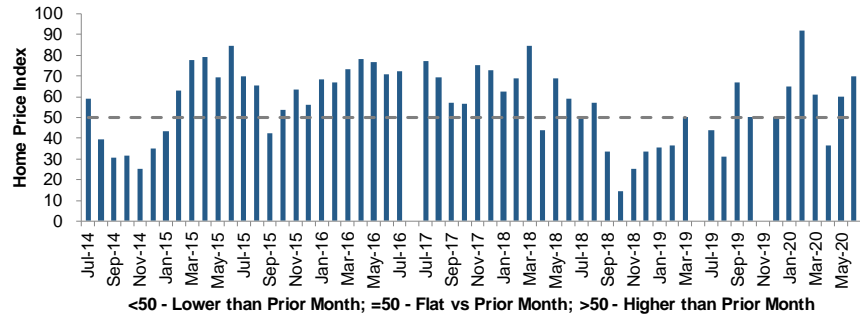
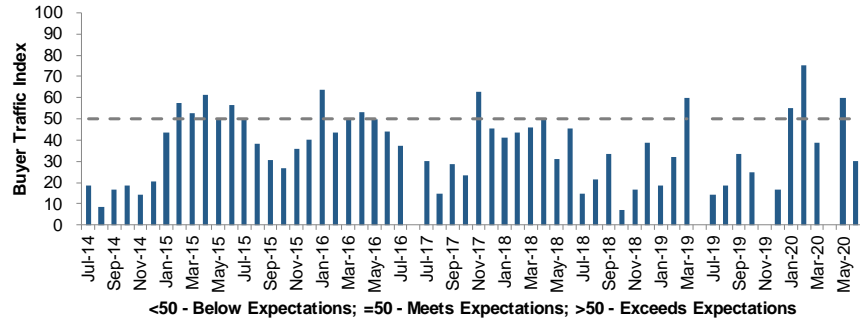


Comments from Real Estate Agents:

- "COVID-19 continues to suppress activity"
- "Reluctance to go into occupied homes"

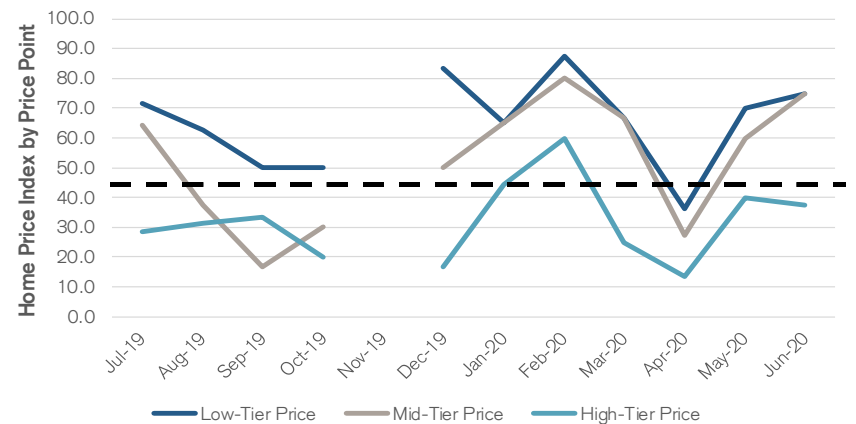


San Diego, CA

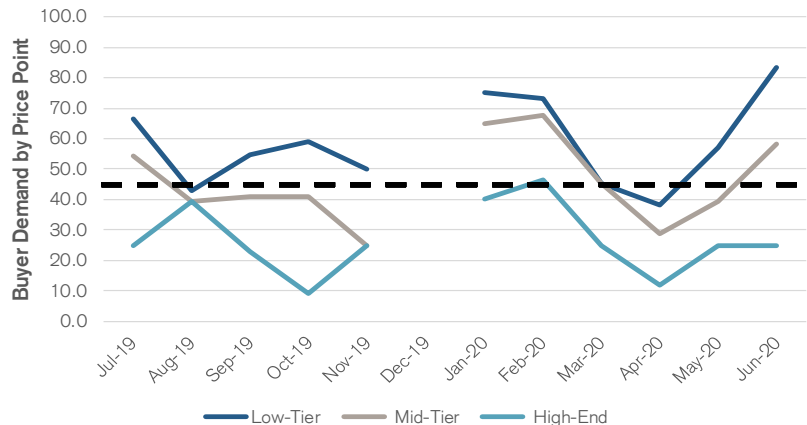
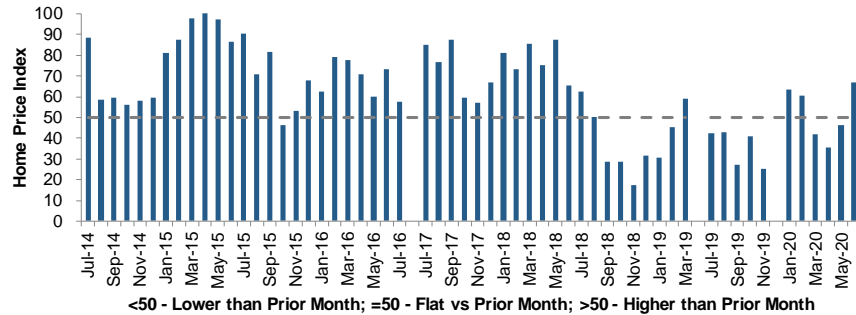
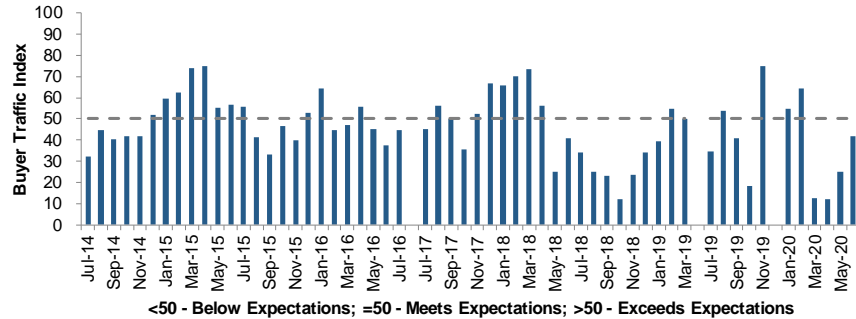


Comments from Real Estate Agents:

- “Many homes listed are shown with accepted offers only. Demand is high, inventory low”
- “Less optimistic, virus is starting to impact market on demand and supply side”
- “Less optimistic, low inventory, nothing seems to be moving”
- “Optimistic, inventory is increasing slightly while demand is high”



San Francisco, CA

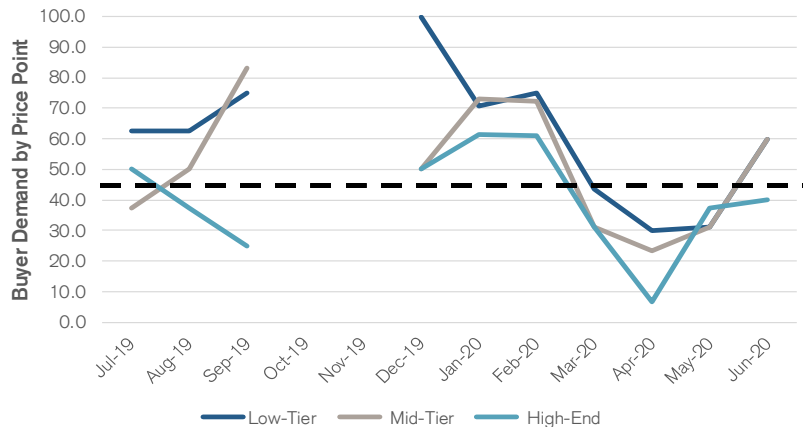
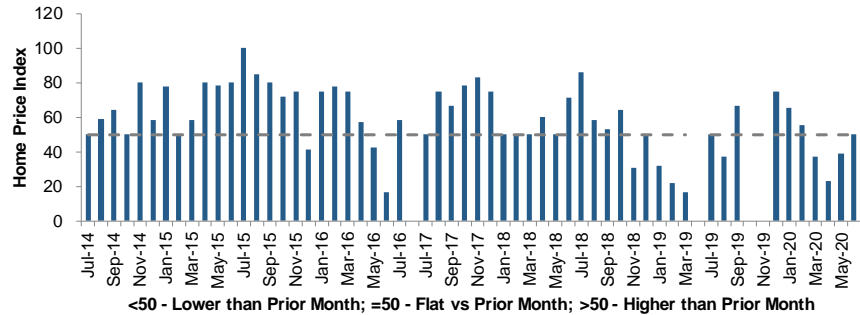
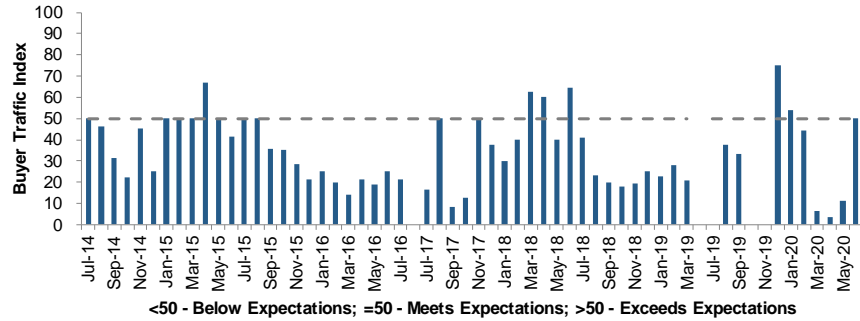


