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VALUES OVER VALUE

Chennai: From Resilience to Growth

Real estate growth led by Infrastructure,
Investments and Industries

February 2019

In Association with



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A handwritten signature in black ink, appearing to read 'Anuj Puri'.

Anuj Puri
Chairman
ANAROCK Group

Foreword

The growing threat of trade war between USA and China has caused the central banks of many countries to protect their currencies at the cost of their growth. Amidst this global apprehension, India, remains relatively insulated from such external shocks. India also stands to benefit and emerge as a major beneficiary through a comparative advantage. Exports across the sectors from India have been on the rise while manufacturing and services sectors continue to be the key economic growth drivers.

Chennai - a major metropolitan city with historical importance and significance has been tough and resilient to combat the impact of natural calamities and emerge as a strong contender to become an outstanding contributor to the growth and development of the nation. The city's economy has been driven by services and manufacturing sectors and maintains a perfect balance of overall growth. Its strategic position which enjoys a large network of major roads, railways, ports and airports have been instrumental in enabling trade from the city.



The major infrastructure projects such as the monorail, metro connectivity and the new international airport are likely to catalyse future growth of the city. Already home to major national and international automobile manufacturers, the upcoming Aerospace park at Sriperumbudur is going to metamorphose the economic landscape of the region. This will not only create an opportunity for increased investments and revenues but will also help generate tremendous employment opportunities, leading to rapid urbanisation.

Chennai has been the second largest exporter of IT-ITeS services in the country valued at nearly USD 17.10 Billion during 2017-18. It also employs over 4 lakh people and is home to several large IT parks and SEZs. The state government aims to attract investments in the IT-ITeS sector to the tune of INR 15,000 Crores during the Global Investors Meet (GIM) 2019. The automobile and auto component sectors are growing at a favourable rate with an installed capacity of over 6 million

units across all segments. The city is home to over 4,000 SMEs and 350 suppliers to the automobile sector and have been instrumental in supplying to the major players such as Ford, Hyundai, Mitsubishi, Ashok Leyland, TVS and Caterpillar. The sector recorded exports of USD 6.76 Billion during 2017-18 recording a growth of nearly 18% over the previous year.

Chennai's residential real estate market has been witnessing a continuous fall in prices. While the sales have been more than supply till 2017, the market reversed in 2018, pushing the unsold inventory to 30,000 units. However, the market is expected to be back on the growth trajectory with controlled supply and bottomed-out prices.

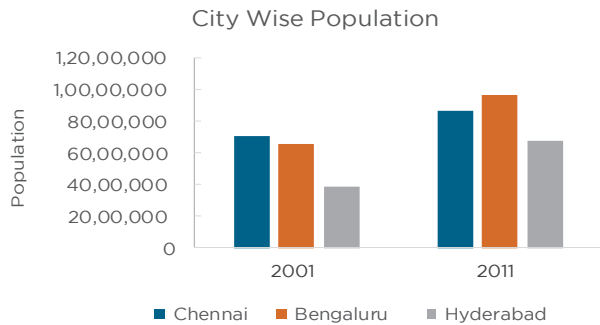
The report unravels the growth potential of the city amidst the existing and upcoming infrastructure facilities, residential real estate dynamics, the impact of IT-ITeS and the automobile manufacturing sectors that are likely to impact the growth in the future.



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Chennai: An Overview

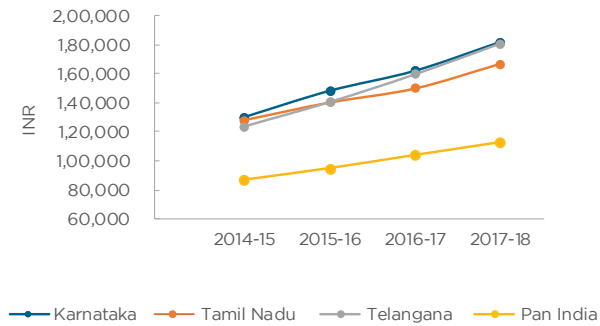
Chennai, known as the Gateway to southern India, is known for its port-centric business as well as engineering, manufacturing, IT-ITeS sector, and other flourishing industries.



Source : Census of India, 2011

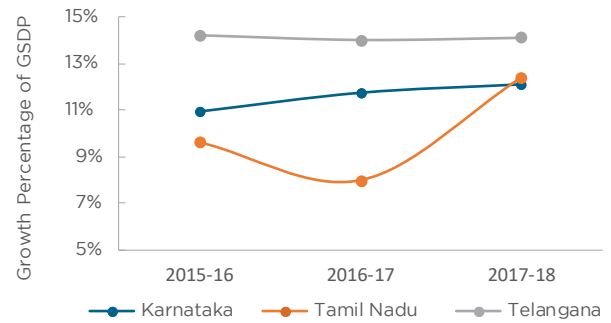
Chennai

Per Capita NSDP



Source: RBI

GSDP Growth Rate



Source: IBEF

Chennai Metropolitan Area (CMA), is spread over 1,189 sq. km. and consists of parts of Thiruvallur and Kancheepuram districts, apart from Chennai city. The extent of Chennai Municipal Corporation Area is 176 sq. km and comprises of 55 revenue villages.

Chennai has the lowest population growth across the southern cities. The decadal growth of population has been only 23% compared to Bengaluru and Hyderabad which grew at 47% and 76% respectively. The decadal population density of Chennai grew by 6% reaching 26,553 per sq. km in 2011 whereas, Bengaluru has grown by 47%. These parameters act as a growth inhibitor to Chennai's residential real estate as population and population density growth is expected to directly impact the city's economy.

Not only in terms of population but also in terms of per capita Net State Domestic Product (NSDP), Tamil Nadu is growing at a slower pace

as compared to its neighbouring two states in the region. The state's per capita NSDP is growing at a similar pace as that of PAN India, but slower compared to Karnataka and Telangana. Tamil Nadu has registered an absolute growth of 30% in its per capita NSDP when compared to Telangana and Karnataka at 46% and 40% respectively, during 2014-15 to 2017-18. However, the annual growth of per capita NSDP from 2016-17 to 2017-18 is 11% which is close to Karnataka and Telangana at 12% and 13%, respectively. A rising per capita NSDP clearly indicates that the state is on the cusp of a recovery.

GSDP (Gross State Domestic Product) is a key measure which represents the goods and services produced in the state and Tamil Nadu has witnessed a steep dip in its GSDP during 2016-17. This dip is due to the floods during late 2015 which impacted its economy. However, the state has bounced back with a healthy growth rate of 12% in 2016 due to its thriving manufacturing and services sector.

Chennai Metropolitan Region (CMA) at a glance

Capital of Tamil Nadu	Chennai
Literacy Rate	90.18%
Sex Ratio	1,000 M 989 F
Population	86 lakhs (Chennai Metropolitan Region)
Population Density	26,553 / km ² .
Reputed Educational Institutions	IIT, Madras Medical College, IFMR, Annamalai University
Tamil Nadu's Contribution to India's GDP	8.5% at current prices (2017-18)

The allocation of land within the city, for the development of residential use, is 33.58% and 13.78% for mixed residential use. This is a strong contrast from the previous master plan which lacked the focus on the housing need.

MASTER PLAN FOR CMA 2026

The development of the CMA is entrusted to the Chennai Metropolitan Development Authority (CMDA) - a nodal planning agency that prepares the master plans for the region. The CMDA prepared the Second Master Plan for Chennai Metropolitan Area, 2026, outlining the detailed development plan, along with land use, transportation, housing and other important aspects of the CMA.

Proposed Land Use 2026		Extent in Hectares		
Chennai City	Chennai City	Chennai City	Chennai City	Chennai City
	Chennai City	%	Extent	%
Primary Residential Use Zone	5,916.35	3,358.00	31,090.68	31.68
Mixed Residential Use Zone	2,426.9	13.78	13,503.1	13.34
Commercial Use Zone	714.24	4.05	880.35	0.86
Institutional Use Zone	2,868.97	16.28	3,888.85	3.83
Industrial Use Zone	691.83	3.93	7,274.33	7.18
Special and Hazardous Industrial Use Zone	130.67	0.74	3,416.08	3.38
Open space & Recreational use zone	1,000.65	5.68	392.86	0.38
Agriculture use zone			7,295.81	7.2
Non Urban	113.31	0.64	2,332.92	2.3
Urbanisable			2,075.89	2.05
Other (Roads, water bodies, hills, Redhills Catchments area, forests etc.)	3,754.79	21.31	2,8147.55	27.79
Total	17,617.7	100	1,01,298.42	100

The second master plan for Chennai metropolitan area has proposed a separate land use plan for the city specifically. The total area of the city's urban agglomeration as per the new master plan is projected to be 1,18,916 hectares of which the share of the city will be only 15%. The allocation of land within the city, for the development of residential use, is 33.58% and 13.78% for mixed residential use. This is a strong contrast from the previous master plan which lacked the focus on the housing need. Increasing population amidst rising employment opportunities in the IT-ITeS and industrial sector necessitated a laser focus on housing developments.

Thus, it implies that more emphasis has been given to residential which supports the urban planners' concern to provide housing to all citizens. The authorities are also equally interested to create a healthy and sustainable environment as evident from the allocation of 21.31% for roads, water bodies hills and ecological developments within the city and a 27.79% allocation was given to the rest of the CMA.



