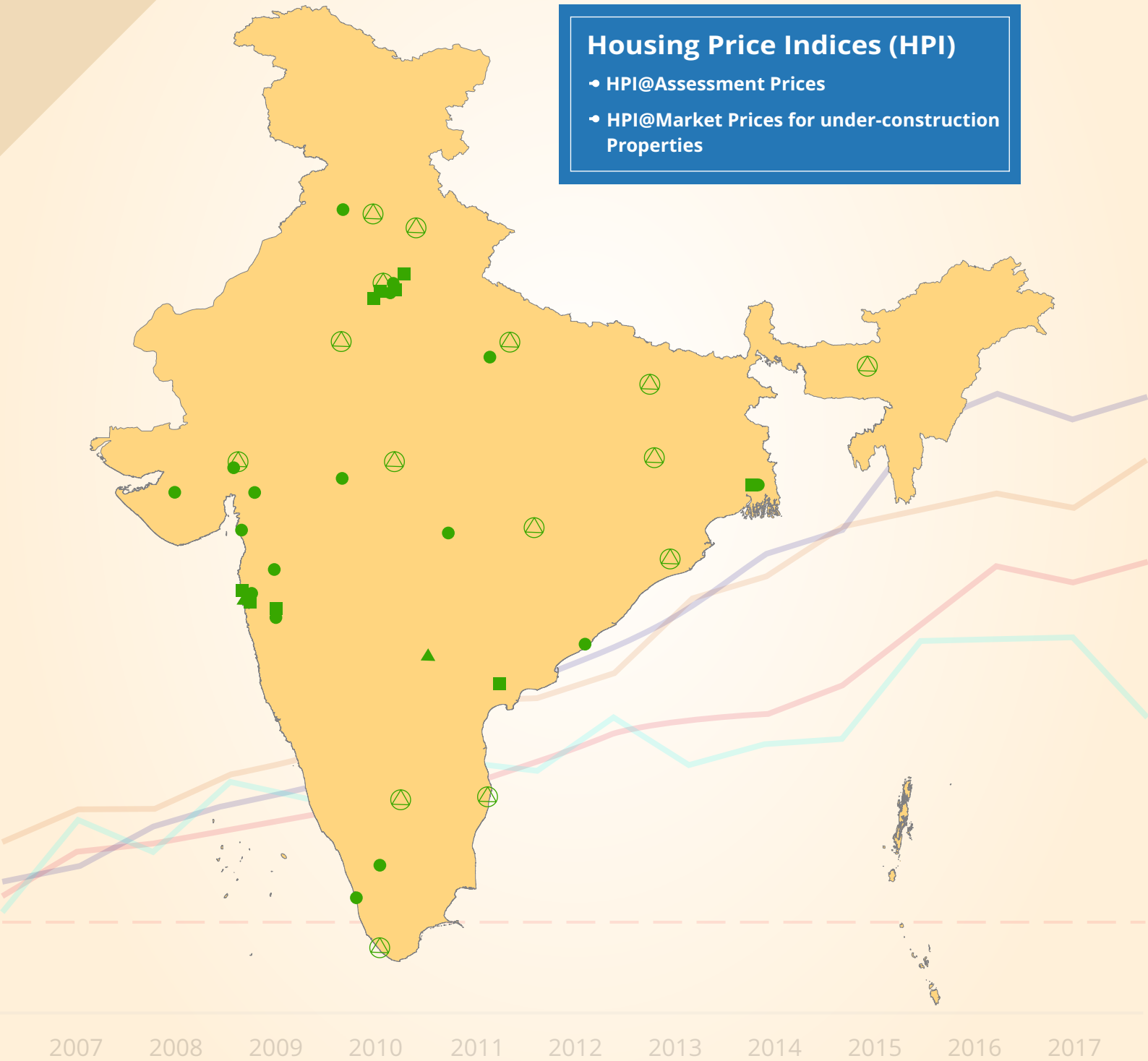


NHB RESIDEX

Quarterly Update July - September, 2018

Housing Price Indices (HPI)

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





NHB RESIDEX

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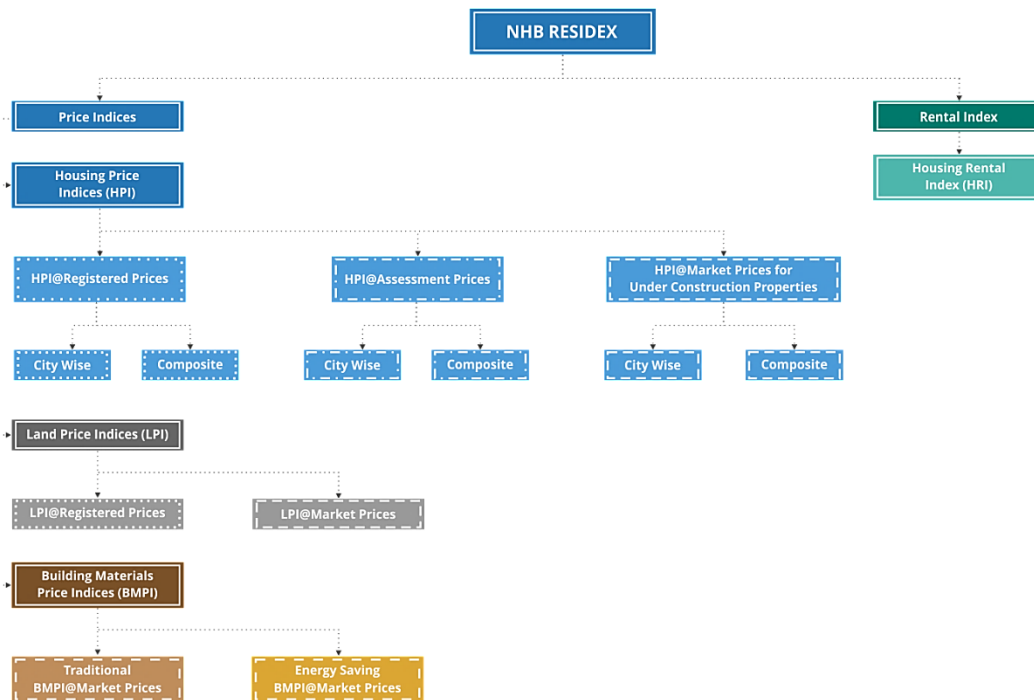
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Introduction to NHB RESIDEX

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 and HPI@Market Prices for Under Construction Properties for 50 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. NHB also publishes Composite HPI@Assessment Prices and Composite HPI@Market Prices for Under Construction Properties based on 50 cities. The composite indices are derived by applying population weights to city level indices.

| Indices | Data | Sources | Cities |
|-----------------------------------------------------|-----------------------------------------------------|-----------------------|--------|
| HPI@Assessment Prices | Lenders' valuation data | Banks/HFCs | 50 |
| HPI@Market Prices for Under Construction Properties | Primary market data for Under Construction Projects | Primary Market Survey | 50 |

The cities covered in phase 1 are spread across India in 21 States/Union Territories (UTs). Among the cities covered under the two HPIs, 18 cities are state capitals¹ and 33 are part of the smart city list released by Government of India. The housing price indices have been computed on a quarterly basis starting from the quarter April to June, 2013, and updated up to quarter January - March, 2018, taking FY 2012 -13 as the base year. In order to make NHB RESIDEX relevant to the market scenario it is proposed that there will be an automatic shifting of base year every five years. The Government of India has initiated steps to revise the base years of Gross Domestic Product (GDP) and Index of Industrial Production (IIP) to FY 2017-18 and for Consumer Price Index (CPI) to 2018. Therefore, it has been considered to further shift the base year for NHB RESIDEX from FY 2012-13 to FY 2017-18. From the current quarter, i.e. April-June 2018, base year has been shifted to FY 2017-18. This Index is computed taking

¹ Out of 18 State/UT capitals, 15 are also smart cities



FY2012-13 as base year and is updated up to March 2018. With effect from April 2018, a new series with FY2017-18 as new base year has been published and is updated up to the current quarter. In order to maintain continuity in the time series data, NHB RESIDEX 2012-13 series subsequent to change in base year has been calculated using backward linking factor. 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.

Executive Summary

HPI@Assessment Prices during the quarter July-September, 2018

HPI recorded an overall increase in 44 cities, decrease in 5 cities and no change in 1 city on Y-o-Y basis and increase in 46 cities, decrease in 1 city and no change in 3 cities on Q-o-Q basis.

Annual growth in HPI ranged from 21.3% in Ahmedabad to (-) 6.5% in Ludhiana at the end of the quarter on Y-o-Y basis, whereas, the quarterly growth in HPI ranged from 8.7% in Bhiwadi to (-1.0%) in Delhi.