Comments from Real Estate Agents:

- "Inventory is very low, which is causing motivated buyers to overreach and is pushing prices up"
- "Neutral [outlook], confused about contradicting variables. Higher price increases on lower priced properties, mortgages being more affordable, low inventory, no movement on higher priced properties"
- "Less-than-expected [traffic] due to young family movers slowing down, more buyers leaving urban cities to suburban"
- "Low rates, low inventory and people leaving SF...leaving higher density urban areas"

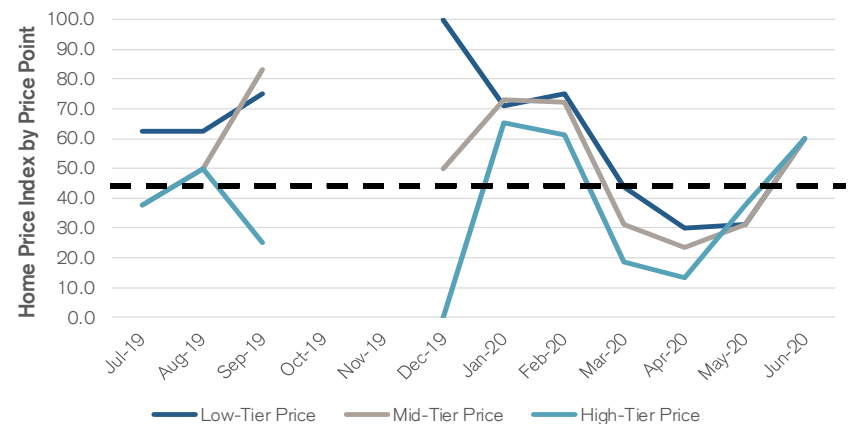


Sarasota, FL

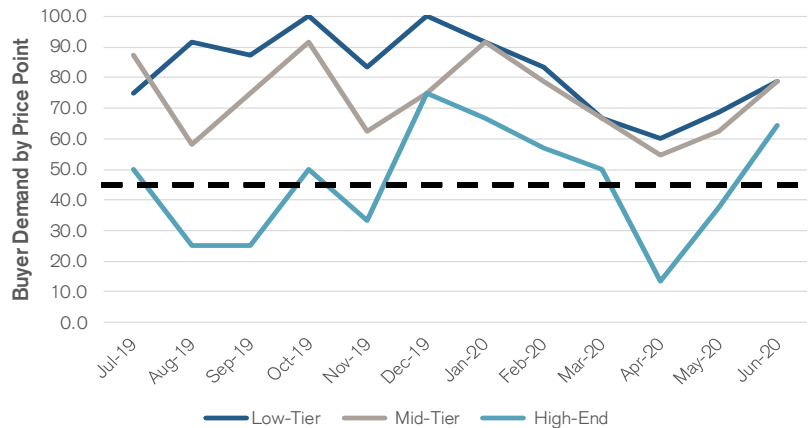
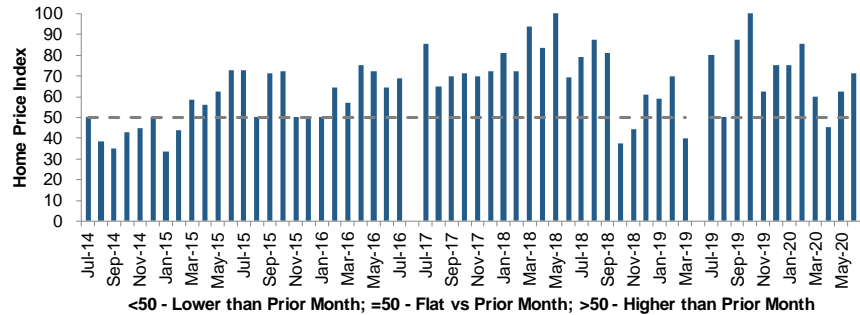
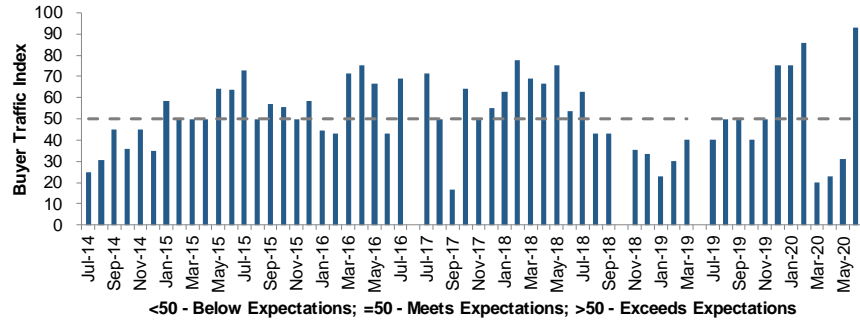


Comments from Real Estate Agents:

- “COVID has caused people not to wait any longer”
- “Positive [outlook]. People want to move ahead and make the change instead of waiting until next year, or the right property”



Tucson, AZ



Comments from Real Estate Agents:

- “Interest rates, low inventory, scarcity increasing prices and ambiguity of life drive buyers to get a piece of pie before they can’t (fear of loss, oddly counter intuitive)”
- “Optimistic and better than last month”



Appendix:

Historical Trends: Buyer Traffic Index

BUYER TRAFFIC INDEX	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20
Atlanta, GA	22.2	25.0	25.0	28.1	20.9	32.9	33.3	38.7	51.6	35.7	40.0	38.2	35.7	25.0	20.0	62.5	59.6	61.3	15.0	13.2	31.0	43.3
Austin, TX	64.3	50.0	50.0	42.9	25.0	50.0	25.0	50.0	50.0	87.5	50.0	75.0	58.3	37.5			75.0	83.3	0.0	0.0	25.0	28.6
Baltimore, MD	57.1	37.5	37.5	25.0	7.1	75.0	31.3	33.3	50.0	50.0		37.5		31.3	16.7	60.0	100.0	75.0	0.0	0.0	10.0	43.8
Boston, MA	34.6	33.3	50.0	50.0	15.4	31.8	32.1	31.8	25.0	31.8	37.5	50.0	38.9	27.8	35.7	37.5	45.5	61.1	28.6	14.3	56.3	60.0
Charleston, SC	70.0	12.5	37.5			10.0	25.0	50.0			50.0		50.0									60.0
Charlotte, NC	25.0	22.7	35.0	23.1	7.9	27.3	42.1	37.5	50.0	44.4	30.0	60.0	37.5	66.7		50.0	75.0	42.9	8.3	7.1	7.1	43.8
Chicago, IL	23.3	19.4	16.7	8.5	15.7	15.1	29.3	40.4	18.4	31.3	19.6	18.8	13.6	25.0	37.5	41.7	65.9	57.5	16.2	11.8	27.3	59.1
Cincinnati, OH	31.8	40.6	55.6	60.0	30.0	37.5	10.0	70.0	0.0	70.0	50.0	50.0	62.5	10.0	33.3	50.0	50.0	62.5	0.0		40.0	78.6
Columbus, OH	56.3	40.0	40.9	30.0	34.6	21.9	50.0	25.0	41.7	50.0	62.5	57.1	38.9	31.3		50.0	43.8	68.8	50.0	12.5	50.0	33.3
Dallas, TX	50.0	50.0	20.0	27.5	25.0	35.0	40.0	34.6	16.7	40.0	30.8	21.4	38.5	50.0		25.0	62.5	61.8	19.2	10.8	26.5	50.0
Denver, CO	29.4	30.6	31.3	25.0	20.0	27.8	35.7	44.4	40.0	58.3	45.8	25.0	50.0	55.6	62.5	75.0	71.4	60.0	0.0	0.0	41.7	78.6
Detroit, MI	34.6	54.5	35.0	19.2	12.5	27.8	26.2	40.6	25.0	43.8	20.0	11.1	29.4	20.0	25.0	30.0	66.7	71.4	15.4	0.0	30.0	50.0
Fort Myers, FL	40.0	33.3	31.3	13.6	11.1	13.6	43.8	27.3	18.8	27.8	42.9	50.0	33.3	45.0	60.0	25.0	53.1	43.8	12.5	7.9	35.7	72.2
Houston, TX	21.4	38.9	30.0	28.3	23.7	27.8	26.9	22.2	33.3	37.5	32.1	28.6	28.6	21.4	37.5	50.0	56.3	57.1	20.0	14.6	26.7	55.0
Indianapolis, IN	66.7	33.3		16.7	33.3	16.7	41.7	35.7		30.0	50.0			33.3		50.0	57.1	60.0	16.7	16.7	16.7	87.5
Inland Empire, CA	21.4	25.0	0.0	28.6	0.0	50.0					33.3		25.0	16.7			66.7	50.0	0.0	0.0	20.0	40.0
Jacksonville, FL	43.8	38.9	45.8	43.8	21.4	38.5	35.0	22.2	57.1	33.3	25.0	12.5	37.5	40.0			56.3	40.9	22.7	2.8	25.0	57.1
Kansas City, KS	45.8	0.0	37.5	25.0	17.9	16.7	35.7	25.0	31.3	66.7	66.7	33.3	33.3				40.0	50.0	12.5	16.7	30.0	
Las Vegas, NV	37.5	50.0	27.8	60.0	30.0	27.3	10.0	18.8	30.0	30.0	21.4	28.6	22.2	28.6			50.0	61.1	0.0	3.6	11.5	50.0
Los Angeles, CA	23.8	18.8	11.7	12.0	15.0	26.5	28.1	27.8	21.4	30.0	46.2	36.4	23.1	33.3	50.0	33.3	57.5	68.8	11.9	8.3	23.5	53.8
Miami, FL	33.3	14.3	19.7	36.4	10.9	18.0	23.5	16.7	20.8	45.8	18.2	30.0	21.2	28.6	16.7	50.0	52.0	46.3	10.7	7.0	19.4	47.5
Minneapolis, MN	21.4	38.9	28.3	22.6	12.5	30.4	35.2	52.5	26.9	40.9	33.3	42.3	34.6	26.9	33.3	57.1	62.5	79.2	25.0	28.6	50.0	66.7
Nashville, TN	60.0	37.5	37.5	8.3	18.2	31.3	50.0	40.0	50.0	37.5	25.0	25.0	25.0	30.0	50.0	50.0	57.7	16.7	30.0	16.7	33.3	66.7
New York-Northern NJ	31.8	18.8	31.8	24.4	10.8	20.5	38.1	37.5	39.4	36.1	25.9	30.0	32.0	23.7	35.7	50.0	38.2	41.1	9.5	9.5	28.1	53.7
Orlando, FL	42.9	27.8	30.0	20.0	53.6	16.7	23.3	36.4	22.2	45.0	12.5	25.0	35.7		80.0		46.4	67.4	16.7	13.6	20.8	33.3
Phila.-Southern NJ	53.6	45.0	50.0	16.7	23.3	35.0	34.6	27.3	70.0	80.0	18.8	36.4	43.8	18.8	50.0	50.0	68.2	83.3	25.0	12.5	21.9	66.7
Phoenix, AZ	52.4	52.9	37.0	54.7	18.5	23.3	26.0	31.0	23.5	38.2	62.5	46.2	47.5	68.2	62.5	50.0	60.0	67.9	20.0	6.3	34.2	52.1
Portland, OR	33.3	33.3	25.0	10.7	24.1	34.0	28.9	55.6	50.0	50.0	33.3	16.7	33.3	20.0		0.0	57.1	41.7	10.0	9.1	37.5	81.3
Raleigh, NC	50.0	46.2	40.0	21.9	28.6	25.0	46.9	53.6	65.4	50.0	37.5	32.1	50.0	25.0	75.0		69.2	61.8	7.1	8.7	25.0	66.7
Sacramento, CA	43.8	22.5	41.7	28.6	7.1	25.0	40.9	50.0	57.1	60.0	25.0	10.0	5.6	40.0	33.3	66.7	54.5	87.5	16.7	7.1	20.0	10.0
San Antonio, TX	83.3	50.0	71.4	50.0	21.4	40.0	43.8	62.5	62.5	66.7	62.5	58.3	31.3	25.0	30.0		50.0	41.7	20.0	0.0	50.0	37.5
San Diego, CA	45.5	14.7	21.4	33.3	7.1	16.7	38.9	18.8	31.8	60.0	14.3	18.8	33.3	25.0		16.7	55.0	75.0	38.9	0.0	60.0	30.0
San Francisco, CA	40.6	34.2	25.0	23.1	11.9	23.7	34.2	39.5	54.5	50.0	34.6	53.6	40.9	18.2	75.0		54.5	64.3	12.5	11.9	25.0	41.7
Sarasota, FL	64.3	40.9	23.1	20.0	17.9	19.2	25.0	22.7	27.8	20.8	0.0	37.5	33.3			75.0	53.8	44.4	6.3	3.3	11.1	50.0
Seattle, WA	18.8	10.7	31.8	21.8	16.7	31.3	40.7	47.9	44.4	54.3	50.0	41.7	45.5	50.0	64.3	64.3	62.5	71.4	25.0	21.1	25.0	52.9
Tampa, FL	41.7	12.5	14.3	23.1	45.0	26.7	33.3	34.6	38.9	40.0	50.0	12.5	60.0	21.4	12.5		54.5	38.9	25.0	11.7	17.9	37.5
Tucson, AZ	53.8	62.5	42.9	42.9	0.0	35.3	33.3	22.7	30.0	40.0	40.0	50.0	50.0	40.0	50.0	75.0	75.0	85.7	20.0	22.7	31.3	92.9
Virginia Beach, VA	20.0					28.6	18.8	16.7	50.0	90.0	50.0	50.0	83.3	66.7	100.0		62.5	80.0	25.0			
Washington, DC	46.2	20.0	37.5	24.0	20.6	40.0	37.5	32.1	22.2	44.4	22.2	75.0	50.0	34.4	50.0	87.5	66.7	75.0	25.0	9.6	25.0	55.0
Total	41.9	32.6	33.2	28.4	19.3	29.0	33.0	36.1	37.4	47.2	36.0	36.8	38.2	33.1	46.0	49.3	59.3	60.7	16.2	9.4	28.9	53.7

