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Global Foresight Series

Kochi

India's Rising Urban Star

World Winning Cities

Jones Lang LaSalle's World Winning Cities programme is a multi-year research initiative designed to assess future city competitiveness, and to predict the rising urban stars amongst the world's emerging markets in India, China, Central and Eastern Europe, the Middle East, North Africa and Latin America.

The programme was launched in 2002, and over the past six years we have assessed the city competitiveness of many of the world's emerging cities, based on rigorous and objective assessment of the key drivers of city success. Our research covers not only the standard measures of future performance (relating to the economy and demography), but we have also developed a framework for embracing softer metrics such as sustainability, quality of life, culture and city governance; issues that are just as crucial in determining a city's long term success.

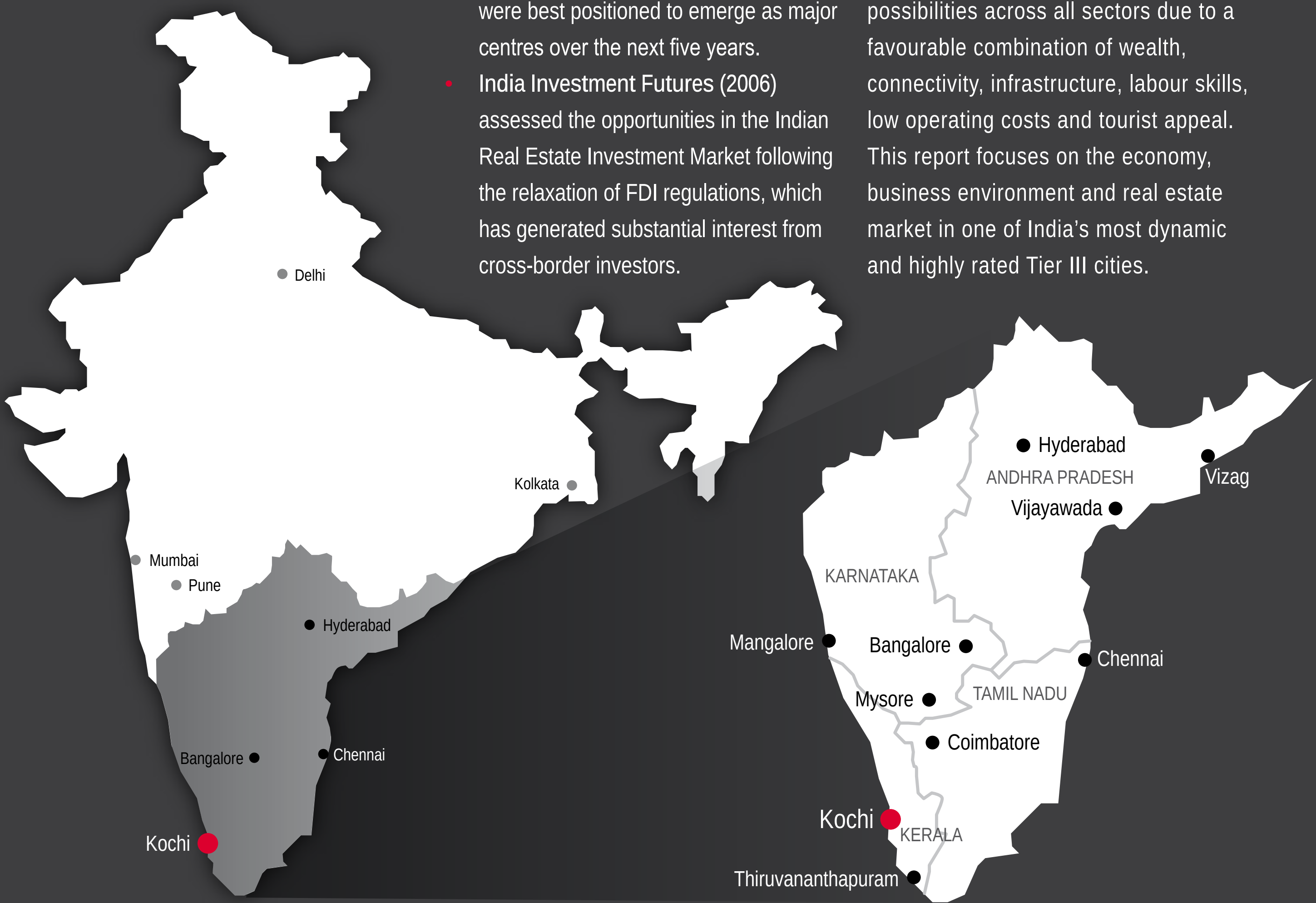
In one of our first studies back in 2003, we highlighted India's Tier I cities – Delhi, Mumbai and Bangalore – as being amongst a new wave of city winners, possessing many of the pre-conditions to develop into "World Winning Cities". We subsequently observed this success filtering down to India Tier II cities, with cities such as Chennai, Hyderabad, Pune and Kolkata now on the radar of cross-border real estate investors, developers and occupiers.

Since 2005, the programme has focused specifically on real estate opportunities across India. We have produced three major thought pieces on the Indian real estate market:

- **India Tier III Cities. The Next IT Offshoring Locations** (2005) provided an assessment of prospects for 17 Tier III cities as potential locations for IT offshoring. We identified five cities that were best positioned to emerge as major centres over the next five years.
- **India Investment Futures** (2006) assessed the opportunities in the Indian Real Estate Investment Market following the relaxation of FDI regulations, which has generated substantial interest from cross-border investors.
- **India Retail – The India 50** (2007) set out to explain and predict the emerging geography of Indian retail activity and property opportunities. We identified and developed a new typology for 50 cities that we believe will be on the radar screen of retailers, developers and investors.

The World Winning Cities programme is now seeking to identify the next wave of rising urban stars among India's Tier III cities; cities which we believe will be on the radar screen of the real estate industry over the coming decade. Our '**India 30**' research, launching in 2008, sets out to provide new insights into the real estate opportunities across 30 of India's Tier III cities.

Kochi stands out as offering amongst the most favourable prospects of the India 30. The city offers shining possibilities across all sectors due to a favourable combination of wealth, connectivity, infrastructure, labour skills, low operating costs and tourist appeal. This report focuses on the economy, business environment and real estate market in one of India's most dynamic and highly rated Tier III cities.



Cover image: © Sunil C.K., 2008

Kochi – India's Rising Urban Star

Kochi, formerly known as Cochin, is the economic capital of the South Indian state of Kerala. For centuries, it has been a centre of trade and commerce due to its strategic location along shipping routes between Europe, Asia and the Middle East.

While a major seaport continues to exist in Kochi today, its commercial activities have diversified considerably. IT/ITES (Information Technology Enabled Services), banking and tourism dominate the city's economic landscape. The Government of Kerala has been proactive not only in promoting the city as an attractive leisure and business destination but also in developing the infrastructure required to support such activities. Kochi is a leading city in India in terms of telecommunication and transportation infrastructure.

Kochi is quickly transforming into a key IT/ITES hub in South India. The city provides an enviable mix of a highly educated population, low labour & operating costs, attractive real estate options and solid infrastructure. Many of India's leading technology firms have already recognized the competitive advantages that Kochi offers by expanding their operations into the city on a large scale.

A greater corporate presence in the city, and the ensuing job creation, has led to an increase in real estate development activity across all major sectors. Newly built malls, hotels, apartment complexes and business parks are transforming the landscape and urban form of Kochi.

Both national and international property developers have started focusing on Kochi to take advantage of the favourable economic conditions and cheap land costs (relative to Tier I cities). Opportunities currently exist across all market sectors in Kochi.

The Kochi market is rated as the most mature amongst India's Emerging Cities[1]. Our India Real Estate Market Maturity Index, which scored Indian cities on the basis of real estate market transparency and overall volumes of office, retail and hotel market activity, places Kochi ahead of cities such as Nashik, Jaipur and Mangalore, and ties for first place with the city of Chandigarh.