Composite HPI@Assessment Prices based on 50 cities

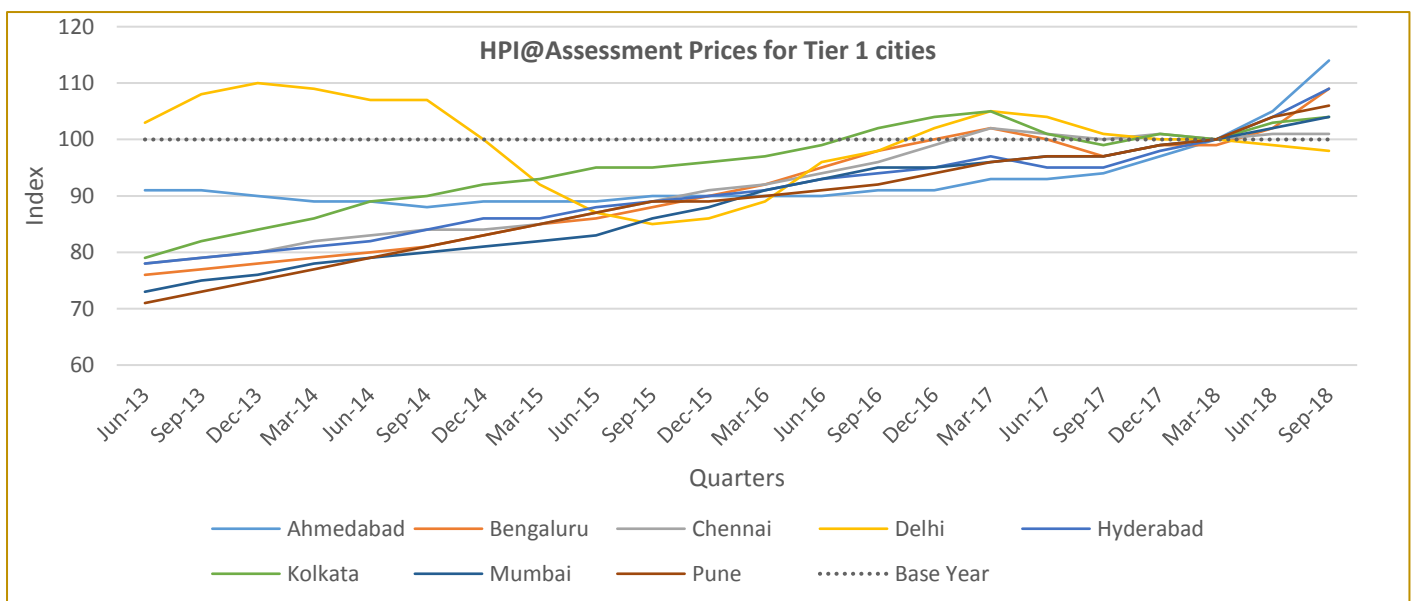
Composite HPI@Assessment Prices stood at 83 in June, 2013 and has moved up to 103 in the current quarter i.e. September, 2018. The Index has moved up with a CAGR of 4.0% over the years.

The Index increased by 5.1% on YoY basis.

Tier-wise movement

Among the **8 Tier-1** cities, Ahmedabad witnessed maximum increase at 21.3% on Y-o-Y basis followed by Hyderabad at 14.7%, Bengaluru at 12.4%, Pune at 9.3%, Mumbai at 7.2%, Kolkata at 5.1% and Chennai at 1.0%. Delhi witnessed a fall in Index by (-3.0%) on Y-o-Y basis. On Q-o-Q basis, Ahmedabad witnessed maximum rise at 8.6% followed by Bengaluru at 6.9%, Hyderabad at 4.8%, Mumbai at 2.0%, Pune at 1.9%, Kolkata at 1.0%. Chennai witnessed no change and Index fell in Delhi by (-1.0%).

Figure: HPI@Assessment Prices for Tier 1 cities (Base Year FY 2017-18 = 100)





Of the **29 Tier-2** cities being covered, significant rise in indices was seen in Ranchi (21.2%) followed by Coimbatore (12.8%), Nashik (10.5%) and Surat (9.6%), while significant fall in indices was seen in Ludhiana (-6.5%) and Jaipur (-3.8%) on Y-o-Y basis. On the other hand, on Q-o-Q basis, Coimbatore (5.0%) witnessed maximum increase in indices.

Figure: HPI@Assessment Prices for Tier 2 cities classified as per geographic location (Base Year FY2017-18 = 100)

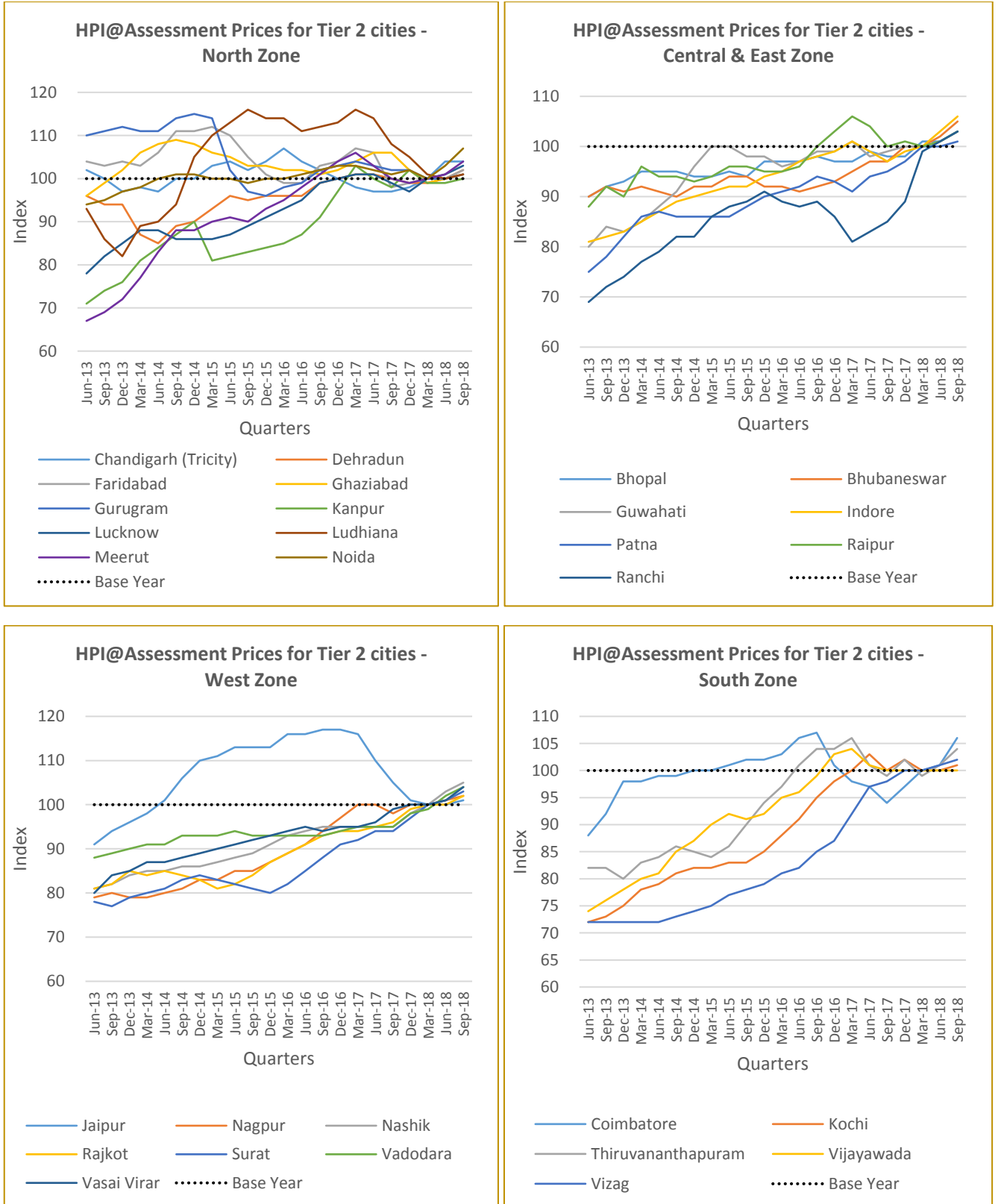
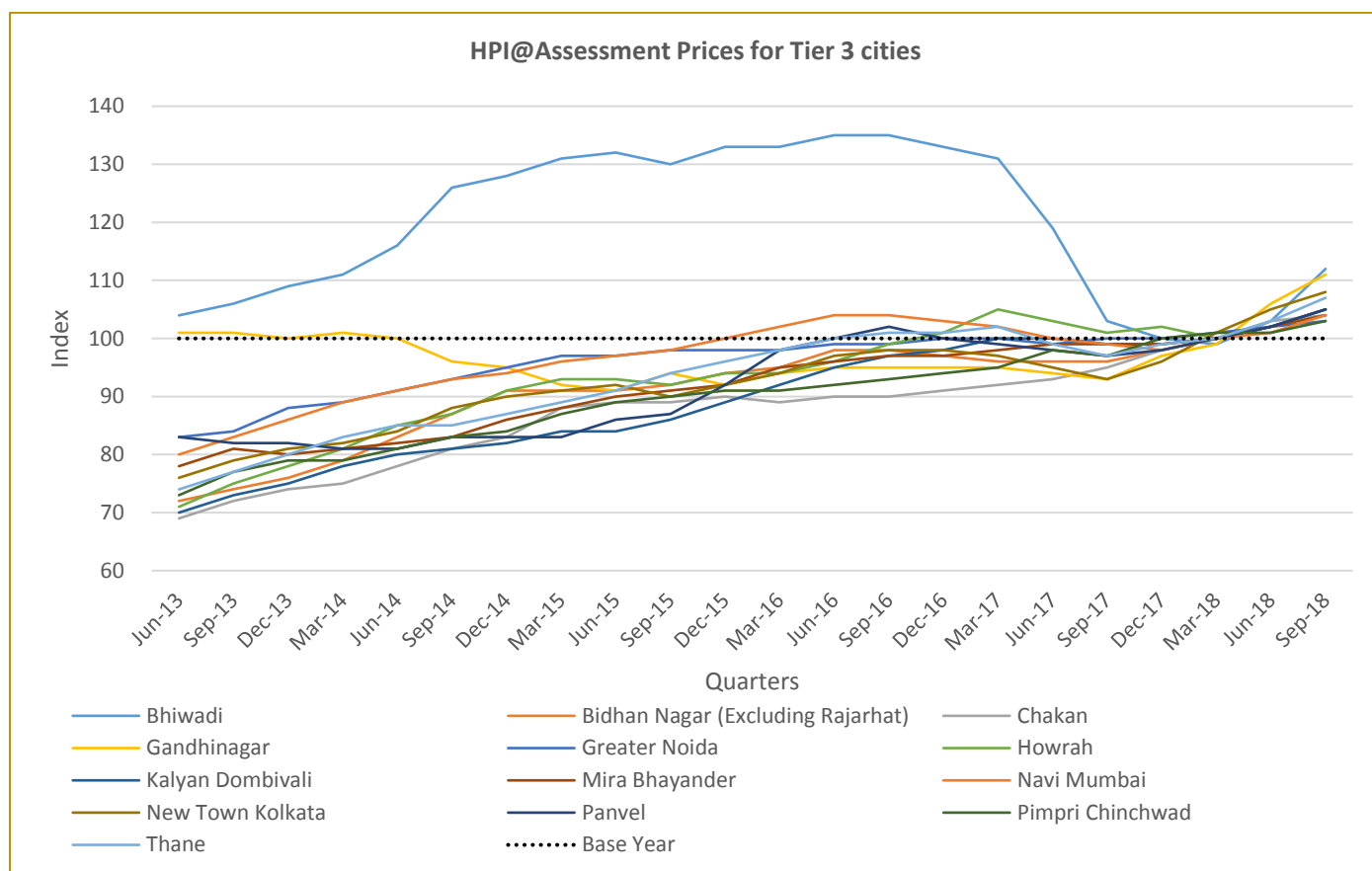