Chennai Master Plan 2026 was approved in 2008 by estimating that the city's population will reach 126 lakhs. Hence, to increase the overall density by allowing FSI to 2 for non-multi-storeyed residential developments along the MRTS influence areas (Thirumayila to Velachery) for residential developments. The master plan also encourages high-rise developments along the wider roads and larger plots to allow multi-storeyed buildings in the rest of CMA area. Master Plan 2026 boosted for LIG housing developments by providing an additional FSI of 0.25. Overall the plan has been designed to encourage residential real estate developments across the city.

Chennai's economy is driven by automobile, manufacturing and IT-ITeS sectors with an estimated GDP of USD78.6 billion in 2018. The city contributes 14% to the country's IT services making it the second largest exporter. Chennai is also home to 40% of the automobile production in the country which earned it the tag of 'Detroit of India'.

The decadal growth rate of population and population density is slower in comparison to other south Indian cities such as Bengaluru and Hyderabad, due to which the nature of residential real estate developments here is significantly different. To support the population growth of the city, CMA has drafted a master plan to accommodate and facilitate the rising residential real estate developments.

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Chennai: Infrastructure Snapshot

EXISTING INFRASTRUCTURE



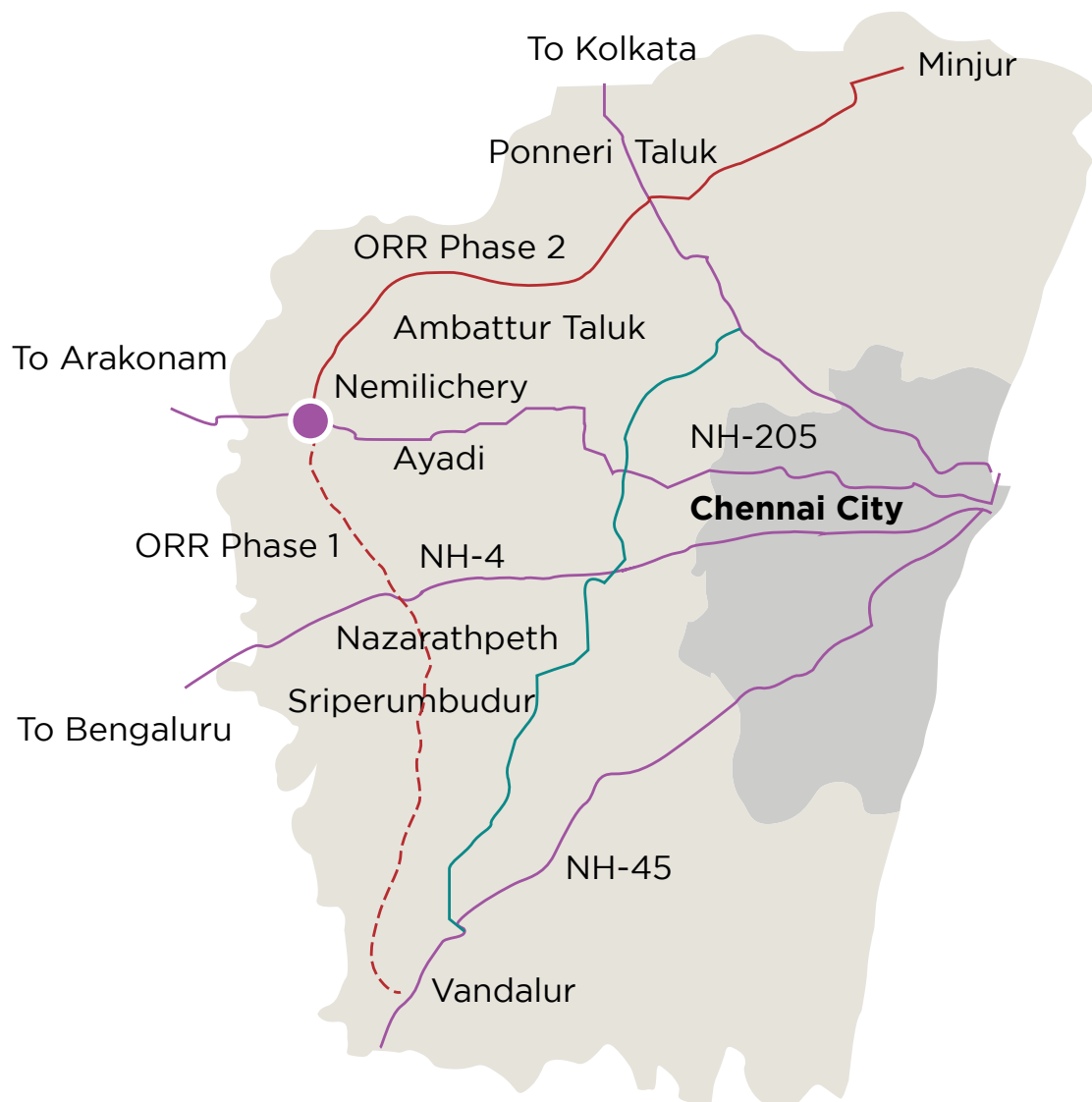
ROAD

Chennai's total length of the road network is 2,780 km consisting of ring roads and radial roads. The city is also a major node of the Golden Quadrilateral of National Highways. The city is connected to other Indian cities by four National Highways leading to Kolkata (NH 5), Bengaluru (NH 4), Trichy (NH 45) and Tiruvallur (NH 205) along with several prime radials listed below:

Name	Connectivity	Description
Anna Salai-GST Road (NH 45)	Fort St. George to the southwest via the airport to Mahindra World City.	It provides connectivity from city Centre to southern Chennai.
Bypass Road	From Krishna Nagar on GST Road to Mettupalayam on NH 5.	It connects southern Chennai to Northern Chennai.
Chennai Bengaluru Highway (NH 4)	From Chennai Central railway station via Sriperumbudur to Bengaluru.	It connects western areas viz; Poonamallee and Sriperumbudur with the city center.
Chennai-Kolkata Highway (NH 5)	From Basin Bridge to Kottur.	It connects Chennai Port with the Northern parts of Chennai.
East Coast Road (ECR)	From Thiruvanmiyur via Uthandi to Mahabalipuram	It is running parallel to the OMR, it connects the coastal locations of South Chennai
Inner Ring Road	Connects SH 94A (OMR/Rajiv Gandhi Salai) in Thiruvanmiyur and joins SH 104 near Manali	It runs close to Central Chennai through locations viz. Koyambedu, Villivakkam, Anna Nagar
Old Mahabalipuram Road (OMR)	From Madhya Kailash junction to the south via Sholinganallur to Mahabalipuram	Also known as the IT Corridor, it connects the city center with southern suburbs, such as Perungudi, Siruseri, and Kelambakkam
Outer Ring Road	From Vandalur to Nemilichery	The six-lane highway connects GST Road with the Chennai-Bengaluru Highway and NH 205

Chennai's total length of the road network is 2,780 km consisting of ring roads and radial roads.

