SSKI
INDIA RESEARCH

Sector report

November 2006

BSE Sensex: 13617

Real Estate

Gold rush

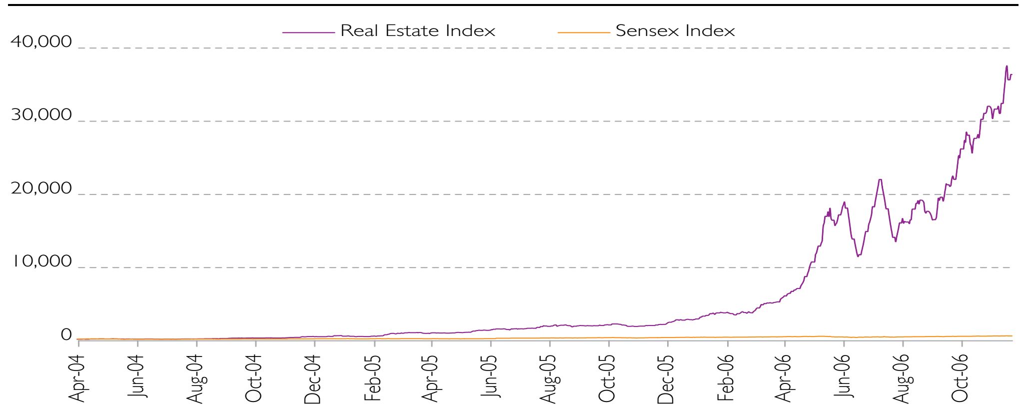
A progressively changing regulatory framework and increasing importance of urban development are transforming the real estate landscape of India. We see sustained growth in all real estate segments going forward as robust economic growth and favourable demographics drive construction of ~16bn sq. ft by 2010E. Further, robust IRRs in the business throw up a big opportunity for real estate developers over the next 4-5 years. However, certain risks – mainly the sharp run up in property prices – remain, which may impact demand across segments.

Indian real estate landscape is transforming: Aided by progressive regulations and a planned approach to urban development, large scale projects and improving governance standards are replacing a highly fragmented market structure and general lack of transparency in the Indian real estate sector. Further, robust economic growth and favourable demographics are driving sustained growth in all real estate segments with ~16bn sq. ft of residential, retail and commercial development planned by 2010.

Strong potential and profitability; but not without risks: Residential development is the largest segment of the real estate market (~15.9bn sq. ft construction by 2010E), and also the most profitable (IRRs up to 100%), given that properties are pre-sold. Retail and commercial development too have strong demand potential but IRRs (22-26%) are constrained by the lack of take-out financing. The strong demand and profitability in the sector may, however, be at risk – mainly on account of the sharp run up in property prices and upturn in interest rates (residential), rising rentals (commercial and retail) and confusion on regulation (SEZs).

DCF to equity – our preferred valuation method: We prefer valuing real estate companies using a discounted cash flow to equity approach, as opposed to earnings based or land bank valuations. While earnings based valuations are not appropriate as they assign a multiple to non-recurring profits from land price appreciation, land bank valuations ignore the crucial aspects of taxation and future land payments.

Real Estate Index vs BSE Sensex



Shirish Rane
shirish@sski.co.in
91-22-66 38 3313

Salil Desai
salil@sski.co.in
91-22-66 38 3373

S.S. Kantilal Ishwarlal Securities
Pvt. Ltd. (SSKI)
701-702 Tulsiani Chambers,
7th Floor (East Wing),
Nariman Point,
Mumbai 400 021.

Contents

INVESTMENT ARGUMENT

Progressive regulations, coupled with robust economic growth, rising incomes and favourable demographics, are expected to drive ~16bn sq. ft. of real estate development across segments by 2010. Further, given the strong IRRs in the business, a huge opportunity beckons real estate companies. However, certain risks remain, which may impact demand and profitability in the real estate sector going forward. IN our opinion, the key risks are the sharp run up in property prices in the past 2-3 years and the lack of take-out financing for commercial properties.

❑ Indian real estate sector – the times are 'a-changin'

Progressive regulations and organised urban development changing the face of Indian real estate space

The Indian real estate sector is witnessing a structural shift. An extremely fragmented market structure and the general lack of transparency are giving way to large-scale projects and improving governance standards. The sector is now moving into a new growth orbit aided by progressive regulations as also an organized approach to urban planning and development.

Exhibit 1: India's changing real estate landscape

	What was wrong?	What has changed?
Regulations	Archaic laws lock up land parcels; delay development of projects	Progressive regulations encouraging scale in development
Urban development	Absence of a comprehensive urban development policy constraining infrastructure growth	National level framework for urban renewal established
Urban Local Bodies	Municipalities did not possess modern urban planning skills	Specialised urban planning bodies constituted to focus on planned development
Developers' footprint	Developers largely local players, with expertise in their micro-markets	Developers acquiring a national footprint
Project sizes	Problems in acquiring large tracts of contiguous land limited project sizes	Focus shifting to development of large scale integrated townships

Source: SSKI Research

❑ Strong growth drivers and attractive IRRs in real estate

Robust economic growth, rising incomes and favourable demographics are set to drive sustained growth in all segments of the Indian real estate sector over the next 4-5 years.

Residential development

Housing demand from 17.6m new households by 2010 to lead to 15.9bn sq. ft construction

Reducing household sizes, rising incomes and a benign interest rate environment are expected to be the key demand drivers for residential real estate going forward. We expect demand for housing from 17.6m additional households by 2010, which will likely translate into construction of 15.9bn sq. ft.

Residential development also offers an opportunity to earn high IRRs as investments in land are generally recovered from pre-sales and progress payments finance construction. Residential projects have an IRR of ~74%, which could go up to 100% with leverage.

Commercial development

IT / ITeS sectors expected to be key demand drivers for office space over the next 4-5 years

In the commercial segment, the IT / ITeS sectors are expected to be the key demand drivers for office space over the next 4-5 years. We expect the total demand for commercial and office space at 160m sq. ft up to 2010, with the IT and ITeS sectors accounting for about 60% of the total demand.

Given that commercial properties are typically leased, the developer's IRRs get contracted. A developed commercial property sold outright could have an IRR of ~29%, whereas leasing the property earns the developer an IRR of ~22% over a period of time.

Retail development

Organized retail to be US $35bn in size by 2010E, requiring quality retail space of 212m sq. ft

Rising incomes, economic liberalisation, exposure to global lifestyles and easy access to consumer credit are changing the spending and shopping habits of the Indian population. Consequently, organised retailing is slowly gaining prominence and malls are emerging as preferred leisure time destinations. We expect organized retail to reach a market size of US $35bn by 2010, requiring quality retail space of about 212m sq. ft., spread over 700 malls.

Like in case of commercial properties, IRRs in retail projects also get contracted due to the lease model. While outright sale of a developed retail project could have an IRR of ~40%, the same could get contracted to ~26% over a period of time in case of a lease-only model.

SEZs

With over 200 SEZs planned, there is huge underlying growth potential for real estate developers

With the right regulations and development, we believe SEZs can emerge as the key drivers of economic growth in the future. Given their experience in developing integrated townships with a mix of industrial, commercial, residential and retail projects, we see SEZs as a natural business extension for real estate companies. With plans to develop over 200 SEZs, there is huge underlying growth potential for real estate developers.

SEZs require huge upfront investments in acquiring large tracts of land and developing the basic infrastructure. However, with 65% of the area available for commercial, residential and retail development, potential IRRs over a longer term could be in the range of 55-58%.

Exhibit 2: Snapshot of the real estate sector dynamics

	RESIDENTIAL	COMMERCIAL	RETAIL	SEZ
Demand drivers	• Reducing household size • Benign interest rates • Rising incomes	• Continuing strong economic growth • IT / ITeS demand	• Shifting consumer spending and shopping preferences towards organised retail formats • Emergence of malls as destinations in themselves	• Tax incentives for developer and units operating in the SEZ • Tailor made opportunity for real estate developers
Potential (nos.)	17.6m new households	-	~700 malls	200 + SEZs
Construction (by 2010)	15.9bn sq. ft	160m sq. ft	212m sq. ft	~200,000 acres
Business dynamics	• Construction period: 15-18 months • Pre-sales start by 9 months from land acquisition • Progress payments received, linked to construction schedule	• Construction period: 20-24 months • Property generally sold only on completion	• Construction period: 20-24 months • Anchor tenants tied-in simultaneously with construction	• Development in 1,000-1,500 acre parcels • Land acquisition & basic infrastructure development take 3-4 years • Each phase to take ~8 years for complete development
Cash flows	• Net positive cash flows start with pre-sales	• Large upfront investments in land acquisition and construction • Revenues in form of lease rentals delays payback	• Large upfront investments in land acquisition and construction • Revenues in the form of lease rentals delays payback	• Large investments in land acquisition and upfront infrastructure development • Strong cash flows from development of non-processing zone
IRRs	74% (could be higher, with leverage)	22-30%	26-40%	~55-60%
Risks	• Increasing property prices - discourage buyers • Upturn in home loan rates - reduces affordability	• Increasing rentals impact cost of operations • Higher vacancy levels impact valuations	• Increasing rentals impact returns of retailers • Urban proliferation of malls increases vacancy risk	• Continuing confusion on regulation • Viability of SEZs in landlocked states

Source: SSKI Research

Strong project IRRs in all real estate segments make us positive on prospects of developers

❑ The stage is set for high growth…

The tremendous demand potential, coupled with an improving regulatory landscape, robust economic growth, modernising urban development methods and gradually improving corporate governance standards of developers, makes us extremely positive on the real estate market in India over the next 4-5 years. Moreover, with strong project IRRs in all segments of real estate development, we are also positive on the prospects of real estate developers over the next 4-5 years.

Higher interest rates and rising property prices in residential segment…

❑ …but risks remain

In our opinion, the upturn in the interest rate cycle is proving to be detrimental to demand for residential real estate, as higher home loan rates reduce the affordability of residential buyers. The sharp run up in property prices for the last 2-3 years is also impacting the demand for residential real estate. The high property prices, we believe, are prohibitive for residential buyers and are stifling demand.

…increasing rentals in commercial real estate and oversupply of malls…

Increasing property prices may also threaten demand for commercial and retail property, as higher rentals dent the profitability of occupiers. In the retail segment, the urban proliferation of malls poses the risk of oversupply in certain areas, thereby leading to higher vacancy levels.

…and confused regulation in SEZs are the key risks

In case of SEZs, the continuing confusion on regulation and doubtful success of SEZs in land locked states are a cause of concern.

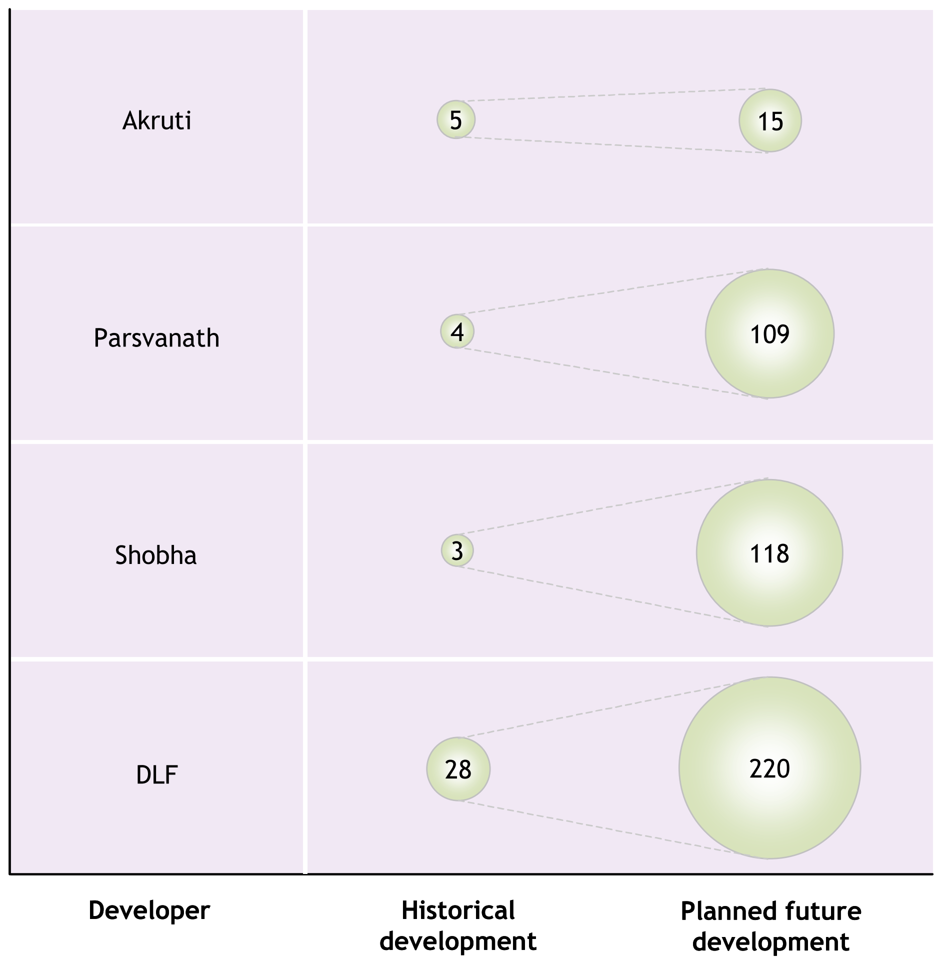
❑ The rush for capital

Developers need capital to fund large scale up plans

Large-scale plans demand higher capital from real estate developers

Increasing project sizes, announcement of large scale-up plans by developers and a shifting focus to SEZs as the new frontier of real estate development is changing the face of the Indian real estate landscape. However, the large scale plans demand more capital from real estate developers.

