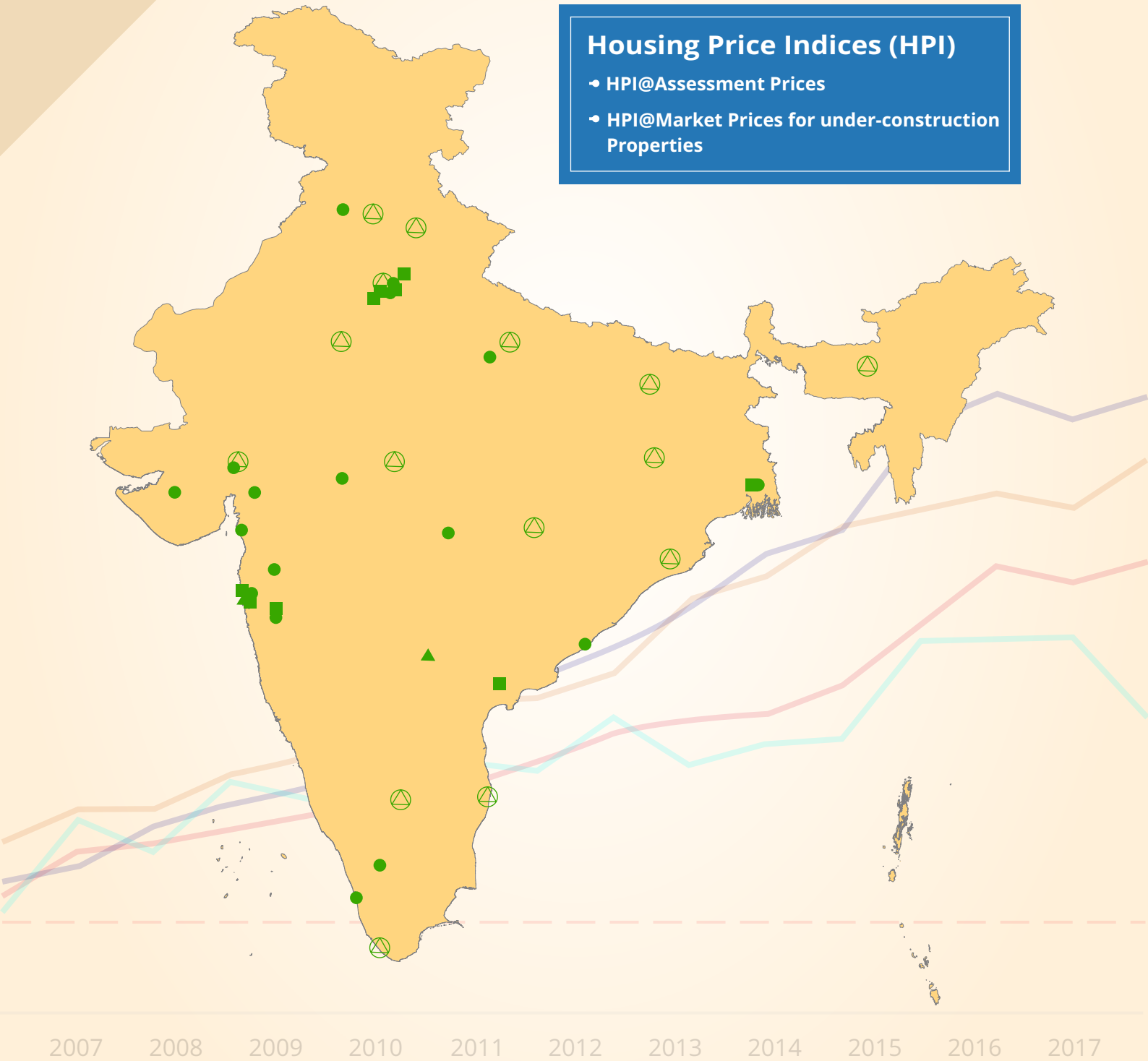


NHB RESIDEX

Quarterly Update April - June, 2017

Housing Price Indices (HPI)

- HPI@Assessment Prices
- HPI@Market Prices for under-construction Properties





NHB RESIDEX

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NHB RESIDEX at a glance- April to June-17

NHB RESIDEX, India's first official housing price index (HPI), was launched in July, 2007, to track the movement in prices of residential properties in select cities on quarterly basis, taking 2007 as the base year. With a view to reflect the current macroeconomic scenario, NHB RESIDEX has been revamped to include cluster of indices with updated base year, revised methodology and automated processes. The revamped NHB RESIDEX is also wider in its geographic coverage and captures two housing price indices viz. HPI@ Assessment Prices for 50 cities and HPI@ Market Prices for under construction properties for 47 cities. HPI@ Assessment Prices is computed using lenders' valuation data received from Banks/Housing Finance Companies (HFCs), while HPI@ Market Prices for under construction properties is based on primary market data for under-construction properties collected from developers, builders and brokers.

Brief on housing price indices for Phase 1 is as given below:

Indices	Data	Sources	Cities
HPI@Assessment Prices	Lenders' valuation data	Banks/HFC	50
HPI@Market Prices for under construction properties	Primary market data for under-construction projects	Market Surveys	47

The cities covered in phase 1 are spread across India in 21 States/Union Territories (UTs). Among 50 cities covered under HPI@ Assessment Prices, 18 cities are state capitals and 37 are part of the smart city list released by Government of India. Due to paucity of data, HPI@ Market Prices for under-construction properties are not available for Rajkot, Ranchi and Vishakhapatnam.