MAJOR ROADS OF CHENNAI






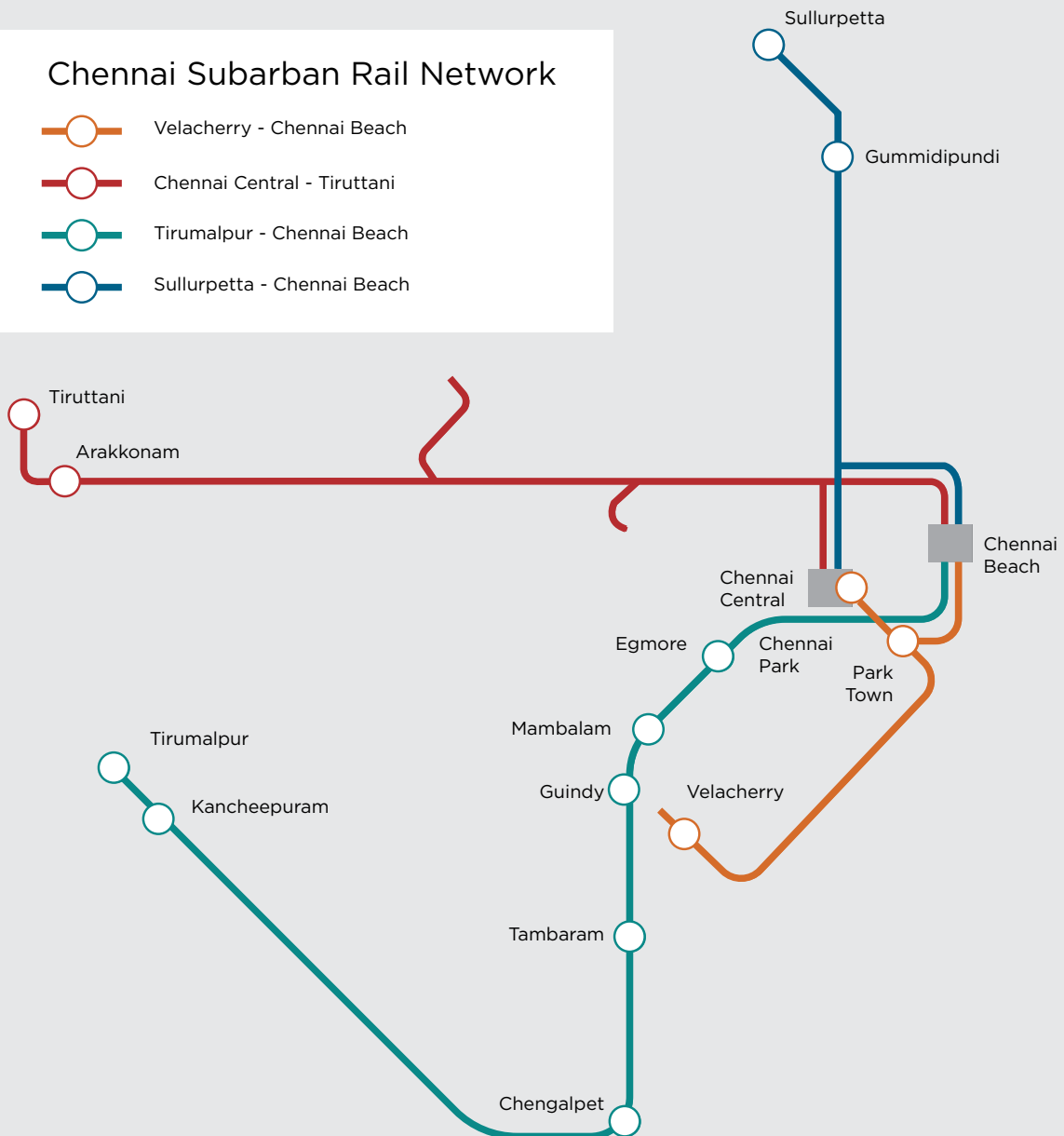


RAIL

Chennai hosts the headquarters of the Southern Railways. The city has two main railway terminals - Chennai Central Station and Chennai Egmore - which provide access to other major cities and other small towns across the country.

Chennai Suburban Rail Network

-  Velacherry - Chennai Beach
-  Chennai Central - Tiruttani
-  Tirumalpur - Chennai Beach
-  Sullurpetta - Chennai Beach



Name	Connectivity	Description
MRTS	Chennai Beach - Thiruvanmiyur - Velachery	It connects Velachery via TIDEL Park to the central part of Chennai
Suburban Rail: West Line	Chennai Central - Avadi - Tiruvallur - Arakkonam	It connects the North-western areas of Ambattur and Avadi with Central Chennai
Suburban Rail: North Line	Chennai Central - Ennore - Gummidipoondi - Sullurpeta	It connects northern Chennai with Central Chennai via Tondiarpet
Suburban Rail: South Line	Chennai Beach - Chengalpattu - Villupuram	It connects southern Chennai with Central Chennai via St. Thomas Mount
Suburban Rail: South-West Line	Chennai Beach - Tambaram - Chengalpattu	This line runs parallel to GST Road, connecting the Central Chennai with Mahindra World City via Tambaram
Suburban Rail: West-North Line	Chennai Central - Tiruvallur - Arakkonam - Tiruttani	It connects the central part of Chennai with the west-northern parts via Villivakkam
Suburban Rail: West-South Line	Chennai Beach - Royapuram - Washermanpet - Perambur - Arakkonam	It is the longest line running in the west-south direction from Central Chennai.
Outer Ring Road	From Vandalur to Nemilichery	The six-lane highway connects GST Road with the Chennai-Bengaluru Highway and NH 205

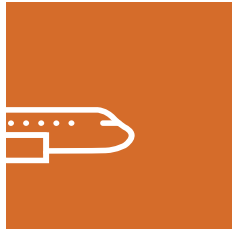


PORTS

The city is served by two major ports. The Chennai and Ennore Ports are in the Northern area of Chennai.

Chennai Port is one of the largest and oldest artificial ports in India and ranked among the growth generating major ports, despite the threats and perceptions on diversion of cargo to emerging private ports. During the financial year 2017-18, Chennai Port handled 51.88 MMT (million metric tonnes) of cargo compared to 50.21 MMT handled in 2016-17 registering a growth of 3.33% and the trend is likely to continue during the current fiscal.

Ennore Port located on the Coromandel Coast, about 24 km north of Chennai is another major port of the country. The port handled nearly 800 vessels during 2017-18 and over 500 vessels till Oct 2018. The total cargo handled has increased significantly from 14.96 (MMT) in 2011-12 to 30.45 MMT in 2017-18 registering a compounded growth of nearly 13%.



AIRPORT

Chennai airport is the third busiest airport after New Delhi and Mumbai airports. It is a major airport in Southern India and has the facility of domestic and international terminals adjacent to each other connecting with common canopy. At present, the passenger capacity of Chennai airport is close to 14 million annually, which is expected to rise after a few modifications. There has been a substantial increase in the number of flights to small towns and metros which has further led to an increase in domestic passengers in the city.

UPCOMING INFRASTRUCTURE

Chennai has grown significantly over the last few years. Employment opportunities, along with a decent lifestyle are the two major factors that have attracted people to the city. With increasing population, the city's real estate landscape has also grown by leaps and bounds and is now spread across various zones.

While realty development in Chennai paused momentarily due to massive floods of 2015, the fundamental demand drivers remain unbroken and the city is likely to remain on its growth trajectory in the future periods, reinforced by upcoming new infrastructure. The Government's focus on infrastructure improvement will surely boost Chennai's realty sector in the years to come.



ROAD

Outer Ring Road Phase II:

While the first phase of 29.2 km of the project from Vandalur to Nemilichery has been completed and opened for traffic, the second phase of 33.10 km from Nemilichery to Minjur is under construction and at the final stages. The project is expected to commence by H1 2019.

East Coast Road (ECR) Expansion:

The National Highways Authority of India (NHAI) is currently working on road widening of a 690-km stretch connecting Chennai with other cities of Tamil Nadu. The entire cost of road extension is approximately INR 10,000 Crore and is clubbed under the Bharatmala project. In 2018, the state government has given in-principle approval to upgrade ECR and it is to be renamed as NH 332 A.

Maduravoyal Expressway:

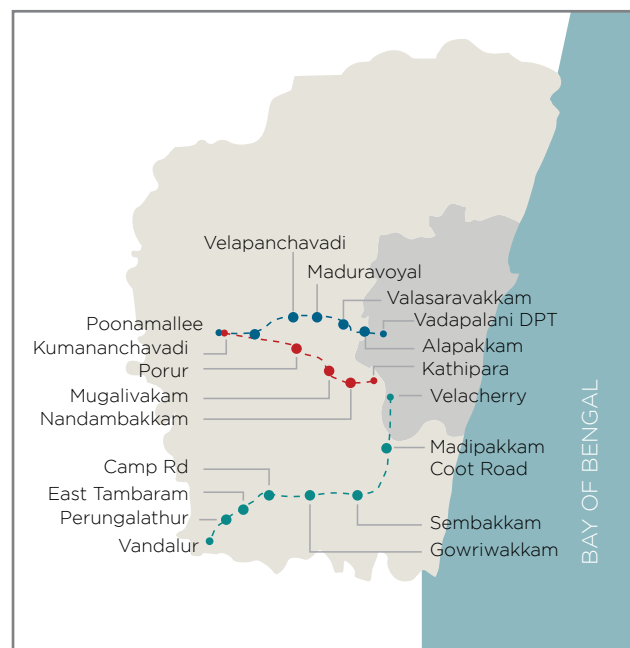
This 19-km elevated expressway proposed between Maduravoyal in the west and the Chennai Port along the Cooum River. While it has been delayed, NHAI has prepared a revised detailed project report and plans to resume the execution soon. The elevated expressway will connect Maduravoyal to the port through Koyembedu. The corridor once completed is expected to de-congest traffic in Ambattur Estate Road and Ponamallee High Road.



MRTS RAIL PROJECTS

Chennai Mono Rail:

The State Government has premeditated three corridors in Phase I of the monorail system. The total length of the corridors foreseen under Phase I of the system will be approximately 111 km. The development of the system is currently under initial stages of implementation viz. feasibility study and bidding process for pre-qualification is currently under progress.



Name	Connectivity	Description	Tentative commissioning
Monorail Corridor I	Vandalur - Kathipara	Connects Vandalur and Tambaram with central Chennai via Velachery	2020-21
Monorail Corridor II	Poonamallee - Kathipara	Connects West Chennai via Porur	2020-21
Monorail Corridor III	Porur - Vadapalani	It will increase connectivity between Porur and Vadapalani	2020-21



CHENNAI METRO RAIL

Chennai's metro rail network comprises two phases and integrates all important locations along the three arterial roads of Chennai namely Anna Salai (Mount Road), E.V.R. Periyar Salai (P.H. road) and Jawaharlal Nehru Salai (100 Ft. Road).

The three corridors include Madhavaram to Siruseri (41 km), Nerkundram to Light House (14 km) and Madhavaram to Perumbakkam (33 km). Of around 88 km stretch under the second phase, 54 km would be underground while the rest would be elevated that are currently under development.

The entire project is scheduled to be completed by 2019. On execution, the metro rail network is likely to significantly improve intra-city connectivity as well as reduce traffic congestion along the main arterial corridors of Chennai and good connectivity for the commercial zone at George Town. Construction work on the extension of Phase-I of the metro rail network from Washermenpet to Thiruvottiyour has been initiated in the first half of 2018.