Figure: HPI@Assessment Prices for Tier 3 cities classified as per geographic location (Base Year FY 2017-18 = 100)



On Y-o-Y basis, all Tier 3 cities showed growth with Gandhinagar (19.4%) in the lead followed by New Town Kolkata (16.1%) and Thane (10.3%) showing significant increase in indices. On Q-o-Q basis, Bhiwadi (8.7%) recorded the maximum increase while no Tier 3 city recorded a fall in indices.

HPI@Market Prices for Under Construction Properties during the quarter July-September, 2018

HPI recorded an overall, increase in 42 cities, decrease in 5 cities and no change in 3 cities on Y-o-Y basis and increase in 33 cities, decrease in 12 cities and no change in 5 cities on Q-o-Q basis.

Annual growth in HPI ranged from 17.4% in Kolkata to (-8.4%) in Faridabad at the end of the quarter on Y-o-Y basis, whereas, the quarterly growth in HPI ranged from 3.8% in Kolkata to (- 1.0%) in Thiruvananthapuram.

Composite HPI@Market Prices for Under Construction Properties based on 50 cities

Composite HPI@ Market Prices for Under Construction Properties stood at 85 in June, 2013 and have steadily moved up to 102 in the current quarter i.e. September, 2018. The Index has moved up with a CAGR of 3.4% over the years.

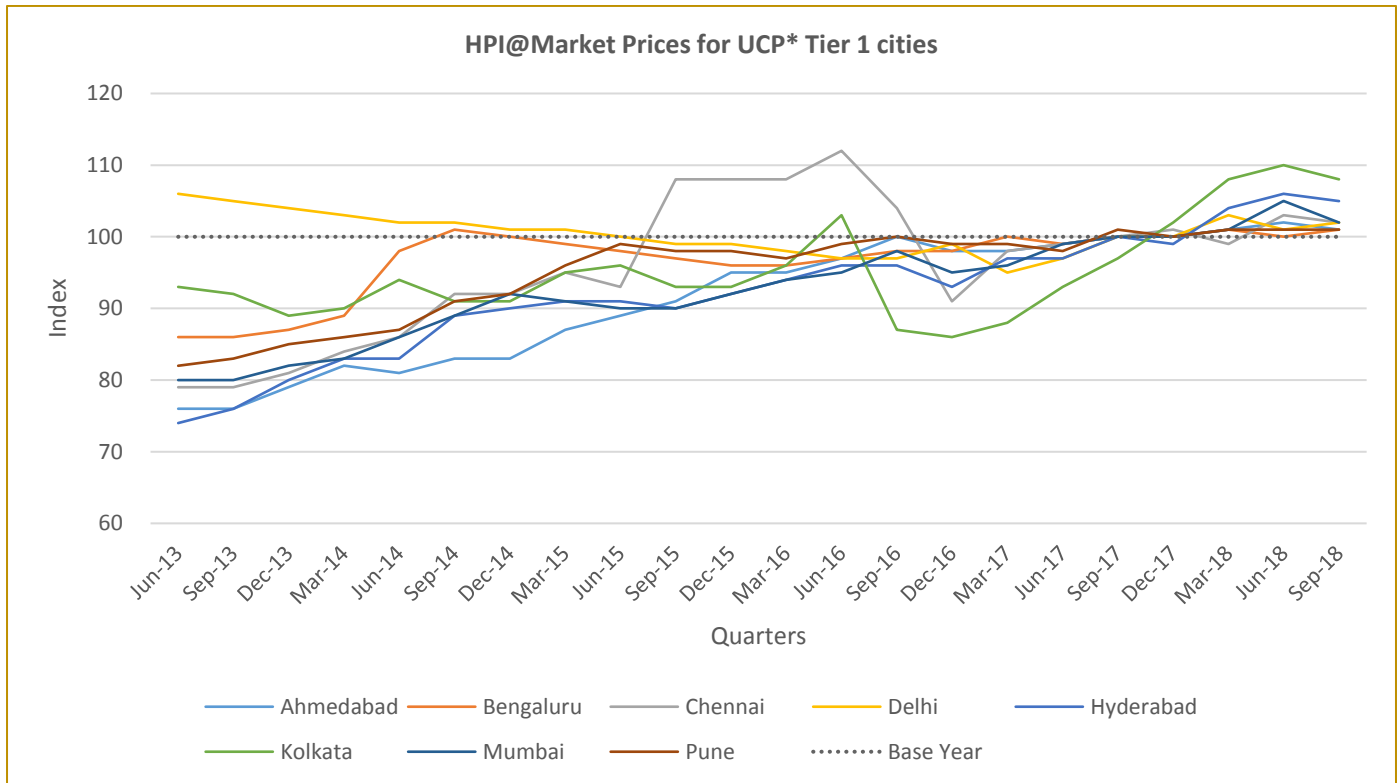
On YoY basis, the Index has witnessed a rise of 4.1%.



Tier-wise movement

Annually, all the **8 Tier 1** cities showed growth with Kolkata (17.4%) leading, followed by, Hyderabad (8.2%), Chennai (5.2%), Mumbai (4.1%), Delhi (4.1%), Pune, Ahmedabad and Bengaluru at 2.0%. On quarterly basis, except Ahmedabad and Pune which witnessed no change, all cities witnessed upward movement. Among cities witnessing rise, Kolkata (3.8%) is leading, followed by Hyderabad (2.9%), Mumbai, Delhi, Chennai and Bengaluru at 1.0% on Q-o-Q basis.