The housing price indices have been computed on a quarterly basis starting from the quarter April to June, 2013, and updated up to quarter April to June, 2017, taking FY 2012 -13 as the base year. The housing prices are classified on the basis of carpet area size at city level (INR/sq. ft.) for units under three product category levels namely ≤ 60 sq.mt, >60 & ≤ 110 sq.mt, and >110 sq.mt. The indices are computed using Laspeyres Methodology, followed by calculation of a Four Quarter Weighted Moving Average with application of dynamic weights at product category level and static base year weights on the Weighted Moving Average product category level prices, across all the quarters starting from the base year.

1.1 HPI@Assessment Prices

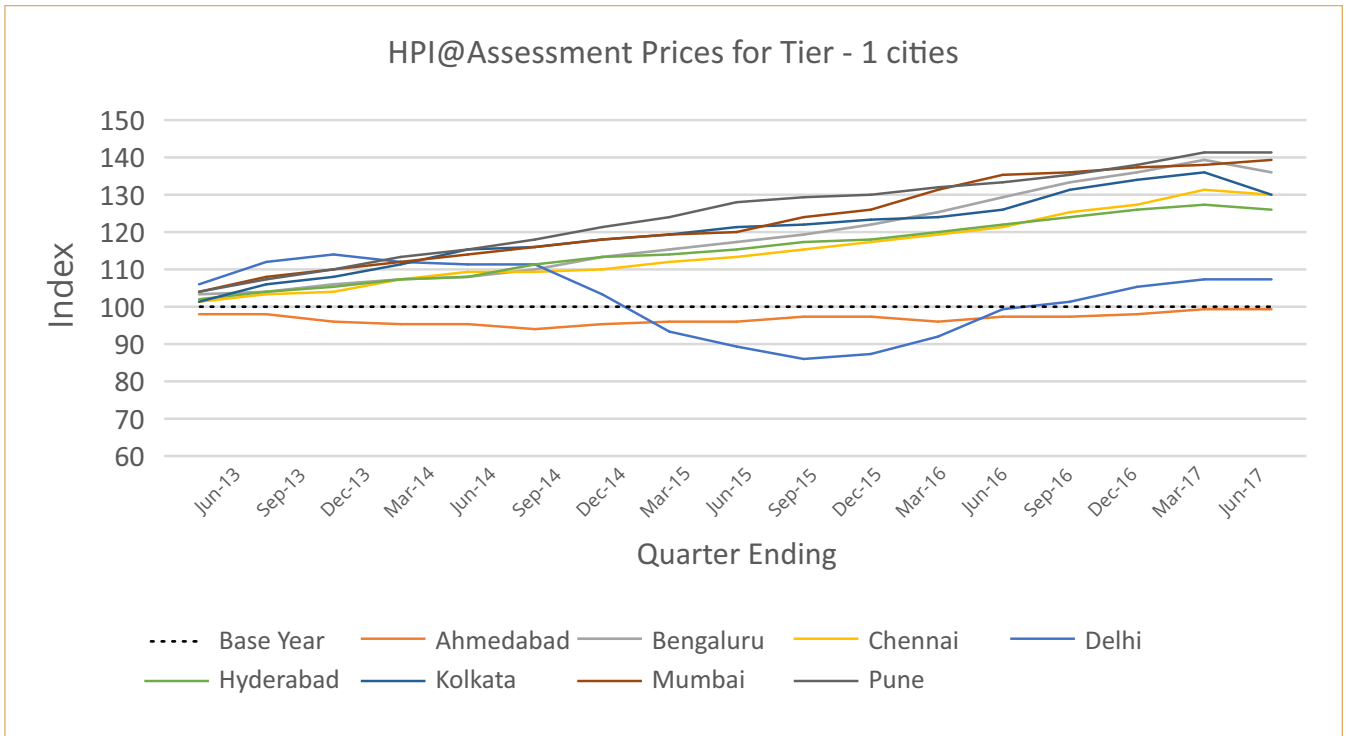
HPI recorded an overall increase in 36 cities, decrease in 13 cities and no change in 1 city on Y-o-Y basis (i.e., April to June, 2017 compared to April to June, 2016) and increase in 14 cities, decrease in 26 cities and no change in 10 cities on Q-o-Q basis (i.e., April to June, 2017 compared to January to March, 2017). Annual growth in HPI ranged from 15.7% in Vizag to (-) 10.6% in Bhiwadi at the end of the quarter, whereas, the quarterly growth in HPI ranged from 4.5% in Vizag to (-) 6.0% in Bhiwadi.

All the eight Tier 1 cities namely Ahmedabad, Bengaluru, Chennai, Delhi, Hyderabad, Kolkata, Mumbai and Pune; witnessed a rise in indices on Y-o-Y basis with Delhi exhibiting a substantial 8.1% rise followed by Chennai (7.4%) and Pune (6.0%). On Q-o-Q basis, Ahmedabad, Delhi and Pune saw no change while Kolkata (-4.4%), Bengaluru (-2.2%), Chennai (-0.8%) and Hyderabad (-0.8%) saw a fall in indices. Mumbai saw a moderate rise at 0.7%.



Movement of HPI@ Assessment Prices over 17 quarters for Tier 1 cities is as below:

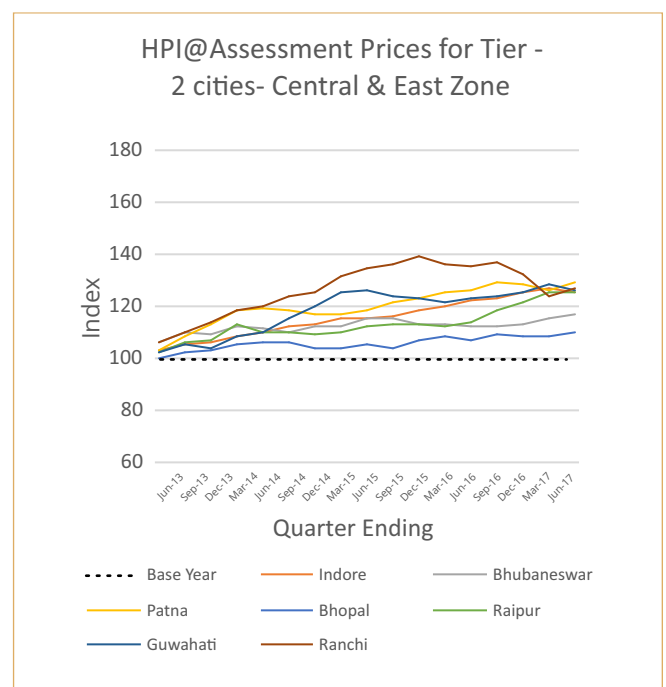
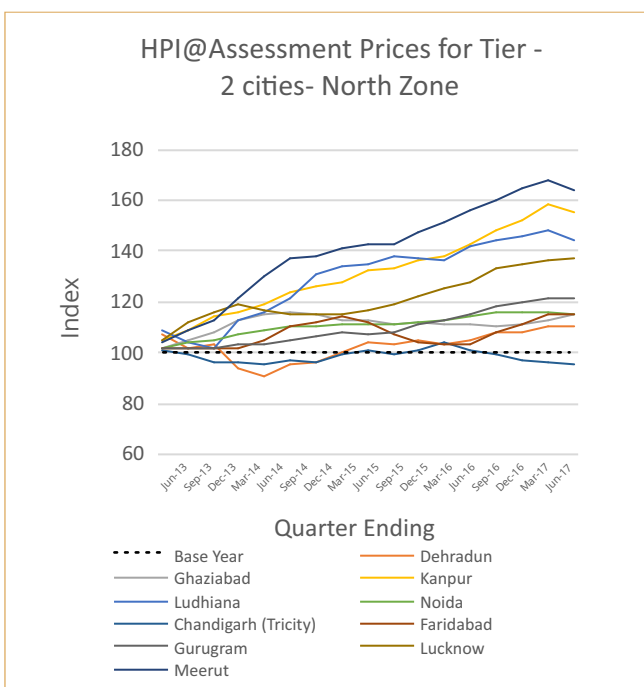
Figure: HPI@Assessment Prices for Tier 1 cities (Base Year FY 2012-13 = 100)

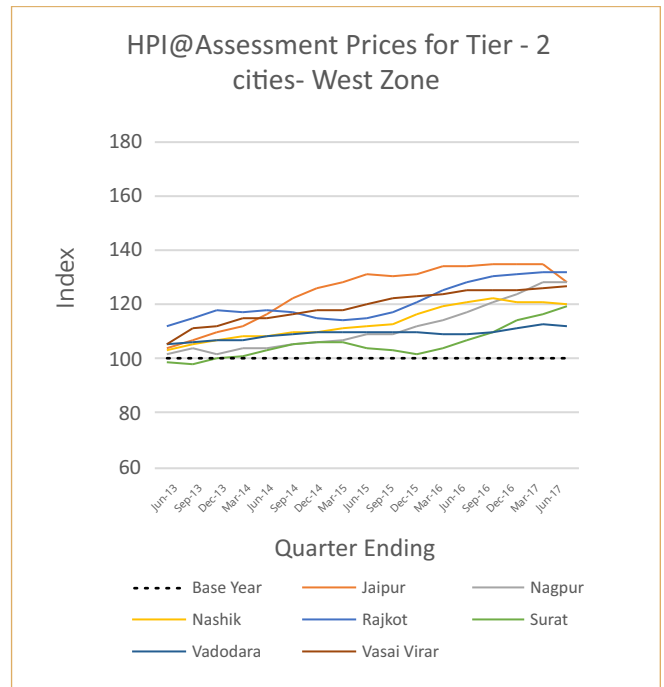
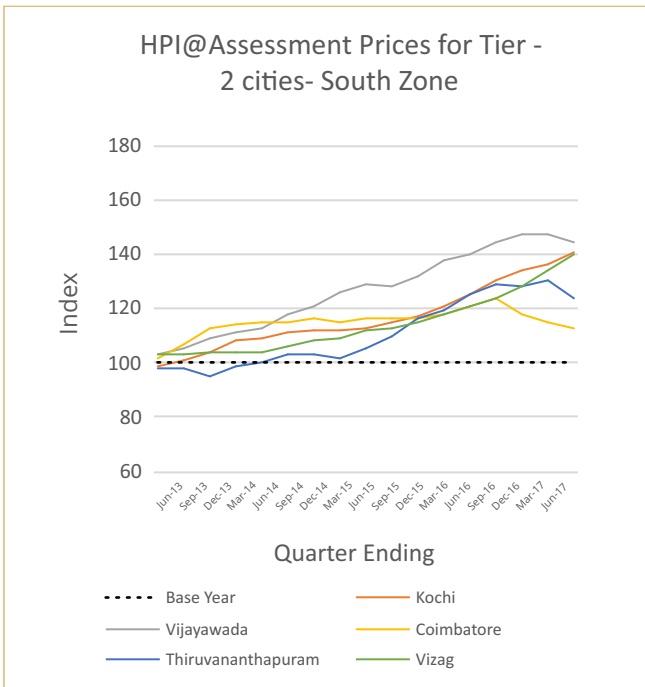


Of the 29 Tier-2 cities being covered, significant rise in indices was seen in Vizag (15.7%) and Kochi (12.8%), while significant fall in indices was seen in Coimbatore (-6.6%), Ranchi (-5.9%) and Chandigarh (-5.9%), on Y-o-Y basis. On the other hand, on Q-o-Q basis, Vizag (4.5%) and Kochi (3.7%) witnessed maximum increase while Jaipur (-5.2%) and Thiruvananthapuram (-4.6%) witnessed maximum decrease.