Exhibit 3: Real estate developers planning exponential growth



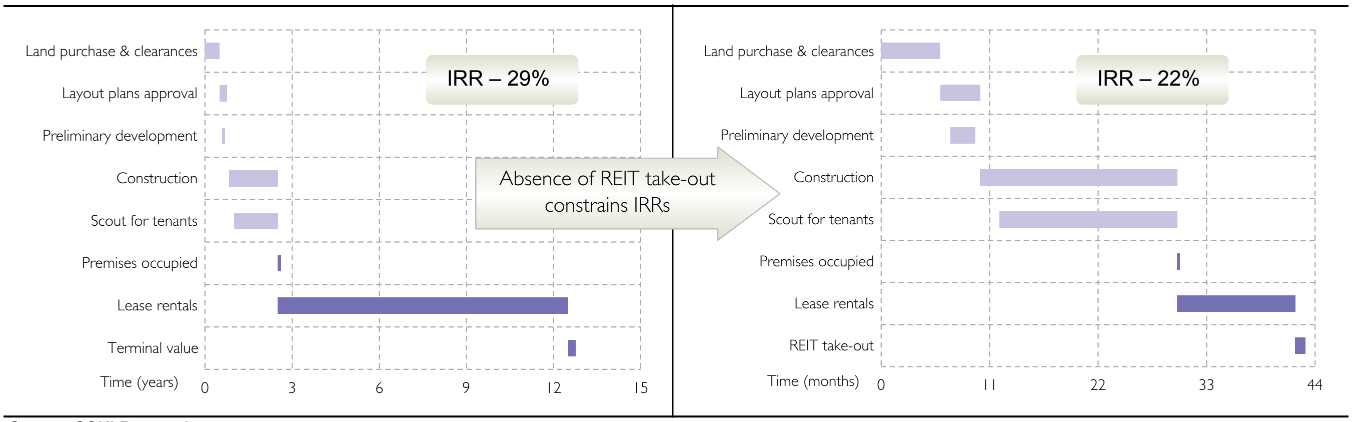
Source: Company data; news reports

But capital is not easy to access…

Banks shy of lending to the segment and prohibitive guidelines on FDI

While the need for capital is increasing, the avenues of raising funds are limited with banks being wary of financing real estate and guidelines on FDI making foreign capital not as easy to access. At the same time, the absence of regulation on Real Estate Investment Trusts (REITs) results in capital remaining locked in retail and commercial projects.

Exhibit 4: Absence of REIT take-out contracts IRRs



Source: SSKI Research

Developers queuing up for raising capital

…triggering a rush for raising funds

While on the one hand the need for capital is becoming critical and urgent, the avenues for raising capital have remained limited and restrictive on the other. With most developers having large outstanding land payment commitments and other development obligations, the sector is witnessing a rush among real estate companies to raise capital.

❑ Valuing real estate companies

Earnings based valuation tools assign a multiple to non-recurring profits from land price appreciation

Earnings-based valuation methods assign a multiple to non-recurring profits from appreciation in the value of land too, which, in our opinion, distorts the true value of a real estate company. We consider valuation of land banks also inappropriate as the method ignores the crucial aspects of taxation, future land payments and the time value of money.

We prefer valuing real estate companies using the discounted cash flow to equity approach as it offers the following advantages:

Discounted cash flow method the best suited to value real estate companies

- Given that large land banks would typically be developed over a period of time, the cash flows from development are appropriately discounted to take into account the time value of money
- The method is suitable for developers with a mix of residential, commercial and retail projects, as all of these have very different cash flow timings
- Discounting cash flows is suitable for SEZ projects given that these are long-term in nature and any other method (say, assigning multiples) will prove inappropriate.

Exhibit 5: NAV approach using DCF most appropriate for valuing real estate companies

Method	Advantages	Disadvantages

Earnings based valuation	• Simple to use
	• Easy to understand
		• Assigns multiple to non-recurring profits from land bank appreciation:
		  • Overstates value
		  • Assumes consistent growth in land prices in the future

Land bank valuations	• Simple to use
	• Popular with property consultants
		• Ignores critical elements such as:
		  • Taxation
		  • Future land payments
		  • Time value of money

NAV - using DCF	• Accounts for time value of money, since large land banks would be developed over a number of years • Suitable for developers with a mix of projects with differing cash flow timings • Suitable for SEZs given their long gestation periods • Allows analysis of land price sensitivity	• Requires detailed calculations

Source: SSKI Research

Indian real estate: Times are a-changin

Although urban areas contribute ~60% to India's GDP, little has been done in the past to develop and upgrade urban infrastructure in Indian cities. Consequently, the pressure of rising population has resulted in a virtual collapse in infrastructure services along with problems in urban housing and the proliferation of slums. Things are, however, changing with urban renewal now a critical mission with the government. This, we believe, will lead to a rapid transformation of the real estate landscape in India going forward.

What was wrong with the Indian real estate sector?

❑ Archaic and retrogressive regulations

India's real estate market is characterised by heavy, and frequently, archaic regulations, that have discouraged large scale private ownership of property in urban areas.

Urban Land (Ceiling and Regulation) Act – ULCRA

Urban Land Ceiling Act restricts the area of land/ property that can be owned by an individual

The Urban Land Ceiling Act restricts the area of land/ property that can be owned by an individual. Land in excess of the ceiling can be acquired by the government under the law for developing mass housing. This has made it extremely difficult for developers to consolidate large land parcels and take up projects of any meaningful scale in urban areas.

Rent Control Act

Rent control laws place greater emphasis on protecting rights of the tenant rather than the owner of the property

Rent control laws have historically placed greater emphasis on protecting the rights of the tenant rather than the owner of the property. Over a period of time, the controlled rent does not keep pace with market rents, and therefore tenants never move out of the premises. Moreover, with rental income falling far short of maintenance cost, the landlord loses interest in repairs and maintenance of the premises and the property dilapidates over time. The landlord is also discouraged from selling the premises, as he has to share the proceeds with the tenant (under the 'pagdi' system). The combined effect of all the above turns the rented property into a redundant asset for the landlord and the land on which it stands is not reallocated for rebuilding or redevelopment. This creates artificial supply constraints in urban areas.

Regulation on CRZ, slum redevelopment, property transfer rules and charges constrict growth

In addition to the ULCRA and the Rent Control Act, there exist many regulations related to the Coastal Regulation Zone (CRZ), slum redevelopment, property transfer rules and charges, etc, which govern land acquisition and use. These laws tend to result in long approval procedures, litigation and disputes as also general delays in land development, thereby stymieing growth of the sector.

Developers find acquisition of large tracts of contiguous land with clear ownership becomes extremely difficult

❑ Scattered land holdings and muddled ownership rights…

In India, land is pre-dominantly privately owned and most of it is inherited. A given land parcel keeps splitting between successive inheritors with the result that the size of the holding keeps getting smaller with each passing generation. Further, in India, the tendency of keeping written records is not widely prevalent, making establishment of ownership rights on property extremely difficult. Moreover, the landholding pattern arising due to inheritance results in multiple ownership claimants from the same family for a single plot of land. This makes it extremely difficult to acquire land with a clear title. Consequently, developers find acquisition of large tracts of contiguous land with clear ownership becomes extremely difficult.

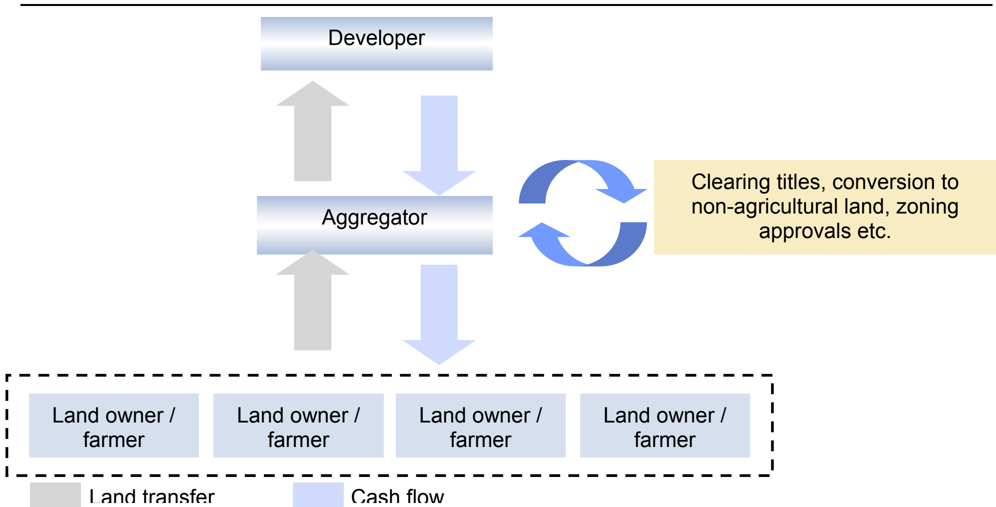
❑ …lead to use of 'aggregators' for land acquisition

The combined effect of archaic property laws, scattered land holdings and disputed ownerships has resulted in the emergence of a unique kind of service providers in the Indian real estate context, called 'aggregators'.

Aggregators, operating mainly in suburban or rural areas, buy land from individual holders of smaller land parcels

Aggregators, operating mainly in suburban or rural areas, buy land from individual holders of smaller land parcels. The aggregators establish ownership and settle all legal disputes between multiple claimants to clear the title to the land. They also get the land converted for non-agricultural use from the local revenue assessing authority. Contiguous parcels of aggregated land, with clear titles and designated for use in real estate development are then transferred to the developer. Moreover, aggregators remain discreet in their activities and do not reveal the final buyer of the land, as land prices tend to shoot up in case word spreads of a leading developer accumulating land parcels.

Exhibit 6: Role of aggregators



Source: SSKI Research

High stamp duties and registration charges lead to under-reporting of real estate deals

❑ Lack of transparency and poor corporate governance

Landholding patterns and myriad regulations create substantial obstacles in undertaking large-scale real estate development projects in India. Developers, therefore, operate through a network of subsidiary and JV companies for acquiring land, leading to a general lack of transparency in the business.

Moreover, high stamp duties and registration charges (in some cases up to 7-8% of the property value) have led to widespread under-reporting of real estate deals, resulting in the real estate market coming to be characterised by high incidence of cash transactions.

❑ Collapsing urban infrastructure

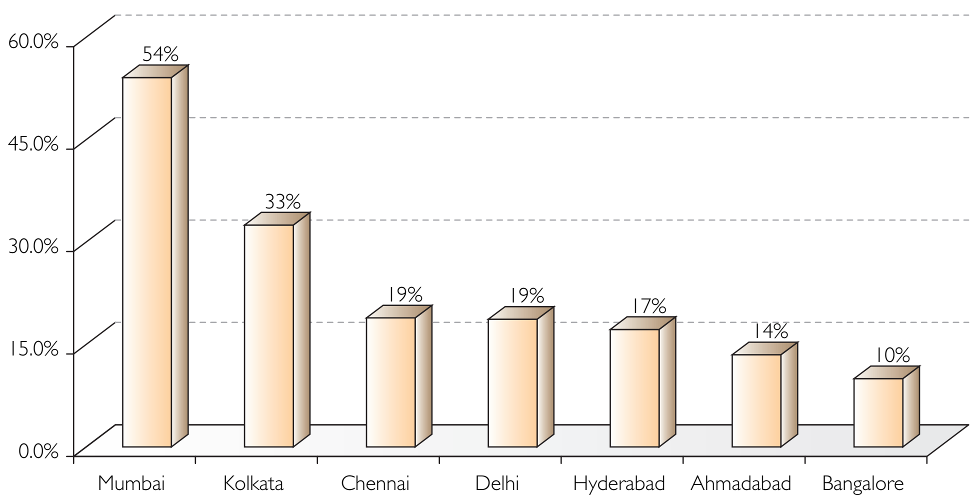
Urbanisation in India has followed a lopsided pattern with a continuous concentration of population in the top few cities. The top seven urban agglomerations (UA) host as much as 22.4% of India's total urban population.

As urban centres continue to expand rapidly, the infrastructure gap keeps on widening

While large cities have attained an incredibly large population size on the one hand, basic infrastructure has failed to keep pace on the other. Consequently, there is a virtual collapse in urban services, followed by basic problems in the field of housing, slum, water, infrastructure, quality of life, etc. On the top of it, given an absence of a comprehensive urban development policy at the national level, and the general lack of expertise among local municipalities in the area of urban planning, most cities have been developed in an extremely haphazard manner.

Further, archaic regulations have led to the proliferation of unorganised housing, with sprawling slums a common sight across all major cities. As the urban centres continue to expand rapidly, the infrastructure gap keeps on widening, leading to a vicious cycle of unplanned development.

Exhibit 7: A significant proportion of the urban population resides in slums



Source: Census of India

Planed development required to de-congest cities

What India sorely lacks is a policy on proper urban planning where city planning consists of operational, developmental and restorative planning. Investments need to be redirected to develop a strong economic base for small and medium cities that have been neglected so far. This would redirect migration flows to such cities and result in a more balanced urbanisation.

Smaller land parcels and outdated regulations restrict projects sizes

❑ Localised real estate markets

The smaller land parcels and out of tune regulations have restricted growth of real estate market in India, with projects remaining small in size. Moreover, given that the key demand drivers – employment opportunities, site location, transport and accessibility, infrastructure, etc – are unique to each geographical location, real estate development tends to be localised in nature. Thus, each city/ region becomes a separate market and each location within the city a micro-market in itself.

Small project sizes and local markets have rendered a highly fragmented real estate market

❑ Fragmented market structure; limited pan-India developers

Each micro-market of the Indian real estate sector has its own demand-supply dynamics, price determinants and regulations, which demand specific local knowledge. As a result, the real estate market has remained highly fragmented and developers have largely remained local or regional players. The combined impact of small project sizes and local markets has rendered an extremely fragmented real estate market.

Exhibit 8: The changing real estate landscape

	What was wrong?	What has changed?
Regulations	Archaic laws lock up land parcels; delay development of projects	Progressive regulations encouraging scale in development
Urban development	Absence of a comprehensive urban development policy constraining infrastructure growth	National level framework for urban renewal established
Urban Local Bodies	Municipalities did not possess modern urban planning skills	Specialised urban planning bodies constituted to focus on planned development
Developers' footprint	Developers largely local players, with expertise in their micro-markets	Developers acquiring a national footprint
Project sizes	Problems in acquiring large tracts of contiguous land limited project sizes	Focus shifting to development of large scale integrated townships

Source: SSKI Research

BUT CHANGE IS IN THE AIR

JNNURM constituted as a national level framework covering 63 cities

❑ A comprehensive urban development policy framed

With urban areas contributing 60% to India's GDP, the government has realised the need for achieving higher economic productivity in urban centres by upgrading infrastructure. To this end, the government has constituted the Jawaharlal Nehru National Urban Renewal Mission (JNNURM), a national level framework covering 63 cities. JNNURM strives to achieve (i) integrated development of infrastructure services in cities, (ii) planned development of cities including peri-urban areas, outgrowths and urban corridors for dispersed urbanization, (iii) reducing congestion in old city areas, and (iv) making urban local bodies accountable for their responsibilities.