- One of India's most dynamic and highly rated Emerging Cities
- A growing market that has a diversified economy with breadth of activity
- Favoured by IT/ITES firms due to its highly skilled talent pool, low operating and real estate costs, good connectivity and excellent telecom infrastructure
- Active real estate market with opportunities across all major sectors
- Expanding tourist destination that serves as the gateway to Kerala's famed coastal backwaters
- Wealthy population that drive retail activity
- Most favoured investment destination for Non-Resident Keralites

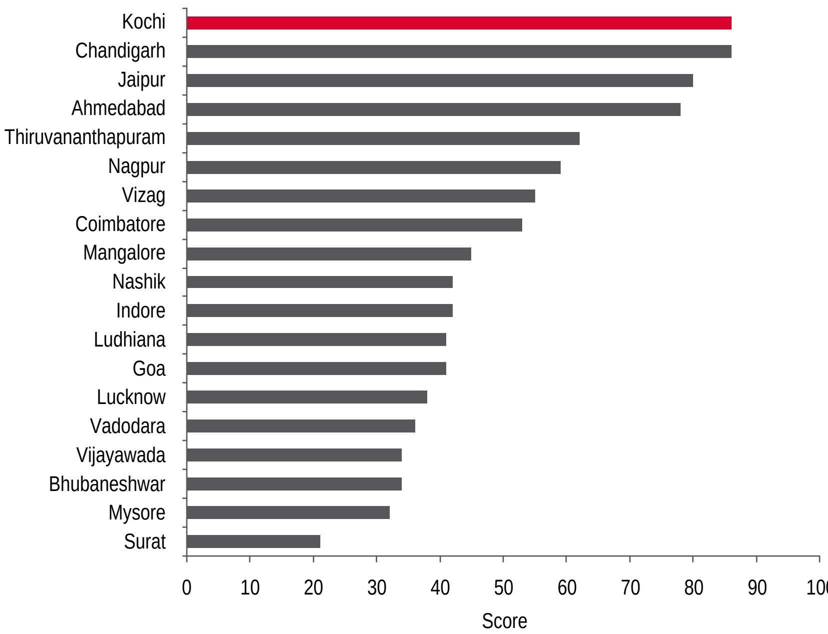
Fig 1: Economic Dashboard

Size	Population ('000 2006) Employment ('000 2007+)	1,524 330
Growth	Population (% pa 1991–2001*) GDP (% pa 2006–2007*)	1.9 8.1
Infrastructure	Air Passengers ('000 2006–2007) Freight Traffic ('000 tons 2006–2007)	2,563 15,314
Investment & Wealth	FDI as % GDP (2005*) Income / Capita (USD 2006) Savings / Capita (USD 2006)	0.5 2,002 838
Education and Labour	Higher Education Institutions (2007) Total Enrolments ('000s 2004–2005*) Literacy Rate (%) Unemployment Rate (% 2006)	31 313 94 27
Business	Real Estate Transparency (Grade) Human Capital Index (Grade)	B C

* State-level data + Projected See Definition of Terms

Source: Jones Lang LaSalle, 2008

Fig 2: Real Estate Market Maturity Index



Emerging Indian cities

Source: Jones Lang LaSalle, 2008

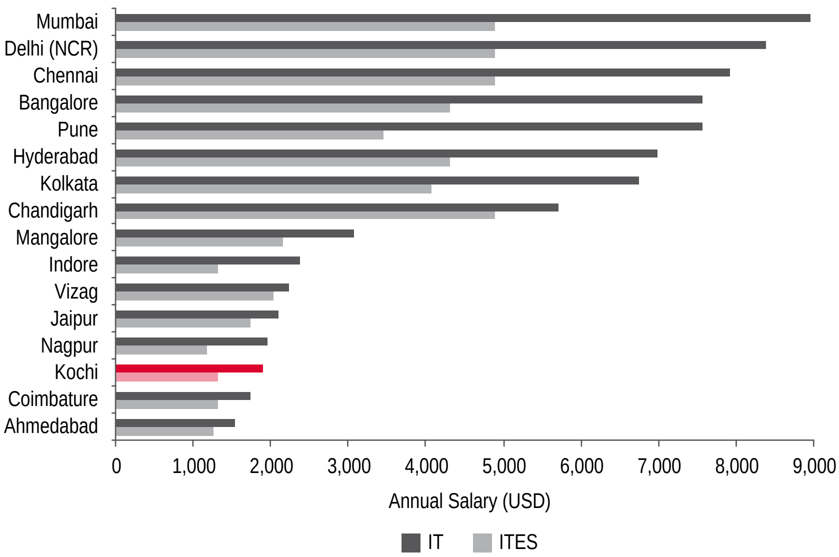
[1] India's Emerging Cities exclude the larger metros of Delhi, Mumbai, Bangalore, Hyderabad, Kolkata, Chennai and Pune.

Economy & Key Industries

Kochi's traditional economies, anchored by tourism, continue to remain strong while the IT/ITES and BFSI sectors have fuelled an economic boom in the city

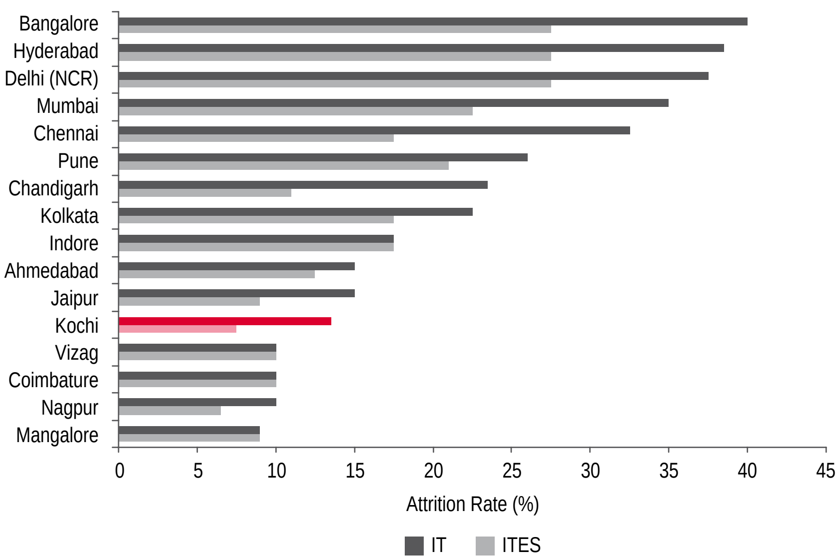
Due to its strategic location, Kochi has long been a centre of trade. For centuries, the city was renowned for its spices, jewellery, apparel and fishing industries. In recent times, the Port of Cochin and the local tourism industry have also contributed significantly to the local economy. While these industries continue to remain strong today, they have been augmented by the IT/ITES and financial services industries. As a result, Kochi is witnessing an economic boom, and residents of the city had an annual per capita income of USD 2,002 (in 2006), the 5th highest in India.

Fig 3: Labour Costs



Source: Ma Foi Management Consultants, 2006

Fig 4: Attrition Levels



Source: Ma Foi Management Consultants, 2006

IT/ITES

The IT/ITES boom in Kochi is driven by a combination of factors, which include cheaper real estate costs compared to India's larger and more mature metros; some of India's best communications infrastructure, low labour costs and low attrition rates. These, combined with the Government of Kerala's initiatives to promote IT/ITES within the state have served to make Kochi a very attractive destination for some of India's top technology firms.

Indeed, amongst India's Emerging Cities, Kochi leads the pack with the highest number of IT & ITES players already having a presence. In addition to numerous smaller players, major firms such as Wipro, Tata Consultancy Services and Cognizant have an active presence in the city.