Historical Trends: Home Price Index

HOME PRICE INDEX	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20
Atlanta, GA	66.7	60.0	45.2	37.5	43.0	23.7	30.0	51.6	59.4	69.0	37.5	31.3	47.6	37.5	40.0	31.3	61.5	64.5	40.0	38.2	59.5	66.7
Austin, TX	78.6	50.0	75.0	50.0	50.0	50.0	91.7	50.0	50.0	62.5	100.0	100.0	70.0	75.0			100.0	66.7	50.0	35.7	62.5	78.6
Baltimore, MD	78.6	62.5	37.5	66.7	40.0	37.5	43.8	50.0	60.0	25.0		37.5		43.8	33.3	60.0	83.3	62.5	50.0	44.4	50.0	62.5
Boston, MA	53.8	46.7	60.0	45.0	15.4	22.7	42.9	50.0	50.0	72.7	50.0	33.3	33.3	25.0	14.3	50.0	63.6	72.2	14.3	35.7	56.3	80.0
Charleston, SC	50.0	37.5	50.0			50.0	25.0	75.0			75.0		33.3									60.0
Charlotte, NC	56.3	54.2	45.0	46.0	26.3	31.8	40.0	54.2	56.3	66.7	70.0	60.0	12.5	66.7		50.0	83.3	64.3	50.0	35.7	57.1	62.5
Chicago, IL	43.3	29.4	35.9	23.6	22.2	23.6	28.8	34.8	44.7	45.5	35.7	26.1	20.3	28.9	31.3	31.8	47.7	63.8	38.2	36.8	54.5	59.1
Cincinnati, OH	68.2	59.4	72.2	60.0	40.0	56.3	37.5	50.0	50.0	90.0	66.7	35.7	50.0	70.0	50.0	75.0	70.0	87.5			90.0	85.7
Columbus, OH	93.8	75.0	68.2	55.0	38.5	34.4	53.8	50.0	66.7	83.3	87.5	57.1	44.4	43.8		83.3	50.0	87.5	50.0	41.7	75.0	83.3
Dallas, TX	75.0	58.3	42.9	36.8	37.5	26.3	26.7	53.6	37.5	38.9	36.4	21.4	34.6	28.6		37.5	66.7	50.0	26.9	32.4	47.1	50.0
Denver, CO	68.8	52.8	57.1	31.3	5.0	16.7	42.9	16.7	30.0	50.0	45.8	31.3	40.0	50.0	62.5	75.0	71.4	70.0	40.0	20.0	41.7	71.4
Detroit, MI	76.9	80.0	60.0	50.0	33.3	28.9	23.8	30.0	33.3	50.0	40.0	16.7	43.8	10.0	25.0	60.0	62.5	78.6	34.6	26.9	50.0	71.4
Fort Myers, FL	60.0	33.3	57.1	22.7	27.8	40.9	31.3	36.4	18.8	11.1	33.3	28.6	33.3	50.0	30.0	0.0	65.6	50.0	33.3	23.7	46.4	66.7
Houston, TX	57.1	42.9	46.7	52.2	42.1	36.1	42.3	33.3	25.0	12.5	41.7	42.9	42.9	35.7	50.0	66.7	68.8	64.3	30.0	22.9	30.0	45.0
Indianapolis, IN	100.0	50.0		41.7	40.0	33.3	41.7	75.0		90.0	60.0			66.7		75.0	71.4	80.0	41.7	75.0	66.7	100.0
Inland Empire, CA	64.3	50.0	25.0	28.6	50.0	16.7					50.0		62.5	33.3			100.0	25.0	25.0	33.3	50.0	50.0
Jacksonville, FL	73.5	77.8	53.6	68.8	57.1	57.7	40.0	25.0	78.6	83.3	33.3	75.0	56.3	62.5			56.3	63.6	40.9	33.3	55.0	71.4
Kansas City, KS	75.0	66.7	75.0	62.5	35.7	41.7	28.6	40.0	50.0	83.3	50.0	41.7	83.3				70.0	55.6	56.3	41.7	70.0	
Las Vegas, NV	100.0	83.3	83.3	65.0	45.0	45.5	10.0	31.3	70.0	30.0	33.3	28.6	27.8	35.7			75.0	83.3	33.3	28.6	26.9	62.5
Los Angeles, CA	66.7	28.1	40.7	29.2	20.0	11.8	20.0	30.6	50.0	22.2	33.3	27.3	30.8	16.7	66.7	66.7	52.5	71.9	31.0	29.2	41.2	61.5
Miami, FL	47.1	37.5	46.9	56.1	26.1	44.0	38.2	37.5	12.5	40.9	38.9	26.7	28.8	35.7	33.3	62.5	43.9	53.7	39.3	30.0	45.2	50.0
Minneapolis, MN	71.4	66.7	50.0	28.6	24.2	25.0	32.7	28.9	57.7	70.5	41.7	50.0	15.4	38.5	50.0	57.1	75.0	83.3	56.3	46.4	55.0	94.4
Nashville, TN	60.0	62.5	50.0	58.3	18.2	37.5	35.0	40.0	62.5	62.5	50.0	37.5	37.5	50.0	33.3	50.0	76.9	66.7	60.0	38.9	50.0	66.7
New York-Northern NJ	60.0	40.6	44.2	43.0	34.2	21.6	28.0	29.3	42.4	59.4	52.2	36.8	46.0	31.6	42.9	42.9	55.9	55.4	31.0	38.1	56.3	68.5
Orlando, FL	68.8	44.4	55.0	53.3	53.3	45.8	40.0	36.4	44.4	72.2	41.7	66.7	33.3		60.0		78.6	80.4	55.6	39.8	45.8	43.3
Phila.-Southern NJ	82.1	68.2	61.5	40.0	40.0	22.2	42.3	45.5	50.0	75.0	75.0	36.4	60.0	37.5	50.0	50.0	81.8	77.8	55.0	37.5	40.6	66.7
Phoenix, AZ	66.7	61.8	60.4	64.3	50.0	36.7	32.0	35.7	50.0	65.6	55.0	57.7	72.5	90.9	87.5	50.0	75.0	85.7	50.0	40.6	55.3	79.2
Portland, OR	50.0	38.9	58.3	28.6	25.0	22.0	21.1	34.4	43.3	65.4	27.8	33.3	33.3	20.0		75.0	75.0	50.0	55.0	36.4	50.0	62.5
Raleigh, NC	81.0	84.6	45.0	59.4	42.9	38.5	28.1	50.0	50.0	65.0	58.3	53.8	38.5	33.3	25.0		80.8	67.6	50.0	39.1	55.0	91.7
Sacramento, CA	68.8	42.1	16.7	28.6	0.0	18.2	13.6	50.0	64.3	70.0	40.0	20.0	44.4	33.3	33.3	33.3	72.7	75.0	50.0	21.4	40.0	80.0
San Antonio, TX	100.0	55.0	64.3	75.0	57.1	20.0	50.0	62.5	75.0	100.0	66.7	92.9	56.3	25.0	60.0		70.0	58.3	40.0	42.9	50.0	50.0
San Diego, CA	59.1	50.0	57.1	33.3	14.3	25.0	33.3	35.7	36.4	50.0	43.8	31.3	66.7	50.0		50.0	65.0	91.7	61.1	36.4	60.0	70.0
San Francisco, CA	65.6	62.5	50.0	28.8	28.6	17.5	31.6	30.6	45.5	59.1	42.3	42.9	27.3	40.9	25.0		63.6	60.7	41.7	35.7	46.4	66.7
Sarasota, FL	71.4	86.4	58.3	53.3	64.3	30.8	50.0	31.8	22.2	16.7	50.0	37.5	66.7			75.0	65.4	55.6	37.5	23.3	38.9	50.0
Seattle, WA	65.6	50.0	27.3	8.8	13.1	15.7	24.1	44.0	64.7	60.9	69.2	59.1	50.0	60.0	50.0	78.6	84.4	92.9	60.7	55.3	70.0	82.4
Tampa, FL	83.3	75.0	46.4	61.5	65.0	56.7	42.9	50.0	72.2	60.0	68.2	33.3	80.0	71.4	37.5		72.7	77.8	50.0	41.7	50.0	56.3
Tucson, AZ	69.2	79.2	87.5	81.3	37.5	44.1	61.1	59.1	70.0	40.0	80.0	50.0	87.5	100.0	62.5	75.0	75.0	85.7	60.0	45.5	62.5	71.4
Virginia Beach, VA	20.0					50.0	42.9	50.0	83.3	50.0	16.7	50.0	50.0	83.3	50.0		62.5	90.0	37.5			
Washington, DC	63.3	35.0	41.7	42.0	41.2	30.0	33.3	42.9	61.1	55.6	50.0	66.7	45.5	46.7	16.7	37.5	80.6	87.5	53.6	44.2	50.0	55.0
Total	68.2	56.3	52.7	46.4	35.2	33.0	36.3	42.9	51.0	57.4	51.2	43.8	46.1	46.5	43.1	55.5	70.4	69.9	44.0	36.9	52.7	67.4