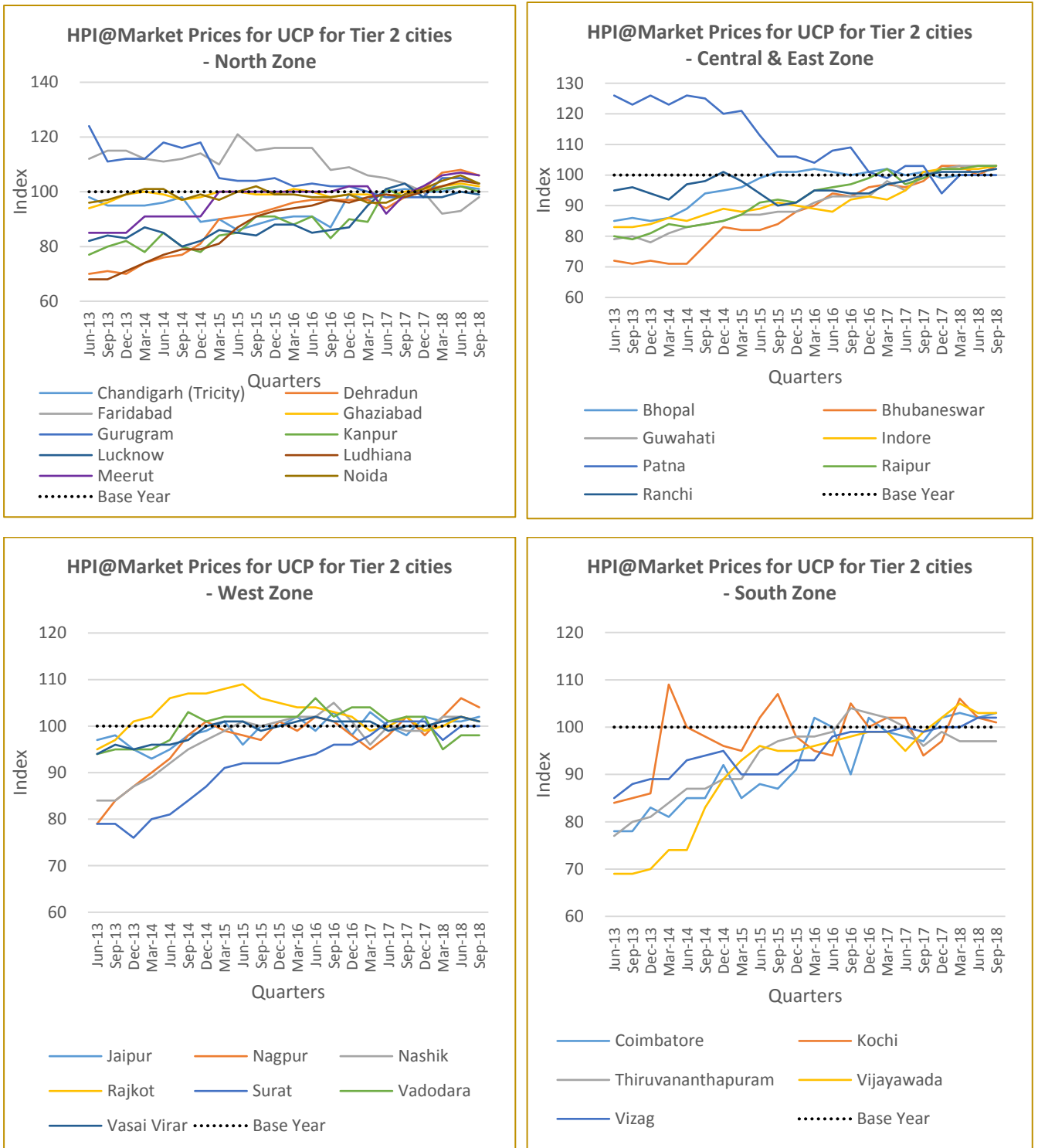
Figure: HPI@Market Prices for Under Construction Properties for Tier-1 cities (Base Year FY 2017-18 = 100)



Of the **29 Tier-2** cities being covered, maximum increase in indices was seen in Dehradun (9.3%) followed by Indore (7.3%) and Meerut (7.1%), while maximum decrease in indices was seen in Faridabad (-8.4%), Thiruvananthapuram (-6.7%) and Vadodara (-3.9%), on Y-o-Y basis. On Q-o-Q basis, Vizag, Jaipur, Ludhiana, Gurugram, Coimbatore, Bhubaneshwar and Nagpur witnessed increase at 2.0% while Faridabad, Thiruvananthapuram and Vadodara witnessed maximum decrease at (-1.0%).



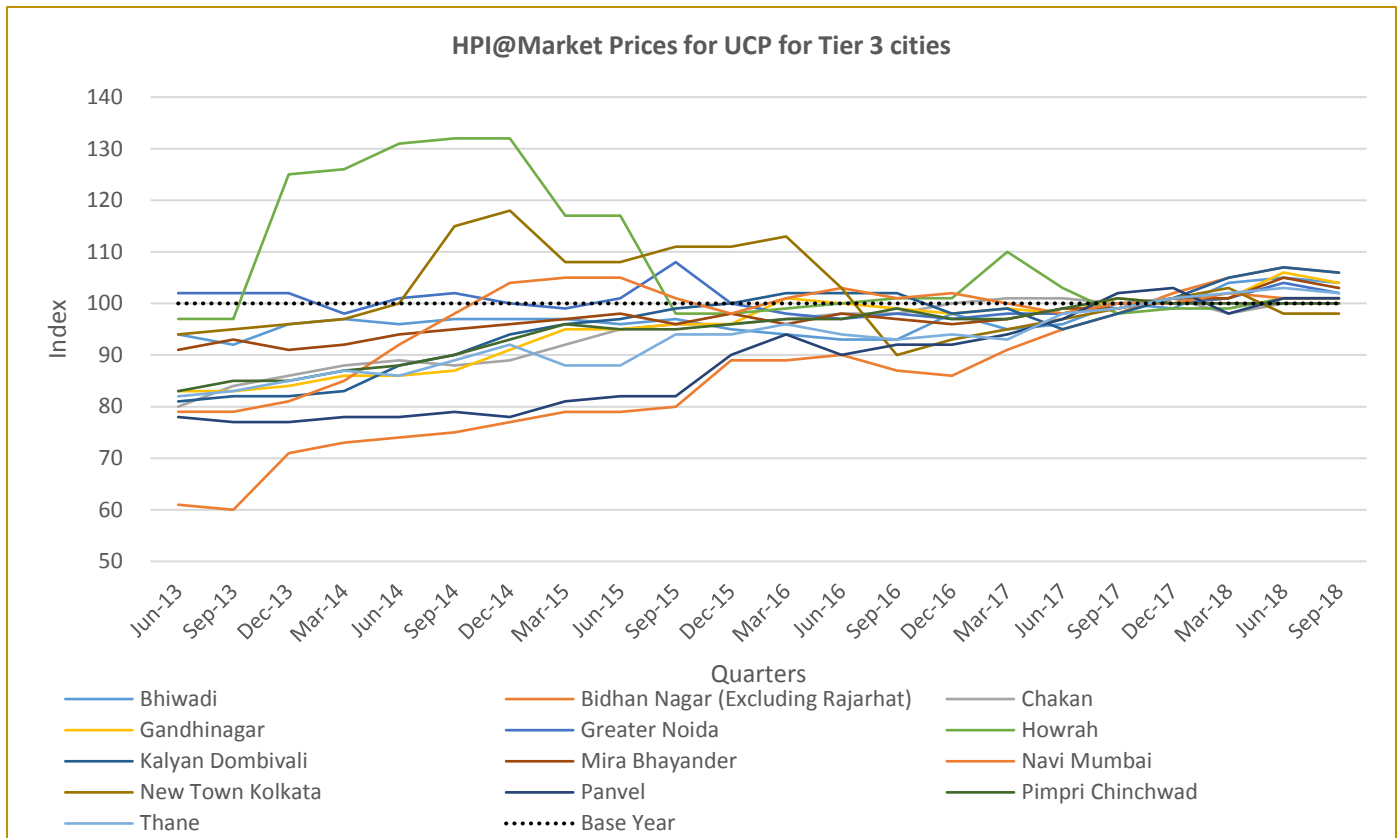
Figure: HPI@Market Prices for Under Construction Properties for Tier-2 cities (Base Year FY 2017-18 = 100)



Among the 13 Tier-3 cities, the variations ranged from 14.0% in Bidhan Nagar to (- 1.9%) in Howrah on Y-o-Y basis. On Q-o-Q basis, there were variations in the indices with (- 1.0%) in New Town Kolkata to 2.9% in Bidhan Nagar and Kalyan Dombivali.



Figure: HPI@Market Prices for Under Construction Properties for Tier-3 cities (Base Year FY2017-18 = 100)



Geographic Trend

Zone Wise movement under HPI@Assessment Prices during the quarter July-September, 2018

North Zone

(Bhiwadi, Chandigarh, Dehradun, Delhi, Faridabad, Ghaziabad, Greater Noida, Gurugram, Kanpur, Lucknow, Ludhiana, Meerut and Noida)

On Quarterly basis, the Index has shown an overall increase in 11 cities, decrease in 1 city and no change in 1 city. Rise in housing price Index was witnessed in Bhiwadi (8.7%), Noida (3.9%), Meerut (3%), Dehradun (2%), Faridabad (2%), Lucknow (2%), Kanpur (1%), Ghaziabad (1%), Gurugram (1%), Ludhiana (1%) and Greater Noida (1%). Delhi (-1%) witnessed a fall in indices and Index remained stable in Chandigarh.

On Annual basis, the Index has shown increase in 9 cities, decrease in 4 cities. Rise in Housing Price Index was witnessed in Bhiwadi (8.7%), Chandigarh (7.2%), Noida (5.9%), Faridabad (4.1%), Lucknow (4%), Meerut (4%), Greater Noida (3%), Kanpur (2%) and Dehradun (2%). The 4 cities witnessing a fall in Index are Ludhiana (-6.5%), Ghaziabad (-4.7%), Delhi (-3%) and Gurugram (-1%).



East & Central Zone

(Bidhan Nagar, Bhopal, Bhubaneswar, Guwahati, Howrah, Indore, Kolkata, New Town Kolkata, Patna, Raipur and Ranchi)

On Quarterly basis, the Index has shown an overall increase in all 11 cities. Bidhan Nagar (2.9%), Bhubaneswar (2.9%), Howrah (2.9%), Indore (2.9%), New Town Kolkata (2.9%), Ranchi (2%), Guwahati (2%), Raipur (2%), Bhopal (2%), Patna (1%) and Kolkata (1%)

On Annual basis, the Index has shown an overall increase in all 11 cities. The cities exhibiting increase in Index Ranchi (21.2%), New Town Kolkata (16.1%), Bidhan Nagar (Excluding Rajarhat) (9.4%), Indore (9.3%), Bhubaneswar (8.2%), Patna (6.3%), Bhopal (5.1%), Kolkata (5.1%), Guwahati (4%), Howrah (4%) and Raipur (3%).