The graph below show the movement of HPI@ Assessment Prices over 17 quarters for Tier 2 cities classified as per geographic location.

Figure: HPI@Assessment Prices for Tier 2 cities classified as per geographic location (Base Year FY 2012-13 = 100)

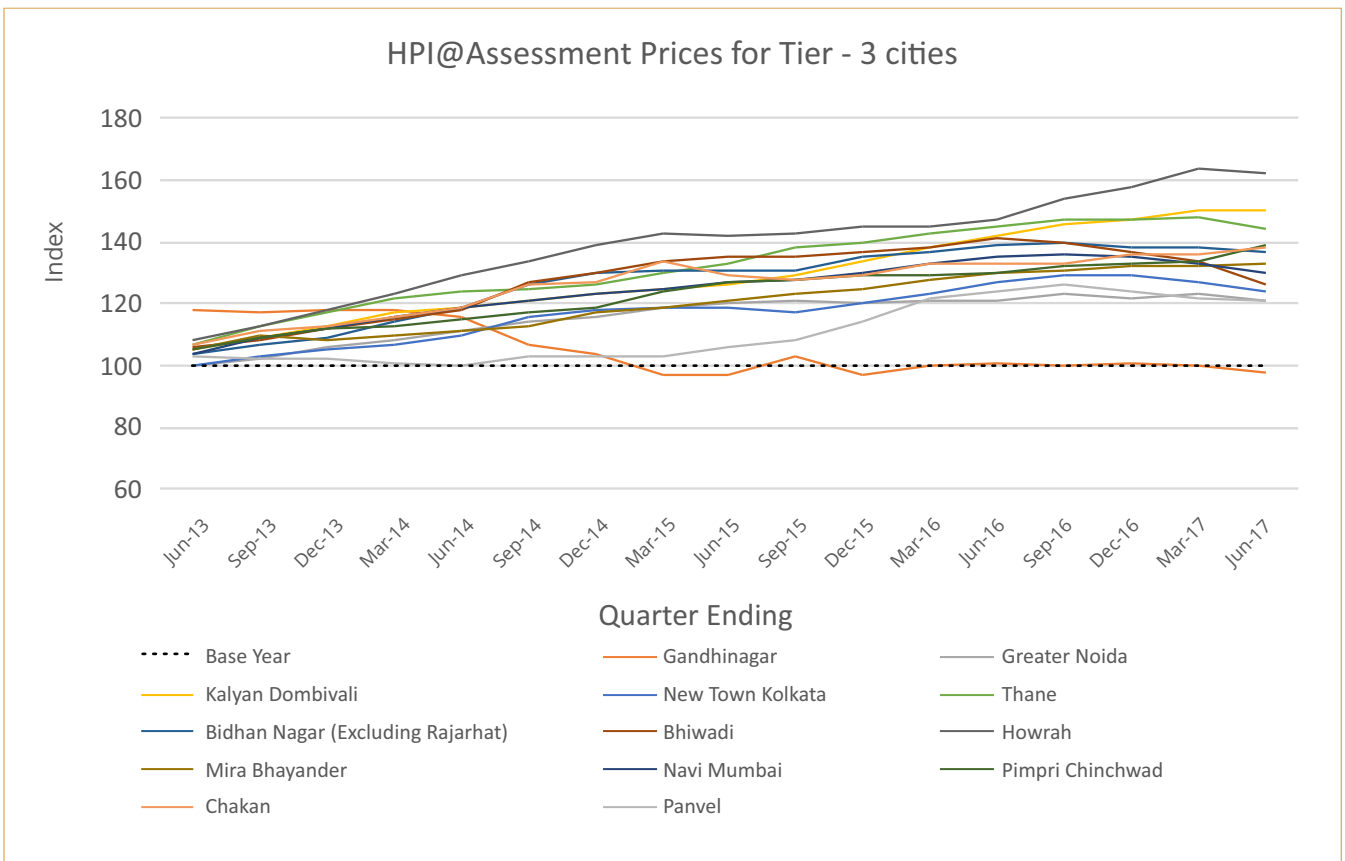




Among the 13 Tier-3 cities, on Y-o-Y basis, Howrah (10.2%) and Pimpri Chinchwad (6.9%) showed maximum increase in indices while Bhiwadi (-10.6%) showed maximum decrease. On Q-o-Q basis, Pimpri Chinchwad (3.7%) recorded the maximum increase while Bhiwadi (-6.0%) recorded maximum decrease.

Movement of HPI@Assessment Prices over 17 quarters for Tier 3 cities is as below:

Figure: HPI@Assessment Prices for Tier3 cities (Base Year FY 2012-13 = 100)