Tourism

Kerala's natural beauty and its coastal backwaters have made it one of India's top tourism destinations. The World Travel & Tourism Council has rated Kerala as one of its top three tourist destinations, and National Geographic magazine has included it in its "Places of a Lifetime" list. Marketing campaigns such as "Incredible India" and "God's Own Country" have further fuelled domestic and international tourist arrivals in the state.

Tourism has been a traditional driver of the Kochi economy and will continue to be so going forward. While Kochi itself is not a major tourist destination, it does serve as the gateway to Kerala's coastal backwaters. As such, Kochi reaps the benefit of the tourism receipts earned by Kerala. Approximately 18% of all tourism revenue in the state of Kerala went to Kochi in 2007.

Recognising the importance of tourism to the local economy, city officials have launched initiatives to ensure the continued growth of tourism in Kochi:

- A new, modern airport has been built and is already operational
- The coastal backwaters around Kochi are being further developed to accommodate more tourists
- A new cruise ship terminal is being built in the Port of Cochin

Kochi Skyline
Photo courtesy of Dr. Vipin

Banking and Financial Sector

As the economy of Kochi continues to grow, many firms from the banking, financial services and insurance (BFSI) sector are establishing a presence within the city. Their business is driven not only by corporate clients and the growing population of the city, but also by Non-Resident Keralites (NRKs) who continue to have financial ties to their home state. Banks such as HSBC, Citibank, ICICI and Standard Chartered have set up outlets throughout the city, many of which are located in prime areas.

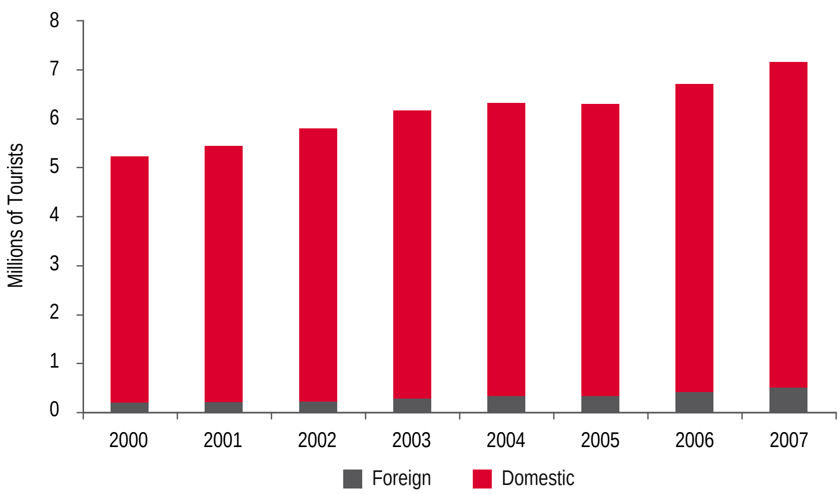
Port Activities

The Port of Cochin is synonymous with the city of Kochi. Located on Wellingdon Island, the port has traditionally been one of the main economic drivers of the local economy as well as one of the largest employers in the city. While the Port of Cochin is one of the smallest major ports in India, it is embarking on a USD 2.4 billion modernization project that will enable it to take market share away from competing ports in Gujarat, Maharashtra and Tamil Nadu.

Gold and Spice Trading

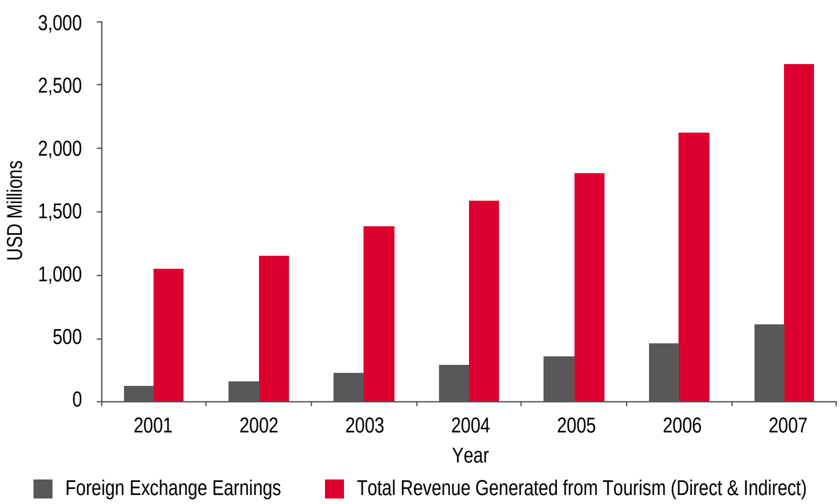
Trading of spices and gold has had a long history in Kochi. While spice trading has diminished in recent years, the gold industry has remained strong. Many prominent gold retailers such as Alapatt, Josco, and Alukkas call Kochi their home base and the city is dotted with numerous showrooms and exhibition halls.

Fig 5: Tourist Arrivals in Kerala



Source: Government of Kerala, Department of Tourism

Fig 6: Tourism Receipts in Kerala



Source: Government of Kerala, Department of Tourism

Urban Form & Infrastructure

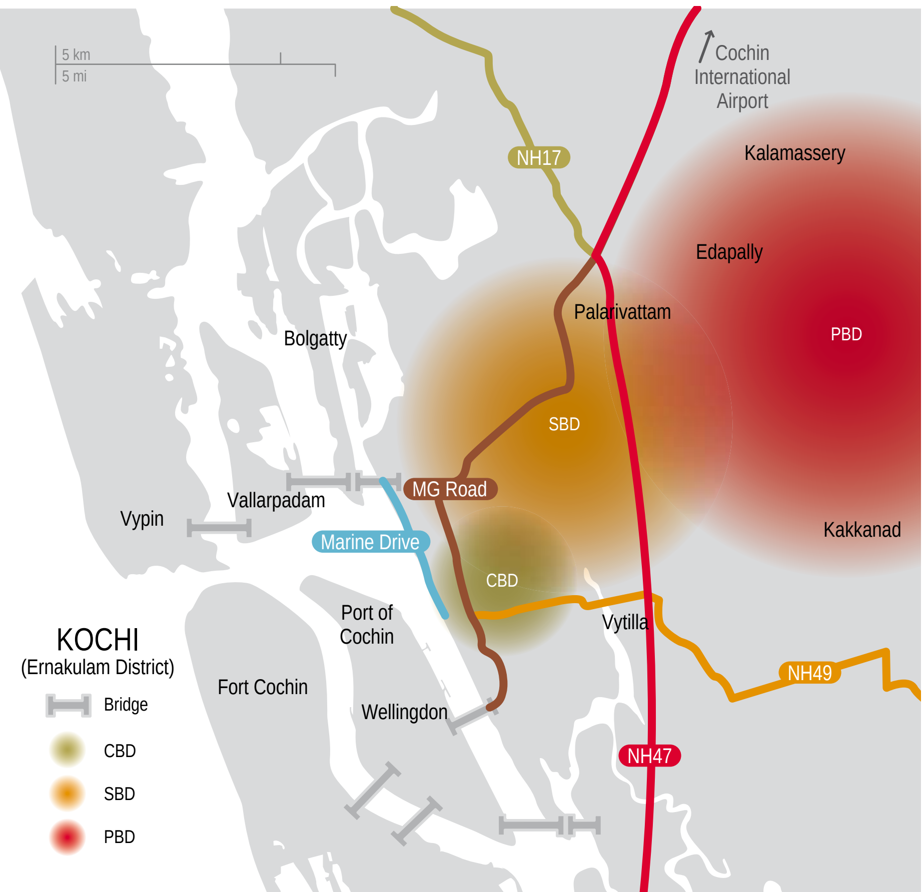
A collection of small islands, a large peninsula and the mainland expanding to the north and east collectively make up the modern city of Kochi

Urban Form

The city of Kochi is located on Kerala's central coast in the Ernakulam district. A collection of small islands, a large peninsula and the mainland collectively make up the modern city of Kochi. Suburban districts and the new Cochin International Airport have recently stretched the boundaries of the greater metropolitan area to the north and the east.