West Zone

(Ahmedabad, Chakan, Gandhinagar, Jaipur, Kalyan Dombivali, Mira Bhayander, Mumbai, Nagpur, Nashik, Navi Mumbai, Panvel, Pimpri Chinchwad, Pune, Rajkot, Surat, Thane, Vadodara and Vasai Virar)

On Quarterly basis, the Index has shown an overall increase in all 18 cities. Rise in Housing Price Index was witnessed in Ahmedabad (8.6%), Gandhinagar (4.7%), Thane (3.9%), Navi Mumbai (3%), Vasai Virar (3%), Panvel (2.9%), Kalyan Dombivali (2.9%), Rajkot (2%), Surat (2%), Pimpri Chinchwad (2%), Vadodara (2%), Mumbai (2%), Mira Bhayander (2%), Nashik (1.9%), Pune (1.9%), Jaipur (1%), Nagpur (1%) and Chakan (1%).

On Annual basis, the Index has shown an overall increase in 17 cities, decrease in 1 city. The cities exhibiting increase in Index are Ahmedabad (21.3%), Gandhinagar (19.4%), Nashik (10.5%), Thane (10.3%), Surat (9.6%), Chakan (9.5%), Vadodara (9.5%), Pune (9.3%), Panvel (8.2%), Mumbai (7.2%), Rajkot (6.3%), Pimpri Chinchwad (6.2%), Kalyan Dombivali (6.1%), Vasai Virar (5.1%), Mira Bhayander (5.1%), Navi Mumbai (5.1%), and Nagpur (4.1%). Jaipur (-3.8%) witnessed a fall in Index.

South Zone

(Bengaluru, Chennai, Coimbatore, Hyderabad, Kochi, Thiruvananthapuram, Vijayawada and Vizag)

On Quarterly basis, the Index has shown an overall increase in 6 cities and no change in 2 cities. Rise in Housing Price Index was witnessed Bengaluru (6.9%), Coimbatore (5%), Hyderabad (4.8%), Thiruvananthapuram (3%), Kochi (1%) and Vizag (1%). Index remained stable in Chennai and Vijayawada.

On Annual basis, the Index has shown an overall increase in 7 cities and no change in 1 city. The cities exhibiting increase in Index are Hyderabad (14.7%), Coimbatore (12.8%), Bengaluru (12.4%), Thiruvananthapuram (5.1%), Chennai (1%) and Kochi (1%). Index remained unchanged in Vijayawada.

Overall, on comparing the quarterly performance of indices within the zones, it is visible that at the end of this quarter, growth of HPI@Assessment Prices has been significant in all zones with only 1 city in North Zone witnessing decline. All cities in East and West Zone have shown a quarterly increase in indices and Index in two cities in the South Zone has remained stable.



Zone Wise movement under HPI@Market Prices for Under Construction Properties during the quarter July-September, 2018

North Zone

(Bhiwadi, Chandigarh, Dehradun, Delhi, Faridabad, Ghaziabad, Greater Noida, Gurugram, Kanpur, Lucknow, Ludhiana, Meerut and Noida)

On Quarterly basis, the Index has shown an overall increase in 10 cities, decrease in 2 cities and no change in 1 city. Significant rise in housing price Index was witnessed in Gurugram (2%), Ludhiana (2%), Bhiwadi (2%), Meerut (1.9%), Dehradun (1.9%), Chandigarh (Tricity) (1%), Ghaziabad (1%), Greater Noida (1%), Delhi (1%) and Noida (1%). Kanpur witnessed no change and Index witnessed a fall in Faridabad (-1%) and Lucknow (-1%).

On Annual basis, the Index has shown an overall increase in 12 cities and decrease in 1 city. Rise in Index was witnessed in Dehradun (9.3%), Bhiwadi (7.2%), Meerut (7.1%), Noida (6.2%), Ludhiana (5.1%), Kanpur (4.2%), Greater Noida (4.1%), Delhi (4.1%), Gurugram (4%), Ghaziabad (3%), Lucknow (2.1%) and Chandigarh (2%). Faridabad (-8.4%) witnessed a fall in Housing Price Index.

East & Central Zone

(Bidhan Nagar, Bhopal, Bhubaneswar, Guwahati, Howrah, Indore, Kolkata, New Town Kolkata, Patna, Raipur and Ranchi)

On Quarterly basis, the Index has shown an overall increase in 9 cities, decrease in 1 city no change in 1 city. Rise in Housing Price Index was witnessed in Kolkata (3.8%), Bidhan Nagar (2.9%), Howrah (2%), Bhubaneswar (2%), Patna (1%), Ranchi (1%), Indore (1%), Guwahati (1%) and Raipur (1%). Bhopal witnessed no change. New Town Kolkata (-1%) witnessed a fall in Index.

On Annual basis, the Index has shown an overall increase in 8 cities, no change in 1 city and decrease in 2 cities. The 8 cities exhibiting increase in Index are Kolkata (17.4%), Bidhan Nagar (14%), Indore (7.3%), Bhubaneswar (6.2%), Guwahati (6.2%), Ranchi (5.2%), Raipur (4%) and New Town Kolkata (2.1%). Patna witnessed no change in the Index and Bhopal (-1%) and Howrah (-1.9%) witnessed a fall in Index.

West Zone

(Ahmedabad, Chakan, Gandhinagar, Jaipur, Kalyan Dombivali, Mira Bhayander, Mumbai, Nagpur, Nashik, Navi Mumbai, Panvel, Pimpri Chinchwad, Pune, Rajkot, Surat, Thane, Vadodara and Vasai Virar)

On Quarterly basis, the Index has shown an overall increase in 8 cities, decrease in 1 city and no change in 9 cities. Rise in Housing Price Index was witnessed in Kalyan Dombivali (2.9%), Jaipur (2%), Gandhinagar (2%), Nagpur (2%), Nashik (1%), Thane (1%), Mumbai (1%) and Mira Bhayander (1%). Ahmedabad, Navi Mumbai, Vasai Virar, Panvel, Rajkot, Surat, Pimpri Chinchwad, Pune and Chakan witnessed no change and Index fell in Vadodara (-1%).

On Annual basis, the Index has shown an overall increase in 15 cities, decrease in 1 city and no change in 2 cities. The cities exhibiting increase in Index are Kalyan Dombivali (9.3%), Thane (6.3%), Nagpur (6.1%), Panvel (5.2%), Mira Bhayander (5.1%), Gandhinagar (5.1%), Mumbai (4.1%), Jaipur (3%), Pimpri Chinchwad (2%), Ahmedabad (2%), Nashik (2%), Pune (2%), Surat (1%), Vasai Virar (1%) and Navi Mumbai (1%). Chakan and Rajkot witnessed no change in Index, while Vadodara (-3.9%) witnessed a fall in Index.



South Zone

(Bengaluru, Chennai, Coimbatore, Hyderabad, Kochi, Thiruvananthapuram, Vijayawada and Vizag)

On Quarterly basis, the Index has shown an overall increase in 6 cities, decrease in 1 cities and no change in 1 city. Rise in Housing Price Index was witnessed in Hyderabad (2.9%), Vizag (2%), Coimbatore (2%), Bengaluru (1%), Chennai (1%) and Vijayawada (1%). Index remained stable in Kochi and Thiruvananthapuram (-1%) witnessed a fall in Housing Price Index.

On Annual basis, the Index has shown an overall increase in all 7 cities and decrease in 1 city. The cities exhibiting increase in Index are Hyderabad (8.2%), Chennai (5.2%), Vijayawada (5.1%), Coimbatore (4%), Bengaluru (2%) and Kochi (2%). Thiruvananthapuram (-6.7%) witnessed a fall in Index.

Overall, on quarterly basis, cities in all the 4 zones were seen to move rise in Index and very few cities saw a decline in indices. Index remained stable in 12 cities and only 5 cities witnessed a decline in indices.