Name	Connectivity	Description	Tentative commissioning
Metro Corridor I	Washermenpet - Chennai Central station - Chennai International Airport	Connects Chennai International Airport and central Chennai via Guindy	Expected to commence by Feb 2019
Metro Corridor II	Chennai Central - Anna Nagar - Vadapalani - St. Thomas Mount	Connects the city Centre and St. Thomas Mount	Expected to commence by the first half of 2019



AIRPORT

Expansion of Chennai Airport:

Chennai airport is currently being expanded, which includes construction of new terminal buildings of approximately 140,000 sq. m. and an additional runway. The total cost of the modernization project (Phase-II) is about Rs 2,476 crores and work on terminals have already commenced. Once the expansion is done, the passenger capacity after modernization of proposed Chennai airport will be 30 Million Passenger Per Annum (MPPA), increasing from the current 14 Million.

Chennai's Second International Airport:

The Second International Airport of Chennai at Sriperumbudur is a project taken up by Airport Authority of India. While the commencement date is yet to be announced, the proposed airport would ease traffic congestion in the existing one and help in further expanding the international routes to the city.



CHENNAI
AEROSPACE
PARK

Chennai Aerospace Park

The upcoming aerospace industrial park is being set up on 250-acre campus (expandable to 700 acres) in Sriperumbudur. The park will house a component manufacturing zone and a design center. On its commencement, more than 80 companies will be setting up their base creating direct employment for 10,000 employees and indirect employment for more than 25,000 people. As this project sees the light of the day, residential development is likely to rise within Sriperumbudur and nearby areas such as Sarala Nagar, Krishna Nagar, Nemili, Pondur, Irungulam, and Araneri.



CHENNAI BENGALURU INDUSTRIAL CORRIDOR (CBIC)

The Chennai-Bengaluru Industrial corridor which is around 560 km would have an influence area spread across the States of Karnataka, Andhra Pradesh and Tamil Nadu. The strategy to develop CBIC is part of the plan to achieve accelerated development, regional industry agglomeration in the states of Tamil Nadu, Karnataka and Andhra Pradesh. It also aims to facilitate development of a well-planned and efficient industrial base by providing smooth access to the industrial production units and benefit out of their synergies.

The details of CBIC node in Tamil Nadu (Ponneri Node)

Areas	Project Details
Area of Noda (Ponneri Greenfield area)	13,581 acres
Node Vision	Engineering Hub for Auto & Machinery
Industrial sectors impact	Chemical, Petrochemical, Machinery, pharmaceuticals and medical equipment
Land usage	Industrial land - 67%, Residential - 16% and Others - 17%
Distance from Chennai city centre	36km
Nearest ports	Ennore Port (part of this node) & Chennai Port - 20 km distance from the node
Projected node population by 2025	1.29 million

Demand for residential developments within different micro markets of Chennai is largely supported by the growth of physical infrastructure, with major initiatives such as Outer Ring Road (ORR), Inner Ring Road (IRR), East Coast Road (ECR) and the development of MRTS. The government's focus on infrastructure development is manifested with major projects such as ORR Phase II, metro, international airport and monorail corridors being planned to improve connectivity and accessibility to various parts of the city. These infrastructure upgrades will have a positive impact on micro markets such as Pallikaranai, Gudavanchery, OMR, Ambattur, Oragadam. In addition, Vandalur, Kathipara, Koyambedu, Villivakkam, Anna Nagar are the emerging residential destinations where development is expected to gain momentum.

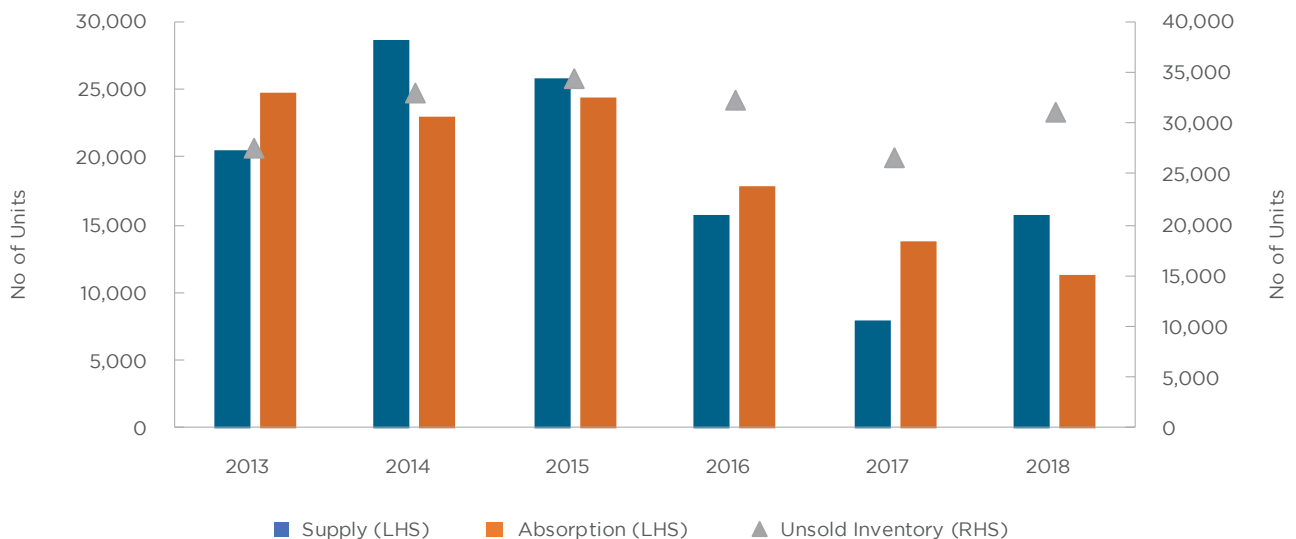
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The recent series of catastrophic events have acted as a deterrent to the growth of the industry and service sectors of the city and has had a ripple effect on the residential real estate sector as well.

Residential Real Estate Overview

Chennai's residential real estate market which is driven by a healthy mix of manufacturing and service sectors. The recent series of catastrophic events have acted as a deterrent to the growth of the industry and service sectors of the city and has had a ripple effect on the residential real estate sector as well. A few decades ago, the prominent residential developments in Chennai included only independent houses and low-rise apartments. Considering that the residents were largely locals, there wasn't a dire need for high-rise developments. With the advent of the IT-ITeS sector and manufacturing industries in the city, working professionals from various parts of the country flocked to Chennai. This rise in cosmopolitan population changed the city's housing requirements and led to the emergence of high-rise apartments. Considering that Chennai has recently embarked on the journey of apartments, we observe that the supply is lowest compared to other top cities in the country.

Supply - Absorption & Unsold Inventory Dynamics



Source : ANAROCK Research

The city witnessed a balanced supply and absorption trend until 2015. The developers were cognizant of the fact that demand-supply imbalance will have devastating impact on the market and so aptly controlled the situation. However, the devastating floods paused the growth momentum that was initiated in Chennai residential real estate market. The new launch supply declined by 39% in 2016 compared to the previous year and further reduced by 49% in 2017. In 2016, while the city was going full throttle to recover from the devastating natural calamities, it was further impacted by Demonetization which wiped out the buyer interest from the housing market. The political situation, which has seen massive turmoil during the past few years in the state, has also adversely affected the market conditions of the capital city.

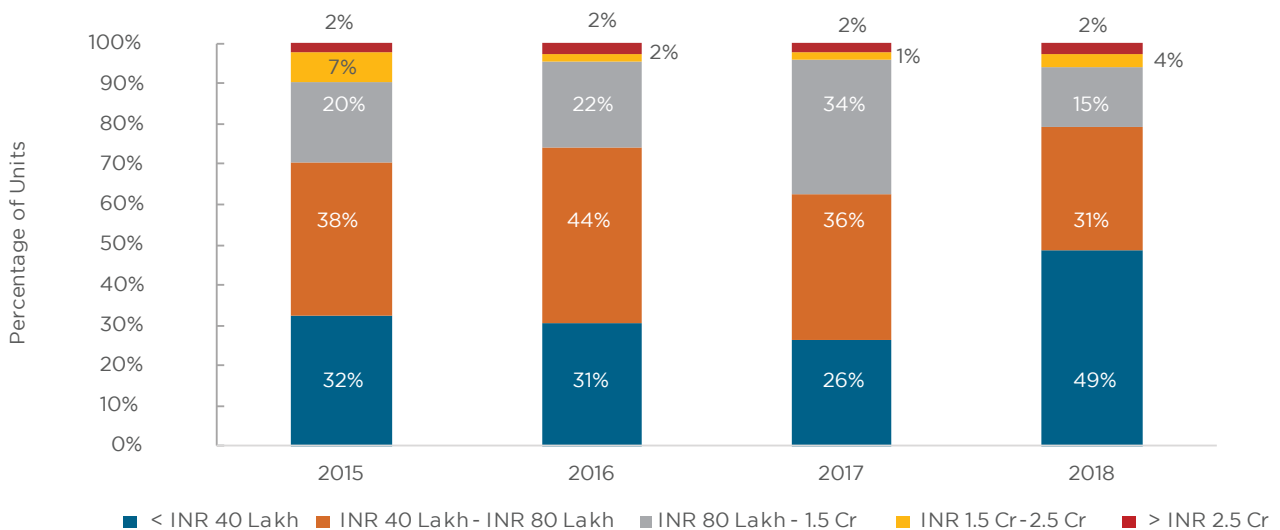
Despite the continuous decline in launches, the absorption levels were healthy in 2016 and 2017 which outnumbered the supply, though

the quantum was reducing year after year. The situation has reversed in 2018 where the launches have increased by 98% over the previous year. This increase in launches was driven by affordable housing developments which accounted for nearly 49% of the supply.