❑ Archaic laws giving way to progressive legislation

Progressive repeal of ULCRA paving the way for larger scale land acquisition and projects

The ULCRA was repealed in a number of states in 1999, paving the way for larger scale land acquisition and projects. The Act, however, is still in force in the states of Andhra Pradesh, Assam, Bihar, Maharashtra and West Bengal.

Government linking fund disbursements under the JNNURM to progress on reforming rent control laws

On the rent control front also, some progress is visible with the central government linking fund disbursements under the JNNURM to progress on reforming rent control laws and adopting the Model Rent Control Legislation framed by the central government. The Model Act, among other things, provides for (i) rights of landlord to get possession back, (ii) obligations of tenants with regard to regular rental payments / maintenance of tenanted property, and (iii) provision for periodic review of rentals, in accordance with market conditions.

❑ Specialised urban development bodies constituted

Urban development bodies making rapid progress in organised real estate development in cities

Various state governments have realized the importance of planned development of cities and have constituted urban development bodies to ensure controlled and planned development of cities. Prominent examples include the Mumbai Metropolitan Region Development Authority (MMRDA), the Hyderabad Urban Development Authority (HUDA) and the Haryana Urban Development Authority (HUDA). These bodies, with town planning professionals on board, are making considerable progress in organised real estate development in cities by drawing up master development plans for the city, establishing land use policies and zoning rules, auctioning / tendering large land parcels for specific projects and so on. This has made acquisition of large tracts of land with pre-cleared zoning and development rules extremely easy for real estate companies.

❑ Large players are acquiring a national footprint

Non-metro cities seeing strong growth in economic activity and job creation cities, and hence real estate development

Land supply in most large cities is diminishing and the growth in real estate development is spreading to suburban areas. Moreover, with non-metro cities seeing strong growth in economic activity and job creation, some of the larger developers have started expanding across cities to leverage on the growth opportunities in these markets. This has altered the nature of the micro-markets in as much as the level of competition in development has intensified.

❑ Corporate governance improving

Developers adopting better corporate governance standards and improved disclosure norms

Over the past few years, real estate developers, to avail of income tax benefits under section 80 IB of the Income Tax Act 1956, have started improving their compliance standards and have felt encouraged to reduce the cash component of their business. Cash transactions have also reduced with the rising share of mortgage financed houses in the residential segment. Moreover, major developers, with an eye on raising capital through the financial markets, have adopted better corporate governance standards and improved their disclosure norms.

❑ Focus on developing integrated townships

With land acquisition laws and procedures becoming simpler, average project sizes are increasing and the focus is now on developing integrated townships with a mix of residential, commercial and retail projects. Consequently, developers are also expanding their scope of activity and taking up projects across segments.

❑ SEZs emerging as the new frontier of real estate development

Over 200 SEZs planned to be set up by various players

SEZs are expected to emerge as India's key centres of economic growth in the future. With over 200 SEZs planned to be set up by various players, the focus of real estate development is also expected to shift there. SEZs will warrant a more organised and transparent functioning of real estate developers. This is likely to change the dynamics of the real estate industry going forward.

❑ The stage is set for high growth

We expect strong growth in Indian real estate sector over the next 4-5 years

The Indian real estate sector is expected to witness a structural shift going forward, as an extremely fragmented market structure and the general lack of transparency give way to large scale projects and improving governance standards on the back of progressive regulations as also an organised approach to urban planning and development. Coupled with robust economic growth, we expect strong growth in the real estate sector in India over the next 4-5 years.

REAL ESTATE SEGMENTS

We have analysed each of the real estate segments – namely residential, commercial, retail and SEZ development – with respect to their demand drivers, potential, business dynamics and profitability.

Exhibit 9: Segments of real estate development

Real Estate

Residential	Commercial	Retail	SEZs
Apartments	Office Complexes	Shopping Centers	Industrial
Villas	IT Parks	Malls	Commercial
Row Houses	Shops		Residential
Plots	Office Buildings		Retail

Source: SSKI Research

❑ Residential segment – driven by housing needs

Developers offer ready units as well as plots

The residential segment, the largest in the real estate sector in India, involves development of properties for housing and includes apartments, villas, row houses and bungalows. As part of residential real estate, developers also offer plots for buyers who wish to build their own homes.

❑ Commercial segment – creating office space

Demand driven mainly by IT and ITeS sectors

Commercial development comprises building modern office complexes, IT Parks, shops, smaller office buildings, etc. The demand in this segment is currently driven mainly by the IT and ITeS sectors.

❑ Retail segment – a mix of shopping and entertainment

Retail development emerging as a key segment of real estate development

With the increasing shift of retail spending in India towards organised retail formats and the emergence of malls as destinations in themselves, retail development is emerging as a prominent segment of real estate development.

❑ Special Economic Zones –the hot spot of real estate development

New frontier of real estate development in India

SEZs are emerging as the new frontier of real estate development in India, involving a mix of industrial, commercial, retail, entertainment and residential property as part of one single large project. We believe SEZs are a natural business extension of real estate developers, given their experience in developing large integrated townships.

Real estate development models

Real estate developers undertake projects either on land owned by them or through a joint development agreement (JDA) with the owner of the land.

❑ Own development model

Model suitable for developers with large land banks and strong balance sheets to purchase land

Under the own development model, the developer acquires the land and develops the property. Consequently, the property price risk is entirely borne by the developer. This model is suitable for developers with large land banks and strong balance sheets to fund land purchases on a sustained basis.

❑ Joint development agreements with revenue/ profit sharing

Suitable for developers with smaller land banks and for developing difficult-to-transfer land parcels

Under the joint development model, the developer enters into a development agreement with the owner of the land for developing the land. Under the agreement, the profits/ revenues are shared between the developer and the landowner. In case of a profit sharing agreement, revenues as well as the cost of development are shared between the two parties. On the other hand, under a revenue sharing arrangement, the developer shares a proportion of the revenues with the landowner, while bearing all costs of development and construction.

A joint development model is suitable for developers with smaller land banks and for developing land parcels that may be difficult to transfer in the developer's name due to legal or other reason.

❑ Land acquisition through SPVs

Land usually acquired in the books of the subsidiary by using funds advanced by the parent

Generally, real estate developers operate through a number of subsidiary companies, each being a special purpose vehicle (SPV) for a specific project. The land is usually acquired in the books of the subsidiary using funds advanced by the parent for that purpose. The subsidiary then either transfers the development rights to the parent or develops the land and transfers the profits.

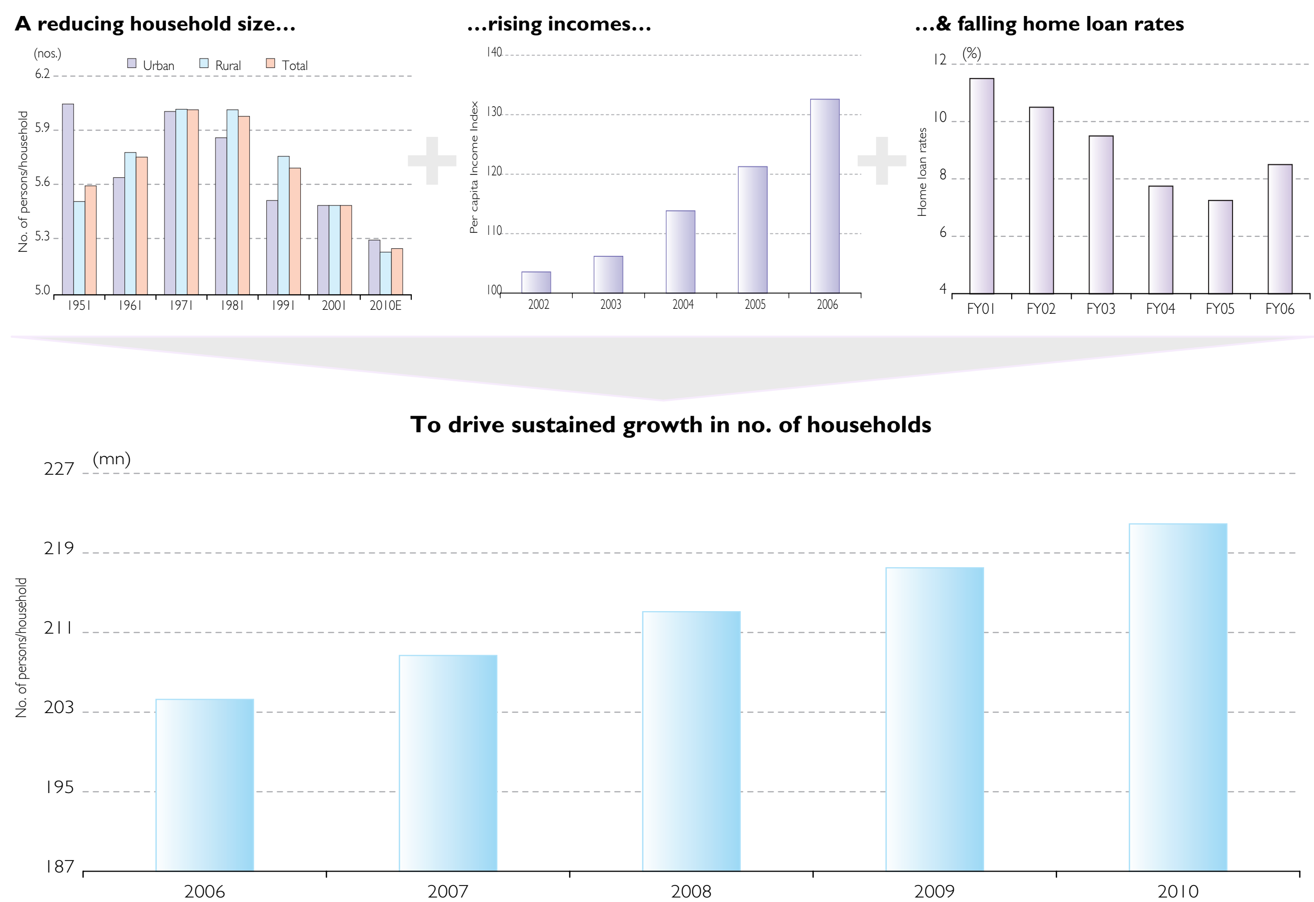
RESIDENTIAL REAL ESTATE

Reducing household sizes due to an increasing number of nuclear families and rising urbanization, coupled with higher incomes and soft home loan rates, are expected to drive sustained growth in housing demand over the next 4-5 years. To address this demand, we expect construction of 15.9bn sq. ft of residential real estate by 2010. Moreover, with extremely strong IRRs (up to 100%), residential real estate development presents a huge opportunity for real estate developers going forward.

KEY DEMAND DRIVERS

Housing being a basic human need, the key determinants of the demand for residential real estate are the level of population and the average size of a household. Housing demand is also driven by affordability, which depends on household incomes, property prices and mortgage rates. In India, all these demand drivers have converged positively in the last few years to drive a spurt in demand for residential housing. We discuss below each of the key demand drivers and their likely impact on demand for residential housing.

Exhibit 10: Residential real estate – all demand drivers converging positively



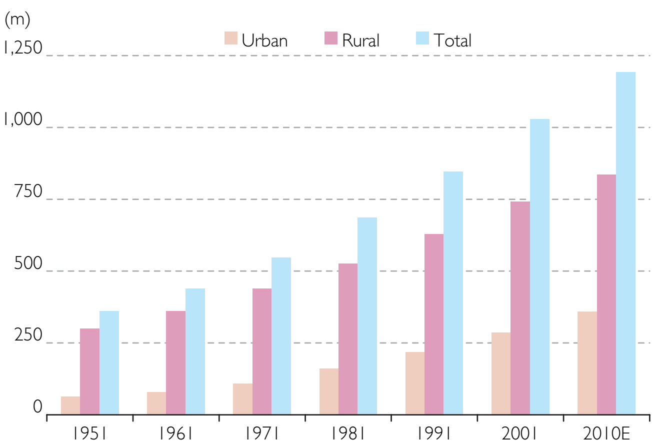
Source: SSKI Research

India is world's second most populous country

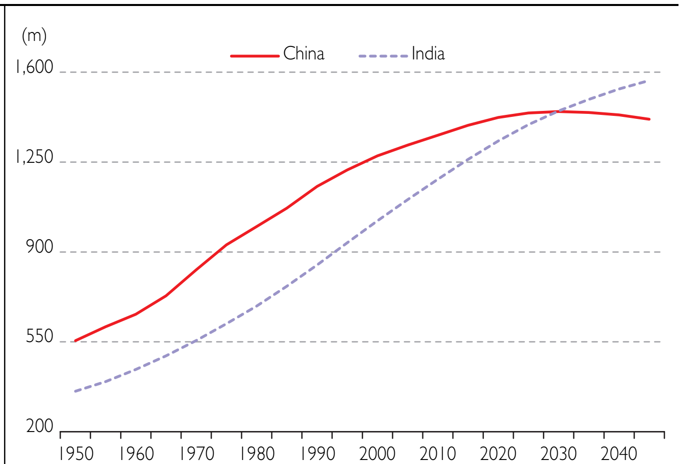
❑ Rising population

India is the second most populous country in the world and home to over a billion people. The census of 2001 pegs India's population at 1,029m and estimates it to increase at a CAGR of 1.49% to 1,193m by 2011. Given the rate of population growth, India is expected to overtake China by 2030 and emerge as the most populous nation in the world[1].