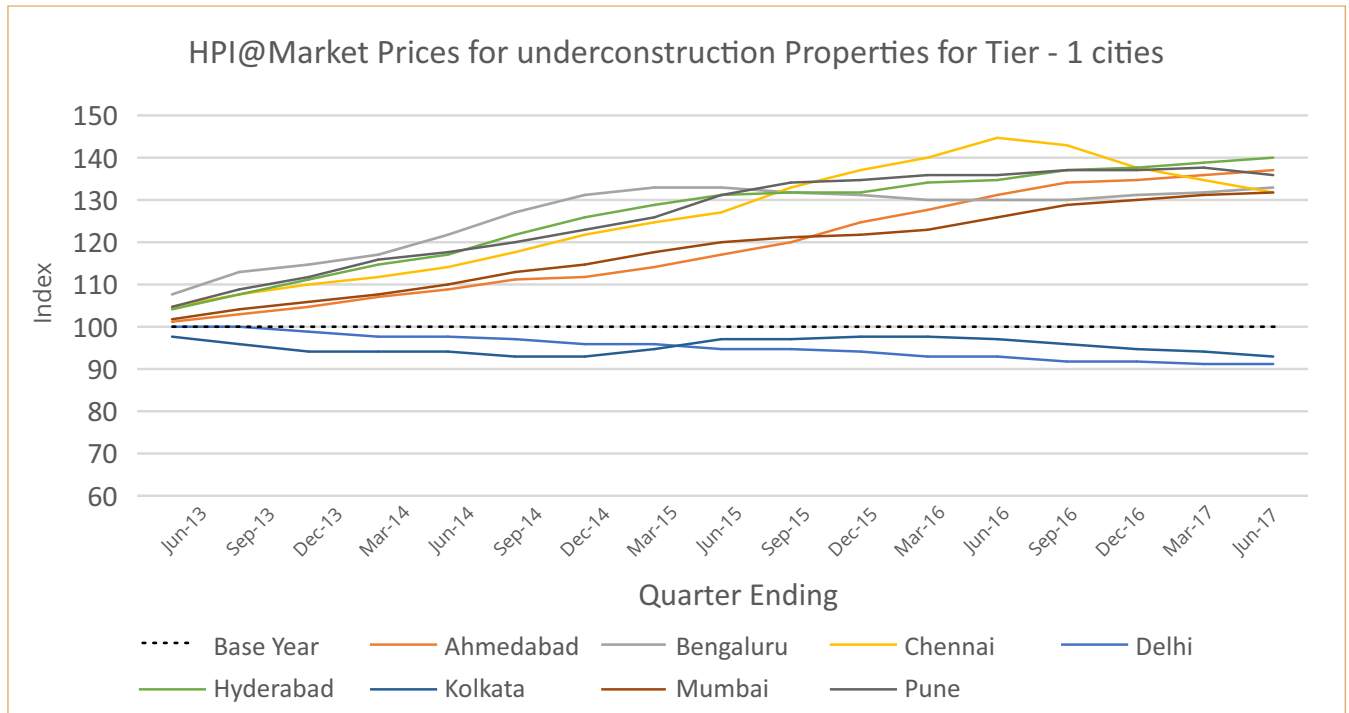
1.2 HPI@Market Prices for under-construction properties

HPI recorded an overall, increase in 25 cities, decrease in 17 cities and no change in 5 cities on Y-o-Y basis and increase in 27 cities, decrease in 11 cities and no change in 9 cities on Q-o-Q basis. Annual growth in HPI ranged from 7.8% in Lucknow to (-) 9.0% in Chennai at the end of the quarter, whereas, the quarterly growth in HPI ranged from 3.8% in Lucknow to (-) 5.6% in Patna.

All the eight Tier 1 cities showed a wide divergence on Y-o-Y basis with Chennai (-9.0%), Kolkata (-4.1%) and Delhi (-2.2%) witnessing dips and Mumbai (4.8%), Ahmedabad (4.6%), Hyderabad (3.7%) and Bengaluru (2.3%) witnessing moderate growth, with Pune witnessing no change. On quarterly basis, Delhi saw no change, while Chennai (-2.2%), Pune (-1.4%) and Kolkata (-1.1%) saw a fall in indices. Mumbai, Hyderabad, Ahmedabad and Bengaluru saw a moderate rise in the range of 0.7 - 0.8%.

Movement of HPI@ Market Prices for under-construction properties over 17 quarters for Tier 1 cities is as below:

Figure: HPI@Market Prices for under construction properties for Tier 1 cities (Base Year FY 2012-13 = 100)