Even though the absorption levels surpassed the supply during 2016 and 2017, however, it was on a decline year-on-year since 2016. This was primarily due to weak consumer confidence due to recent natural calamities and weak political situation in the state.

Absorption levels has come down by a CAGR of 18% during the period 2013-18 and supply has witnessed a decline with a CAGR of 6% during the same period. This has resulted in a marginal increase of unsold inventory with a CAGR of 3% for the period 2013-18, which is primarily due to restricted supply and dwindled absorption levels.

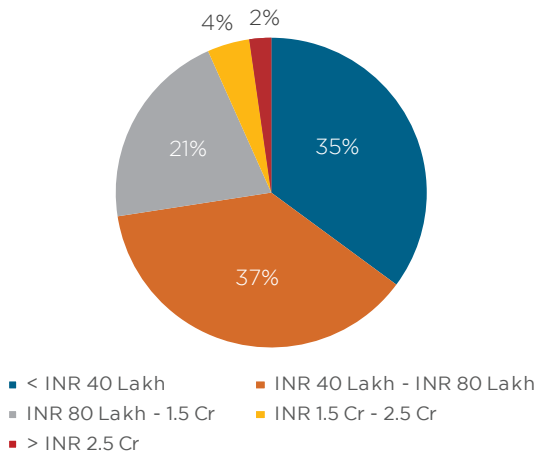
Budget - Wise Supply Trend



Source : ANAROCK Research



Overall Launches: Budget Segment

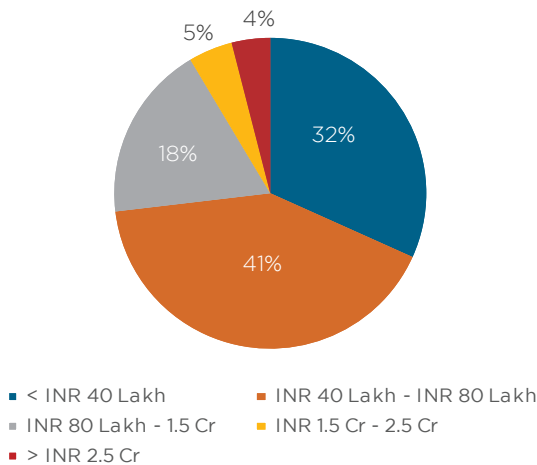


Source : ANAROCK Research

From 2015 to 2018, more than 65,000 units were launched out of which 37% launches were in the budget segment of INR 40 Lakh - INR 80 Lakh. This is followed by affordable housing with a 35% share in the overall launches during 2015-2018. A significant share of 21% is in the upper mid segment (INR 80 Lakhs - INR 1.5 Cr) during the same period.

This supply of INR 40 Lakh - INR 80 Lakh segment is targeted towards the large base of junior to mid-level IT-ITeS professionals in southern parts of Chennai. Property prices of micro markets in the southern suburbs are in the price range of INR 4,100 to INR 5,000 per sq. ft. Residential properties in the western suburbs are priced between INR 3,600 to INR 4,600 per sq. ft. This is targeted towards the industrial and blue-collared workforce employed in the MSME, SME and auto manufacturing sectors. This segment within the region is expected to witness traction in the short to medium term.

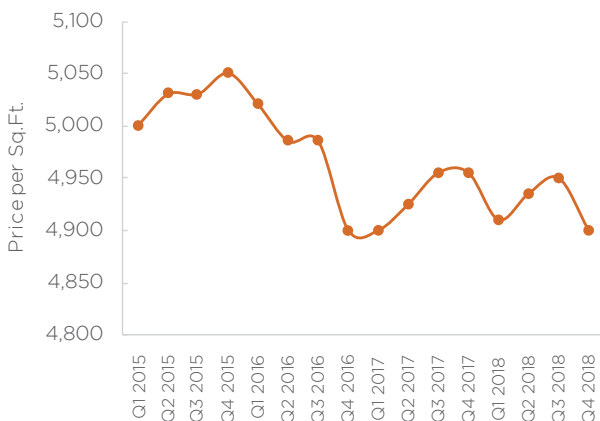
Unsold Inventory Trend: Budget - Wise



Source : ANAROCK Research

In 2018, Chennai witnessed a steep increase in new launches of the affordable segment (units priced < INR 40 lakh) and this is expected to continue in the coming years as the affordable housing is attracting more traction across the nation due to government's push with GST incentives. The increase in launches in the affordable segment is due to a slight reduction in prices and a general reduction in the configuration of housing unit sizes. Corresponding to launches the unsold inventory is highest in the mid segment (INR 40 Lakh - INR 80 Lakh) with 41% and followed by affordable housing segment with 41% and 32% respectively as of Q4 2018.

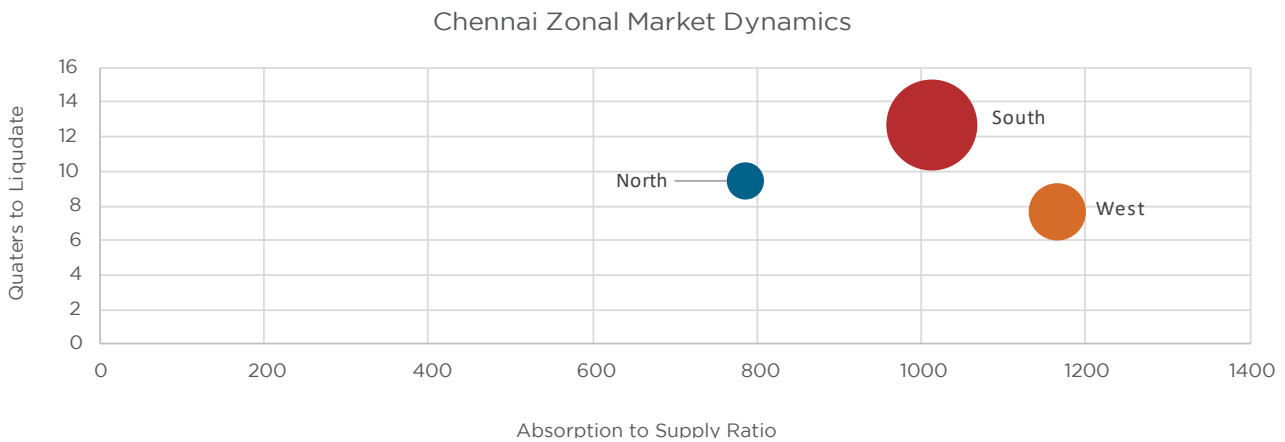
Chennai City - Level Price Trend



Source : ANAROCK Research

Chennai has experienced a marginal decline in its property prices during the past few years. Over the last 4 years, the price correction has been 2% and 3% from its peak. The average price in the city at present is INR 4,900 per sq. ft.

It is a noteworthy fact that the city's residential sector is extremely sensitive to external factors such as natural devastations, political inefficiencies, DeMo, and GST. However, considering that the city's economic fundamentals are in place, it has been quick to recover.



Source : ANAROCK Research

ZONE-WISE ANALYSIS

West is the best market with higher absorption to supply ratio of 1.16 which indicates for every 1,000 units 1,160 units are absorbed - the highest amongst the three zones - and lowest time required to liquidate the unsold inventory which is 7.7 quarters.

Zonal analysis of Chennai's residential real estate reveals stimulating insights about south and west zones. The parameters selected for this model were absorption to supply ratio which is the indicator of demand and the time required to liquidate the existing unsold inventory. This model has also taken existing unsold inventory size into consideration to depict the quantum of inventory available in the respective zone. The analysis has not considered central zone since it is largely matured with minimum supply entering the zone. Of the three zones, West is the best market with higher absorption to supply ratio of 1.16 which indicates for every 1,000 units 1,160 units are absorbed - the highest amongst the three zones - and lowest time required to liquidate the unsold inventory which is 7.7 quarters. This high demand for the location is due to the presence of numerous automobile and auto component manufacturers companies whose exports are growing at 18% annually during 2017-18. With higher support to the industry from the state government and low unsold inventory, this zone is expected to soon convert into a developer's market.

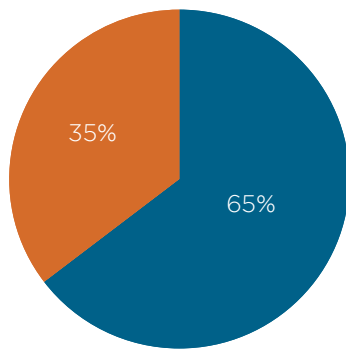
On the other hand, the southern zone is expected to continue to be a buyers' market till the time the high unsold inventory is reduced. Moreover, southern zone also has an impressive absorption to supply ratio of 1,010 units which means the zone is at supply-absorption equilibrium. Southern zone is driven by IT-ITeS developments whose exports grew at a slower pace with a CAGR of 9% during 2013-14 to 2017-18. This is due to recent natural calamities and weak consumer confidence over the existing political uncertainty which impacted the IT-ITeS exports growth during 2016-17. However, with the presence of abundant talent pool and IT-ITeS majors, the city is expected to witness rise in its IT-ITeS exports in the coming years.