Exhibit 11: India's population – a CAGR of 1.49% over FY01-11E



India's population to outstrip China's by 2030



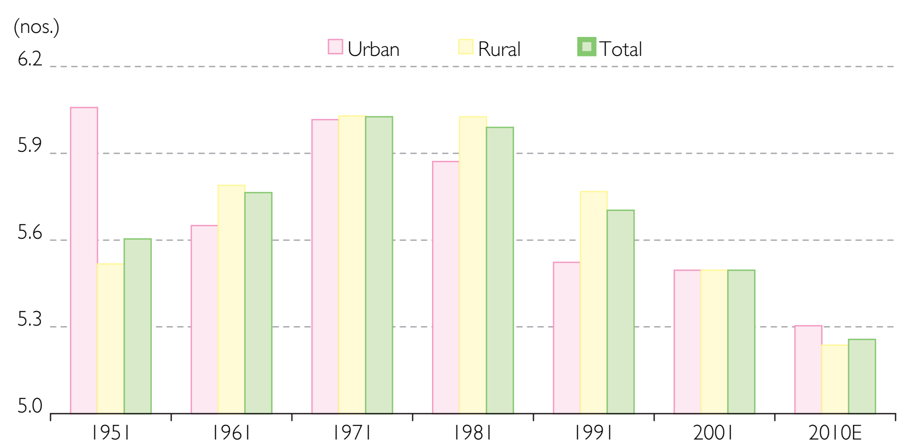
Source: Census India, UN Data on Population, SSKI Research

Social and cultural changes driving nuclearization, to boost housing demand

❑ Size of households reducing due to nuclearization

Indian households, traditionally organized under the joint-family system, are seeing a shift to smaller nuclear families driven by gradual socio-economic changes, increasing education and cultural influences from other parts of the world. Consequently, the number of people comprising a household has been gradually decreasing as the joint family system steadily gives way to smaller nuclear families, leading to growing demand for additional homes.

Exhibit 12: Falling trend in number of persons per household due to nuclearisation of families



Source: National Housing Bank

[1] United Nations World Population Projections 2004

From 6 persons in 1971, the number of persons per household in 2001 was down to 5.5

The changing family system in India is clearly reflected in the reducing average number of persons per household over the past three decades. From six persons in 1971, the number of persons per household in 2001 was down to 5.5[2]. Going forward, we expect the number of persons per household to drop further, as the process of nuclearization of families continues. We expect average persons per household to drop to 5.26 by 2010[3], driving strong growth in demand for residential housing.

❑ Increasing urbanisation driving need for more housing units

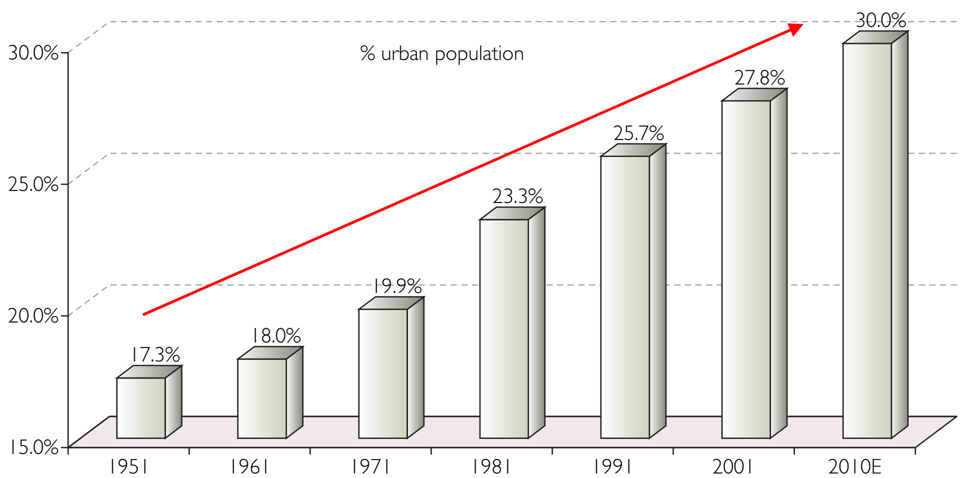
Increasing urbanization creates incremental demand for residential housing in urban areas

As the Indian economy moves from being pre-dominantly agriculture driven to services driven, there has been a steady migration of people from rural to urban areas in search of employment. In a typical rural-urban migration, either a single male member of a family or a nuclear unit of a larger family shifts to a town or city. Consequently, increasing urbanization creates incremental demand for residential housing in urban areas as the larger family unit continues to reside in the rural area.

The proportion of urban population expected to increase to 30% by 2010

India's urban population has increased from just 17% of total population in 1951 to 28% in 2001. The proportion of urban population is expected to increase further to 30% by 2011[4], in turn driving demand for residential housing.

Exhibit 13: Urban population to rise to 30% of total population by 2010



Source: Census India

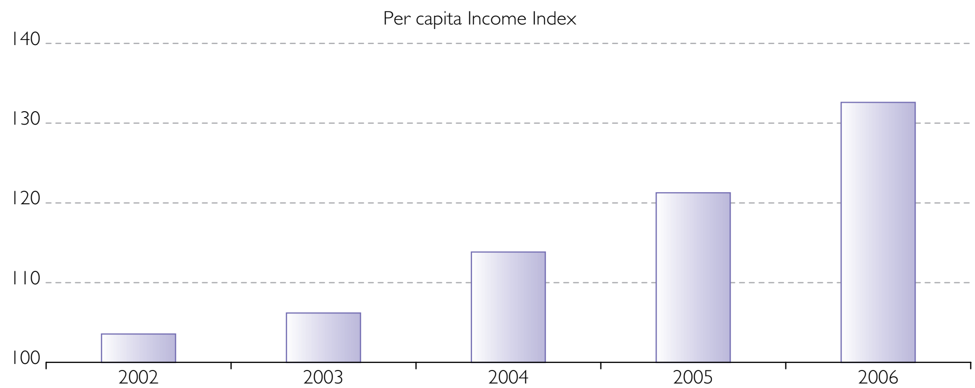
---
[2] Source: National Housing Bank
[3] Source: Census India, NCAER, SSKI Research
[4] Source: Census India

❑ Rising incomes making houses more affordable

Robust economic growth driving incomes, and hence demand for housing

India's GDP has grown at 7%+ in the last three years. With robust economic growth, workers across sectors have seen their salaries growing significantly over this period.

Exhibit 14: Per capita income has increase by 30% in 4 years



Source: National Income Statistics

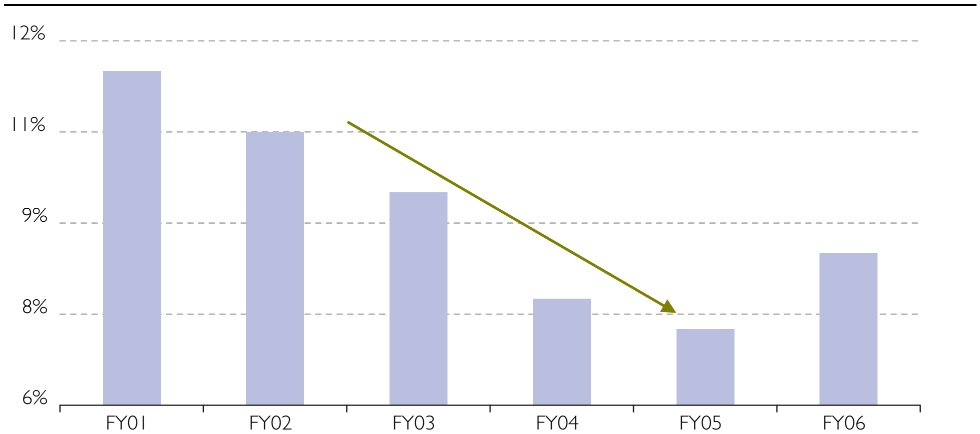
Leading HR consulting firm Hewitt, in its Annual Salary Surveys, has found employees in the Indian private sector to have consistently received one of the highest annual salary increases in the Asia-Pacific region for the last 3-4 years. Moreover, with GDP expected to grow at 7%+ for the next 2-3 years also, we expect overall incomes to rise across sectors.

❑ Decreasing mortgage rates increasing affordability

Effective cost of borrowing for a house has become extremely attractive

With falling interest rates and increasing competition in the home loan market, interest rates on housing loans have been consistently falling since 2000. From a high of 13.25% per annum in FY00, mortgage interest rates are down to a low of 7.25% per annum in FY05. Moreover, with significant tax-breaks on home loans, the effective cost of borrowing has become extremely attractive.

Exhibit 15: Home loan rates – down from 13.25% in FY00



Source: HDFC, SSKI Research

The sharp fall in home loan rates and tax incentives have made houses more affordable

The sharp fall in home loan rates, coupled with tax incentives, have significantly increased the affordability of buying a new house and made owning of self-occupied properties extremely attractive. Together, these two factors have driven strong demand for residential properties in the last 3-4 years.

DEMAND POTENTIAL: 17.6M HOMES REQUIRED BY 2010

All the demand drivers discussed above are favourably poised to drive strong growth in demand for residential housing going forward. Population is expected to grow at a steady rate, the average size of a household is likely to reduce further, household incomes are estimated to remain firm and while mortgage rates have risen in the past 18 months, they are still the lowest in five years.

❑ Number of households to increase by 17m over FY06-10

Total number of Indian households to increase from 204.3m units in 2006 to 221.9m units in 2010

In a study titled 'The Great Indian Middles Class' (2004), the National Council for Applied Economics Research (NCAER) estimates the total number of Indian households to increase from 204.3m units in 2006 to 221.9m units in 2010. Of the incremental 17.6m households, 8.3m are estimated to be added in urban areas and 9.3m in rural areas. In effect, the residential real estate segment is expected to see construction of an average of 4.5m new houses every year for the next four years.

Exhibit 16: Distribution of Indian households

Classification	Annual income	Urban households (m)		Rural households (m)		Total households (m)	
	Rs ('000)	2005-06P	2009-10E	2005-06P	2009-10E	2005-06P	2009-10E
Deprived	<90	23.16	18.02	109.09	96.35	132.25	114.36
Aspirers	90-200	25.16	29.25	28.12	46.06	53.28	75.30
Seekers	200-500	8.89	14.31	4.92	7.96	13.81	22.27
Strivers	500-1,000	2.30	4.63	0.91	1.54	3.21	6.17
Near rich	1,000-2,000	0.84	1.79	0.28	0.58	1.12	2.37
Clear rich	2,000-5,000	0.36	0.83	0.09	0.21	0.45	1.04
Sheer rich	5,000-10,000	0.09	0.22	0.02	0.04	0.10	0.26
Super rich	>10,000	0.05	0.13	0.01	0.02	0.05	0.14
Total		**60.84**	**69.17**	**143.44**	**152.75**	**204.28**	**221.92**

Source: NCAER

❑ Size of homes estimated at 250-3,000 sq. ft

Households with income of < 90,000 p.a assumed to reside in temporary dwellings

Of the total 221.9m households, 114.4m (termed as 'deprived') are estimated to have an annual income of less than Rs90,000. We have assumed that these households reside in temporary dwellings or are without proper homes. For the other 107.6m households (with income higher than Rs90,000 p.a.), we have assumed varying sizes (in terms of area) of houses they are likely to occupy.

Exhibit 17: Assumed average size of house occupied by households

	Avg. size of house occupied (sq. ft)	
Household classification	Urban households	Rural households
Deprived	-	-
Aspirers	250	300
Seekers	500	600
Strivers	700	840
Near rich	1,000	1,200
Clear rich	1,500	1,800
Sheer rich	2,000	2,400
Super rich	2,500	3,000

Source: SSKI Research

Of 15.9bn sq. ft of residential construction estimated by 2010, 7.5bn sq. ft to be in urban areas

❑ Total construction of 15.9bn sq. ft by 2010 expected

Using the two data points of incremental houses expected to be constructed and the average size of each house, we arrive at an estimate of 15.9bn sq. ft of residential construction by 2010. Of this, rural areas are likely to see construction of 8.4bn sq. ft, while urban areas would add 7.5bn sq. ft.

Exhibit 18: Total residential construction of 15.9bn sq. ft to come up by 2010

Household type	No. of households (m)		Incremental Households (m)	Area / house (sq. ft.)	Area built mn sq. ft.)
	2005-06p	2009-10e	2006-10e		2006-10e
URBAN INDIA					
Deprived	23.16	18.02	(5.14)	-	-
Aspirers	25.16	29.25	4.09	250	1,023
Seekers	8.89	14.31	5.42	500	2,712
Strivers	2.30	4.63	2.33	700	1,630
Near rich	0.84	1.79	0.95	1,000	951
Clear rich	0.36	0.83	0.47	1,500	698
Sheer rich	0.09	0.22	0.13	2,000	264
Super rich	0.05	0.13	0.08	2,500	200
Total	**60.84**	**69.17**	**8.33**		**7,477**
RURAL INDIA					
Deprived	109.09	96.35	(12.75)	-	-
Aspirers	28.12	46.06	17.94	300	5,381
Seekers	4.92	7.96	3.03	600	1,819
Strivers	0.91	1.54	0.63	840	532
Near rich	0.28	0.58	0.30	1,200	361
Clear rich	0.09	0.21	0.12	1,800	212
Sheer rich	0.02	0.04	0.02	2,400	50
Super rich	0.01	0.02	0.01	3,000	30
Total	**143.44**	**152.75**	**9.30**		**8,386**
ALL INDIA					
Deprived	132.25	114.36	(17.89)		-
Aspirers	53.28	75.30	22.03		6,404
Seekers	13.81	22.27	8.46		4,531
Strivers	3.21	6.17	2.96		2,161
Near rich	1.12	2.37	1.25		1,312
Clear rich	0.45	1.04	0.58		910
Sheer rich	0.10	0.26	0.15		314
Super rich	0.05	0.14	0.09		230
Total	**204.28**	**221.92**	**17.64**		**15,863**

Source: NCAER 'The Great Indian Middle Class'; SSKI Research

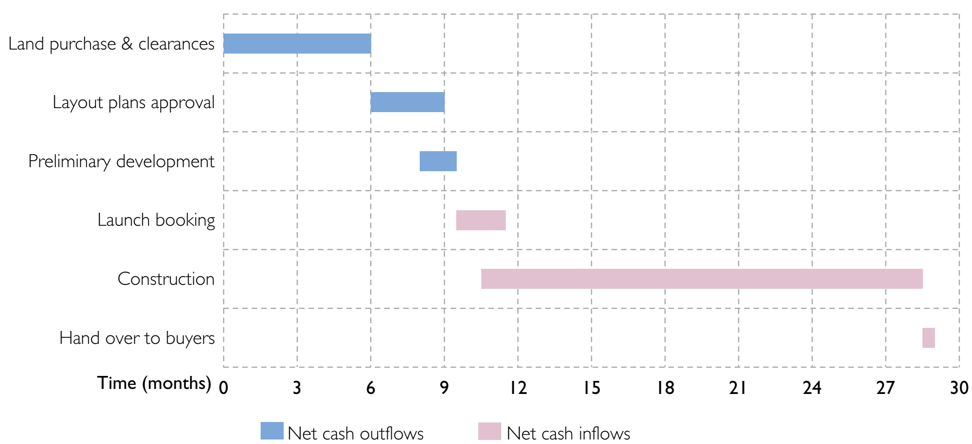
DYNAMICS OF RESIDENTIAL REAL ESTATE DEVELOPMENT

❑ Land acquisition and clearances take up to six months

Land use clearances necessary before construction can commence

Land acquisition is the first step in a residential real estate project, or for that matter, any real estate project. In addition to acquiring land, the developer also needs to get relevant land clearances for any intended development. For example, land situated within a certain distance of the coast has to be cleared under the Coastal Regulation Zone (CRZ) before any development work can be carried on it. The entire process of land acquisition and getting relevant clearances may take about six months.