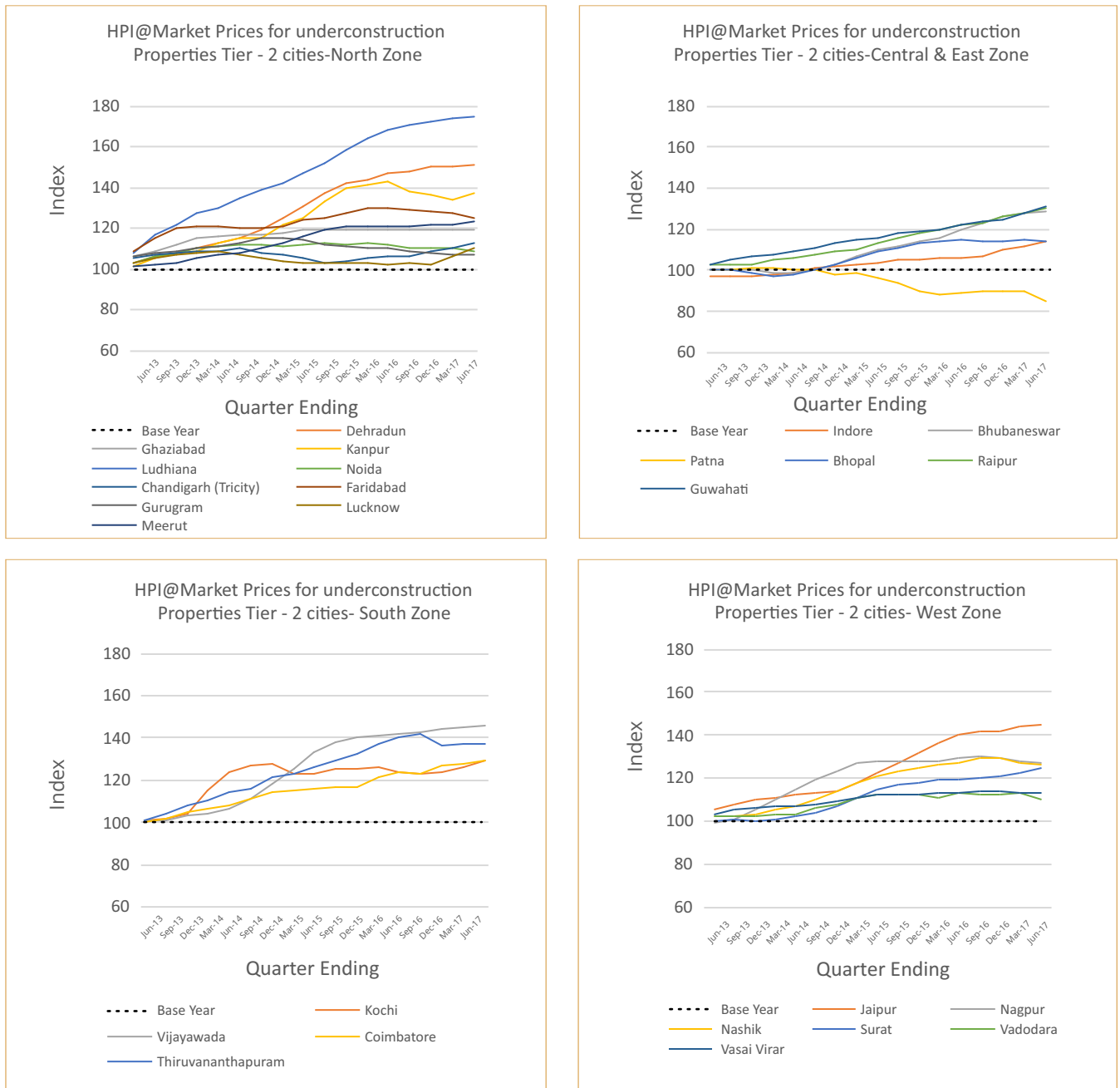


Of the 26 Tier-2 cities being covered, maximum increase in indices was seen in Lucknow (7.8%) followed by Indore (7.5%) and Bhubaneswar (7.5%), while maximum decrease in indices was seen in Patna (-4.5%) and Kanpur (-4.2%) on Y-o-Y basis. On Q-o-Q basis, Lucknow (3.8%) and Patna (-5.6%) witnessed maximum increase and decrease respectively.



The graphs below show the movement of HPI@Market Prices for under-construction properties over 17 quarters for Tier 2 cities classified as per geographic location.

Figure: HPI@Market Prices for under construction properties for Tier 2 cities (Base Year FY2012-13 = 100)

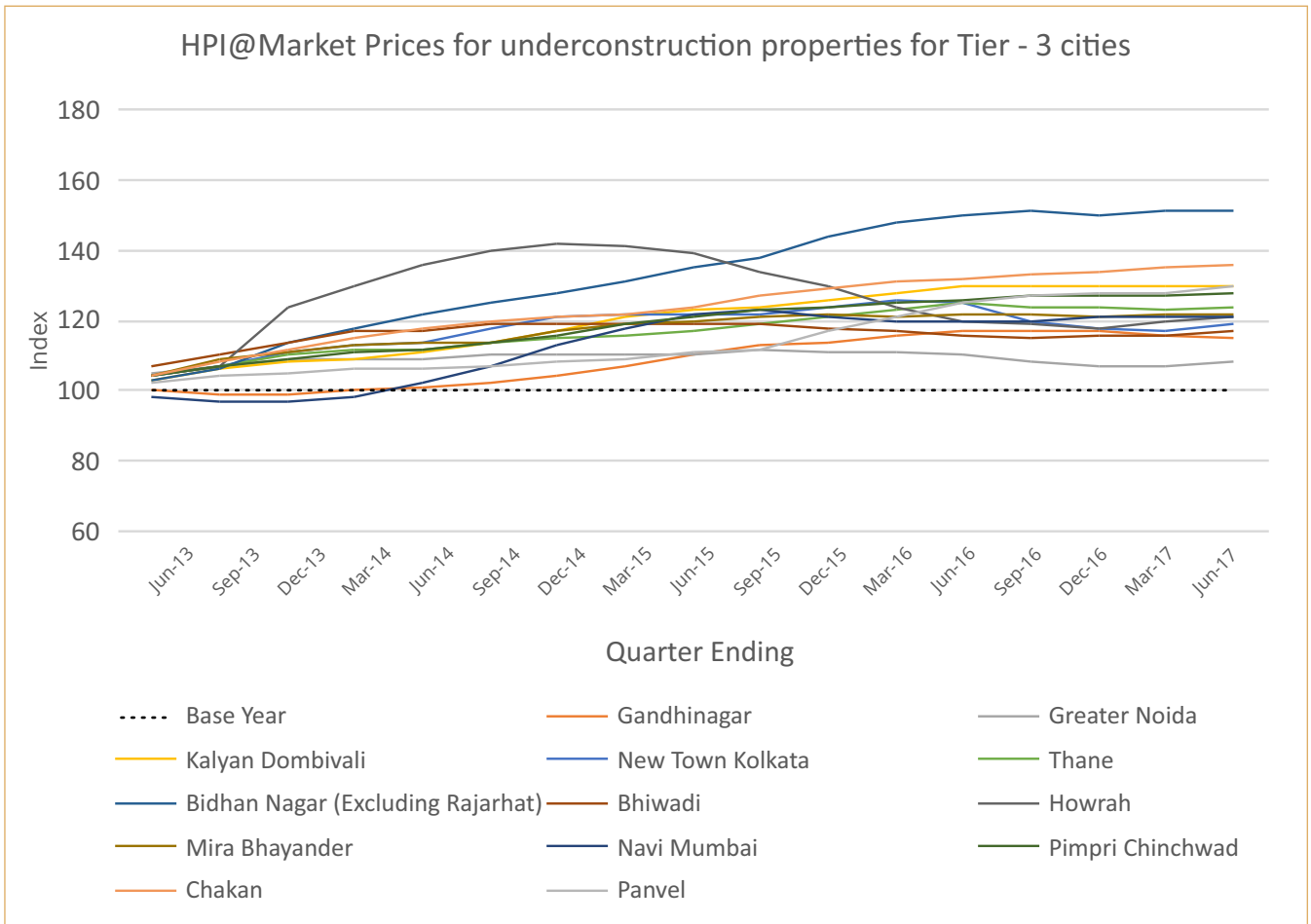


Among the 13 Tier-3 cities, the variations ranged from 4.0% in Panvel to (-) 4.8% in New Town, on Y-o-Y basis. On Q-o-Q basis, there were slight variations in the indices in the range of (-)0.9% to 1.7%.