Historical Trends: Incentive Index

INCENTIVE INDEX	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20
Atlanta, GA	44.4	27.8	28.6	37.5	27.9	23.0	33.3	36.7	27.4	39.5	25.0	28.1	22.5	16.7	25.0	50.0	38.5	41.9	47.5	34.2	35.7	46.7
Austin, TX	35.7	50.0	41.7	39.3	20.0	66.7	33.3	41.7	40.0	50.0	50.0	50.0	41.7	37.5			62.5	50.0	50.0	21.4	50.0	42.9
Baltimore, MD	42.9	50.0	66.7	30.0	40.0	50.0	37.5	41.7	50.0	75.0		66.7		50.0	50.0	61.1	50.0	37.5	50.0	22.2	30.0	43.8
Boston, MA	46.2	46.7	47.2	50.0	44.4	50.0	50.0	55.6	58.3	60.0	50.0	50.0	33.3	43.8	42.9	62.5	45.5	44.4	28.6	46.4	37.5	50.0
Charleston, SC	16.7	12.5	37.5			25.0	0.0	66.7			16.7		25.0									30.0
Charlotte, NC	68.8	40.9	30.0	34.0	26.3	22.7	37.5	55.0	43.8	38.9	50.0	20.0	33.3	25.0		50.0	33.3	50.0	41.7	21.4	21.4	50.0
Chicago, IL	50.0	46.7	38.3	32.3	37.5	34.6	38.7	32.9	36.8	47.7	36.0	28.3	36.2	47.2	25.0	45.0	40.9	41.3	35.3	41.2	40.9	37.9
Cincinnati, OH	40.0	32.1	44.4	50.0	60.0	50.0	37.5	40.0	33.3	50.0	50.0	50.0	62.5	50.0	33.3	60.0	40.0	50.0		50.0		57.1
Columbus, OH	56.3	55.6	45.5	50.0	41.7	40.6	50.0	46.4	40.9	62.5	50.0	75.0	37.5	43.8		50.0	43.8	50.0	30.0	50.0	50.0	50.0
Dallas, TX	50.0	33.3	21.4	28.9	29.2	23.7	21.4	19.2	25.0	33.3	22.7	28.6	25.0	8.3		12.5	33.3	41.2	26.9	21.6	32.4	50.0
Denver, CO	40.6	38.2	37.5	14.3	40.0	11.1	35.7	27.8	20.0	33.3	37.5	31.3	37.5	38.9	37.5	25.0	50.0	50.0	20.0	35.0	50.0	28.6
Detroit, MI	45.5	60.0	35.0	46.2	50.0	30.6	38.9	42.9	33.3	43.8	35.0	25.0	31.3	25.0	20.0	40.0	45.8	50.0	42.3	42.3	40.0	64.3
Fort Myers, FL	40.0	44.4	37.5	22.7	22.2	27.3	25.0	27.3	31.3	11.1	57.1	35.7	33.3	20.0	40.0	25.0	43.8	37.5	33.3	26.3	17.9	27.8
Houston, TX	28.6	27.8	26.7	26.2	39.5	20.6	34.6	50.0	16.7	12.5	19.2	35.7	41.7	42.9	33.3	50.0	43.8	35.7	26.7	35.4	30.0	50.0
Indianapolis, IN	66.7	50.0		70.0	50.0	50.0	25.0	42.9		60.0	60.0			33.3		50.0	57.1	30.0	41.7	41.7	33.3	75.0
Inland Empire, CA	41.7	41.7	50.0	50.0	50.0	16.7					50.0		33.3	33.3			33.3	0.0	25.0	33.3	40.0	30.0
Jacksonville, FL	50.0	27.8	50.0	50.0	38.5	41.7	40.0	37.5	35.7	50.0	33.3	62.5	50.0	50.0			50.0	36.4	40.9	22.2	25.0	42.9
Kansas City, KS	50.0	25.0	37.5	62.5	50.0	25.0	41.7	20.0	28.6	50.0	0.0	37.5	50.0				60.0	44.4	56.3	41.7	90.0	
Las Vegas, NV	40.9	60.0	27.8	40.0	20.0	18.2	30.0	31.3	10.0	40.0	25.0	28.6	27.8	35.7			25.0	38.9	41.7	35.7	23.1	50.0
Los Angeles, CA	33.3	46.4	48.1	32.6	34.4	32.1	26.9	34.4	22.7	18.8	36.4	22.2	26.9	25.0	25.0	50.0	55.0	31.3	45.2	37.5	38.2	38.5
Miami, FL	41.2	38.5	33.9	40.6	31.8	37.0	39.3	28.6	27.3	50.0	44.1	33.3	33.3	16.7	33.3	25.0	44.9	37.0	41.1	32.0	38.7	35.0
Minneapolis, MN	42.9	50.0	43.5	41.1	41.4	38.6	48.0	32.4	31.8	37.5	45.5	54.5	61.1	31.8	58.3	42.9	50.0	50.0	31.3	35.7	30.0	55.6
Nashville, TN	37.5	56.3	50.0	33.3	30.0	25.0	44.4	30.0	50.0	33.3	50.0	12.5	28.6	30.0	16.7	25.0	42.3	50.0	50.0	33.3	50.0	33.3
New York-Northern NJ	47.4	50.0	38.9	48.7	47.0	34.7	40.0	39.5	55.4	50.0	45.7	55.9	45.7	36.1	25.0	33.3	47.1	50.0	52.4	48.8	50.0	50.0
Orlando, FL	57.1	31.3	37.5	46.7	38.5	40.9	46.7	45.5	38.9	33.3	25.0	58.3	35.7		50.0		50.0	39.1	33.3	22.7	33.3	36.7
Phila.-Southern NJ	57.7	54.5	50.0	42.3	33.3	37.5	41.7	38.9	66.7	50.0	64.3	55.6	50.0	28.6	50.0	25.0	63.6	61.1	55.0	39.6	31.3	41.7
Phoenix, AZ	47.5	43.8	39.6	40.0	30.8	38.3	34.8	37.5	44.1	50.0	36.4	66.7	50.0	40.9	50.0	25.0	45.0	46.4	40.0	29.7	42.1	52.1
Portland, OR	54.2	33.3	33.3	28.6	37.0	21.7	30.6	35.3	30.0	42.3	27.8	50.0	50.0	30.0		75.0	50.0	41.7	45.0	36.4	50.0	56.3
Raleigh, NC	54.5	46.2	50.0	43.8	17.5	10.7	28.6	42.9	30.8	45.0	33.3	25.0	30.8	16.7	0.0		46.2	47.1	35.7	28.3	45.0	50.0
Sacramento, CA	42.9	47.4	40.0	37.5	28.6	22.7	22.2	25.0	28.6	37.5	25.0	30.0	22.2	50.0	16.7	16.7	45.5	62.5	61.1	14.3	20.0	10.0
San Antonio, TX	62.5	35.0	42.9	25.0	35.7	10.0	18.8	50.0	25.0	33.3	33.3	35.7	43.8	0.0	10.0		60.0	41.7	30.0	21.4	10.0	25.0
San Diego, CA	55.0	38.2	50.0	37.5	35.7	25.0	25.0	35.7	44.4	20.0	31.3	43.8	66.7	16.7		33.3	50.0	58.3	50.0	22.7	25.0	70.0
San Francisco, CA	50.0	50.0	43.8	27.8	30.0	30.0	30.0	38.5	35.0	50.0	45.0	40.9	40.0	45.0	0.0		40.9	64.3	54.2	42.9	46.4	58.3
Sarasota, FL	50.0	31.8	46.2	25.0	30.8	16.7	25.0	22.7	11.1	20.0	50.0	50.0	50.0			50.0	46.2	33.3	25.0	16.7	11.1	40.0
Seattle, WA	42.9	50.0	40.9	30.6	28.4	22.6	30.0	33.3	32.1	47.5	29.2	44.4	44.4	44.4	40.0	41.7	53.1	71.4	50.0	39.5	55.0	58.8
Tampa, FL	45.8	43.8	39.3	36.4	40.0	34.6	32.5	37.5	38.9	50.0	45.5	50.0	40.0	42.9	62.5		45.5	47.2	36.5	21.7	28.6	37.5
Tucson, AZ	50.0	41.7	31.3	31.3	25.0	21.9	37.5	30.0	33.3	50.0	55.6	16.7	50.0	58.3	50.0	50.0	50.0	42.9	40.0	31.8	25.0	35.7
Virginia Beach, VA	40.0					50.0	37.5	16.7	66.7	50.0	50.0	66.7	66.7	66.7	0.0		37.5	60.0	50.0			
Washington, DC	34.6	44.4	45.8	45.7	31.3	28.6	25.0	50.0	43.8	37.5	31.3	58.3	45.0	46.9	25.0	25.0	58.3	59.4	46.4	26.9	25.0	40.0
Total	46.7	42.2	40.8	38.6	35.5	30.9	33.5	37.4	35.8	42.3	38.7	42.3	40.6	35.1	31.5	40.7	46.8	45.4	40.8	32.1	36.5	44.6