Exhibit 19: Indicative schedule of a residential project



Source: Industry sources, SSKI Research

❑ Plan approval and preliminary development happen simultaneously

Actual construction can start only once layout plans are approved, which takes 2-3 months

In addition to land use clearances, the developer also needs to get detailed layout plans approved from the local municipal or other authority. Actual construction can start only once layout plans have been approved, which may take 2-3 months. While the layout plans are under consideration for approval, the developer commences preliminary work on the site, including razing of any existing structure, ground levelling, etc. This generally takes 45 days to complete.

❑ Pre-sales realise 10-20% of property value to the developer upfront

The construction takes 15-18 months for completion

Once the layout plans are approved, the developer launches the project for booking. For booking a flat/apartment, homebuyers are typically expected to pay 10-20% of the total value of the flat/apartment upfront and the remaining in smaller regular instalments, known as progress payments. Progress payments are typically linked to the construction schedule and become payable on achieving a specified project milestone – e.g., construction up to the plinth level, raising of floor-wise slabs, etc. While a successful project may even see 100% of the available units being booked in advance, the developer typically starts construction once a few units have been booked. The construction takes 15-18 months for completion.

Once construction is complete, the flat/apartment is handed over to the buyer and the developer exits the project.

PROFITABILITY: LIKELY IRRS UP TO 100%

Cash inflows from pre-bookings commence in 9th or 10th month from the day of land acquisition process

❑ Pre-sales typically recover investments in land

A typical residential project takes about 30 months to complete from the day the process of land acquisition is commenced. The developer's investments in the project also commence from the same day. However, with pre-booking of flats, cash inflows from the project commence as early as in the 9th or 10th month from the day the land acquisition process starts. In many cases, the amounts received on booking would cover almost the entire cost of land incurred by the developer.

❑ Progress payments fund construction

Given that progress payments received from buyers are linked to the construction schedule, approximately the entire construction cost is funded from these payments. The developer generally does not need to make any additional investments in the project once construction starts.

Equity IRRs in a residential project tend to be extremely strong at 70-75%

❑ Strong IRRs at ~74%; could improve further with leverage

With net cash inflows to the developer commencing as early as in the 9th or 10th month from acquisition of land, equity IRRs in a residential project tend to be extremely strong, at 70-75%. Using leverage, these returns can be further improved to over 100% in many cases.

Exhibit 20: Indicative structure of residential real estate projects

Type of construction	Flats / apartments
Area (sq. ft.)	50,000
FSI (x)	1.33
Built-up loading (%)	15
Saleable area (sq. ft.)	76,475
Cost of land (Rs / sq. ft.)	1,150
Preliminary expenses (Rs / sq. ft.)	100
Construction Costs & Overheads (Rs / sq. ft.)	1,600
Selling price (Rs / sq. ft.)	3,000
Advance on booking (% of total value)	14
Progress payments (% of total value)	5
Payment on possession (% of total value)	6

Source: SSKI Research; Assumptions based on normative development and no land profits

Exhibit 21: Residential real estate – extremely strong IRRs

Activity	Jan-06	Jul-06	Sep-06	Oct-06	Nov-06	Dec-06	…	…	…	Mar-08	Apr-08
Land acquisition	(57.5)	-	-	-	-	-	…	…	…	-	-
Preliminary site development	-	(5.0)	-	-	-	-	…	…	…	-	-
Pre-bookings	-	-	32.1	-	-	-	…	…	…	-	-
Construction costs	-	-	-	(5.9)	(5.9)	(5.9)	…	…	…	(5.9)	
Progress payments	-	-	-	10.3	10.3	10.3	…	…	…	10.3	13.8
Net cash flow	**(57.5)**	**(5.0)**	**32.1**	**4.4**	**4.4**	**4.4**	**…**	**…**	**…**	**4.4**	**13.8**
IRR	**74%**										

Source: SSKI Research

COMMERCIAL REAL ESTATE

The services sector, led by IT and ITeS, has been driving demand for commercial and office space in cities across India. With a CAGR of ~15% expected in the IT and ITeS sectors over FY06-10, we expect demand for 160m sq. ft of commercial real estate over the next 3-4 years. Profitability, though strong in commercial real estate development, is constrained by the lease rental based business model and the absence of REITs to offer developers an exit from developed properties for deploying funds in newer projects.

KEY DEMAND DRIVERS

❑ Metros the key historical demand drivers

Lack of fresh supply in CBDs pushing development to suburban and peripheral locations

Metro cities like Mumbai and Delhi have traditionally spearheaded the growth in demand for commercial real estate. Within the cities, bulk of the development was till recently concentrated in the central business districts (CBDs) of Nariman Point and Fort in Mumbai and Connaught Place in Delhi.

However, with increased congestion and lack of fresh supply in CBDs, suburban and peripheral locations have developed in these cities to accommodate the rising demand for office space. In Mumbai, areas such as Worli, Bandra-Kulra Complex, Andheri, Powai, Malad and Navi Mumbai are now sought after office locations. Similarly, commercial real estate development in Delhi is now spreading to areas like Gurgaon, Noida, Ghaziabad, etc, which together with Delhi now form the National Capital Region (NCR).

❑ Services sector driving demand; IT and ITeS lead the way

Average office space per worker in IT and ITeS typically higher; resulting in higher demand for commercial real estate

Services constitute ~55% of India's GDP with their share growing consistently over the years. Consequently, demand for commercial and office space has been driven by the services sector, including banking and financial services, insurance, telecom and most notably, IT and ITeS. The Indian IT and ITeS industry employed about 1.29m people as of end-FY06, up from 0.43m in FY01, a CAGR of ~25%. Demand for office space to house these workers has also been on the rise. Moreover, to stem high attrition in these sectors, offices are generally spread over large areas as they incorporate training facilities, gymnasiums, auditoriums, cafeterias, swimming pools, etc. Consequently, the average office space per worker in the IT and ITeS sector is typically higher than most other sectors, resulting in higher demand for commercial real estate.

❑ IT and ITeS growth spreads to non-metros

Smaller cities too experiencing strong growth in demand for commercial real estate

In recent times, cost of operations for IT and ITeS companies in Tier I and Tier II cities such as Bangalore, Gurgaon, Pune, Hyderabad, Chennai, etc has increased significantly due to higher office rentals, higher manpower costs and generally higher cost of living. In order to maintain their cost competitiveness, IT and ITeS companies have started expanding to cities like Kolkata, Bhubhaneshwar, Kochi, etc. Consequently, such cities are also experiencing strong growth in demand for commercial real estate.

Exhibit 22: Commercial real estate market – snapshot of key cities

	Rentals (Rs/sq. ft/ month)			
City	CBD	Others	Demand drivers	Future events / Sectors likely to drive growth
Bangalore	57	35-40	IT, ITeS, R&D Centres	Bangalore International Airport, Bangalore-Mysore Infrastructure Corridor
Chennai	45-50	32-38	IT, ITeS, Auto	Chennai Auto Ancillary Indsl. Infrastructure Upgradation Co. (CAAIIUC), Telecom Ancillaries, Auto, IT and ITeS
Hyderabad	28-32	18-24	IT, ITeS	IT, ITeS, Bio-technology, Hyderabad International Airport
Kolkata	60	40-45	IT. ITeS	IT, ITeS, Logistics and Trade
Mumbai	250	200-250	BFSI, knowledge processes	BFSI, ITeS (knowledge processes)
NCR	140-175	35-60	IT, ITeS (transaction and knowledge processes), Auto and auto ancillary, BFSI	IT, ITeS, Trade and Logistics, Commonwealth games, Delhi Metro, Delhi-Gurgaon Expressway, Auto and ancillaries
Pune	45-50	35-37	IT, ITeS, Auto and Engineering	IT, ITeS, and Auto

Source: SSKI Research, Cushman Wakefield

DEMAND POTENTIAL: 40M SQ. FT OF COMMERCIAL SPACE P.A. TO 2010

❑ IT / ITeS sectors to remain key demand drivers

An incremental 96.3m sq. ft required by 2010 only for the use of the IT/ITeS industry

The IT/ITeS industry is expected to progress at a CAGR of 15% over the next four years to US $60bn by 2010. To achieve the targeted size, the industry needs an estimated total workforce of 2.25m by 2010, implying incremental employment of 0.96m professionals. Assuming an average office space of 100 sq. ft per worker, an incremental 96.3m sq. ft will have to be constructed by 2010 only for the use of the IT/ITeS industry.

❑ Total commercial real estate demand at 160m sq. ft by 2010

A total demand of 160.5m sq. ft (96.3m / 60% by IT/ ITeS) for commercial real estate by 2010

Most real estate consulting firms peg the share of IT and ITeS in total commercial real estate demand in the range of 50-70%. Assuming that 60% of the total demand is accounted for by the IT/ITeS sector, it would imply a total demand of 160.5m sq. ft (96.3m / 60%) of commercial real estate by 2010.

Exhibit 23: 40.1m sq. ft of commercial space to be developed each year up to 2010

	2009-10
Professionals employed by Indian IT/ITeS Industry	2,250,000
Professional added (2006-2010)	963,000
Office space per worker (sq. ft)	100
Total office space to be built (m sq. ft)	96.3
Typical IT / ITeS demand as % of total commercial demand	60
Implied total commercial demand (m sq. ft)	160.5
Commercial space to be built each year (m sq. ft)	40.1

Source: NASSCOM, SSKI Research

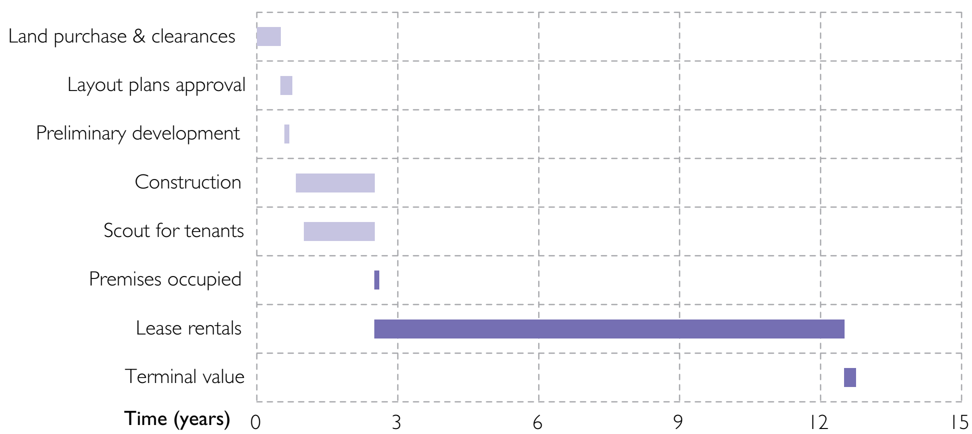
DYNAMICS OF COMMERCIAL REAL ESTATE DEVELOPMENT

❑ Land acquisition and clearances take 9-10 months

Commercial development subject to more stringent rules and regulations

In a commercial development project, land acquisition and related clearances, along with approval of layout plans by the local authority, take 9-10 months to complete. The longer time frame, as compared to residential projects, is because commercial development is generally subject to more stringent rules and regulations. For example, a large office-building project will need clearances for fire safety, vehicular traffic and parking arrangements, pollution control, etc in addition to regular approvals for land use and layout plans.

Exhibit 24: Indicative schedule of activities in commercial real estate development



Source: SSKI Research, Industry sources

❑ Commercial properties not usually pre-sold…

Commercial premises taken on lease rather than through outright sale

Once construction commences, developers begin marketing the property to scout for prospective tenants / buyers. Unlike in a residential project, commercial premises are not usually pre-sold, as occupiers typically like to wait till the time the construction is complete. Moreover, the premises are taken on lease rather than through outright sale.

❑ …but instances of pre-booking seen recently

Pre-booking only when property developed in line with defined specifications of prospective buyers

In recent times though, there have been examples of pre-booking of commercial properties. This is largely owing to the robust demand from corporates vis-à-vis the supply of quality commercial space. Such agreements are typically on a built-to-suit basis, where the property is developed according to defined specifications of the prospective buyer / tenant.

❑ Regular revenues from lease rentals; REITs may allow early exit

Developed property usually ready to be occupied in 30 months from the time the land acquisition process starts

Construction takes 18-24 months given the larger size of the project as well as additional activities involved such as central air-conditioning, car-parking facilities, etc. The developed property is usually ready to be occupied in about 30 months from the time the land acquisition process starts. The developer then starts receiving cash flows from the project in the form of lease rentals. The regular rental cash flows continue till such time as another investor (REIT / REMF/ other) steps in and takes over the property from the developer by paying the capital value of the lease.

PROFITABILITY: IRRS STRONG, BUT CONSTRAINED BY LEASE MODEL

❑ Lease rental-based revenue model constrains IRRs

Lease-based model increases payback period for developer and reduces project IRRs

In a commercial real estate project, net cash inflows start only after the construction is complete. Consequently, the developer is required to make large investments in land acquisition and on development and construction. Moreover, the developed property may not be sold outright, but is leased to the occupiers. This increases the payback period for the developer's investments, in turn contracting the project IRRs.