Movement of HPI@ Market Prices for under-construction properties over 17 quarters for Tier 3 cities is as below:



Figure: HPI@Market Prices for under construction properties for Tier 3 cities (Base Year FY2012-13 = 100)





APPENDIX 1

Table below comprises of HPI@Assessment Prices computed for 50 cities (Base Year FY 2012-13 = 100)

Quarter Ending	Jun-13	Sep-13	Dec-13	Mar-14	Jun-14	Sep-14	Dec-14	Mar-15	Jun-15	Sep-15	Dec-15	Mar-16	Jun-16	Sep-16	Dec-16	Mar-17	Jun-17
Ahmedabad	98	98	96	95	95	94	95	96	96	97	97	96	97	97	98	99	99
Bengaluru	103	104	106	107	108	110	113	115	117	119	122	125	129	133	136	139	136
Bhiwadi	106	108	112	115	118	127	130	134	135	135	137	138	141	140	137	134	126
Bhopal	100	102	103	105	106	106	104	104	105	104	107	108	107	109	108	108	110
Bhubaneswar	106	110	109	112	111	111	112	115	115	115	113	113	112	113	113	115	110
Bidhan Nagar	104	107	109	114	119	126	130	131	131	131	135	137	139	140	138	138	137
Chakan	107	111	113	116	119	126	127	134	129	128	129	133	133	133	136	136	138
Chandigarh (Tricity)	101	99	96	96	95	97	96	99	101	99	101	104	101	99	97	96	95
Chennai	101	103	104	107	109	109	110	112	113	115	117	119	121	125	127	131	130
Coimbatore	102	107	113	114	115	115	116	115	116	116	116	118	121	124	118	115	113
Dehradun	107	102	103	94	91	95	96	100	104	103	105	103	105	108	108	110	110
Delhi	106	112	114	112	111	111	103	93	89	86	87	92	99	101	105	107	107
Faridabad	102	102	102	102	105	110	112	114	112	107	104	103	103	108	111	115	115
Gandhinagar	118	117	118	118	116	107	104	97	97	103	97	100	101	100	101	100	98
Ghaziabad	102	105	108	113	115	116	115	113	113	111	112	111	111	113	111	113	115
Greater Noida	100	102	106	108	111	114	116	119	120	121	120	121	121	123	122	123	121
Gurugram	102	102	102	103	103	105	106	108	107	108	111	113	115	118	120	121	121
Guwahati	102	105	104	108	110	115	120	125	126	124	123	123	123	124	125	128	126
Howrah	108	113	118	123	129	134	139	143	142	143	145	145	147	154	158	164	162
Hyderabad	102	104	105	107	108	111	113	114	115	117	118	120	122	124	126	127	126
Indore	103	105	106	108	110	112	113	115	115	116	116	120	122	123	125	127	125
Jaipur	104	107	110	112	116	122	126	128	131	130	131	134	134	135	135	135	128
Kalyan Dombivli	105	109	113	117	119	121	123	125	126	129	134	138	142	146	147	150	150
Kanpur	105	109	114	116	119	124	126	128	132	133	136	138	143	148	152	158	155
Kochi	99	101	104	108	109	111	112	112	113	115	117	121	125	130	134	136	141
Kolkata	101	106	108	111	115	116	118	119	121	122	123	124	126	131	134	136	130
Lucknow	105	112	116	119	117	115	115	115	117	119	122	125	128	133	135	136	137
Ludhiana	109	104	102	113	116	121	131	134	135	138	137	136	142	144	146	148	144
Meerut	104	109	113	121	130	137	138	141	143	143	147	151	156	160	165	168	164
Mira Bhayander	105	110	108	110	111	113	117	119	121	123	125	128	130	131	132	132	133
Mumbai	104	108	110	112	114	116	118	119	120	124	126	131	135	136	137	138	139
Mumbai	102	104	102	104	104	105	106	107	109	109	112	114	117	121	124	128	128
Nagpur	103	105	107	108	108	110	110	111	112	113	116	119	121	122	121	121	120
Nashik	104	109	112	116	119	121	123	125	127	128	130	133	135	136	135	133	130
Navr Mumbai	100	103	105	107	110	116	118	119	119	117	120	123	127	129	129	127	124
New Town Kolkata	100	103	105	107	110	116	118	119	119	117	120	123	127	129	129	127	124
Noida	102	104	105	107	109	110	110	111	111	111	112	113	114	116	116	116	115
Panvel	103	102	102	101	100	103	103	103	106	108	114	122	124	126	124	122	121
Patna	103	108	113	118	119	118	117	117	118	121	123	125	126	129	128	126	129
Pimpri Chinchwad	105	109	112	113	115	117	119	124	127	128	129	129	130	132	133	134	139
Pune	104	107	110	113	115	118	121	124	128	130	132	132	133	135	138	141	141
Raipur	102	106	107	113	110	110	109	110	112	113	113	112	114	118	121	125	125
Rajkot	112	115	118	117	118	117	115	114	115	117	121	125	128	130	131	132	132
Ranchi	106	110	114	118	120	124	125	131	134	136	136	136	135	137	132	124	127
Surat	99	98	100	101	103	105	106	106	104	103	102	104	107	110	114	116	119
Thane	107	113	117	122	124	125	126	130	133	138	140	143	145	147	147	148	144
Thiruvananthapuram	98	98	95	99	100	103	103	102	105	110	110	119	125	129	128	130	124
Vadodara	105	106	107	107	108	109	110	110	110	110	110	109	109	110	111	113	112
Vasai Virar	105	111	112	115	115	116	118	118	120	122	123	124	125	125	125	126	127
Vijaywada	103	105	109	111	113	118	121	126	129	128	132	138	140	144	147	147	144
Vizag	103	103	104	104	104	106	108	109	112	113	115	118	121	124	128	134	140