CHENNAI CENTRAL

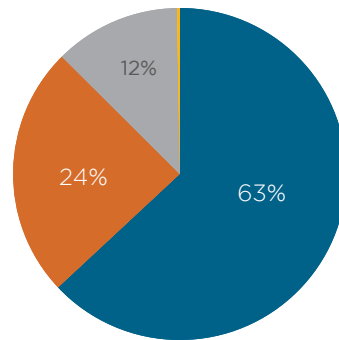
CHENNAI CONSUMER SURVEY ANALYSIS

Purpose of Investment



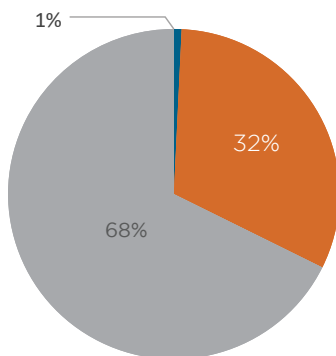
End-use Investment

Most Preferred Property



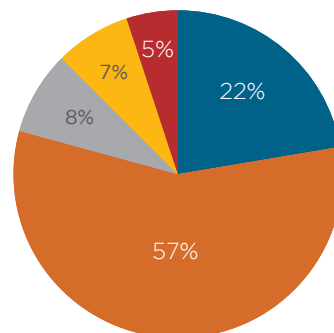
Ready-to-move-in To be ready within 6 months
To be ready within a year New launch property

Post Investment Purpose



Build an Asset for future
Earn Rental Income
Sell the property after appropriate price appreciation

Budget - Wise Segment



<INR 40 lakh INR 40 - 80 lakh
INR 80 lakh - Rs 1.5 Cr INR 1.5 crore - INR 2.5 crore
>INR 2.5 crore

Source : ANAROCK Research



A survey conducted by ANAROCK Research to ascertain the consumers' confidence have revealed the following results.

Chennai residential real estate market is predominantly driven by the end-users which account for nearly 65% of the buyers. While the prices have been declining, though marginally, the buyers are on the lookout for better options. Developers are also keen to liquidate their existing unsold inventory rather than holding on to them as many of their projects are delayed and have been affected by the natural calamities.

68% of the buyers prefer to exit from the property after it has witnessed price appreciation. The remaining are interested to create a rental income-yielding asset indicating a significant size of the buyers who are going for a second or subsequent property purchase.

The buyers are cautious and prefer to acquire property that is completed or nearing possession. It is observed that 87% of the buyers prefer ready-to-move-in or nearing completion properties so as to be delinked from the impact of execution delays.

The mid-segment priced between INR 40 - INR 80 Lakh appears to be the most preferred segment with 57% respondents preferring these. This is also reflective of the launch pattern followed in the city where the budget segment accounts for the highest share of launches. This is followed by the affordable segment which is priced below INR 40 lakhs which accounts for 22%.

In 2018, Chennai witnessed increased supply that exceeded absorption when compared to the last two years resulting in rise in unsold inventory. Property prices in Chennai have reached the lowest point in the last three years and it is highly unlikely to reduce further in the coming quarters. Majority of the housing supply in 2018 has come in the affordable housing segment due to the ongoing decline in property prices, reduction in house sizes and governments focus on this segment. Within Chennai, west and south zones are the markets which are to be closely observed for they are the potential hotspots.

5

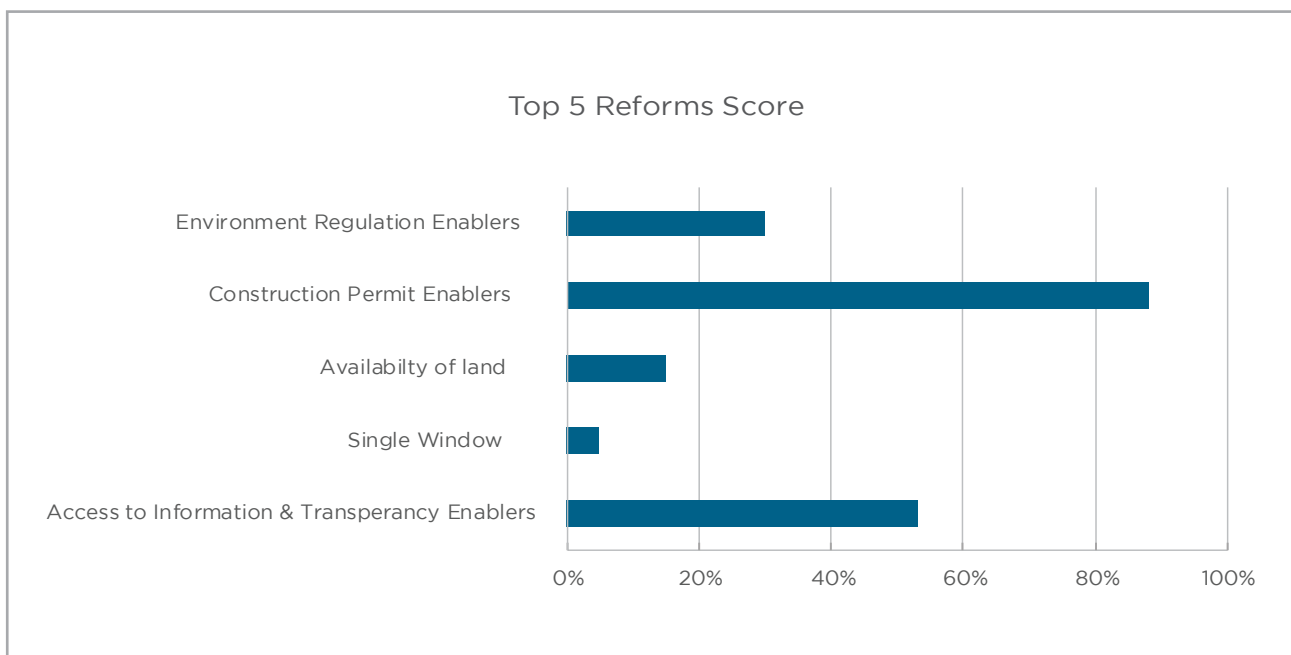
Chennai on the cusp of recovery

POLITICAL STABILITY TO REVIVE CONFIDENCE

Tamil Nadu which used to be among the top investment destinations of India is now lagging due to poor ease of doing business ranking and political instability. The state has fallen to 12th spot accounting for 0.79% of the total investments across the country in 2017. According to DIPP, Tamil Nadu is behind its neighbouring states such as Telangana and Karnataka which received investments of INR1.52 lakh Cr and INR 0.16 Lakh Cr respectively, during 2017.

Tamil Nadu has secured 15th place in the states' ease of doing business (EODB) ranking 2017, which is impacting its employment market. The state has slipped to the bottom quartile among states in generating growth in labour-intensive industries. Employment growth in labour-intensive sectors was one of the lowest in the country. The average GVA growth in labour-intensive sectors was 4.8% from 2013 to 2016 which is lower than the national average of 7.1%. Hence, the state government should focus on the factors that impact its EODB to increase investor confidence and revive job creation.

Tamil Nadu has secured 15th place in the states' ease of doing business (EODB) ranking 2017, which is impacting its employment market.



NATURAL CALAMITIES BEHIND US

Torrential rains and the resulting floods in 2015 had a major impact on Chennai's economy and industry resulting in total financial loss of more than USD 2 billion. The IT-ITeS sector has faced losses of more than USD 60 million due to rains, which forced companies such as Cognizant, Infosys, TCS, and other IT companies to shut down their operations during the calamity.

During the period, the automobile and auto component manufacturers were also impacted which caused them to shut operations resulting in delayed deliveries. The quantum of damage was estimated to be USD 0.2 billion during 2015-16. It is interesting to note that the impact of natural disaster had been severe on the automobile sector compared to IT-ITeS. Fortunately, the past year was free from any major environmental disturbances.

The quantum of damage was estimated to be USD 0.2 billion during 2015-16.

ACCEPTANCE OF HIGH RISE APARTMENTS

Apprehensions towards high-rises in Chennai has started since 2014 when a multi-storey under construction building at Moulivakkam collapsed. This incident happened in the western suburbs - Porur. Furthermore, another four-storey building collapsed near MGR road in the southern suburb in 2018. Such mishaps eventually raised apprehensions among the populace who became somewhat wary to tall structures. In 2010, an amendment to the Archaeological monuments, sites and remains act from Archaeological Survey of India has regulated construction near Pallavaram to preserve the megalithic sites. This amended provision bans the construction within localities of Sembakkam, Pallavaram and southern suburbs.

However, in 2018, the Centre has withdrawn the restriction on multi-storey buildings in Chennai, but multi-storeyed buildings will not be allowed near Buckingham Canal, areas near Cooum river between Park Railway station and Napier Bridge and Redhills catchment areas. This is expected to alter the landscape of the city.