❑ We prefer the outright-sale business model

Outright sale offers better IRRs – 29% vis-à-vis 22% for leased properties

While IRRs from a leased commercial project are ~22%, these could be as much as 29% in case the developed property is sold outright or a REIT/ other investor offer the developer an early exit. Moreover, a lease-only model locks up the developer's capital, thus restricting investments in replenishing the land bank and deploying funds in future projects. Consequently, we prefer real estate companies with a pure development focus, as opposed to those holding developed properties to earn a lease yield based income.

Exhibit 25: Indicative structure of a commercial real estate development project

Type of construction	Office Building
Area (sq. ft)	100,000
FSI (x)	1.33
Built-up loading (%)	10
Saleable area (sq. ft)	146,300
Cost of land (Rs / sq. ft.)	1,150
Preliminary expenses (Rs / sq. ft)	100
Construction Costs & Overheads (Rs / sq. ft)	1,600
Rental (Rs / sq. ft. / month)	35
Lease deposits (no. of months)	6
Construction period (months)	20
Area leased before construction completed (%)	20
Yield (%)	11
Terminal value assumed after (no. of months)	120
Annual increase in lease rentals (%)	5

Source: SSKI Research, Industry sources; Assumptions based on normative development and no land profits

Exhibit 26: Commercial real estate project – lease model delays payback; contracts IRRs

(Rs mn)	Jan-06	Sep-06	Nov-06	Dec-06	Jan-07	Feb-07	...	Jun-08	Jul-08	Aug-08	...	Jun-18	Jun-18
Land acquisition	(115.0)	-	-	-	-	-	…	-	-	-	…	-	-
Preliminary site development	-	(10.0)	-	-	-	-	…	-	-	-	…	-	-
Construction	-	-	(10.6)	(10.6)	(10.6)	(10.6)	…	(10.6)		-	…	-	-
Lease deposits on area sold	-	-	-	-	-	1.5	…	-	24.6	-	…	-	-
Lease rentals	-	-	-	-	-	-	…	-	5.1	5.1	…	8.3	-
Terminal Value	-	-	-	-	-	-	…	-	-	-	…	-	879.2
Net cash flows	**(115.0)**	**(10.0)**	**(10.6)**	**(10.6)**	**(10.6)**	**(9.1)**	**…**	**(10.6)**	**5.1**	**5.1**	**…**	**8.3**	**879.2**
IRR	**22%**												

Source: SSKI Research

RETAIL REAL ESTATE

The Indian retail sector has been witnessing a structural change in consumer spending habits and shopping preferences. This is resulting in a gradual increase in the importance of organised retail formats, translating into an expected demand for ~212m sq. ft. of retail space by 2010. The strong potential demand and robust IRRs in retail projects present real estate developers with a huge opportunity over the net 4-5 years.

KEY DEMAND DRIVERS

India is slowly moving from being an investment-led economy to a consumption-led economy. The increase in consumption is being aided by a number of factors, including economic growth, a globalizing economy, rising incomes, easy access to credit and changing demographics. These factors are causing a structural shift in spending patterns of consumers, and thereby are enhancing the importance of organised retailing.

❑ Economic liberalisation

The process of economic liberalisation, initiated in 1991, paved the way for India's gradual integration with the world economy. With increasing exposure to global lifestyles, the spending patterns of the Indian consumer are also changing.

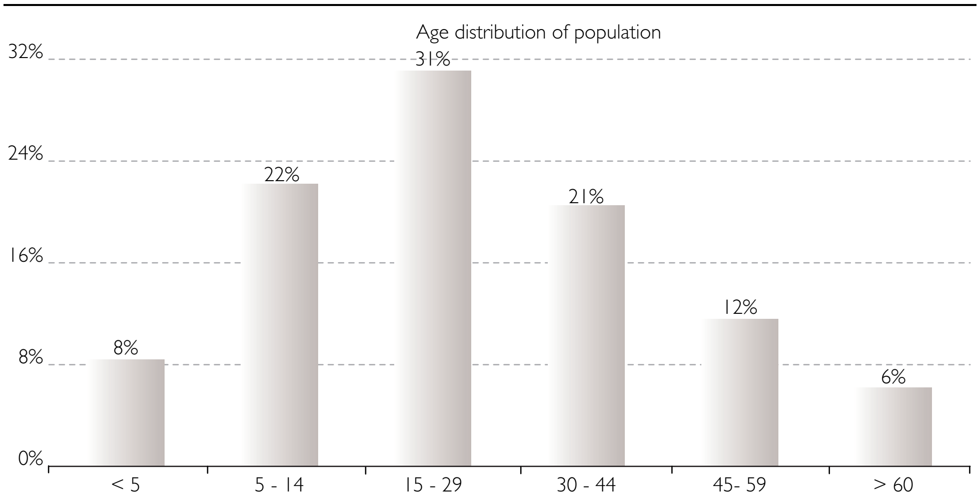
❑ Changing demographics

Better employment prospects and rising salaries of a younger population driving organised retail

India is one of the youngest countries in the world with the median age of the population at 24 years. About 30% of the current population was born after 1991, in a liberalising and globalising India. These 333m Indians, largely in their teen and pre-teen years, exert significant influence on consumption decisions in households. With their exposure to modern lifestyles and preference for branded goods, they have been driving growth in consumer spending in organised retail formats.

Moreover, an increasingly independent and confident population of young adults (ages 15-30) has been driving consumption growth on the back of better employment prospects and rising salaries.

Exhibit 27: Around 61% of India's population is under 30 years of age



Source: Census India; Population as of 2006E

Highest annual salary increases for Indian private sector in the Asia-Pacific region

❑ Economic growth and rising incomes

With robust economic growth in the last 2-3 years, incomes have been rising across sectors. A leading consulting firm Hewitt, in its Annual Salary Survey, has found employees in the Indian private sector to have enjoyed one of the highest annual salary increases in the Asia-Pacific region, consistently for the past 3-4 years. With the economy expected to grow in excess of 7% for the next 2-3 years also, we expect overall incomes to rise further across sectors.

While a CAGR of 2.1% expected in the number of households by 2010, consuming class likely to burgeon at CAGR of 10.5%

The trend of rising incomes is expected to result in an increasing share of the consuming households (households with annual income of over Rs90,000) in total Indian households. While the number of households in India is expected to witness a CAGR of 2.1% to 221.9m by 2010, the consuming class is expected to burgeon at a much higher CAGR of 10.5% to 107.5m.

Exhibit 28: Proportion of consuming households to grow at a CAGR of 10.5% over 2006-10

	Urban		Rural		Total	
Household	**2006P**	**2010E**	**2006P**	**2010E**	**2006P**	**2010E**
Deprived	23.2	18.0	109.1	96.3	132.2	114.4
CAGR (%)		*(6.1)*		*(3.1)*		*(3.6)*
Aspirers	25.2	29.2	28.1	46.1	53.3	75.3
CAGR (%)		*3.8*		*13.1*		*9.0*
Seekers	8.9	14.3	4.9	8.0	13.8	22.3
CAGR (%)		*12.6*		*12.7*		*12.7*
Strivers	2.3	4.6	0.9	1.5	3.2	6.2
CAGR (%)		*19.1*		*14.1*		*17.7*
Near rich	0.8	1.8	0.3	0.6	1.1	2.4
CAGR (%)		*20.8*		*20.0*		*20.6*
Clear rich	0.4	0.8	0.1	0.2	0.5	1.0
CAGR (%)		*23.0*		*22.5*		*22.9*
Sheer rich	0.1	0.2	0.0	0.0	0.1	0.3
CAGR (%)		*26.0*		*23.3*		*25.6*
Super rich	0.0	0.1	0.0	0.0	0.1	0.1
Total	**60.84**	**69.17**	**143.44**	**152.75**	**204.28**	**221.92**
CAGR (%)		*3.3*		*1.6*		*2.1*

Source: NCAER

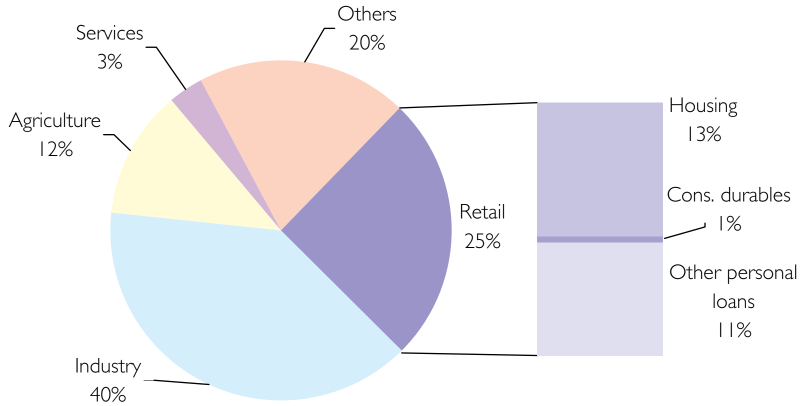
❑ Easy access to credit

Most banks have shifted focus to retail loans…

With increasing competition in the banking sector over the last 5-7 years and narrowing margins in corporate lending, most banks have shifted focus to retail loans. Aided by falling interest rates in the economy in general, demand for credit by individuals for buying consumer durables, homes, vehicles and other items of personal consumption have shot up. Banks, perceiving lesser risk in retail lending as compared to corporate lending, have also been encouraging consumer credit offtake.

…housing comprises 13% of total non-food bank credit

Exhibit 29: Consumer credit comprises 25% of total non-food bank credit



Source: RBI

Changing consumer preferences and rising affordability changing the dynamics of Indian retail industry

❑ Changing face of retail formats

Rising incomes and the resultant improvement in the general standard of living is expanding the Indian consumer's shopping basket to include items beyond staples such as groceries, clothing, home appliances, etc. Today, fashion accessories, eating out, movies, theatre, etc make up a sizeable proportion of the consumer's expenditure. There are changes taking place not only in what the consumer wants to shop for, but also the way he / she shops for it. For example, the modern housewife, being well informed and faced with wider choices, desires to shop after evaluating all the available options. To this end, she is moving from shopping for groceries at the corner store in a conventional format to shopping at superstores and large discount retailers.

Thus, changing consumer preferences and rising affordability are slowly changing the dynamics of the Indian retail industry as consumer spending shifts from traditional stores to organised retail formats such as malls, superstores, department stores, discount retailers, etc.

We expect malls to remain at the centre of retail development in India

❑ Malls emerging as destinations in themselves

Malls are slowly becoming the focal point of organised retail development in India. Malls bring together departmental stores (Pantaloon, Shopper's Stop, Westside, etc), discount retailers (Big Bazaar, Hypercity, Spencers, etc), fashion clothing chains (Marks & Spencer, Provogue, Benetton, etc) and accessories brands (Tanishq, Reebok, Nike, etc) all under the same roof. Moreover, with multi-cuisine eating options, multiplexes and play areas for children, malls have emerged as preferred leisure time destinations. Going forward also, we expect malls to remain at the centre of retail development in India.

DEMAND POTENTIAL: OVER 700 MALLS PROPOSED BY 2010

~700 malls expected to come up by 2010

The Indian organised retail market, currently estimated at US $7bn, is expected to increase to $35bn by 2010. A market of this size would require a space of 212m sq. ft, assuming average sales of Rs7,500/sq. ft in a typical organised retail format. Assuming an average mall size of 300,000 sq. ft, the Indian organised retail market would see construction of about 700 malls by 2010.

Exhibit 30: The Indian organised retail market needs over 700 malls by 2010

	2010
Total retail market size in India (US$ bn)	350
Estimated share of organised retail (%)	10
Total Indian organised retail market size (US$ bn)	35
Total Indian organised retail market size (Rs m)	1,592,500
Typical sales/sq. ft in organised retail (Rs)	7,500
Implied area under organised retail (m sq. ft)	212
No. of malls	708

Source: SSKI Research

❑ Choice of location is critical

Process of land acquisition and clearances takes 9-10 months including the clearances required

Before the land acquisition process for a retail project starts, it is very important to choose the right location for the property. Location is a crucial element in mall development and requires thorough market research. The research broadly covers aspects such as population of the intended catchment area, per capita income in that area and its expected growth, spending patterns of the population, etc.

After identifying the right location, the process of land acquisition and clearances takes 9-10 months including the clearances required for zoning, environmental impact assessment, local authority approvals, etc.

❑ Tying up anchor tenants paramount to a mall's success

Choice of tenants critical for a mall as brand mix is a key success factor

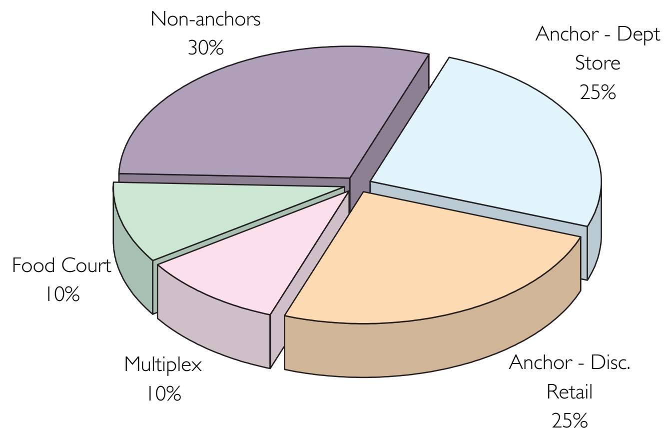
Once all approvals are received, the developer commences construction and simultaneously starts marketing the property to prospective tenants. Like the choice of location, the choice of tenants is also critical for a mall as its brand mix (the selection of brands / stores to be housed in the mall) is a key determinant of its success. The choice of tenants is driven largely by the findings of the research conducted, which also covers spending habits and brand and shopping preferences of the population in the catchment area.

Tying up with a few pan-India retailers ensures a minimum level of footfalls in a mall

Typically, malls tie up with one or two large pan-India retailers to lease out a large area of the mall. For the developer, this ensures a minimum level of footfalls in the form of shoppers that these large retailers would attract. Moreover, the developer also benefits by finding tenants for a large portion of his total area. In return, the developer charges lease rentals from the anchor tenants that are significantly lower than what would be charged to other tenants.