APPENDIX 2

Table below comprises of HPI@Market Prices for under construction properties computed for 47 cities (Base Year FY 2012-13 =100)

Quarter Ending	Jun-13	Sep-13	Dec-13	Mar-14	Jun-14	Sep-14	Dec-14	Mar-15	Jun-15	Sep-15	Dec-15	Mar-16	Jun-16	Sep-16	Dec-16	Mar-17	Jun-17
Ahmedabad	101	103	105	107	109	111	112	114	117	120	125	128	131	134	135	136	137
Bengaluru	108	113	115	117	122	127	131	133	133	132	131	130	130	130	131	132	133
Bhiwadi	107	110	114	117	117	119	119	119	119	119	118	117	116	115	116	116	117
Bhopal	100	100	99	97	98	100	103	106	109	111	113	114	115	114	114	115	114
Bhubaneswar	100	100	100	99	99	100	103	107	110	112	114	116	120	123	126	128	129
Bidhan Nagar	103	106	114	118	122	125	128	131	135	138	144	148	150	151	150	151	151
Chakan	104	108	112	115	118	120	121	122	124	127	129	131	132	133	134	135	136
Chandigarh (Tricity)	105	107	108	109	109	110	108	107	105	103	104	105	106	106	109	110	113
Chennai	105	108	110	112	114	118	122	125	127	133	137	140	145	143	138	135	132
Coimbatore	100	102	105	106	108	111	114	115	116	117	117	121	124	123	127	128	129
Dehradun	103	106	108	110	113	115	119	125	131	137	142	144	147	148	150	150	151
Delhi	100	100	99	98	98	97	96	96	95	95	94	93	93	92	92	91	91
Faridabad	109	115	120	121	121	120	120	121	124	125	127	130	130	129	128	127	125
Gandhinagar	100	99	99	100	101	102	104	107	110	113	114	116	117	117	117	116	115
Ghaziabad	106	109	112	115	116	117	117	118	119	119	119	119	119	119	119	119	119
Greater Noida	105	107	109	109	109	110	110	110	110	112	111	111	110	108	107	107	108
Gurgaon	106	108	109	110	111	113	115	115	114	112	111	110	110	109	108	107	107
Guwahati	103	105	107	108	109	111	113	115	116	118	119	120	122	122	125	128	131
Howrah	104	107	124	130	136	140	142	141	139	134	130	124	120	119	118	120	121
Hyderabad	104	108	111	115	117	122	126	129	131	132	132	134	135	137	138	139	140
Indore	97	97	97	98	99	101	102	103	104	105	105	106	106	107	110	112	114
Jaipur	105	108	110	110	112	113	114	118	122	127	132	136	140	142	142	144	145
Kalyan Dombivli	103	106	108	109	111	114	117	121	123	124	126	128	130	130	130	130	130
Kanpur	101	105	108	109	113	115	115	122	125	133	140	141	143	138	136	134	137
Kochi	101	102	104	105	124	127	128	123	123	125	125	126	124	123	124	126	129
Kolkata	98	96	94	94	94	93	93	95	97	97	98	98	97	96	95	94	93
Lucknow	103	105	107	108	109	107	105	104	103	103	103	103	102	103	102	106	110
Ludhiana	108	117	122	127	130	135	139	142	147	152	158	164	168	171	172	174	175
Meerut	101	102	103	105	107	108	110	113	116	119	121	121	121	121	122	122	123
Mira Bhayander	104	109	111	113	114	114	117	119	120	121	122	121	122	122	121	122	122
Mumbai	102	104	106	108	110	113	115	118	120	121	122	123	126	129	130	131	132
Nagpur	99	101	105	110	115	119	123	127	128	128	128	128	129	130	129	128	127
Nashik	102	102	103	105	107	110	114	118	121	123	125	126	127	129	129	127	126
Navi Mumbai	98	97	97	98	102	107	113	118	122	122	124	126	125	120	118	117	119
New Town	104	107	111	113	114	118	121	122	122	122	122	126	125	120	118	117	119
Noida	103	106	108	110	111	112	112	111	112	113	112	113	112	110	110	110	109
Panvel	102	104	105	106	106	107	108	109	111	111	112	112	121	127	128	128	130
Patna	100	100	101	101	100	100	98	99	96	94	90	88	89	90	90	90	85
Pimpri Chinchwad	104	107	109	111	112	114	116	119	121	123	124	125	126	127	127	127	128
Pune	105	109	112	116	118	120	123	126	131	134	135	136	136	137	137	138	138
Rajpur	103	103	103	103	106	108	109	110	113	116	118	120	122	123	126	128	130
Surat	100	101	100	101	102	104	107	111	115	117	118	119	119	120	121	122	125
Thane	104	107	110	112	112	114	115	116	117	119	121	123	125	124	124	123	124
Thiruvananthapuram	101	104	108	110	114	116	121	123	126	129	132	137	140	142	136	137	137
Vadodara	102	102	102	103	103	106	108	111	112	112	112	111	113	112	112	113	110
Vasai Virar	103	105	106	107	107	108	109	111	112	112	112	113	113	114	114	113	113
Vijayawada	101	101	103	104	106	111	118	125	133	138	140	141	142	143	144	145	146