Historical Trends: Home Listings Index

HOME LISTINGS INDEX	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20
Atlanta, GA	55.6	65.0	56.8	43.8	50.0	59.2	63.3	40.0	35.5	27.5	50.0	34.4	60.5	43.8	70.0	43.8	42.3	51.6	65.0	81.6	78.6	66.7
Austin, TX	42.9	30.0	25.0	42.9	35.0	33.3	50.0	66.7	20.0	75.0	25.0	62.5	25.0	50.0			62.5	66.7	100.0	71.4	100.0	71.4
Baltimore, MD	57.1	50.0	75.0	75.0	66.7	87.5	43.8	41.7	40.0	50.0		100.0		62.5	16.7	80.0	66.7	62.5	75.0	100.0	100.0	62.5
Boston, MA	38.5	56.7	52.5	20.0	30.8	31.8	64.3	31.8	33.3	27.3	66.7	50.0	11.1	56.3	57.1	75.0	45.5	38.9	78.6	96.4	50.0	30.0
Charleston, SC	37.5	62.5	75.0			60.0	100.0	75.0			83.3		100.0									80.0
Charlotte, NC	68.8	58.3	60.0	64.0	63.2	63.6	70.0	50.0	35.7	38.9	60.0	50.0	25.0	33.3		83.3	58.3	50.0	58.3	90.5	92.9	81.3
Chicago, IL	36.7	30.6	34.4	46.3	44.3	53.7	56.1	43.5	26.3	38.6	48.2	35.4	37.5	47.4	50.0	60.0	31.8	40.0	51.5	85.3	59.1	42.4
Cincinnati, OH	50.0	68.8	50.0	60.0	60.0	75.0	50.0	80.0	100.0	30.0	66.7	85.7	75.0	100.0	100.0	90.0	60.0	87.5			50.0	57.1
Columbus, OH	56.3	45.0	54.5	55.0	29.2	46.7	57.7	57.1	41.7	50.0	25.0	50.0	72.2	50.0		50.0	56.3	43.8	80.0	75.0	41.7	50.0
Dallas, TX	37.5	50.0	53.6	45.0	40.0	47.4	50.0	35.7	11.1	0.0	50.0	28.6	42.3	42.9		100.0	29.2	52.9	46.2	75.7	70.6	61.1
Denver, CO	17.6	29.4	25.0	12.5	25.0	27.8	50.0	11.1	10.0	8.3	12.5	37.5	25.0	44.4	87.5	25.0	57.1	60.0	40.0	80.0	25.0	21.4
Detroit, MI	30.8	45.5	25.0	28.6	41.7	41.7	52.5	40.0	66.7	33.3	40.0	33.3	41.2	35.0	50.0	70.0	62.5	71.4	73.1	96.2	50.0	42.9
Fort Myers, FL	65.0	61.1	31.3	36.4	27.8	13.6	43.8	18.2	31.3	50.0	57.1	35.7	33.3	45.0	70.0	75.0	53.1	62.5	54.2	78.9	85.7	77.8
Houston, TX	50.0	44.4	36.7	54.8	55.6	52.8	53.8	38.9	33.3	25.0	11.5	28.6	50.0	50.0	16.7	50.0	62.5	57.1	53.3	81.3	73.3	70.0
Indianapolis, IN	33.3	66.7		75.0	58.3	100.0	58.3	78.6		60.0	60.0			83.3		100.0	78.6	80.0	83.3	75.0	100.0	75.0
Inland Empire, CA	64.3	16.7	37.5	21.4	16.7	16.7					50.0		50.0	66.7			50.0	50.0	75.0	75.0	90.0	60.0
Jacksonville, FL	56.3	44.4	66.7	56.3	50.0	58.3	75.0	66.7	57.1	33.3	83.3	75.0	68.8	75.0			50.0	68.2	77.3	63.9	60.0	64.3
Kansas City, KS	54.2	66.7	75.0	62.5	50.0	66.7	42.9	40.0	68.8	66.7	100.0	66.7	66.7				40.0	55.6	75.0	83.3	60.0	
Las Vegas, NV	62.5	50.0	44.4	40.0	10.0	27.3	30.0	18.8	0.0	20.0	0.0	21.4	33.3	42.9			62.5	55.6	83.3	78.6	53.8	50.0
Los Angeles, CA	28.6	18.8	32.8	10.4	32.5	32.4	53.1	27.8	34.6	22.2	16.7	40.9	34.6	55.6	50.0	66.7	62.5	56.3	64.3	77.1	64.7	38.5
Miami, FL	50.0	32.1	31.3	34.8	26.1	30.4	29.4	25.0	16.7	10.0	19.4	28.6	34.6	42.9	50.0	50.0	40.8	37.0	51.8	55.0	72.6	75.0
Minneapolis, MN	64.3	50.0	47.8	51.6	54.7	54.3	63.0	35.0	54.2	70.5	50.0	53.8	53.8	69.2	66.7	83.3	43.8	41.7	46.9	53.6	55.0	50.0
Nashville, TN	60.0	37.5	12.5	58.3	31.8	50.0	55.0	40.0	37.5	50.0	30.0	0.0	25.0	35.0	50.0	50.0	57.7	50.0	50.0	77.8	66.7	83.3
New York-Northern NJ	42.9	53.1	44.3	36.6	45.9	45.5	47.4	43.8	51.5	37.5	47.8	45.0	44.0	63.9	50.0	64.3	50.0	48.2	76.2	85.7	78.1	48.1
Orlando, FL	81.3	50.0	64.3	70.0	43.3	41.7	36.7	40.0	35.7	44.4	50.0	50.0	14.3		60.0		57.1	63.0	72.2	65.9	66.7	60.0
Phila.-Southern NJ	67.9	50.0	69.2	53.6	50.0	60.0	69.2	60.0	50.0	50.0	62.5	68.2	56.3	56.3	50.0	100.0	68.2	66.7	50.0	83.3	75.0	58.3
Phoenix, AZ	87.5	76.5	52.1	58.3	39.3	33.3	50.0	23.8	44.1	36.7	63.6	83.3	72.5	77.3	75.0	75.0	60.0	71.4	70.0	51.6	73.7	72.9
Portland, OR	29.2	11.1	41.7	21.4	20.4	54.0	44.7	38.9	50.0	23.1	22.2	50.0	33.3	50.0		75.0	53.6	50.0	70.0	86.4	50.0	18.8
Raleigh, NC	72.7	76.9	66.7	65.6	52.4	67.9	56.7	32.1	37.5	40.0	45.8	50.0	53.8	50.0	75.0		38.5	26.5	71.4	82.6	65.0	83.3
Sacramento, CA	37.5	30.0	16.7	28.6	28.6	54.2	63.6	0.0	35.7	50.0	62.5	20.0	33.3	55.0	100.0	66.7	77.3	75.0	72.2	64.3	40.0	40.0
San Antonio, TX	50.0	55.0	50.0	75.0	66.7	30.0	62.5	62.5	62.5	33.3	16.7	28.6	50.0	37.5	37.5		60.0	8.3	50.0	71.4	30.0	37.5
San Diego, CA	50.0	41.2	35.7	16.7	28.6	8.3	50.0	25.0	15.0	35.0	25.0	25.0	83.3	50.0		66.7	60.0	91.7	55.6	63.6	35.0	60.0
San Francisco, CA	59.4	45.0	46.7	20.0	35.7	50.0	69.4	43.3	31.8	45.5	46.2	35.7	27.3	50.0	100.0		68.2	60.7	50.0	90.5	53.6	50.0
Sarasota, FL	64.3	50.0	57.7	36.7	21.4	19.2	46.4	25.0	22.2	27.8	66.7	50.0	58.3			50.0	42.3	50.0	87.5	86.7	94.4	70.0
Seattle, WA	20.0	14.3	40.9	11.3	29.3	28.6	60.7	42.0	32.4	37.0	46.2	33.3	59.1	54.5	85.7	78.6	59.4	78.6	46.4	84.2	55.0	79.4
Tampa, FL	50.0	62.5	53.6	50.0	50.0	32.1	45.0	38.5	16.7	50.0	50.0	62.5	50.0	78.6	37.5		68.2	63.9	51.9	85.0	60.7	81.3
Tucson, AZ	61.5	70.8	75.0	62.5	85.7	43.8	61.1	22.7	50.0	40.0	72.2	83.3	62.5	66.7	83.3	100.0	66.7	71.4	70.0	90.9	81.3	100.0
Virginia Beach, VA	62.5					57.1	87.5	66.7	66.7	70.0	50.0	66.7	83.3	100.0	50.0		62.5	80.0	62.5			
Washington, DC	56.7	40.0	50.0	42.0	56.7	46.4	71.9	67.9	61.1	44.4	66.7	83.3	50.0	78.1	50.0	87.5	63.9	59.4	50.0	80.8	75.0	60.0
Total	51.8	47.5	47.8	44.4	42.0	46.2	56.2	41.9	39.4	39.2	47.4	48.7	48.6	57.1	61.1	71.0	56.0	58.0	64.5	78.5	65.8	60.3