Lease rentals from anchor tenants significantly lower than what would be charged to other tenants

Exhibit 31: Anchor clients generally occupy 70% of a mall



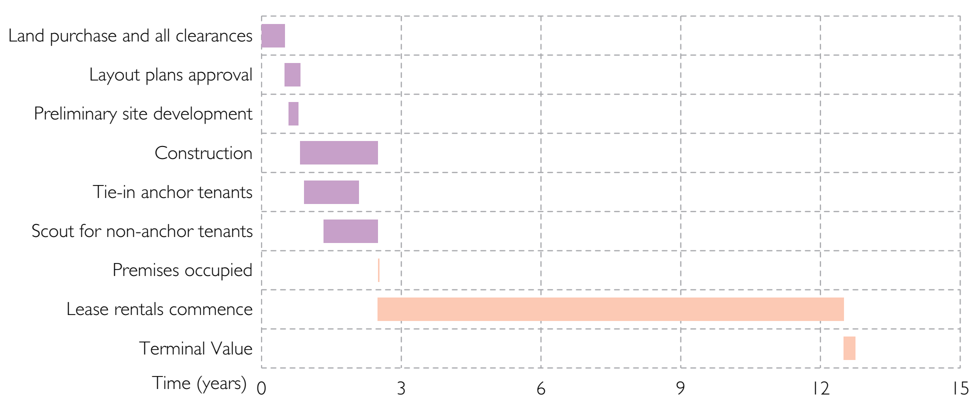
Source: SSKI Research

❑ Regular revenues from lease rentals; REITs may provide early exit

Completion takes 18-20 months, after which developer starts receiving cash flows from the project

Construction 18-20 months to complete, by which time almost the entire premises are leased out. The developer then starts receiving cash flows from the project in the form of lease rentals. The regular rental cash flows continue till such time as another investor (REIT / REMF/ other) steps in and takes over the property from the developer by paying the capital value of the lease.

Exhibit 32: Indicative time-line of a mall development project



Source: SSKI Research, Industry sources

Mall development requires large equity investments by the developer

Outright sale fetches 29% IRRs as against ~22% for lease rentals

STRONG PROFITABILITY BUT CONSTRAINED BY LEASE MODEL

❑ Lease rentals delay payback

Malls are typically developed on a lease model, and hence developers do not receive any cash inflows either in the pre-construction or during the construction period. Moreover, the developer has to hold a developed property till such time an investor offers him an exit. Also, construction costs tend to be higher in mall development as compared to residential or commercial real estate development because of use of escalators, provision of large car parking facilities, extensive use of glass, etc. Consequently, mall development requires large equity investments by the developer.

❑ We prefer outright-sale business models

While IRRs from a leased commercial project are ~22%, these could be as much as 29% in case the developed property is sold outright or a REIT/other investor offer the developer an early exit. Moreover, a lease-only arrangement locks up the developer's capital, thus restricting investments in replenishing the land bank and deploying funds in future projects. Consequently, we prefer real estate companies with pure a development focus, as opposed to holding developed properties to earn a lease yield based income.

Exhibit 33: Indicative IRR from a mall development project

Type of construction	Mall
Area (sq. ft)	300,000
FSI (x)	1.33
Built-up Loading (%)	10%
Saleable area (sq. ft)	438,900
Cost of land (Rs / sq. ft)	1,150
Preliminary expenses (Rs / sq. ft)	100
Construction Costs & Overheads (Rs / sq. ft)	2,200
Construction period (months)	20
Rental - anchors (Rs / sq. ft / month)	45
Rental - others (Rs / sq. ft / month)	65
Yield (%)	11%
Vacancy (%)	8%
Lease deposits from anchors (no. of months)	6
% occupied by anchors	60
% occupied by non-anchors	40
Annual increase in rentals (%)	5

Source: SSKI Research, Industry sources; Assumptions based on normative development and no land profits

Exhibit 34: Retail real estate project – lease model delays payback and constrains IRRs

(Rs mn)	Jan-06	Sep-06	Nov-06	Dec-06	Jan-07	Feb-07	…	Jun-08	Jul-08	Aug-08	…	Jun-18	Jun-18
Land acquisition	(345.0)	-	-	-	-	-	…	-	-	-	…	-	-
Preliminary site development	-	(30.0)	-	-	-	-	…	-	-	-	…	-	-
Construction	-	-	(43.9)	(43.9)	(43.9)	(43.9)	…	(43.9)		-	…	-	-
Lease deposits on area sold (anchors)	-	-	-	-	-	71.1	…	-	63.0	-	…	-	-
Lease deposits on area sold (non-anchors)													
Lease rentals	-	-	-	-	-	-	…	-	22.3	22.3	…	34.7	-
Terminal Value	-	-	-	-	-	-	…	-	-	-	…	-	3,648.0
Net cash flows	**(115.0)**	**(10.0)**	**(10.6)**	**(10.6)**	**(10.6)**	**(9.1)**	**…**	**(43.9)**	**85.3**	**22.3**	**…**	**34.7**	**3,648.0**
IRR	**26%**												

Source: SSKI Research

SPECIAL ECONOMIC ZONES (SEZ)

With attractive fiscal benefits, development of global scale infrastructure and India's cost advantages, SEZs have the potential to emerge as the key drivers of economic growth going forward. Real estate developers, in our opinion, are best suited to develop SEZs given their experience in developing integrated townships. SEZs also offer the potential to earn strong IRRs, but with a long gestation period and large upfront investments in land acquisitions and developing the basic infrastructure.

SEZS: A PERSPECTIVE

The concept of SEZs began in India in 1965 in the form of EPZs

Among the various fiscal and non-fiscal measures adopted by India to encourage exports and foreign exchange earnings, the setting up of export processing zones (EPZ) has been one of the key measures. An EPZ comprised an area housing 100% export oriented units, all of which enjoyed a slew of fiscal incentives. The first EPZ in India was set up in Kandla (Gujarat) as early as in 1965, after which the government set up seven more EPZs in Mumbai, Kochi, Noida, Falta (West Bengal), Vishakhapatnam and Surat.

Taking a cue from China's enormous success with the concept of Special Economic Zones (SEZ), the Indian government has extended the concept of EPZs and has been aggressively promoting SEZs. An SEZ is a deemed 'foreign area' set up within the territorial boundaries of a country to attract foreign investments and enhance exports.

The EXIM Policy 2000 first launched the scheme of SEZs, wherein the existing EPZs were converted into SEZs. Signalling the government's serious stance on the subject, a formal SEZ Act was enacted in 2005, followed by promulgation of SEZ Rules in 2006.

KEY DRIVERS OF SEZ DEVELOPMENT

❑ Attractive fiscal benefits

SEZs represent the last opportunity for long-term tax breaks for the Indian industry

Fiscal policy in India is moving towards simplification of taxation laws and a gradual phasing out of various tax benefits, deductions and exemptions, tax holidays, etc. In effect, SEZs represent the last opportunity for long-term tax breaks for the Indian industry.

❑ World class infrastructure

SEZs have been envisioned and are being promoted as regions with world-class infrastructure in which industry could operate in a global and hassle free environment. SEZ regulations also facilitate access to foreign capital and technology.

❑ India's competitive strengths and cost advantages

With the right regulations and development, SEZs can emerge as key drivers of economic growth

Apart from the physical infrastructure, SEZs have an opportunity to leverage on the cost advantages offered by India across industries (IT, ITeS, Auto and Engineering) and the knowledge base of an expanding skilled workforce. Given these advantages, SEZs present a unique opportunity for the Indian industry. With the right regulations and development, SEZs can emerge as key drivers of economic growth going forward.

SEZs: A TAILOR-MADE OPPORTUNITY FOR REAL ESTATE DEVELOPERS

Attractive prospects for private players

More than 200 SEZs covering an area of about 200,000 acres of land proposed to be set up

One key feature of the current regulatory environment for SEZs is participation of the private sector in development of these zones. The SEZ Rules stipulate a minimum area of 1,000 hectares[5] for a multi-product SEZ, 100 hectares for a single-product SEZ and 10 hectares for an IT/ITeS/bio-tech/renewable energy/gems and jewellery SEZ. With more than 200 SEZs covering an area of about 200,000 acres of land proposed to be set up, a huge opportunity exists for private players.

A natural business extension for real estate developers

Experience in developing integrated townships equip developers to construct SEZs

Real estate developers possess the necessary skills in development of SEZs, given their experience in developing integrated townships, involving a mix of commercial, retail and residential real estate (around 65% of the SEZ area will comprise non-processing activities such as residential, commercial and retail development). As development of such properties is the bread and butter for real estate companies, SEZs become a natural extension of their business.

Land acquisition made easy for developers

SEZs allow consolidation of large tracts of land, which otherwise are unavailable

SEZs allow consolidation of large tracts of continuous land, which otherwise would have been virtually impossible for real estate developers. Given that such land can be acquired at government notified rates, the overall cost of land acquisition is reduced considerably. Also, as the land use is pre-cleared, considerable time is saved in getting land clearances and approvals.

DYNAMICS OF SEZ DEVELOPMENT

SEZ developer basically an infrastructure provider

After basic infrastructure is in place, SEZ developer would attract industrial investments to occupy processing zones

The role of an SEZ developer can be broadly seen as that of an infrastructure provider, much the same as a municipal authority's role in a city or town is. The SEZ developer, after acquiring and consolidating land, will develop the basic infrastructure like roads, water supply, sewage and sanitation, etc. After the basic infrastructure is in place, the SEZ developer would attract industrial investments to occupy the processing zone (35% of the total area according to current regulations).

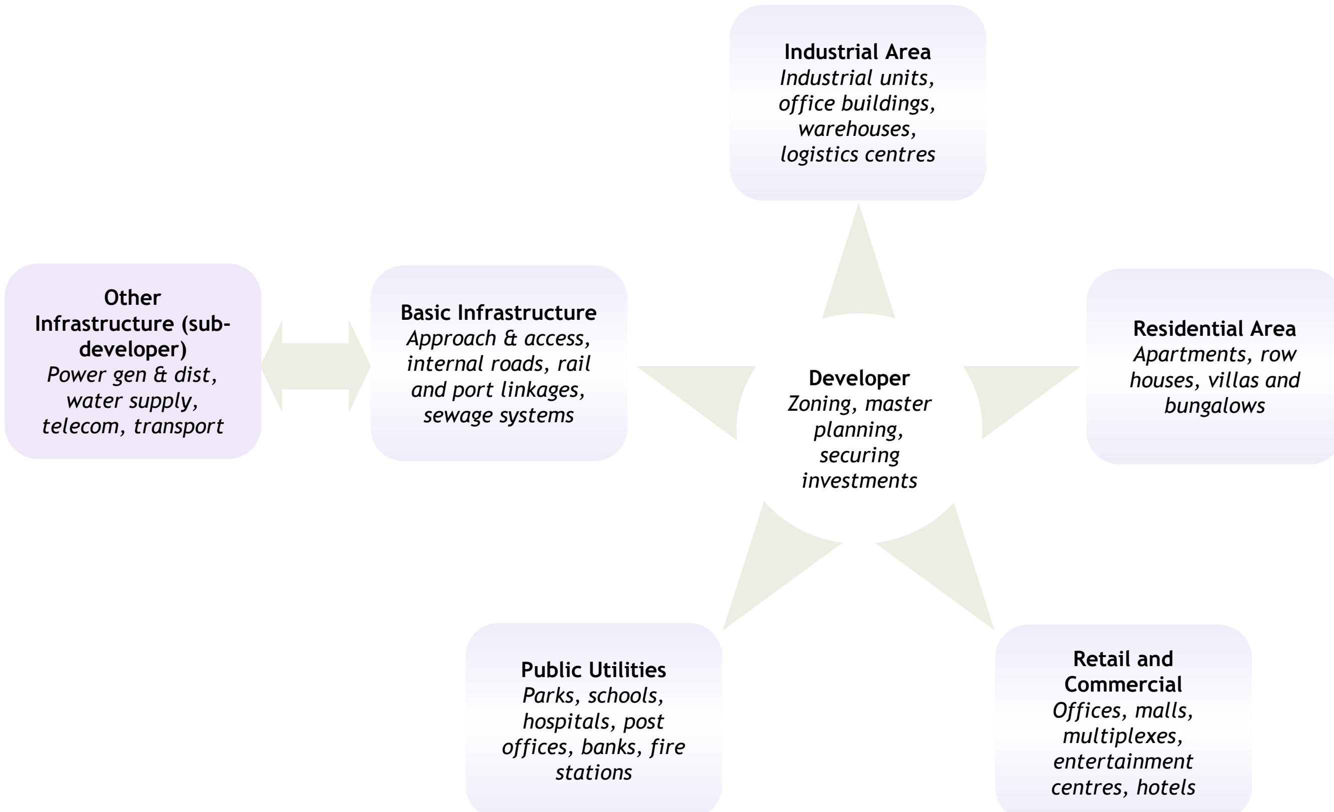
Non-processing zone developed after industrial area is occupied

Once a SEZ gets populated, developer provides residential space, and then retail, commercial and allied services

Once economic activity in the form of manufacturing (or services in case of services oriented SEZs) and related trade and commerce starts, the developer can expect the non-processing zone to get populated by workers in the industrial units in the processing zone. And once the SEZ starts getting populated, the developer can look at providing residential space and then retail, commercial and all allied services required in a city, including schools, hospitals, open public spaces, etc.

[5] 1 hectare = ~2.47 acres

Exhibit 35: SEZ – developer's role



Source: SSKI Research

Services such as power generation and distribution, telecom, etc are mostly contracted to specialised developers

❑ SEZ developers to focus on basic infrastructure services only

In our opinion, developers of large SEZs will look at assuming the role of a 'master developer' and retain the functions of planning, zoning, developing the basic infrastructure, attracting investments in the industrial zones, etc. The other functions, including capital-intensive infrastructure services, may be broken down into smaller sub-projects and development in these will be contracted out to other companies. Such sub-projects may include power generation and distribution, water supply, telecom services, etc.