Fort Kochi, located on a peninsula in the southwest corner of the city, is where Portuguese colonists established the first European colony in India during the 16th century. Today this area is mostly a middle-class and upper middle-class residential colony with traces of colonial architecture and urban planning.

Wellingdon Island, located between the peninsula and the mainland, is where the Port of Cochin is located. Almost the entire island is used for industrial activities by the port and railways. The neighbouring islands of Vypin, Vallarpadam and Bolgatty are also slated for mostly industrial use, with some middle-class homes also planned.



Mahatma Gandhi Road (or M.G. Road) on the mainland is the centre of commercial and retail activity in Kochi. This north-south artery serves as both a high street and CBD for the city. Limited space has caused merchants and corporates to look for space immediately adjacent to M.G. Road, mostly towards the east. Marine Drive, Kochi's prime residential neighbourhood, can be found along the coast close to the northern end of M.G. Road.

Further to the east, National Highway 47 runs parallel to M.G. Road. This vital artery is where many of Kochi's new malls are being developed. NH-47, and the parallel Airport-Seaport Road to the east, provide a crucial link to the northeast suburbs and the international airport.

Kochi's new IT parks and Special Economic Zones (SEZs) are found in the northeast suburbs of Kalamassery and Kakkanad. A great deal of new residential development is also happening in these areas. Future residential development is slated for development east of the Airport-Seaport road.

A Major Seaport

The Port of Cochin, one of India's twelve major ports, has ambitious plans for infrastructure development over the next 5 years. The numerous projects that are planned will start to come online in 2008 and continue through to 2011. In addition to expanding the range of services that can be offered, these infrastructure projects will create economies of scale that will make the port more cost and time competitive with others throughout South and Southeast Asia.

The Port of Cochin's intrinsic advantages ensure that it will continue to remain one of India's leading ports. They include:

- A location just 11 nautical miles from a major shipping lane that connects the Middle East to the Far East;
- An all-season port that can handle large vessels;
- Good connectivity to the rest of India by rail, road, air and backwaters;

As the port expands, there will be an increasing amount of industrial activity on Vypin, Vallarpadam and Bolgatty islands. Many of the additional workers that will be hired by the port are to be housed in new residential developments on these same islands. These new workers, along with the Port of Cochin's improved facilities will play a critical part in its plans to increase overall traffic handled and market share within India.

Excellent Air Connectivity

More than 2.5 million air passengers used Cochin International Airport in 2006–07, making it the 7th busiest airport in India. The airport, built in 1999 as India's first greenfield public-private partnership civil aviation project, ranked 4th in terms of international air passengers. No other airport within India's Emerging Cities ranks as high in both categories.

Cochin International Airport is the only airport in the country besides Mumbai and Delhi that can handle large commercial aircraft such as the Airbus 380 (the largest passenger plane in the world). It has excellent connectivity to other cities within India and has direct international flights. This has served not only to boost tourism within Kochi but has also had a positive impact on the number of companies that have launched operations within the city.

Improved Road Connectivity

A growing population and an increase in the number of cars per household have worsened the traffic congestion within Kochi. To address this issue, a 30km outer ring road project – the Cochin Airport-Seaport Highway – is being constructed. When fully operational this corridor will connect many of the industrial and commercial zones of the Kochi area and reduce the travel time from the sea port to the airport by half.

Kochi is well connected to other cities in India via the national highway system. Three national highways (NH-47, NH-17 and NH-49) pass through or near the city. This allows commercial traffic from both the airport and seaport to connect easily to the national grid.

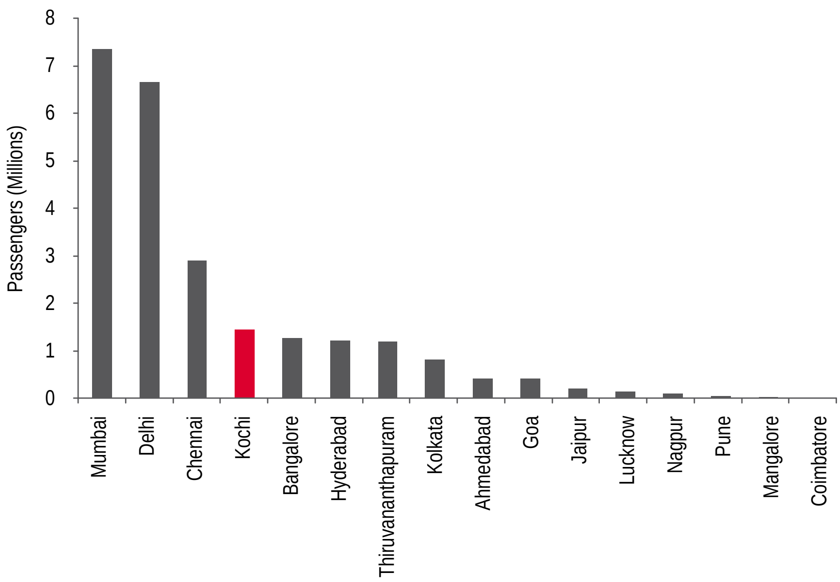
First Rate IT Connectivity

Kochi's excellent internet connectivity bodes well for the development of the city as an IT/ITES hub. The city is better connected than most cities in India, having both the SAFE and SEA-ME-WE3 optical submarine telecommunication cables land in Kochi. Such connectivity has helped Kochi in attracting IT & ITES firms.

Technology Parks & SEZs

Kochi has been a pioneer in the adoption of SEZs. The Cochin SEZ was one of the first in the country and housed businesses from a variety of industries. After a long break in SEZ development, two new technology-focused SEZs, Infopark and SmartCity will be completed in the short to medium term in the Kakkanad suburb of Kochi. These will be augmented by facilities such as the Muthoot Technopolis, the Port of Cochin's SEZ, and the KINFRA Information Technology & Electronics Park, which will further boost commercial activity in the city.

Fig 7: International Air Passengers



2006–2007

Source: Airports Authority of India

The pillars of Kochi's superb infrastructure are its large sea port, modern airport, excellent IT connectivity and technology parks/SEZs

Labour, Education & Demographics

With a population of 1.5 million inhabitants in its metropolitan region, Kochi is the largest urban area in Kerala. India's most recent census showed that Kochi's population had grown at an annual rate of 1.9% (1991–2001). New migrants to the city constitute 7.6% of the overall population, putting it in the same bracket as larger cities such as Mumbai, Delhi and Bangalore.

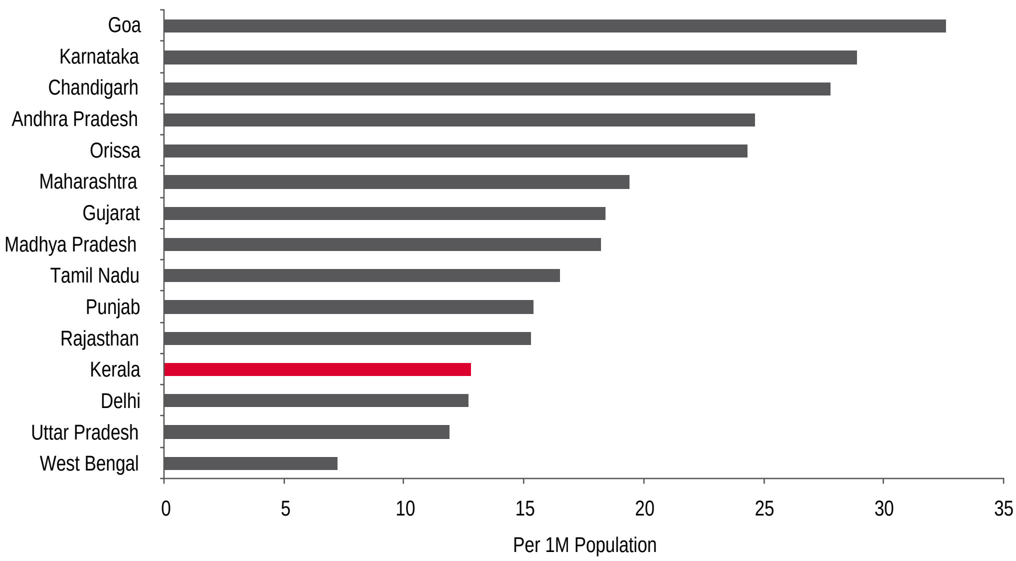
Due to a lack of educational and employment options Kochi residents have traditionally sought opportunities in other Indian states, as well as abroad, most notably in the Middle East. Despite being employed outside of their native city, Kochi residents continue to maintain strong ties to their families and the community. The money that they repatriate contributes significantly to the local economy and partly contributes to Kochi having one of the highest incomes per capita income in India at USD 2,002 (2006).