Historical Trends: Time to Sell Index

TIME TO SELL INDEX	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20
Atlanta, GA	44.4	30.0	36.4	34.4	27.3	21.6	26.5	28.1	40.6	42.1	25.0	20.6	27.5	28.1	20.0	56.3	36.5	46.8	35.0	30.3	52.4	53.3
Austin, TX	57.1	30.0	41.7	25.0	25.0	50.0	25.0	25.0	30.0	50.0	75.0	66.7	58.3	33.3			100.0	50.0	16.7	28.6	12.5	64.3
Baltimore, MD	64.3	50.0	25.0	33.3	33.3	37.5	12.5	25.0	40.0	37.5		50.0		25.0	0.0	50.0	50.0	0.0	33.3	40.0	56.3	
Boston, MA	34.6	36.7	47.5	30.0	0.0	4.5	21.4	31.8	33.3	36.4	25.0	25.0	22.2	25.0	14.3	62.5	72.7	50.0	28.6	35.7	50.0	60.0
Charleston, SC	75.0	12.5	25.0			40.0	37.5	37.5			50.0		0.0									70.0
Charlotte, NC	37.5	33.3	45.0	24.0	15.8	20.5	17.5	25.0	31.3	38.9	60.0	40.0	50.0	50.0		50.0	58.3	64.3	58.3	16.7	35.7	43.8
Chicago, IL	36.7	11.1	20.3	15.7	15.1	11.1	22.0	19.3	28.9	36.4	25.0	21.7	12.1	5.3	0.0	9.1	52.3	53.8	22.1	27.9	47.7	62.1
Cincinnati, OH	81.8	50.0	44.4	50.0	20.0	37.5	37.5	60.0	50.0	40.0	66.7	21.4	62.5	70.0	50.0	70.0	90.0	75.0	75.0		60.0	85.7
Columbus, OH	68.8	40.0	36.4	33.3	19.2	12.5	30.8	25.0	33.3	80.8	50.0	35.7	27.8	43.8		50.0	50.0	62.5	50.0	37.5	41.7	66.7
Dallas, TX	37.5	16.7	21.4	16.7	13.3	18.4	13.3	21.4	22.2	15.0	22.7	7.1	7.7	14.3		12.5	50.0	38.2	15.4	17.6	23.5	50.0
Denver, CO	43.8	36.1	25.0	12.5	10.0	5.6	14.3	11.1	40.0	41.7	29.2	6.3	15.0	22.2	50.0	75.0	42.9	20.0	30.0	5.0	16.7	71.4
Detroit, MI	46.2	31.8	40.0	21.4	9.1	26.3	21.4	25.0	8.3	44.4	10.0	11.1	20.6	10.0	16.7	40.0	45.8	50.0	15.4	0.0	50.0	78.6
Fort Myers, FL	55.0	27.8	18.8	9.1	5.6	13.6	18.8	31.8	12.5	11.1	35.7	21.4	41.7	35.0	30.0	25.0	46.9	37.5	20.8	21.1	35.7	55.6
Houston, TX	42.9	22.2	16.7	37.5	26.3	8.3	11.5	5.6	16.7	25.0	30.8	14.3	33.3	21.4	33.3	33.3	56.3	64.3	16.7	27.1	20.0	75.0
Indianapolis, IN	100.0	50.0		50.0	25.0	33.3	25.0	42.9		50.0	60.0			33.3		75.0	71.4	60.0	33.3	41.7	66.7	75.0
Inland Empire, CA	14.3	8.3	12.5	14.3	16.7	0.0					16.7		25.0	16.7			83.3	50.0	0.0	16.7	40.0	40.0
Jacksonville, FL	64.7	50.0	38.5	50.0	42.9	29.2	35.0	38.9	42.9	50.0	66.7	50.0	43.8	62.5			56.3	54.5	31.8	5.6	45.0	71.4
Kansas City, KS	50.0	41.7	62.5	25.0	15.4	8.3	25.0	20.0	31.3	66.7	50.0	25.0	33.3				30.0	72.2	62.5	41.7	80.0	
Las Vegas, NV	63.6	90.0	44.4	45.0	20.0	13.6	10.0	25.0	20.0	10.0	0.0	28.6	16.7	21.4			25.0	50.0	41.7	25.0	34.6	50.0
Los Angeles, CA	28.6	25.0	11.7	6.0	10.0	2.9	6.3	5.6	7.1	5.6	12.5	9.1	11.5	22.2	50.0	66.7	50.0	75.0	26.2	22.9	50.0	50.0
Miami, FL	35.3	25.0	22.7	22.7	13.0	10.9	26.5	16.7	12.5	30.0	20.6	13.3	22.0	21.4	16.7	37.5	35.7	55.6	21.4	21.0	22.6	45.0
Minneapolis, MN	42.9	16.7	32.6	15.0	11.7	17.4	7.7	17.5	50.0	61.4	25.0	30.8	26.9	26.9	41.7	35.7	68.8	70.8	40.6	53.6	60.0	61.1
Nashville, TN	50.0	42.9	37.5	25.0	18.2	12.5	20.0	20.0	37.5	25.0	30.0	12.5	35.7	25.0	33.3	50.0	34.6	66.7	50.0	22.2	50.0	83.3
New York-Northern NJ	47.6	37.5	30.2	29.8	14.9	15.9	18.3	33.8	42.4	50.0	26.1	35.0	30.0	38.9	28.6	71.4	41.2	55.4	38.1	26.2	34.4	63.0
Orlando, FL	43.8	38.9	47.6	33.3	36.7	12.5	20.0	9.1	16.7	44.4	58.3	41.7	28.6		60.0		50.0	52.2	33.3	17.0	33.3	50.0
Phila.-Southern NJ	71.4	68.2	53.8	20.0	40.0	33.3	26.9	54.5	70.0	66.7	64.3	50.0	50.0	31.3	25.0	50.0	86.4	55.6	30.0	29.2	62.5	75.0
Phoenix, AZ	71.4	50.0	41.7	50.0	28.6	25.9	16.0	19.0	32.4	34.4	50.0	46.2	62.5	72.7	75.0	50.0	67.5	64.3	43.3	20.3	52.6	70.8
Portland, OR	20.8	16.7	8.3	14.3	11.1	4.0	5.3	22.2	25.0	26.9	16.7	0.0	10.0	0.0		25.0	67.9	16.7	45.0	27.3	25.0	62.5
Raleigh, NC	54.8	65.4	35.0	25.0	31.0	25.0	20.0	46.7	50.0	60.0	33.3	32.1	30.8	0.0	0.0		57.7	64.7	21.4	19.6	30.0	58.3
Sacramento, CA	25.0	10.0	8.3	8.3	0.0	8.3	13.6	0.0	21.4	50.0	30.0	20.0	11.1	20.0	66.7	66.7	50.0	62.5	44.4	14.3	30.0	30.0
San Antonio, TX	75.0	35.0	41.7	50.0	28.6	0.0	56.3	62.5	50.0	50.0	33.3	42.9	25.0	0.0	10.0		30.0	16.7	20.0	14.3	30.0	25.0
San Diego, CA	40.9	11.8	21.4	5.6	7.1	0.0	16.7	25.0	25.0	35.0	12.5	18.8	16.7	25.0		50.0	45.0	75.0	38.9	0.0	35.0	80.0
San Francisco, CA	43.8	23.7	16.7	6.0	2.6	5.3	21.1	29.4	27.3	40.9	26.9	32.1	9.1	13.6	25.0		45.5	53.6	25.0	23.8	39.3	41.7
Sarasota, FL	50.0	54.5	42.3	40.0	21.4	7.7	25.0	13.6	5.6	11.1	33.3	12.5	25.0			50.0	53.8	55.6	31.3	26.7	33.3	60.0
Seattle, WA	23.3	17.9	4.5	3.8	3.6	4.3	19.6	36.0	33.3	52.2	37.5	29.2	27.3	22.7	35.7	64.3	71.9	78.6	71.4	36.8	65.0	76.5
Tampa, FL	50.0	62.5	32.1	34.6	50.0	20.0	20.0	26.9	33.3	12.5	59.1	50.0	40.0	42.9	25.0		59.1	47.2	26.9	21.7	46.4	56.3
Tucson, AZ	73.1	75.0	62.5	68.8	50.0	25.0	27.8	36.4	45.0	50.0	61.1	75.0	62.5	75.0	50.0	75.0	91.7	85.7	20.0	27.3	56.3	78.6
Virginia Beach, VA	60.0					35.7	12.5	33.3	66.7	75.0	83.3	66.7	83.3	83.3	0.0		62.5	100.0	25.0			
Washington, DC	43.3	20.0	29.2	32.0	23.5	23.3	31.3	28.6	16.7	38.9	44.4	58.3	50.0	37.5	33.3	75.0	66.7	84.4	46.4	26.9	43.8	55.0
Total	49.3	35.9	31.9	27.5	20.1	17.5	21.5	27.2	31.9	40.4	38.3	31.1	31.2	30.7	30.4	51.0	56.7	57.5	32.9	24.0	41.9	60.8

Survey Methodology

We survey real estate agents, as we believe agents provide an accurate assessment of local housing market trends in both the new and existing home markets. We view an understanding of the existing home market as crucial to homebuilders as it represents ~90% of total sales, and trends in the existing home market often dictate trends in the new home market.

Each month, we survey agents about trends in buyer traffic levels, home prices, incentives, inventory levels, and the length of time needed to sell a home. This month, we received responses from ~450 real estate agents across the country. We review responses and calculate a diffusion index for each of the questions with levels above 50 indicating positive trends, levels below 50 indicating negative trends, and a level of 50 indicating a neutral trend. We have removed Kansas City this month due to a limited number of respondents; we will be expanding our distribution list in this region before adding it back into the survey results.

1) How does the homebuyer traffic over the past 30 days compare with what is typical seasonally? Because of seasonality to traffic trends – generally more traffic in Spring and less in Fall/Winter – we ask about traffic relative to the expectations for this time of year rather than how traffic compared to the prior month. A Buyer Traffic Index above 50 means that traffic was above the expectations of agents, a Buyer Traffic Index of 50 means that traffic was in-line with expectations, and a Buyer Traffic Index below 50 means that traffic was below expectations.

2) Have prices remained the same, increased, or decreased over the past 30 days? A Home Price Index above 50 indicates that prices increased over the past 30 days, a Home Price Index of 50 indicates that prices were flat, and a Home Price Index below 50 indicates that prices decreased.

3) Have incentives remained the same, increased, or decreased over the past 30 days? An Incentive index above 50 indicates that incentives decreased over the past 30 days, an incentive index of 50 indicates that incentives were unchanged, and an incentive index below 50 indicates that incentives increased.

4) Do you see the same, more, or fewer, listings as compared with 30 days ago? An inventory (listings) index above 50 indicates that the inventory of homes for sale decreased over the past 30 days, an inventory index of 50 indicates that inventories were unchanged, and an inventory index below 50 indicates that inventories increased.

5) Does it take the same, more, or less time to sell a house? A time to sell index above 50 indicates that the time needed to sell a home decreased over the past 30 days, a time to sell index of 50 indicates that the time needed to sell a home was unchanged, and a time to sell index below 50 indicates that the time needed to sell a home increased.

Source: Credit Suisse

Companies Mentioned (Price as of 11-Jul-2020)

D.R. Horton (DHLN, \$58.66)
KB Home (KBHN, \$30.53)
LGI Homes (LGIHQ, \$101.61)
Lennar (LEN, \$95.29)
Meritage Homes (MTHN, \$79.39)
PulteGroup (PHM, \$35.01)
Taylor Morrison (TMOH, \$21.5)
Toi Brothers (TOLN, \$33.6)

Disclosure Appendix

Analyst Certification

I, Adam Baumgarten, certify that (1) the views expressed in this report accurately reflect my personal views about all of the subject companies and securities and (2) no part of my compensation was, is or will be directly or indirectly related to the specific recommendations or views expressed in this report.

As of December 10, 2012 Analysts' stock rating are defined as follows:

Outperform (O) : The stock's total return is expected to outperform the relevant benchmark* over the next 12 months.

Neutral (N) : The stock's total return is expected to be in line with the relevant benchmark* over the next 12 months.