MAJOR EVENTS AFFECTING CHENNAI RESIDENTIAL REAL ESTATE

Paused construction in Sembakam & Pallavaram due to amendment of Ancient Monuments and Archaeological Sites

2010

Floods created havoc causing financial loss of USD 2.2 bn impacting IT, Automobile & Logistics

2015

Chennai survives heavy rainfall & ongoing political crisis impact EODB & Investments

2017



2014

A multi-storey building collapses at Moulivakka, creating apprehensions on high rises

2016

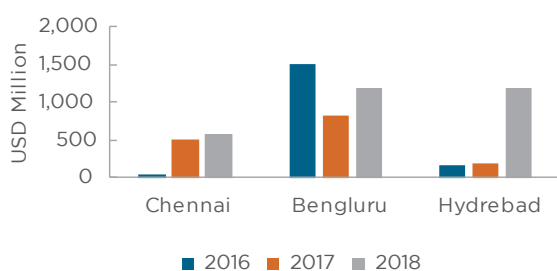
Political crisis over the demise of the chief minister created an uncertainty

2018

Civic infrastructure projects and construction activity hits a road block due to shortage of sand

PRIVATE EQUITY INVESTMENTS GAINING MOMENTUM

Investment Inflows in Top 3 cities in South Region (in Millions USD)



Source: ANAROCK Research & Venture Intelligence

With the ongoing improvement in the business environment led by structural reforms, Indian real estate is witnessing a strong rise in investment inflow as foreign and domestic institutional investors add more funds to the realty sector. Overall investment inflow in Indian realty sector in the year 2018 (Jan - Dec) stood close to USD 6 billion, 15% higher as compared to the previous year.

Realty markets in South region such as Bengaluru, Chennai, and Hyderabad are becoming the most sought-after destinations for realty investments. Investors including private equity, sovereign wealth, pension funds and NBFC's seek to capitalize on growing demand for residential and commercial space in the region from the information technology and e-commerce sectors.

South-based developers, especially in Bengaluru and Hyderabad have low debt on their books, manageable debt to equity ratio and high absorption rate. All these factors have made institutional investors to explore the south region.

TOP 3 NOTABLE INVESTMENTS IN CHENNAI IN THE YEAR 2018

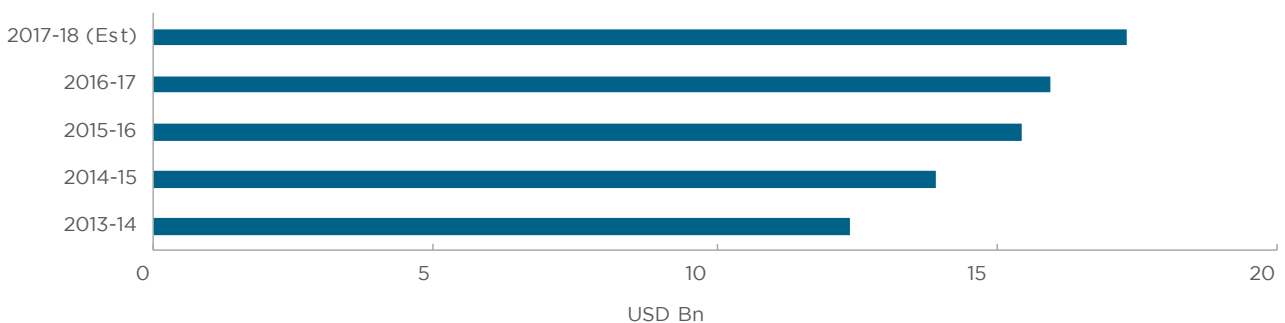
Investor	Investee	Sector	Amount (in USD Million)
Mapletree Investments Pvt. Ltd.	Shapoorji Pallonji Group	Commercial	352
Blackstone	Prestige Group	Commercial	134
Piramal Fund	Appaswamy Real Estate	Residential	31

Source : ANAROCK Research

6

IT-ITeS
TO DRIVE
SOUTHERN
SUBURBS*State government
confident on
IT-ITeS & Auto
sectors' progress*

IT Exports of Tamil Nadu



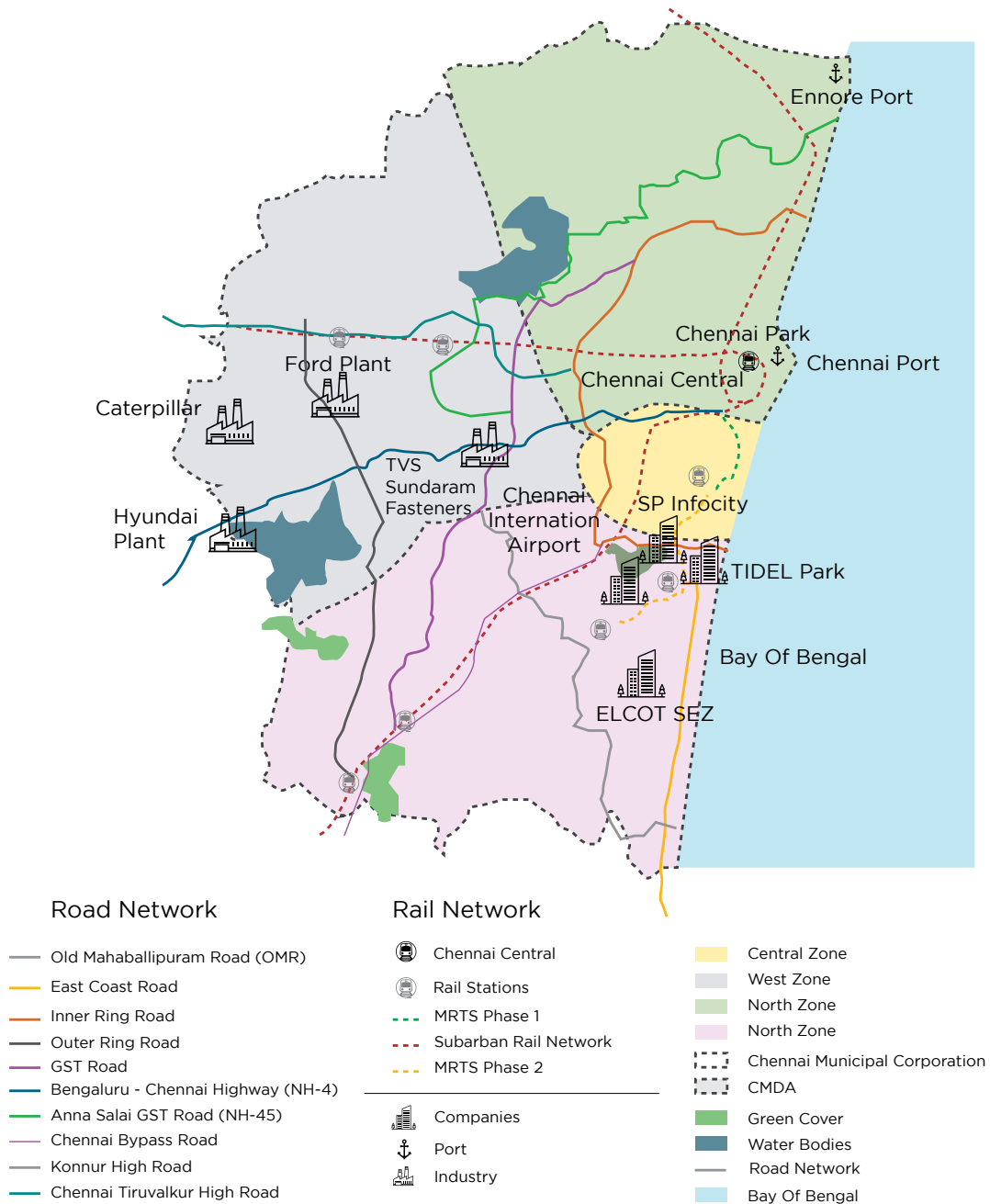
Source : ANAROCK Research

Chennai started to witness IT-ITeS developments in its southern suburbs since the late 1990s covering, Great Southern Trunk (GST) Road, Old Mahabalipuram Road (OMR) and East Coast Road (ECR). This growth of IT-ITeS has paved way for significant development of these micro markets and helped in burgeoning development of large-scale residential townships which are in the southern suburbs of Chennai. The city recorded USD 17 billion during 2017-18 which accounted for nearly 14% of the total Indian IT-ITeS exports. This makes Chennai the second largest contributor to the IT sector in southern India after Bengaluru. IT-ITeS exports of the state grew at a CAGR of 8.6% between 2013-14 and 2017-18.

According to STPI (software technology parks of India), Chennai has more than 15 operational IT-ITeS SEZs. However, the number of IT parks in the pipeline in the state are 246 with a built-up space of 146 mn sq. ft. Tamil Nadu government has allocated 377 acres of land for development of infrastructure for IT-ITeS in Chennai. Despite its sluggish growth in IT exports, the state is

confident of regaining the glory. The government is keen in giving impetus to software as a service (SaaS) sector to make the state a global SaaS destination. More than 20 SaaS companies have already started their operations from Chennai. The State government's target is to attract INR 15,000 Cr investments by announcing incentives, capital subsidies and tax exemptions to Start-up's, MSMEs and IT-ITeS firms by its new ICT Policy 2018 and Global Investors Meet (GIM) 2019.