When one looks at the profile of Kochi residents, contradictions emerge. With a literacy rate of greater than 94%, Kochi residents are among the most educated Indians. Yet the number of schools and universities are generally considered inadequate. Indeed, only 407 institutes of higher education exist in Kerala, a figure that places it towards the bottom of the list in this category amongst Indian states. This has traditionally led to many of Kerala's brightest students to pursue higher education outside of the state.

In the past, a lack of employment options has also forced many Kochi residents to seek opportunities outside of the city. A poor 2% annual employment growth rate has led to an unemployment rate of 27%. Unionized labour has historically been strong in Kochi, due partly to the high number of jobs linked to the Port of Cochin.

The economic resurgence that Kochi has seen in the past five years is sure to improve Kochi's employment figures. While the spice trade, jewellery trade and local seaport have traditionally been the largest employers, IT parks and SEZs are now attracting many new corporate employers to the city. These new technology centres, along with the upgrade to the Port of Cochin, are projected to create over 300,000 new jobs over the next five years, effectively doubling the working population of the city. Many of these jobs will be filled by new migrants to the city, which will create additional demand in the residential sector and boost retail activity within the city.

Fig 8: Higher Educational Institutes



Source: Government of India, Ministry of Human Resource Development

Business Environment & Governance

Kochi's economic development is a top priority for the Government of Kerala. While there are persistent concerns about the state's political direction, the government has shown leadership in its development of key infrastructure throughout the city. Important airport, seaport, highway and SEZ projects have been launched and completed throughout the city. These projects have been critical in attracting some of India's leading firms to the city.

The Government of Kerala has designed a package of incentives and policy measures to promote investment in the state and create a more business-friendly climate. These, along with Kochi's good rating in the 2008 India Real Estate Transparency Index position the city as one of the most favoured Emerging Cities to conduct business.

Fig 10: Kerala State Policy Measures

Policy	Development Focus
Industrial Policy	• Small and medium scale industries • Traditional Industries • Infrastructure
Biotechnology Policy	• Knowledge base creation • Pipeline technologies • Educational and R&D institutions
Information Technology Policy	• Business infrastructure for IT • Global Centre for excellence in human resources
Energy Policy	• Development of renewal energy technology • Promotion of renewal energy applications • Export promotion

Source: Jones Lang LaSalle, 2008

The Government of Kerala has shown leadership in emphasizing development of vital infrastructure which has been critical in attracting some of India's leading firms into Kochi

Fig 9: India Real Estate Transparency 2008

Level		City
A	Most Transparent	Delhi Pune Kolkata Chandigarh
B	Above Average Transparency	Mumbai Bangalore Hyderabad Chennai Kochi Nagpur
C	Average Transparency	Ludhiana Jaipur Ahmedabad Indore Nashik Vijayawada Vizag Thiruvananthapuram Coimbatore
D	Below Average Transparency	Vadodara Goa Mangalore Mysore Bhubaneshwar
E	Least Transparent	Lucknow Surat

Source: Jones Lang LaSalle, 2008

Kochi CBD

Real Estate Overview

Compared to India's larger and more mature cities, Kochi has a small commercial real estate market that is still in an early stage of development. However, the city's economic resurgence is boosting the real estate market and creating new opportunities across all sectors. The city has also among the most transparent real estate markets of India's Emerging Cities, with levels of transparency comparable to Mumbai, Bangalore and Chennai.

While tourism is driving growth in the hospitality sector, Kochi's transformation into an IT/ITES hub is having an impact across the entire real estate landscape. Development of Grade-A office space within new technology parks and SEZs is drawing companies and employees to the city. This is having a significant cascading effect on the retail, residential and hotels sectors.

A diverse set of developers and occupiers have already entered the market. In the past, only local and regional developers such as Abad Builders were active in the Kochi market. Today, Kochi is attracting many pan-Indian developers such as DLF and Unitech, as well as international developers such as EMAAR MGF and EmKay Group.

Tejomaya Building at InfoPark, Kochi

Fig 11: Real Estate Dashboard

Market Size / Stock	
Offices Grade A (000s sq m, Q2 2008)	198
Retail (Shopping Malls) (000s sq m, Q2 2008)	3
Number of Luxury Hotels (2008)	5
Market Activity	
Office Construction Grade A (000s sq m, to 2011)	323
Office Vacancy: Grade A – CBD (%, Q2 2008)	6–7%
Grade A – PBD (%, Q2 2008)	0–2.4%
Benchmark Values	
Offices Grade A – CBD Rents (USD per sq m pa)	256
PBD Rents (USD per sq m pa)	120
Retail (High Street) – Rents (USD per sq m pa)	436
Hotels – Room Rates (Luxury, USD)	125
Residential Sales Prices:	
Prime Market (USD per sq m)	4,010
Suburban Market (USD per sq m)	852
Grade A Offices – Indicative Yields (%)	10–11%
Real Estate Activity Indicators (A–E)	
Office Market	C
Retail Market	C
Hotels Market	B
Market Transparency	B

See Definition of Terms

Source: Jones Lang LaSalle, 2008

Office Market

Kochi has a fairly small but active office market, with a Grade-A commercial office stock of 198,000 sq m. The market is divided into three business districts that are distinct in not only their location and relative prices, but in the types of properties available and the types of occupiers that are typically found there.

The IT/ITES industry is the principle driver of commercial office space in Kochi. IT/ITES firms typically require large floor plates, are attracted by low real estate and operating costs, and prefer turn-key solutions. Firms such as Wipro, Tata Consultancy Services and Cognizant Technology Solutions have therefore chosen to set up their operations in the handful of SEZs and technology parks that exist in Kochi's peripheral business district (PBD). 69% of the current Grade-A office stock and almost all of the future office development is in the PBD.

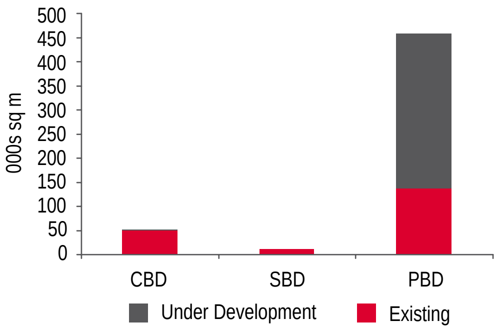
The banking and finance industry has also started to have a greater presence in Kochi. Unlike IT/ITES firms, these corporations seek out smaller units in prime commercial locations. Citibank, AIG, HSBC and ICICI Prudential have all chosen to have their offices in Kochi's central business district (CBD). The CBD contains only 25% of the existing Grade-A office stock. While some new development activity is under way in the CBD, it amounts to less than 1% of projected office development.

Kochi's secondary business district (SBD) contains just 6% of current Grade-A office stock, and has less than 1% of projected office development. This area is ideally suited for occupiers that wish to be in close proximity to the CBD, want better road connectivity (due to its proximity to NH-47) but are only prepared to pay moderate rent levels.