Underperform (U) : The stock's total return is expected to underperform the relevant benchmark* over the next 12 months.

*Relevant benchmark by region: As of 10th December 2012, Japanese ratings are based on a stock's total return relative to the analyst's coverage universe which consists of all companies covered by the analyst within the relevant sector, with Outperforms representing the most attractive, Neutrals the less attractive, and Underperforms the least attractive investment opportunities. As of 2nd October 2012, U.S. and Canadian as well as European (excluding Turkey) ratings are based on a stock's total return relative to the analyst's coverage universe which consists of all companies covered by the analyst within the relevant sector, with Outperforms representing the most attractive, Neutrals the less attractive, and Underperforms the least attractive investment opportunities. For Latin America, Turkey and Asia (excluding Japan and Australia), stock ratings are based on a stock's total return relative to the average total return of the relevant country or regional benchmark (India - S&P BSE Sensex Index; prior to 2nd October 2012 U.S. and Canadian ratings were based on (1) a stock's absolute total return potential to its current share price and (2) the relative attractiveness of a stock's total return potential within an analyst's coverage universe. For Australian and New Zealand stocks, the expected total return (ETR) calculation includes 12-month rolling dividend yield. An Outperform rating is assigned where an ETR is greater than or equal to 7.5%; Underperform where an ETR less than or equal to 5%. A Neutral may be assigned where the ETR is between -5% and 15%. The overlapping rating range allows analysts to assign a rating that puts ETR in the context of associated risks. Prior to 18 May 2015, ETR ranges for Outperform and Underperform ratings did not overlap with Neutral thresholds between 15% and 7.5%, which was in operation from 7 July 2011.

Restricted (R) : In certain circumstances, Credit Suisse policy and/or applicable law and regulations preclude certain types of communications, including an investment recommendation, during the course of Credit Suisse's engagement in an investment banking transaction and in certain other circumstances.

Not Rated (NR) : Credit Suisse Equity Research does not have an investment rating or view on the stock or any other securities related to the company at this time.

Not Covered (NC) : Credit Suisse Equity Research does not provide ongoing coverage of the company or offer an investment rating or investment view on the equity security of the company or related products.

Volatility Indicator (V) : A stock is defined as volatile if the stock price has moved up or down by 20% or more in a month in at least 8 of the past 24 months or the analyst expects significant volatility going forward.

Analysts' sector weightings are distinct from analysts' stock ratings and are based on the analyst's expectations for the fundamentals and/or valuation of the sector* relative to the group's historic fundamentals and/or valuation.

Overweight : The analyst's expectation for the sector's fundamentals and/or valuation is favorable over the next 12 months.

Market Weight : The analyst's expectation for the sector's fundamentals and/or valuation is neutral over the next 12 months.

Underweight : The analyst's expectation for the sector's fundamentals and/or valuation is cautious over the next 12 months.

*An analyst's coverage sector consists of all companies covered by the analyst within the relevant sector. An analyst may cover multiple sectors.

Credit Suisse's distribution of stock ratings (and banking clients) is:

Global Ratings Distribution

Rating	Versus universe (%)	Of which banking clients (%)
Outperform/Buy*	49%	(32% banking clients)
Neutral/Hold*	37%	(27% banking clients)
Underperform/Sell*	12%	(21% banking clients)
Restricted	1%	

*For purposes of the NYSE and FINRA ratings distribution disclosure requirements, our stock ratings of Outperform, Neutral, and Underperform most closely correspond to Buy, Hold, and Sell, respectively; however, the meanings are not the same, as our stock ratings are determined on a relative basis. (Please refer to definitions above.) An investor's decision to buy or sell a security should be based on investment objectives, current holdings, and other individual factors.

Important Global Disclosures

Credit Suisse's research reports are made available to clients through our proprietary research portal on CS PLUS. Credit Suisse research products may also be made available through third-party vendors or alternate electronic means as a convenience. Certain research products are only made available through CS PLUS. The services provided by Credit Suisse's analysts to clients may depend on a specific client's preferences regarding the frequency and manner of receiving communications, the client's risk profile and investment, the size and scope of the overall client relationship with the Firm, as well as legal and regulatory constraints. To access all of Credit Suisse's research that you are entitled to receive in the most timely manner, please contact your sales representative or go to <https://plus.credit-suisse.com>.

Credit Suisse's policy is to update research reports as it deems appropriate, based on developments with the subject company, the sector or the market that may have a material impact on the research views or opinions stated herein.

Credit Suisse's policy is only to publish investment research that is impartial, independent, clear, fair and not misleading. For more detail please refer to Credit Suisse's Policies for Managing Conflicts of Interest in connection with Investment Research: <https://www.credit-suisse.com/sites/disclaimers-ib/en/managing-conflicts.html>.

Any information relating to the tax status of financial instruments discussed herein is not intended to provide tax advice or to be used by anyone to provide tax advice. Investors are urged to seek tax advice based on their particular circumstances from an independent tax professional.

Credit Suisse has decided not to enter into business relationships with companies that Credit Suisse has determined to be involved in the development, manufacture, or acquisition of anti-personnel mines and cluster munitions. For Credit Suisse's position on the issue, please see <https://www.credit-suisse.com/media/assets/corporate/docs/about-us/responsibility/banking/policy-summaries-en.pdf>.

The analyst(s) responsible for preparing this research report received compensation that is based upon various factors including Credit Suisse's total revenues, a portion of which are generated by Credit Suisse's investment banking activities.

For date and time of production, dissemination and history of recommendation for the subject company(ies) featured in this report, disseminated within the past 12 months, please refer to the link: <https://raw.credit-suisse.com/disclosures/view/report?i=532380&v=216bwsdc25pkpe2zmcpqbyw>.

Important Regional Disclosures

Singapore recipients should contact Credit Suisse AG, Singapore Branch for any matters arising from this research report.

The analyst(s) involved in the preparation of this report may participate in events hosted by the subject company, including site visits. Credit Suisse does not accept or permit analysts to accept payment or reimbursement for travel expenses associated with these events.

For Credit Suisse Securities (Canada), Inc.'s policies and procedures regarding the dissemination of equity research, please visit <https://www.credit-suisse.com/sites/disclaimers-ib/en/canada-research-policy.html>.

Investors should note that income from such securities and other financial instruments, if any, may fluctuate and that price or value of such securities and instruments may rise or fall and, in some cases, investors may lose their entire principal investment.

This research report is authored by:

Credit Suisse Securities (USA) LLCAdam Baumgarten ; Dean Marriott ; Marius Morar

Important disclosures regarding companies that are the subject of this report are available by calling +1 (877) 291-2683. The same important disclosures, with the exception of valuation methodology and risk discussions, are also available on Credit Suisse's disclosure website at <https://raw.credit-suisse.com/disclosures>. For valuation methodology and risks associated with any recommendation, price target, or rating referenced in this report, please refer to the disclosures section of the most recent report regarding the subject company.

[illegible][illegible]

Additional Regional Disclaimers

[illegible]

Malaysia: Research provided to residents of Malaysia is authorized by the Head of Research for Credit Suisse Securities (Malaysia) Sdn Bhd, to whom they should direct any queries on +603 2723 2020.

Singapore: This report has been prepared and issued for distribution in Singapore to institutional investors, accredited investors and expert investors (each as defined under the Financial Advisers Regulations), and is also distributed by Credit Suisse AG, Singapore Branch to overseas investors (as defined under the Financial Advisers Regulations). Credit Suisse AG, Singapore Branch may distribute reports produced by its foreign entities or affiliates pursuant to an arrangement under Regulation 32C of the Financial Advisers Regulations. Singapore recipients should contact Credit Suisse AG, Singapore Branch at +65-6722-0000 for matters arising from, or in connection with, this report. By virtue of your status as an institutional investor, accredited investor, expert investor or overseas investor, Credit Suisse AG, Singapore Branch is exempted from complying with the provisions of the Securities and Futures Act (the "SFA"), the Financial Advisers Regulations and the Securities and Futures (Financial Advisers) Regulations (the "FAA").

BTG The relevant notices and a "bulletin board" internet link, in which details of any material security benefit will not be listed. *Dissemination* Singapore financial may provide to you.

BTG This report has been produced by subsidiaries and affiliates of Credit Suisse operating under its Global Markets Division

In jurisdictions where CS is not already registered or licensed to trade in securities, transactions will only be effected in accordance with applicable securities legislation, which will vary from jurisdiction to jurisdiction and may require that the trade be made in accordance with applicable exemptions from registration or licensing requirements.

This material is issued and distributed in the U.S. by CSSU, a member of NYSE, FINRA, SIPC and the NFA, and CSSU accepts responsibility for its contents. Clients should contact analysts and execute transactions through a Credit Suisse subsidiary or affiliate in their home jurisdiction unless governing law permits otherwise.

[illegible]

When you purchase non-listed Japanese fixed income securities (Japanese government bonds, Japanese municipal bonds, Japanese government guaranteed bonds, Japanese corporate bonds) from CS as a seller, you will be requested to pay the purchase price only.