APPENDIX 1

Table below comprises of Composite HPI@Assessment Prices computed on basis of 50 cities (Base Year FY 2017-18 =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 | Sep-17 | Dec-17 | Mar-18 | June-18 | Sep-18 |
|---------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|--------|
| Composite HPI@Assessment Prices | 83 | 85 | 86 | 88 | 88 | 89 | 90 | 89 | 89 | 90 | 91 | 92 | 95 | 97 | 98 | 100 | 99 | 98 | 99 | 100 | 101 | 103 |

Table below comprises of HPI@Assessment Prices computed for 50 cities (Base Year FY 2017-18 =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 | Sep-17 | Dec-17 | Mar-18 | June-18 | Sep-18 |
|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|--------|
| Ahmedabad | 91 | 91 | 90 | 89 | 89 | 88 | 89 | 89 | 89 | 90 | 90 | 90 | 90 | 91 | 91 | 93 | 93 | 94 | 97 | 100 | 105 | 114 |
| Bengaluru | 76 | 77 | 78 | 79 | 80 | 81 | 83 | 85 | 86 | 88 | 90 | 92 | 95 | 98 | 100 | 102 | 100 | 97 | 99 | 99 | 102 | 109 |
| Bhiwadi | 104 | 106 | 109 | 111 | 116 | 126 | 128 | 131 | 132 | 130 | 133 | 133 | 135 | 135 | 133 | 131 | 119 | 103 | 100 | 99 | 103 | 112 |
| Bhopal | 90 | 92 | 93 | 95 | 95 | 95 | 94 | 94 | 95 | 94 | 97 | 97 | 97 | 98 | 97 | 97 | 99 | 98 | 98 | 101 | 101 | 103 |
| Bhubaneswar | 90 | 92 | 91 | 92 | 91 | 90 | 92 | 92 | 94 | 94 | 92 | 92 | 91 | 92 | 93 | 95 | 97 | 100 | 100 | 102 | 102 | 105 |
| Bidhan Nagar | 72 | 74 | 76 | 79 | 83 | 87 | 91 | 91 | 91 | 92 | 94 | 95 | 98 | 98 | 97 | 96 | 96 | 96 | 98 | 100 | 102 | 105 |
| Chakan | 69 | 72 | 74 | 75 | 78 | 81 | 83 | 88 | 89 | 89 | 90 | 89 | 90 | 90 | 91 | 92 | 93 | 95 | 98 | 100 | 103 | 104 |
| Chandigarh (Tricity) | 102 | 100 | 97 | 98 | 97 | 100 | 100 | 103 | 104 | 102 | 104 | 107 | 104 | 102 | 100 | 98 | 97 | 97 | 98 | 100 | 104 | 104 |
| Chennai | 78 | 79 | 80 | 82 | 83 | 84 | 84 | 85 | 87 | 89 | 91 | 92 | 94 | 96 | 99 | 102 | 101 | 100 | 101 | 100 | 101 | 101 |
| Coimbatore | 88 | 92 | 98 | 98 | 99 | 99 | 100 | 100 | 101 | 102 | 102 | 103 | 106 | 107 | 101 | 98 | 97 | 94 | 97 | 100 | 101 | 106 |
| Dehradun | 96 | 94 | 94 | 98 | 85 | 89 | 90 | 93 | 96 | 95 | 96 | 96 | 96 | 99 | 100 | 101 | 101 | 100 | 99 | 99 | 100 | 102 |
| Delhi | 103 | 108 | 110 | 109 | 107 | 107 | 100 | 92 | 87 | 85 | 86 | 89 | 96 | 98 | 102 | 105 | 104 | 101 | 100 | 100 | 99 | 98 |
| Faridabad | 104 | 103 | 104 | 103 | 106 | 111 | 111 | 112 | 110 | 105 | 101 | 99 | 99 | 103 | 104 | 107 | 106 | 98 | 99 | 100 | 100 | 102 |
| Gandhinagar | 101 | 101 | 100 | 101 | 100 | 96 | 95 | 92 | 91 | 94 | 92 | 94 | 95 | 95 | 95 | 95 | 94 | 93 | 97 | 99 | 106 | 111 |
| Ghaziabad | 96 | 99 | 102 | 106 | 108 | 109 | 108 | 106 | 105 | 103 | 103 | 102 | 102 | 101 | 102 | 104 | 106 | 106 | 102 | 99 | 100 | 101 |
| Greater Noida | 83 | 84 | 88 | 89 | 91 | 93 | 95 | 97 | 97 | 98 | 98 | 98 | 99 | 99 | 100 | 100 | 99 | 100 | 100 | 101 | 102 | 103 |
| Gurugram | 110 | 111 | 112 | 111 | 111 | 114 | 115 | 114 | 102 | 97 | 96 | 98 | 99 | 102 | 103 | 104 | 103 | 102 | 100 | 100 | 100 | 101 |
| Guwahati | 80 | 84 | 83 | 85 | 88 | 91 | 96 | 100 | 100 | 98 | 98 | 96 | 97 | 99 | 99 | 101 | 98 | 99 | 100 | 100 | 101 | 103 |
| Howrah | 71 | 75 | 78 | 81 | 85 | 87 | 91 | 93 | 93 | 92 | 94 | 94 | 96 | 99 | 101 | 105 | 103 | 101 | 102 | 100 | 102 | 105 |
| Hyderabad | 78 | 79 | 80 | 81 | 82 | 84 | 86 | 86 | 88 | 89 | 90 | 91 | 93 | 94 | 95 | 97 | 95 | 95 | 98 | 100 | 104 | 109 |
| Indore | 81 | 82 | 83 | 85 | 87 | 89 | 90 | 91 | 92 | 92 | 94 | 95 | 97 | 98 | 99 | 101 | 99 | 97 | 99 | 100 | 103 | 106 |
| Jaipur | 91 | 94 | 96 | 98 | 101 | 106 | 110 | 111 | 113 | 113 | 113 | 116 | 116 | 117 | 117 | 116 | 110 | 105 | 101 | 100 | 100 | 101 |
| Kalyan Dombivali | 70 | 73 | 75 | 78 | 80 | 81 | 82 | 84 | 84 | 86 | 89 | 92 | 95 | 97 | 98 | 100 | 100 | 99 | 99 | 100 | 102 | 105 |
| Kanpur | 71 | 74 | 76 | 81 | 84 | 87 | 90 | 81 | 82 | 83 | 84 | 85 | 87 | 91 | 97 | 103 | 100 | 98 | 102 | 99 | 99 | 100 |
| Kochi | 72 | 73 | 75 | 78 | 79 | 81 | 82 | 82 | 83 | 83 | 85 | 88 | 91 | 95 | 98 | 100 | 103 | 100 | 102 | 100 | 100 | 101 |
| Kolkata | 79 | 82 | 84 | 86 | 89 | 90 | 92 | 93 | 95 | 95 | 96 | 97 | 99 | 102 | 104 | 105 | 101 | 99 | 101 | 100 | 103 | 104 |
| Lucknow | 78 | 82 | 85 | 88 | 88 | 86 | 86 | 86 | 87 | 89 | 91 | 93 | 95 | 99 | 100 | 101 | 101 | 99 | 97 | 100 | 101 | 103 |
| Ludhiana | 93 | 86 | 82 | 89 | 90 | 94 | 105 | 110 | 113 | 116 | 114 | 114 | 111 | 112 | 113 | 116 | 114 | 108 | 105 | 101 | 100 | 101 |
| Meerut | 67 | 69 | 72 | 77 | 83 | 88 | 88 | 90 | 91 | 90 | 93 | 95 | 98 | 101 | 104 | 106 | 103 | 100 | 99 | 100 | 101 | 104 |
| Mira Bhayander | 78 | 81 | 80 | 81 | 82 | 83 | 86 | 88 | 90 | 91 | 92 | 95 | 96 | 97 | 97 | 98 | 99 | 99 | 99 | 100 | 102 | 104 |
| Mumbai | 73 | 75 | 76 | 78 | 79 | 80 | 81 | 82 | 83 | 86 | 88 | 91 | 93 | 95 | 95 | 96 | 97 | 97 | 99 | 100 | 102 | 104 |
| Nagpur | 79 | 80 | 79 | 79 | 80 | 81 | 83 | 83 | 85 | 85 | 87 | 89 | 91 | 94 | 97 | 100 | 100 | 98 | 100 | 100 | 101 | 102 |
| Nashik | 81 | 82 | 84 | 85 | 85 | 86 | 86 | 87 | 88 | 89 | 91 | 93 | 94 | 95 | 95 | 95 | 95 | 95 | 98 | 100 | 103 | 105 |
| Navi Mumbai | 80 | 83 | 86 | 89 | 91 | 93 | 94 | 96 | 97 | 98 | 100 | 102 | 104 | 104 | 103 | 102 | 100 | 99 | 98 | 100 | 101 | 104 |
| New Town Kolkata | 76 | 79 | 81 | 82 | 84 | 88 | 90 | 91 | 92 | 90 | 92 | 94 | 97 | 98 | 98 | 97 | 95 | 93 | 96 | 101 | 105 | 108 |
| Noida | 94 | 95 | 97 | 98 | 100 | 101 | 101 | 100 | 100 | 99 | 100 | 100 | 101 | 102 | 103 | 103 | 102 | 101 | 102 | 100 | 103 | 107 |
| Panvel | 83 | 82 | 82 | 81 | 81 | 83 | 83 | 83 | 86 | 87 | 92 | 98 | 100 | 102 | 100 | 99 | 98 | 97 | 98 | 100 | 102 | 105 |
| Patna | 75 | 78 | 82 | 86 | 87 | 86 | 86 | 86 | 86 | 88 | 90 | 91 | 92 | 94 | 93 | 91 | 94 | 95 | 97 | 100 | 100 | 101 |
| Pimpri Chinchwad | 73 | 77 | 79 | 79 | 81 | 83 | 84 | 87 | 89 | 90 | 91 | 91 | 92 | 93 | 94 | 95 | 98 | 97 | 100 | 101 | 101 | 103 |
| Pune | 71 | 73 | 75 | 77 | 79 | 81 | 83 | 85 | 87 | 89 | 89 | 90 | 91 | 92 | 94 | 96 | 97 | 97 | 99 | 100 | 104 | 106 |
| Raipur | 88 | 92 | 90 | 96 | 94 | 94 | 93 | 94 | 96 | 96 | 95 | 95 | 96 | 100 | 103 | 106 | 104 | 100 | 101 | 100 | 101 | 103 |
| Rajkot | 81 | 82 | 85 | 84 | 85 | 84 | 83 | 81 | 82 | 84 | 87 | 89 | 91 | 93 | 94 | 94 | 95 | 96 | 99 | 100 | 100 | 102 |
| Ranchi | 69 | 72 | 74 | 77 | 79 | 82 | 82 | 86 | 88 | 89 | 91 | 89 | 88 | 89 | 86 | 81 | 83 | 85 | 89 | 99 | 101 | 103 |
| Surat | 78 | 77 | 79 | 80 | 81 | 83 | 84 | 83 | 82 | 81 | 80 | 82 | 85 | 88 | 91 | 92 | 94 | 94 | 97 | 100 | 101 | 103 |
| Thane | 74 | 77 | 80 | 83 | 85 | 85 | 87 | 89 | 91 | 94 | 96 | 98 | 100 | 101 | 101 | 102 | 99 | 97 | 99 | 100 | 103 | 107 |
| Thiruvananthapuram | 82 | 82 | 80 | 83 | 84 | 86 | 85 | 84 | 86 | 90 | 94 | 97 | 101 | 104 | 104 | 106 | 101 | 99 | 102 | 99 | 101 | 104 |
| Vadodara | 88 | 89 | 90 | 91 | 91 | 93 | 93 | 93 | 94 | 93 | 93 | 93 | 93 | 93 | 94 | 95 | 95 | 95 | 98 | 99 | 102 | 104 |
| Vasai Virar | 80 | 84 | 85 | 87 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 94 | 95 | 95 | 96 | 99 | 100 | 100 | 101 | 104 |
| Vijayawada | 74 | 76 | 78 | 80 | 81 | 85 | 87 | 90 | 92 | 91 | 92 | 95 | 96 | 99 | 103 | 104 | 101 | 100 | 100 | 100 | 100 | 100 |
| Vizag | 72 | 72 | 72 | 72 | 72 | 73 | 74 | 75 | 77 | 78 | 79 | 81 | 82 | 85 | 87 | 92 | 97 | 98 | 100 | 100 | 101 | 102 |