The state has already generated 4 lakh direct employment and more than 7.5 lakh indirect employment through the IT-ITeS sector, specifically the SEZs. Chennai's IT-ITeS is poised to grow further with an abundant skilled workforce, global infrastructure and robust growth in software exports. The key IT parks such as Ascendas IT park, SP Infocity, Prince Infocity, RMZ Millenia, TIDEL park, and Olympia technology park are located in the southern suburbs of Chennai which will experience further traction with new ICT Policy 2018.



Southern suburbs of Chennai have transformed rapidly due to the existing IT establishments and it is poised to grow further with the recent policy announcements from the state government. Chennai IT industry is one of the major contributors to Indian IT industry after Bengaluru, which generated more than 10 lakh employment and close to INR 1,000 Cr IT exports. However, in the last two years, Chennai recorded a sluggish IT growth and state government is keen to revive this industry. With the recent announcements, state government is targeting to attract INR 15,000 Cr investments into SaaS, IT-ITeS, Start-ups and MSMEs. This will trigger commercial growth and correspondingly activate housing demand in the southern suburbs of Chennai where major IT parks are situated.

MAJOR INVESTMENTS IN THE AUTOMOBILE INDUSTRY TO FUEL GROWTH

Chennai is labeled as the Detroit of India, as it is home to a large number of automotive manufacturers and its allied industries. The sector had a manufacturing capacity of more than 3 million units during 2014-15, across all segments. The installed production capacity during 2017-18 included 1.35 million cars, 0.4 million commercial and 4.8 million two-wheelers per annum which is impressive growth in three years. The state accounted for more than 21% share in overall automobile exports from India during 2014-15.

Chennai is the largest auto components industry base which accounts for 35% of India's production of auto components during 2017-18.

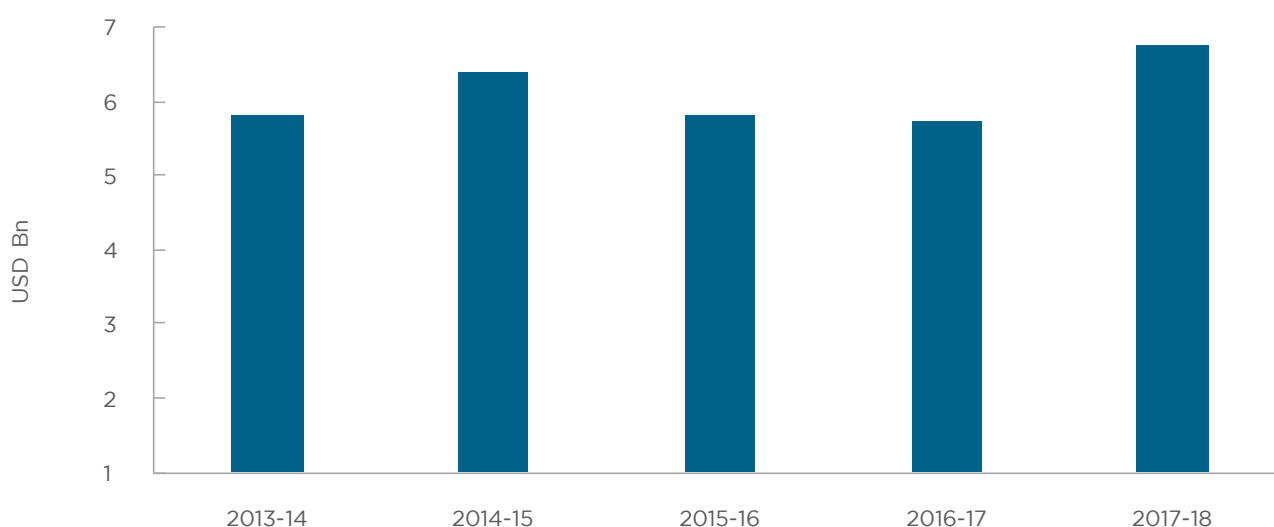
Furthermore, the state also holds a 28% share in Indian automotive and auto components industries during the same period. Chennai is the largest auto components industry base which accounts for 35% of India's production of auto components during 2017-18. Chennai has over 350 tier I to III suppliers apart from 4,000 SME's under tier IV segment in Oragadam and Sriperumbudur region. This strong performance of the city in terms of automobile manufacturing is due to the availability of abundant talent pool and high capability of the SME's in Oragadam-Sriperumbudur auto cluster to develop and manufacture auto component as per the customized requirements. Well-connected multi-modal transportation network of Road, Rail, Air, and Port is also an enabler to this industry.

Major automobile players such as Ford, Hyundai, Mitsubishi, Ashok Leyland, TVS and Caterpillar are the few brands who are contributing to manufacturing industry of Chennai.

Furthermore, the state is hoping to strengthen its automobile and auto component industry by attracting major investments in the upcoming Global Investors Meet. Hyundai motors India signed a MoU with the state government to further invest around INR 7,000 Cr to increase production capacity to 8 lakh units.



Exports of Automobile & Auto components



Source: Tamil Nadu GIM 2019

Brand	Existing Installed Capacity
Hyundai Motors	7,00,000 units
Renault Nissan	4,80,000 units
Ford Motors	2,00,000 units
Mitsubishi (Alliance with Renault)	12,000 units

Chennai's image as an auto-hub witnessed lag during 2016-17 due to its poor EODB ranking, state government's lack of proactive initiatives to spur investments which resulted in auto majors like Kia Motors, Isuzu and Hero preferring the neighboring state for their production facility. Hence, the state government is determined to take its automobile industry to next level by attracting new investments to its existing production facilities. At present the state has over 100 major auto component manufacturers with an investment of USD 555 million and output worth US 1.2 billion with exports of USD 140 million. This sector has directly employed about 45,000 people which is likely to grow by 20% annually with exports to grow at 30% over the next five years. With the expected investments coming up in Chennai, Western zone of Chennai is expected to see traction in its commercial and residential activity in the coming years.

7

Chennai to convert opportunities to strengths

SWOT ANALYSIS

Strengths

Well connected via Road, Rail, Air & Port

Established IT-ITeS sector with large number of MNC's

Thriving manufacturing & IT-ITeS sector

S



Weakness

Political Uncertainty

Lack of transparent single-window mechanism

Shortage of water

W



O



Upcoming investments in Automobile industry

Information Communication Technology Policy 2018 to attract IT investments

Opportunities



T

Prone to natural calamities

Waning investor confidence

Threats



Outlook

The city's zeal and capability to react favourably to the various external and internal forces makes Chennai quite unique. There is enough potential for growth and development despite some of the recent headwinds it has been experiencing.

The economy shall continue to be driven by the services and the manufacturing sectors which are well established in the city and happen to be a preferred choice as evident from the presence of the major players. Most of the key players are also expanding their operations in the city which indicates that further employment growth is expected in the future. The upcoming aerospace park is likely to be a major employment driver in the city which is likely to have a favourable impact on its residential real estate market.

Infrastructure and policy initiatives taken up by the State Government are expected to further improve connectivity between the regions. The upcoming metro and monorail connectivity are anticipated to unlock the potential of many locations along their traverse which are currently latent.

The current trend of softening prices is likely to generate demand driven by end users. The continuous expansion of the IT-ITeS and manufacturing sectors are likely to be the catalysts of the next level of growth. It is anticipated that the housing sector will further grow in the future and more new launches are anticipated in 2019. The fact that developers are focussing on under-construction projects and are expediting their process of construction is also going to be favourable for the market.

Based on the analysis, the western and southern zones are expected to witness high tractions. The corridors of Pallavaram - Thoraipakkam in south is likely to emerge as a preferred destination since the IT-ITeS sector plans the next level of expansion here. The western region is expected to witness demand for residential real estate driven by the growth of the automobile industry in the region.

Developer profile, location dynamics, right product mix, presence of adequate infrastructure and judicious pricing are going to be the major factors driving success in the future in Chennai.

About ANAROCK Property Consultants Pvt. Ltd.:

The ANAROCK Group is India's leading specialized real estate services company with diversified interests across the real estate value chain. Our Group Chairman, Anuj Puri, is highly-respected industry veteran and India's most prominent thought leader in the real estate domain. He has over 30 years' expertise in leveraging Indian and global real estate opportunities.

ANAROCK Group's key strategic business units are Residential Broking & Advisory, Retail, Investment Banking, Hospitality, Land Services, Warehousing, Industrial & Logistics, Investment Management and Strategic Consulting. ANAROCK's growing business teams' account for over 1500 real estate specialists with operations across all major Indian markets and dedicated services in Dubai. ANAROCK has formed strategic business alliance with global partners - HVS | ANAROCK to bring global best practices in Hospitality Consulting Services. We also have a global footprint with over 80,000 preferred channel partners and affiliates in US and UK market.

Every facet of ANAROCK's rapidly-expanding business portfolio is governed by the Firm's core assurance to its clients and partners - Values over Value.

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OUR AUTHORS: **Virendra Joshi** **Ashim Bhanja Chowdhury** **Ashish Varanasi** **Aakash Belwadkar**
VP, Research

OUR EDITOR: **Priyanka Kapoor**
AVP, Research

For research services,
please contact: **Prashant Kumar Thakur**
Head of Research
prashant.thakur@anarock.com

Registered Office

ANAROCK Property Consultants Pvt. Ltd
1002, 10th Floor, B Wing
ONE BKC, Plot No. C-66, G Block
Bandra Kurla Complex
Bandra East, Mumbai 400 051



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