A handful of new developments in the CBD and SBD, as well as new IT park and SEZ projects in the PBD will add nearly 323,000 sq m of grade A office stock over the next 3 years. In terms of volume, a great majority of this new development will occur within Infopark. Nearly 1.1 million sq m of additional Grade A space is currently being proposed as part of two other IT parks in Kochi's PBD: SmartCity and Cyber City. Should such projects go from the proposal stage to actually being developed, they would create a Grade-A office stock comparable in size to today's Chennai, Delhi and Mumbai.

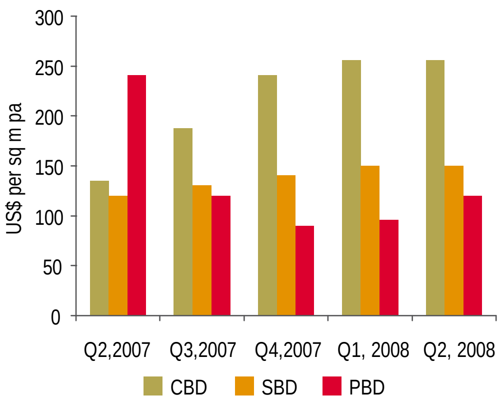
To absorb the large amounts of new office stock that is on the horizon, Kochi's economy must continue to grow at a rapid pace and draw in new corporate occupiers. Incentives from the Government of Kerala and technology park operators will be a key factor in ensuring that firms such as Wipro, which is developing a 93,000 sq m campus in Infopark, will continue to choose Kochi as part of their business expansion plans.

Fig 12: Grade A Office Stock



Source: Jones Lang LaSalle Research, 2008

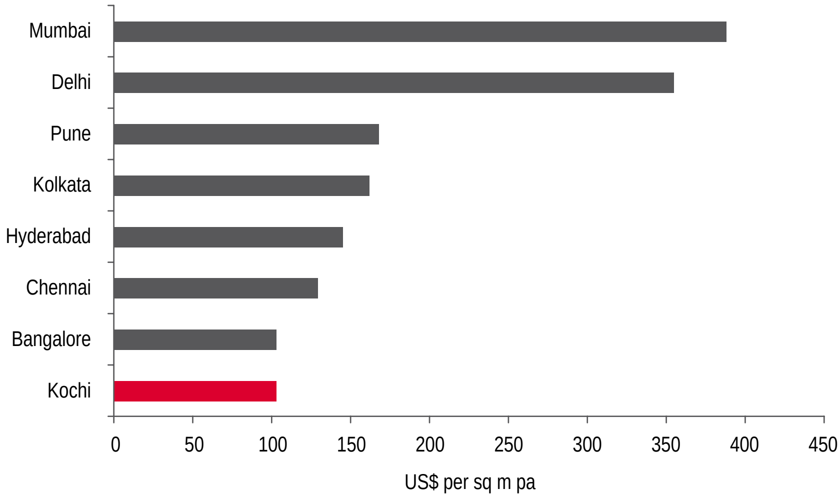
Fig 13: Grade A Office Rental Levels



Source: Jones Lang LaSalle Research, 2008

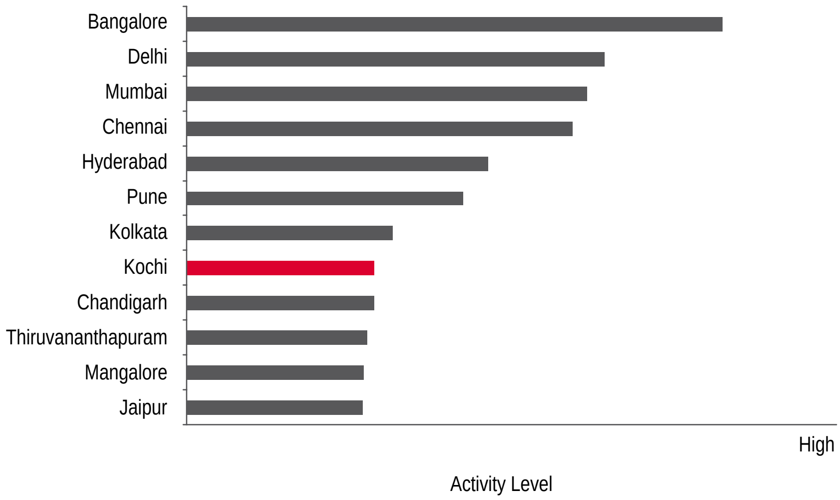
Kochi's small but active office market is driven by the IT/ITES industry, much of which is located in the business parks and SEZs located in the city's peripheral business district

Fig 14: Grade A Office Rentals Across PBDs in India



Source: Jones Lang LaSalle, 2008

Fig 15: Office Market Activity



Source: Jones Lang LaSalle, 2008

If Kochi is not successful in drawing in additional corporate occupiers, a supply/demand mismatch may depress rental values. We have already witnessed such a trend during the second half of 2007 when rental values fell in the PBD as new supply came online.

Central Business District (CBD)

Mahatma Gandhi Road, known locally as MG Road, has traditionally been the heart of Kochi's commercial activity. Today, MG Road, along with Marine Drive, makes up Kochi's Central Business District. Due to lack of available land parcels, very little new development has been built recently. While mostly small-scale projects are coming up within the CBD, one notable large-scale development is the Kerala Trade Centre, which is being constructed by the Kerala Chamber of Commerce and Industry. Scheduled to be completed by the end of 2008, the KTC is a 12-storey, 17,000 sq m mixed-use project for commercial, retail and residential purposes.

The existing stock in the CBD is characterized by small floor plates, poor facility management and lack of amenities, such as integrated air handling units. Financial institutions, airlines, travel agencies and government bodies are the typical occupiers. CBD rents range from USD 90–256 per sq m per annum.

Secondary Business District (SBD)

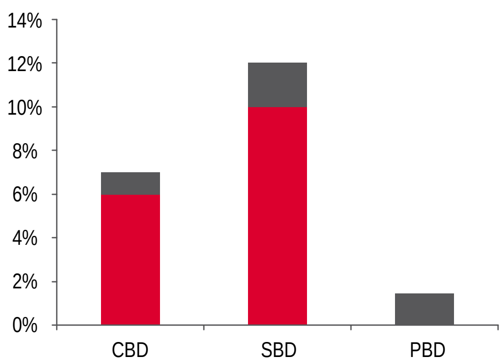
The areas in and around Vytilla Junction, Palarivattam Junction and AKG Road comprise the Secondary Business District in Kochi. Much like the CBD, land in the SBD is difficult to obtain. Other similarities include small floor plates, lack of amenities and poor facility management. In contrast to the CBD, the SBD has seen some construction of higher quality office space in the Vytilla and Palarivattam Junction areas. The SBD also offers better road connectivity than the CBD due to its proximity to NH-47. The neighbouring SEZ and large IT parks create a spillover effect with smaller occupiers choosing to set up in the SBD. Occupiers include banks, travel and tour companies, and telecom firms. SBD rents range from USD 135–150 per sq m per annum.

Peripheral Business District (PBD)

The PBD is where the vast majority of office development activity in Kochi is occurring. The emerging districts of Edapally and Kakkanad are favoured by developers due to the availability of large land parcels, good road connectivity (NH-47) and proximity to the Kochi International Airport. The Cochin SEZ, Infopark, Muthoot Technopolis and Smart City are all located in the PBD. Within these IT parks and SEZs, large-sized grade A office space with facility management services are being offered. The PBD is the hub of IT/ITES activity in Kochi. Companies such as Wipro, Tata Consultancy Services, Cognizant Technology Solutions and Outsource International Partners have all occupied or have developed their own office property in the PBD. PBD rents range from USD 90–120 per sq m per annum.