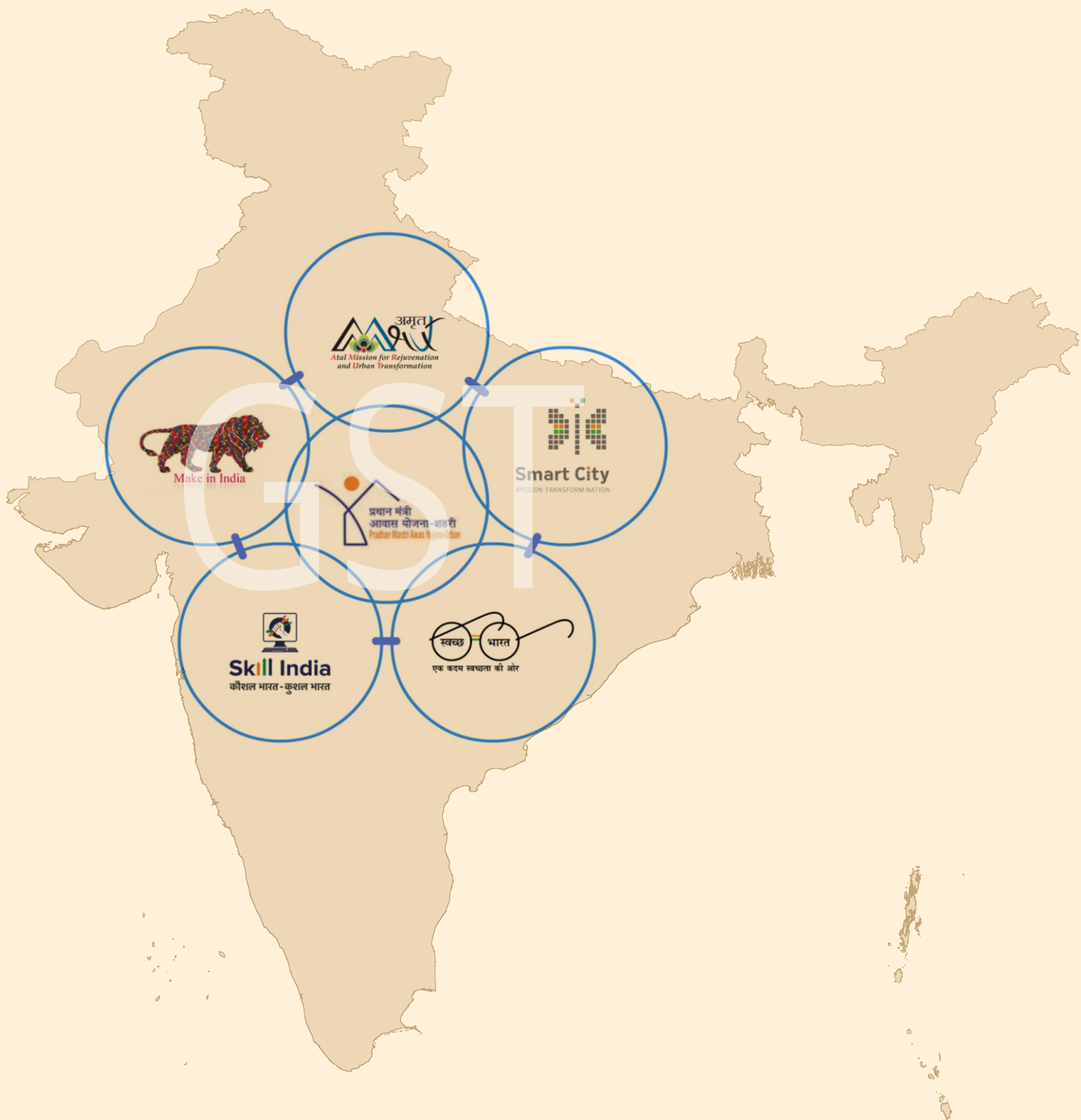
APPENDIX 2

Table below comprises of Composite HPI@ Market Prices for Under Construction properties computed on basis of 50 cities (Base Year FY 2017-18 =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 | Sep-17 | Dec-17 | Mar-18 | June-18 | Sep-18 |
|---------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|--------|
| Composite HPI@Assessment Prices | 85 | 86 | 87 | 88 | 90 | 91 | 92 | 94 | 94 | 95 | 96 | 96 | 97 | 97 | 97 | 97 | 98 | 98 | 99 | 100 | 101 | 102 |