Availability of large land parcels, good road connectivity and proximity to the Kochi International Airport are some of the reasons that developers and occupiers favour Kochi's peripheral business district

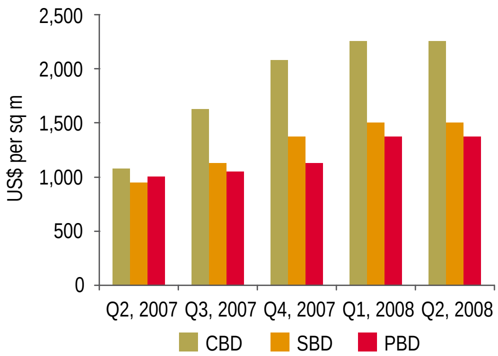
Fig 16: Grade A Office Vacancy Levels



Note: Grey bars in above chart indicate possible range of values

Source: Jones Lang LaSalle, 2008

Fig 17: Grade A Office Capital Values



Source: Jones Lang LaSalle, 2008

Kerala Landscape

Retail Market

MG Road has been the traditional high street in Kochi. NH-47 is being transformed into a mall corridor with no less than 6 malls under construction

A retail revolution has hit India and Kochi is no different. With rising incomes and changing attitudes towards spending fuelling consumerism, the retail property market in Kochi is heating up. As with other Emerging Cities in India, retail activity in Kochi has traditionally been concentrated on a central high street. This is about to change in Kochi with a variety of new retail formats being developed throughout the city.

MG Road has been the traditional high street in Kochi. This continues until today with a variety of gold, textile and various other small merchants located along the strip. Marine Drive, a more recent retail destination, is challenging MG Road as the preferred high street in Kochi, as is Vytilla Junction. Shops located in these areas are typically small and connectivity is poor. Yet, despite this, prevailing rents on Marine Drive at USD 436 per sq m are the highest in the city.

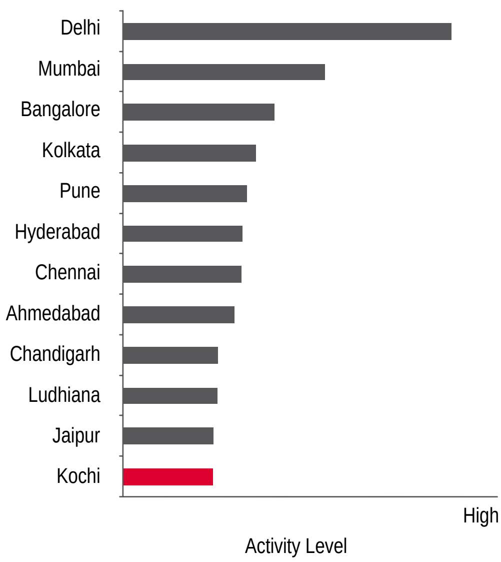
The north-south National Highway 47 is being transformed into a mall corridor. In a city that has only one mall of 3,000 sq m so far, no less than thirteen malls are planned or under construction in Kochi. The vast majority of these new malls will be located along NH-47. Builders such as the Prestige Group, Abad Builders, and the EmKay Group are working on mall projects that will be of various standards, specialty and mixed-use formats. Marine Drive and MG Road will also see some development of new malls and retail outlets.

The next 3 years are expected to see over 100,000 sq m of new retail space come online in Kochi. This supply is expected to not only moderate retail rents on Kochi's high streets, but it will also impact traffic and residential patterns as the city continues to grow towards the north and east. With much of the new retail stock coming online within a very short time period, mall rents will remain flat over the medium term as occupier demand catches up with supply.

Over-supply is a concern in the short term as the city may not be able to absorb the sudden increase in retail stock. Mall management will no doubt be a key differentiator between retail centres that are successful and those that are not. While key retailers such as Pantaloons, Levi's, Nokia and Provogue are already present in the city, many labels have yet to make their entry into the city. Attracting such key tenants will be a key determinant of success for malls.

Bay Pride Mall, Kochi

Fig 18: Retail Market Activity



Source: Jones Lang LaSalle, 2008

Hotel Market

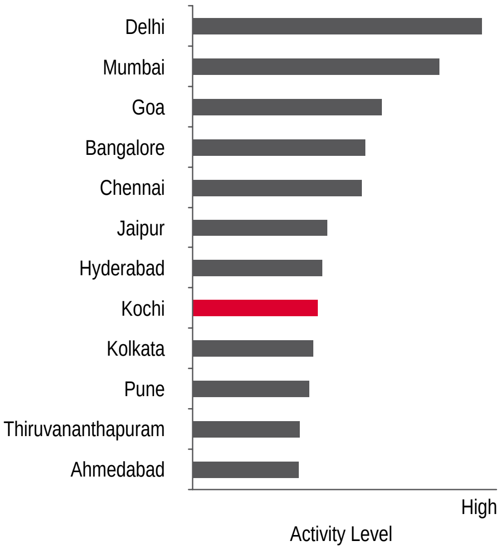
The outlook for the hotel sector in Kochi is very bright due to strong demand drivers. Leisure tourism – historically the prime driver of demand is set to experience further growth and currently represents 60% of the overall demand for hotels in Kochi. With the "Incredible India" and "God's Own Country" marketing campaigns encouraging tourists to visit India, and Kochi in particular, Kochi's hotel sector has been unable to keep pace with rising demand from leisure tourists and medical tourism.

The city is also witnessing an increase in business tourism; its emergence as a preferred location for IT/ITES firms in South India, prominence in Kerala's political and economic map and good air connectivity, with the advent of low cost carriers, have driven this growth. The emerging IT/ITES and banking industries continue to draw business travellers into the city that require business class and 5 star hotels as well as MICE (meetings, incentives, conventions and exhibitions) facilities. While this segment is not the principle driver of demand currently, it will increasingly become important and in our opinion, the city will eventually witness equal distribution of demand amongst leisure and business tourists.

The five luxury hotels currently in operation in Kochi (Taj Residency, Taj Malabar, Le Meridien, Casino Hilton and Trident) offer approximately 600 rooms and are running at an occupancy rate in excess of 65%. While the Taj Residency and Le Meridien do offer some conference and convention halls, demand for these facilities greatly exceeds the supply.

Major hotel operators are rushing into Kochi with at least five major luxury hotel projects announced. The number of business class and 5-star+ rooms is expected to more than double over the next three years. Additional MICE facilities will also be built and are expected to improve the overall performance of these hotels. Demand will continue to be driven by leisure travels over the short term as more and more corporates continue to set up shop in the city. The IT/ITES and banking industries will need to continue to develop if the city is to absorb all the supply that is slated to come online.

Fig 19: Hotel Market Activity



Source: Jones Lang LaSalle, 2008

Fig 20: Luxury Hotels in Kochi

Hotel	Completion Date	Rooms
Le Meridien	Operational	228
Taj Residency	Operational	108
Taj Malabar	Operational	96
Trident	Operational	85
Casino Hilton	Operational	67
Crown Plaza	2009	200
Hilton Garden Inn (Kakkanad)	2010	260
ITC Sheraton	2010	200
Hilton Group (Marine Drive)	2011	240

Current and future supply
Source: Jones Lang LaSalle, 2008

Taj Malabar Hotel, Kochi

Residential Market

The landscape of Kochi is changing with new high-rise developments replacing the traditional bungalows, independent houses and small apartment complexes, which used to dot the city

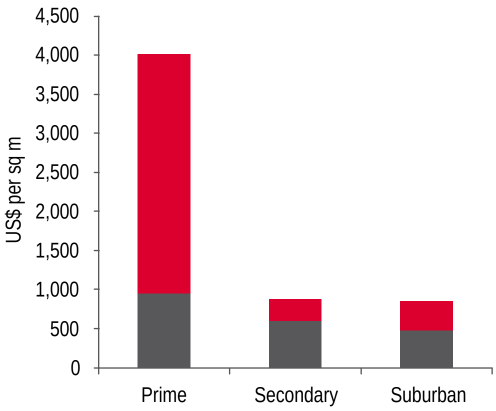
The residential real estate market in Kochi has witnessed unprecedented growth over the past four years in terms of capital values and development activity. All micro-markets of the city have seen a flurry of development activity with a majority of it focused on suburban districts. The landscape of Kochi is changing with new high-rise developments replacing the traditional bungalows, independent houses and small apartment complexes, which used to dot the city. Major developers such as DLF, the Prestige Group, ABAD Builders, Skyline Constructions, the Puravankara Group are active in all areas of the city.