Table below comprises of HPI@Market Prices for Under Construction properties computed for 50 cities (Base Year FY 2017-18=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 | Sep-17 | Dec-17 | Mar-18 | June-18 | Sep-18 |
|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|--------|
| Ahmedabad | 74 | 75 | 76 | 78 | 80 | 81 | 82 | 83 | 85 | 88 | 91 | 93 | 95 | 97 | 97 | 98 | 99 | 99 | 99 | 100 | 101 | 101 |
| Bengaluru | 80 | 83 | 85 | 87 | 90 | 95 | 98 | 99 | 99 | 98 | 97 | 97 | 96 | 97 | 97 | 98 | 99 | 99 | 100 | 100 | 100 | 101 |
| Bhiwadi | 87 | 89 | 92 | 94 | 95 | 96 | 97 | 97 | 97 | 97 | 96 | 95 | 95 | 94 | 94 | 94 | 96 | 97 | 98 | 100 | 102 | 104 |
| Bhopal | 89 | 89 | 88 | 85 | 86 | 89 | 91 | 94 | 96 | 98 | 100 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 100 | 100 | 100 |
| Bhubaneswar | 73 | 73 | 73 | 72 | 72 | 73 | 76 | 79 | 81 | 83 | 84 | 86 | 89 | 91 | 93 | 95 | 96 | 97 | 98 | 100 | 101 | 103 |
| Bidhan Nagar | 58 | 59 | 65 | 68 | 71 | 73 | 75 | 76 | 78 | 79 | 82 | 85 | 87 | 89 | 88 | 88 | 90 | 93 | 97 | 100 | 103 | 106 |
| Chakan | 76 | 79 | 82 | 85 | 87 | 88 | 89 | 89 | 91 | 93 | 95 | 96 | 97 | 97 | 99 | 99 | 100 | 100 | 101 | 100 | 100 | 100 |
| Chandigarh (Tricity) | 92 | 94 | 95 | 96 | 95 | 96 | 94 | 93 | 87 | 87 | 88 | 89 | 90 | 89 | 93 | 95 | 97 | 99 | 99 | 100 | 100 | 101 |
| Chennai | 76 | 77 | 79 | 81 | 82 | 86 | 89 | 91 | 93 | 98 | 102 | 105 | 109 | 108 | 104 | 101 | 98 | 97 | 100 | 100 | 101 | 102 |
| Coimbatore | 75 | 76 | 78 | 79 | 81 | 83 | 86 | 86 | 87 | 88 | 88 | 92 | 94 | 92 | 96 | 96 | 97 | 99 | 99 | 100 | 101 | 103 |
| Dehradun | 67 | 69 | 70 | 71 | 73 | 74 | 77 | 81 | 85 | 89 | 92 | 93 | 95 | 96 | 97 | 97 | 96 | 97 | 98 | 100 | 104 | 106 |
| Delhi | 106 | 106 | 105 | 105 | 104 | 103 | 102 | 102 | 101 | 100 | 100 | 99 | 98 | 98 | 98 | 97 | 97 | 98 | 98 | 100 | 101 | 102 |
| Faridabad | 105 | 110 | 113 | 113 | 113 | 113 | 112 | 112 | 114 | 115 | 114 | 116 | 115 | 113 | 112 | 110 | 108 | 107 | 104 | 101 | 99 | 98 |
| Gandhinagar | 83 | 82 | 83 | 84 | 85 | 86 | 87 | 89 | 92 | 94 | 95 | 97 | 99 | 99 | 100 | 99 | 98 | 99 | 99 | 100 | 102 | 104 |
| Ghaziabad | 88 | 92 | 95 | 97 | 98 | 98 | 98 | 99 | 99 | 99 | 100 | 100 | 100 | 100 | 100 | 99 | 99 | 99 | 99 | 100 | 101 | 102 |
| Greater Noida | 97 | 100 | 102 | 101 | 100 | 101 | 100 | 100 | 101 | 102 | 102 | 102 | 101 | 98 | 98 | 97 | 98 | 98 | 99 | 100 | 101 | 102 |
| Gurugram | 120 | 112 | 113 | 112 | 113 | 114 | 116 | 112 | 108 | 106 | 104 | 103 | 103 | 103 | 102 | 102 | 100 | 99 | 98 | 99 | 101 | 103 |
| Guwahati | 76 | 78 | 79 | 80 | 81 | 82 | 83 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 93 | 94 | 95 | 97 | 99 | 100 | 102 | 103 |
| Howrah | 94 | 97 | 114 | 121 | 125 | 128 | 130 | 127 | 103 | 103 | 103 | 101 | 101 | 101 | 104 | 104 | 103 | 102 | 100 | 99 | 101 | |
| Hyderabad | 71 | 73 | 76 | 78 | 80 | 84 | 86 | 89 | 90 | 91 | 91 | 92 | 93 | 94 | 95 | 95 | 96 | 97 | 98 | 100 | 102 | 105 |
| Indore | 83 | 83 | 83 | 84 | 84 | 86 | 87 | 88 | 88 | 89 | 89 | 90 | 90 | 90 | 91 | 91 | 93 | 96 | 98 | 101 | 102 | 103 |
| Jaipur | 90 | 93 | 96 | 96 | 95 | 95 | 96 | 99 | 98 | 98 | 99 | 99 | 100 | 101 | 101 | 101 | 101 | 99 | 100 | 100 | 100 | 102 |
| Kalyan Dombivali | 79 | 80 | 81 | 82 | 84 | 86 | 90 | 93 | 95 | 96 | 98 | 100 | 101 | 101 | 101 | 100 | 98 | 97 | 98 | 100 | 103 | 106 |
| Kanpur | 74 | 77 | 79 | 79 | 81 | 81 | 80 | 82 | 82 | 85 | 88 | 89 | 90 | 88 | 88 | 88 | 93 | 96 | 98 | 100 | 100 | 100 |
| Kochi | 80 | 81 | 83 | 92 | 99 | 101 | 102 | 98 | 97 | 99 | 99 | 100 | 98 | 98 | 98 | 100 | 102 | 99 | 98 | 101 | 101 | 101 |
| Kolkata | 92 | 92 | 90 | 90 | 91 | 91 | 92 | 93 | 93 | 94 | 94 | 95 | 97 | 93 | 91 | 89 | 89 | 92 | 96 | 100 | 104 | 108 |
| Lucknow | 80 | 82 | 83 | 84 | 85 | 83 | 82 | 83 | 83 | 84 | 86 | 86 | 86 | 87 | 86 | 90 | 93 | 97 | 100 | 100 | 100 | 99 |
| Ludhiana | 60 | 65 | 68 | 70 | 73 | 75 | 77 | 79 | 82 | 85 | 88 | 91 | 93 | 95 | 96 | 97 | 98 | 98 | 99 | 100 | 101 | 103 |
| Meerut | 83 | 84 | 85 | 87 | 88 | 90 | 91 | 93 | 96 | 98 | 100 | 100 | 100 | 100 | 101 | 101 | 99 | 99 | 99 | 100 | 104 | 106 |
| Mira Bhayander | 84 | 87 | 90 | 92 | 93 | 93 | 94 | 95 | 97 | 97 | 97 | 97 | 97 | 97 | 96 | 97 | 97 | 98 | 99 | 100 | 102 | 103 |
| Mumbai | 77 | 79 | 80 | 81 | 83 | 85 | 88 | 89 | 90 | 91 | 91 | 92 | 93 | 95 | 96 | 96 | 97 | 98 | 99 | 100 | 101 | 102 |
| Nagpur | 76 | 78 | 81 | 85 | 89 | 92 | 95 | 98 | 99 | 99 | 99 | 99 | 100 | 101 | 100 | 99 | 98 | 98 | 98 | 100 | 102 | 104 |
| Nashik | 84 | 84 | 85 | 86 | 88 | 91 | 93 | 96 | 98 | 99 | 101 | 101 | 101 | 102 | 103 | 101 | 100 | 99 | 99 | 100 | 100 | 101 |
| Navi Mumbai | 79 | 79 | 79 | 81 | 84 | 90 | 96 | 101 | 103 | 104 | 102 | 101 | 101 | 101 | 102 | 102 | 100 | 99 | 100 | 101 | 101 | 101 |
| New Town Kolkata | 90 | 92 | 94 | 95 | 97 | 104 | 109 | 111 | 111 | 110 | 110 | 111 | 109 | 101 | 97 | 94 | 94 | 96 | 98 | 100 | 99 | 98 |
| Noida | 93 | 95 | 97 | 98 | 100 | 100 | 99 | 98 | 99 | 100 | 100 | 100 | 100 | 98 | 98 | 97 | 97 | 98 | 100 | 102 | 103 | 103 |
| Panvel | 75 | 76 | 77 | 77 | 77 | 78 | 78 | 79 | 80 | 81 | 84 | 88 | 90 | 91 | 92 | 92 | 94 | 96 | 99 | 100 | 101 | 101 |
| Patna | 125 | 125 | 125 | 125 | 124 | 125 | 122 | 122 | 119 | 115 | 109 | 106 | 105 | 105 | 104 | 103 | 101 | 100 | 98 | 99 | 99 | 100 |
| Pimpri Chinchwad | 80 | 83 | 84 | 85 | 87 | 88 | 90 | 92 | 93 | 94 | 95 | 96 | 96 | 97 | 98 | 98 | 98 | 98 | 99 | 100 | 100 | 100 |
| Pune | 77 | 80 | 82 | 84 | 86 | 87 | 89 | 92 | 95 | 97 | 98 | 98 | 98 | 99 | 99 | 99 | 99 | 99 | 100 | 100 | 101 | 101 |
| Raipur | 80 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 87 | 89 | 90 | 92 | 94 | 95 | 97 | 99 | 99 | 100 | 100 | 100 | 102 | 103 |
| Rajkot | 92 | 94 | 96 | 99 | 102 | 104 | 106 | 107 | 108 | 108 | 107 | 106 | 105 | 104 | 103 | 102 | 101 | 101 | 100 | 100 | 101 | 101 |
| Ranchi | 94 | 95 | 95 | 94 | 95 | 95 | 97 | 99 | 98 | 96 | 93 | 93 | 93 | 94 | 95 | 95 | 96 | 97 | 99 | 100 | 101 | 102 |
| Surat | 78 | 79 | 78 | 79 | 80 | 81 | 83 | 86 | 89 | 90 | 92 | 92 | 93 | 94 | 95 | 96 | 98 | 99 | 100 | 100 | 100 | 100 |
| Thane | 79 | 81 | 83 | 84 | 85 | 87 | 88 | 88 | 89 | 90 | 91 | 93 | 94 | 94 | 94 | 94 | 95 | 96 | 98 | 100 | 101 | 102 |
| Thiruvananthapuram | 73 | 75 | 78 | 80 | 82 | 84 | 87 | 89 | 91 | 92 | 94 | 98 | 100 | 102 | 105 | 106 | 106 | 104 | 102 | 99 | 98 | 97 |
| Vadodara | 94 | 94 | 94 | 95 | 95 | 98 | 99 | 101 | 102 | 102 | 102 | 102 | 103 | 103 | 104 | 104 | 103 | 102 | 102 | 100 | 99 | 98 |
| Vasai Virar | 92 | 94 | 95 | 95 | 96 | 96 | 97 | 99 | 100 | 100 | 100 | 101 | 101 | 101 | 101 | 101 | 100 | 100 | 100 | 100 | 101 | 101 |
| Vijayawada | 68 | 69 | 69 | 71 | 72 | 75 | 80 | 85 | 90 | 93 | 95 | 96 | 96 | 97 | 98 | 98 | 98 | 98 | 99 | 100 | 102 | 103 |
| Vizag | 80 | 84 | 86 | 88 | 90 | 91 | 93 | 93 | 92 | 91 | 91 | 92 | 94 | 96 | 97 | 99 | 99 | 99 | 100 | 100 | 100 | 102 |



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