Musical Walkway, Marine Drive, Kochi

While a majority of the demand can be attributed to the growing local economy, a significant portion of demand is generated from NRKs and other investors from India, the Persian Gulf and overseas. Despite capital values in Kochi having hit an all time high, they still appear reasonable compared to those found in other Indian and international markets.

Absorption rates in the prime residential areas are approximately 90%. While a lower rate of 72% in the suburban residential areas can be attributed to developers building ahead of anticipated demand from neighbouring SEZs that are still under construction, the 63% absorption rate found in the secondary residential areas may be a source of concern going forward.

Fig 21: Residential Capital Values



Source: Jones Lang LaSalle Research, 2008

Fig 22: Residential Micro-Market Locales

Prime	Marine Drive Off M.G. Road
Secondary	Kaloor Palarivattom Panampilly Nagar Girinagar Gandhi Nagar
Suburban	Kakkanad Edapally Aluva Kalamassery Tripunithura Adjacent to Pandit Kuruppan Road

Source: Jones Lang LaSalle Research

Closing Thoughts

Kochi was once a leading city of trade and commerce within India. Today, it has many of the right ingredients to become once again an economic hub within India. To achieve its potential, however, Kochi will need to have visionary leaders who have the ability to take the city forward. A stable government is required, one that is focused on the sustainability of Kochi's most valuable resources – its citizens and the environment.

With a 94% literacy rate, Kochi should be commended with what it has achieved in primary education. Going forward, addressing the need for higher education must be a top priority. Kochi will not be able to compete with India's other Emerging Cities if it has to send its citizens away for higher education and hope that they return. The city runs the risk of staying at the lower end of the ITES service delivery spectrum and failing to move up the value chain into industries such as biotechnology/pharmaceuticals and aerospace design. By investing in institutes of higher education within the city, Kochi will not only be educating its citizens, but will also be developing the R&D infrastructure that is required to foster development of the high tech and life sciences industries.

Like many Indian cities, Kochi is riding the IT wave to prosperity. While much of its current success is due in large part to the IT sector, it must ensure that it does not get complacent in developing other sectors of its economy. Kochi has already crossed the biggest hurdle that many developing cities in India face – infrastructure. The air, sea, road and telecommunications connectivity that Kochi has, combined with its abundant and cheap supply of labour and real estate, mean that the city is poised for significant economic growth and real estate development across all sectors.

Tourism is perhaps what is most synonymous with Kochi, and Kerala in general. Thus far, the hospitality industry has done well as individual players have taken advantage of the tremendous tourism potential of the city. As the Government of Kerala moves beyond building airports and seaports to handle additional tourists, it must now focus on a comprehensive strategy that will enable the industry to continue to flourish. Incentives, tax schemes and regulatory coordination are required to ensure that Kochi remains a competitive option for tourists who increasingly have options for leisure travel within India.

Protecting the natural resources that draw millions of tourists each year will be a challenge as the city strives for greater economic growth and real estate development. Keralites are very conscious of their environment, sometimes to the point where it hinders economic development and job growth. City leaders must actively address issues of zoning, long term planning, infrastructure investment, private sector participation and environmental protection. Finding the right balance between growth and sustainability, will be a key determinant of the city's future success.

Continued strong leadership that accounts for growth, human capital development, and environmental protection is what Kochi requires as it continues to develop into India's rising urban star

Definition of Terms

Economic Dashboard

Population: Population refers to urban population in the Ernakulam district in 2006.

Employment: Refers to the number of persons engaged in labour and receiving remuneration payment or earning business income, including fully employed staff and workers in state-owned, collective-owned or other kinds of economic sectors and otherwise employed persons. Figures are calculated using Kochi's City Development Plan and an employment growth rate of 2% from 2001 until 2007.

GDP: Refers to the gross domestic (i.e. regional) product of a location.

Population Growth: Annualized decadal growth rate from the Census of India 1991–2001.

GDP Growth: Refers to the annual rate of growth between 2003 and 2005 in gross state domestic product at factor cost at current prices (as of January 31, 2007) for the state of Kerala.

Air Passengers: Refers to the number of domestic and international passengers that used Cochin International Airport.

Freight Traffic: Refers to the volume of freight transported by various means, measured in millions of tons.

FDI as a % of GDP: Foreign direct investment refers to investments made inside Kerala by foreign enterprises and economic organisations or individuals as a percentage of the state's gross domestic product for that year.

Income / Capita: Refers to total estimated household income equivalent divided by population.

Savings / Capita: Refers to total estimated savings divided by the population.

Disposable Income: Refers to the actual income at the disposal of a household that can be used for final consumption, other non-compulsory expenditure and savings, which is part of the urban households' income that can be disposed by the urban households themselves.

Higher Education Institutions: Refers to the number of higher education institutions providing higher education courses and training for senior professionals. They include full-time universities, colleges, high professional schools, high professional vocational schools and others. High education institutions are set up according to the central government evaluation and approval procedures.

Total Enrolments: Refers to total number of students studying at qualifying higher education institutes regardless of the course or degree being pursued.

Literacy Rate: Percentage of adults (15 years and older) within the urban population of Ernakulam who can read and write.

Unemployment Rate: The registered urban unemployment rate refers to the ratio of the number of the registered unemployed to the sum of the number of persons employed and registered unemployment in a location.

Real Estate Transparency: Rating of A through E, with A being most transparent and E being least transparent, as determined by the Jones Lang LaSalle 2008 India Real Estate Transparency Index.

Human Capital Index: Rating of A through E, with A representing the highest relative level of human capital available in a city and E representing the lowest relative level. Score for Kochi is taken from the World Winning Cities 2008 India Map.

Real Estate Dashboard

Offices Grade A Stock: Refers to the total completed Grade A office space (occupied and vacant). Grade A reflects an above average property in the market, with quality criteria being at the upper end of the scale.

Retail Stock: Represents the total stock of all malls in Kochi.

Number of Luxury Hotels: Refers to the number of five-star hotels and luxury hotels with five-star facilities.

Office Construction Grade A: Refers to the total amount of Grade A office space in properties where construction has commenced, and completion is expected by 2011. Grade-A is local standard.

Office Vacancy Grade A: Refers to Grade A office floor space (as a % of total Grade A stock) in existing properties that are physically vacant, ready for occupation today and being actively marketed.

Benchmark Rents: Refer to the typical open-market rents (within a range) that could be expected for a unit of the highest quality and specification in the best location expressed in US Dollar per sq m per year.

Grade A Office Rents: Refers to net effective office rents including management fees expressed in US Dollar per sq m per year.

Retail (High Street) Rents: Refers to retail rents on ground floor property on the Marine Drive high street expressed in US Dollar per sq m per year.

Hotel – Room Rates: Refers to the average price to be paid for any deluxe room expressed in US Dollar per night.

Residential Prices: Refer to typical prices (within a range) for high-end residential projects in US Dollar per sq m.

Grade A Offices – Indicative Yields: Refer to the best (i.e. lowest) yield estimated to be achievable for a notional office property of the highest quality and specification. Indicative yields represent Jones Lang LaSalle Meghraj's 'market view', based on a combination of market evidence where available and a survey of expert opinion.

Exchange Rate Used

As of June 30th, 2008:
1 INR = 0.0233 USD
1 USD = 42.950 INR

Kerala Backwaters

JONES LANG LASALLE®

Real value in a changing world

October 2008

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