We believe SEZ developers will focus on the activities of setting up the basic infrastructure and development of real estate within the SEZ, while capital intensive and complex infrastructure and services such as power generation and distribution, telecom, etc will most likely be contracted to specialised developers.

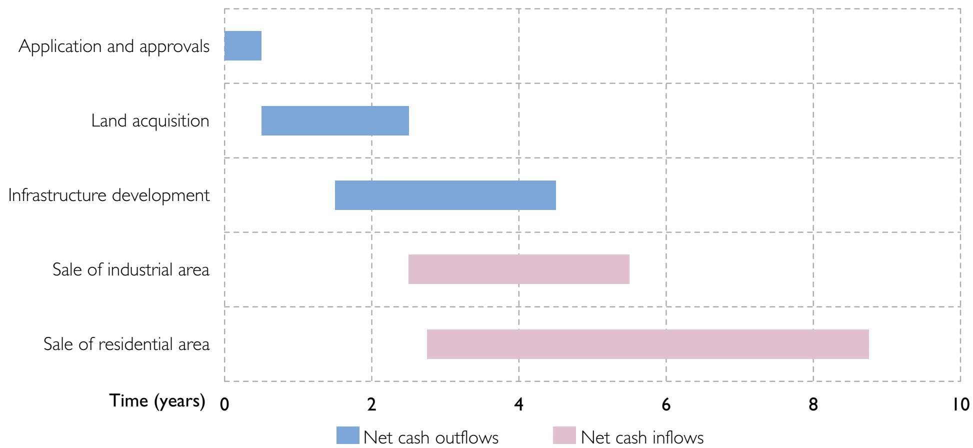
LONG GESTATION AND HIGHLY CAPITAL INTENSIVE; BUT STRONG IRRS

❑ Large upfront investments required

Two years required for land acquisition and three years for developing infrastructure

SEZ development requires huge initial investments for buying large tracts of land and developing the initial infrastructure. This process may take up to 3-4 years with two years required for land acquisition and another three years for developing the infrastructure.

Exhibit 36: Indicative time-line of SEZ development



Source: SSKI Research, Industry sources

❑ Anchor industrial units may be offered land at cost

Large anchor units are critical to the overall success of the SEZ

Once the basic infrastructure is ready, the developer will attract large industrial units to the SEZ to kick-start economic activity in manufacturing and related trade and commerce. Given the importance of industrial users to the success of the SEZ, the developer will most likely offer land required by the anchor unit more or less at the cost price. The industrial area will likely be completely occupied in 3-4 years from the time the process of land acquisition is started. This will be followed by gradual development of residential areas and with it, commercial and retail properties.

❑ Net cash inflows only after 3-4 years of project commencement

Developer has to keep investing in SEZ for 5-6 years before realizing any meaningful cash flows

Considering the large upfront investments in land acquisition and basic infrastructure development, and the likely sale of the industrial area to large buyers at cost price, it follows that the developer will have to keep investing in the SEZ for 5-6 years before he can realise any meaningful cash flows. Consequently, an SEZ project of a reasonable size (1,000-1,500 acres) will take 8-10 years to be completely developed and for the processing and non-processing zones to be fully occupied.

IRRs in SEZ development likely to be strong, but after a longer gestation period

❑ Strong IRRs from development of the non-processing zone

With 65% of the total SEZ area available for the non-processing zone, potential revenues from development of residential, commercial and retail projects are huge. Hence, IRRs in SEZ development are expected to be strong, but after a longer gestation period.

Exhibit 37: Typical structure of an SEZ development project

Type of construction	SEZ
Area (acres)	1,500
Land Cost (Rs mn / acre)	1.5
Upfront infrastructure cost (Rs mn / acre)	2.5
Industrial Area / processing zone (%)	35%
Industrial Area Selling Price (Rs mn / acre)	7.5
Non- Industrial Area Selling Price (Rs mn / acre)	20.0
Land acquisition time (years)	2
Infrastructure development time (years)	3
Industrial area sold over (years)	3
Residential area sold over (years)	6

Source: SSKI Research, Industry sources; Assumptions based on normative development and no land profits

Exhibit 38: SEZs - potential to earn high IRRs, but over a longer period

Rs mn	Jan-06	Jan-07	Jan-08	Jan-09	Jan-10	Jan-11	Jan-12	Jan-13
Land acquisition	(1,125)	(1,125)						
Upfront infrastructure		(1,250)	(1,250)	(1,250)				
Sale of industrial area			984	1,378	1,575			
Sale of residential area			975	2,925	2,925	3,900	3,900	4,875
Net Cash Flows	**(1,125)**	**(2,375)**	**709**	**3,053**	**4,500**	**3,900**	**3,900**	**4,875**
IRR	**58%**							

Source: SSKI Research

OUTLOOK

The key demand drivers in all segments of the Indian real estate sector are attractively converging to drive sustained growth in the market going forward. The strong potential demand is expected to result in an exponential growth in development plans of real estate companies. We expect ~16bn sq. ft. of development across all segments of the real estate market by 2010.

❑ Strong growth and attractive IRRs in residential development

17.6m of new Indian households to require 15.9bn sq. ft of residential real estate

A decreasing household size is expected to be the key driver of demand for residential real estate over the next 3-5 years. We expect the number of Indian households to increase by 17.6m by 2010, resulting in construction of 15.9bn sq. ft of residential real estate development. In addition to the huge opportunity, residential development also offers the potential to earn strong IRRs (up to 100%), which augurs well for developers focused on this segment.

❑ Commercial real estate – IT / ITeS to drive demand

We expect demand of 160m sq. ft of commercial real estate by 2010

The IT and ITeS sectors are expected to witness a CAGR of 15% over FY06-10, driving demand for commercial and office space. We expect demand of 160m sq. ft of commercial real estate by 2010, with the IT and ITeS sectors accounting for ~60% of the same. Profitability in commercial development is, however, restricted due to the lease model, and therefore we prefer developers with a strategy to outright sell the developed properties.

❑ Over 700 malls to be developed by 2010

We estimate construction of 212m sq. ft of retail real estate by 2010

Driven by favourable demographics and rising incomes, the spending patterns of Indian consumers are likely to witness a structural change going forward, resulting in the traditional 'mom-and-pop' stores giving way to organised retailing. As malls emerge as preferred leisure time destinations, we expect demand of 212m sq. ft of retail real estate by 2010.

❑ SEZs – to emerge as the frontier of real estate development

Over 200 SEZs under consideration for approval

SEZs, in our opinion, can emerge as the key driver of economic growth going forward in the backdrop of encouraging regulations, government push and tax benefits in their favour. Given their experience in developing large integrated townships, we believe real estate developers are best suited for development of SEZs. With over 200 SEZs under consideration for approval, we believe these special zones are set to emerge as the new frontier of real estate development going forward.

❑ Scale of developers to grow aggressively

Development plans of real estate companies to rise exponentially to an estimated 20m-30m sq. ft annually

Historically, real estate companies have undertaken development of 1m-3m sq. ft of real estate annually. With strong growth in demand expected across segments of real estate over the next few years, the development plans of real estate companies are expected to rise exponentially to an estimated 20m-30m sq. ft annually. We estimate individual project sizes also to increase, as developers take up large-scale development of commercial and office space, IT Parks, integrated townships and mega malls.

Residential, commercial and retail segments together expected to see construction of over 16bn sq. ft by 2010

❑ Sustained growth over the next 4-5 years

With residential, commercial and retail segments together expected to see construction of over 16bn sq. ft by 2010, there exists tremendous potential in real estate development in India. The tremendous potential demand, coupled with an improving regulatory landscape, robust economic growth, modernising urban development methods and gradually improving corporate governance standards of developers makes us extremely positive on the prospects of the real estate market in India over the next 4-5 years.

THE RUSH FOR CAPITAL

Real estate development in India is fast scaling up, driven by the strong potential demand and acquisition of large tracts of land made simpler by changing regulations. Consequently, with increasing project sizes, the funding needs of real estate developers are increasing exponentially. The need for higher capital is also being driven by the lack of take-out financing in commercial and retail projects. However, the avenues for raising funds remain limited and with REITs still some time away, we expect a rush among real estate companies to raise funds from the capital markets.

DEVELOPERS' NEED FOR FUNDS IS INCREASING …

❑ Project sizes are increasing

Larger project sizes warrant massive investments

The average size of real estate projects is increasing with the focus shifting to integrated townships in the residential segment, large-scale office buildings in the commercial segment and mega malls with a mix of entertainment and retail development. The larger project sizes warrant massive investments by real estate developers.

❑ Most players have announced large scale up plans

Announced development plans in next 4-5 years higher than cumulative development so far

Most of the leading real estate developers are slowly extending their footprint to different geographical markets to gain a pan-India presence. Further, given the strong growth in the real estate market over the last 2-3 years, development plans of real estate companies are also accordingly scaling up. In fact, the development plans announced by some players over the next 4-5 years are higher than the cumulative development undertaken by them so far.

❑ Rush to acquire land

Commensurate with their ambitious development plans, real estate companies have been aggressively buying land over the last 1-2 years. As a result, there are a number of outstanding commitments on making land payments.

❑ Large funding needed for SEZs

SEZs require huge upfront investments, as they are long gestation projects

SEZs are expected to emerge as the focus of real estate development in India going forward. SEZs are long gestation projects and require huge upfront investments in buying large tracts of land and developing the initial infrastructure. With most developers announcing intentions of setting up multiple SEZs, the funding needs are expected to be substantial going forward.

…BUT THE AVENUES FOR RAISING FUNDS ARE LIMITED

Guidelines on risk management for banks classify real estate as a 'sensitive' sector

❑ Banks remain wary of financing real estate

Prudential guidelines on risk management for banks classify real estate as a 'sensitive' sector and assign a risk weight of 125% to all funded and non-funded exposures to the real estate sector. Consequently, to keep a check on their capital adequacy position, banks remain cautious on financing real estate.

Tangled regulations have discouraged substantial FDI in real estate

❑ Foreign capital still not easy to access

The government has allowed 100% FDI in the real estate sector covering investments in townships, housing, commercial and retail development among others. However, lack of clarity on issues such as definition of 'commercial premises', constitution and capitalisation of joint ventures, restrictive conditions relating to minimum area to be developed, time period for development, repatriation of investment, etc have so far discouraged substantial investments with the result that the actual inflows since FDI was allowed in February 2005 have been limited. Moreover, FDI is allowed only in greenfield projects, therefore ruling out investments by foreign companies in existing Indian real estate developers.

COMMERCIAL AND RETAIL PROJECTS LOCK UP CAPITAL

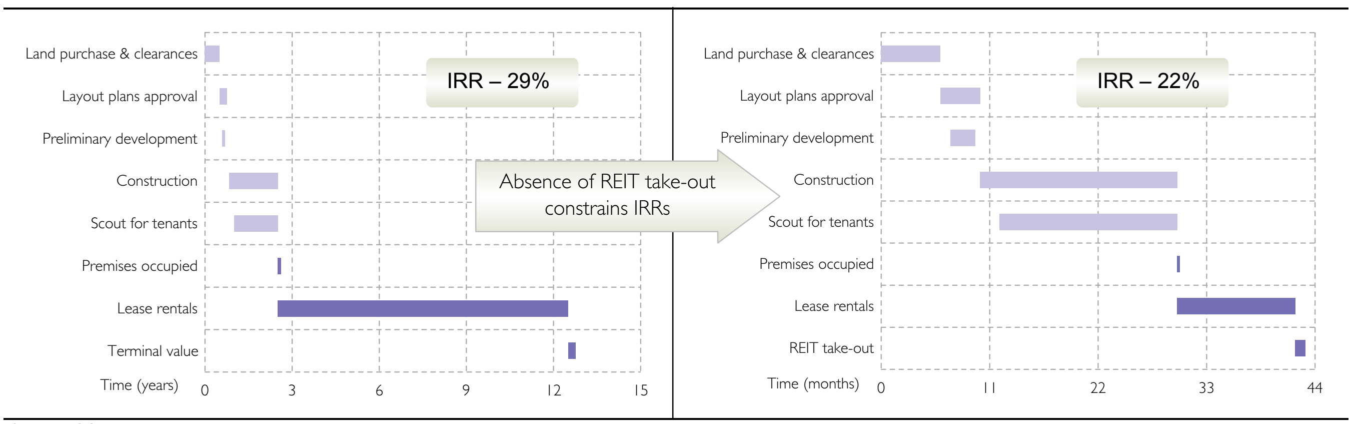
A leased commercial / retail project will earn 22% IRR vis-à-vis 29% in case of an outright sale

❑ Long-term capital commitments in non-residential projects

Real estate developers usually prefer to exit developed properties by selling them outright. However, in case of commercial and retail projects, occupiers prefer to lease out the premises rather than buying them over. A developer's business is not to hold on to a developed property for earning a lease-yield based income. A lease income based business model delays the payback period and blocks the developer's capital in a single project. This not only impairs the RoE of the developed project, but also puts a capital constraint on the developer in rolling out new projects.

A commercial / retail project, if leased out, will earn an IRR of about 22% over a period of time as compared to 29% in case of an outright sale of the property.

Exhibit 39: Absence of REIT take-out contracts IRRs



Source: SSKI Research

Developers find it usually difficult to find a single investor to take up the entire project

❑ Developed properties historically sold to a clutch of HNI investors…

To realize a portion of their investment and deploy them in other projects, developers try to offload a part of the equity in a completed project to other investors. Given the large size of commercial / retail projects (a 100,000 sq. ft office building, at a rent of Rs40 / sq. ft / month and a lease yield of 10%, will have a capital value of Rs480m), it is usually difficult to find a single investor to take up the entire project. Therefore, developers have historically sold the project to a clutch of independent investors, generally HNIs.

Multiple landlords impact the overall success of a mall

❑ …but tenants do not prefer multiple landlords

While selling the property to a group of investors is a convenient exit option for the developer, there are practical problems in doing so. Tenants do not prefer to deal with multiple landlords. The problem is compounded in case of mall development as the developer loses control over the brand mix of the property by selling space outright to a group of independent investors. This impacts the overall success of the mall.

REITS PROVIDE THE SOLUTION…

The interests of the developers and the tenants are likely to be reconciled once REITs start functioning in India. REITs are expected to lend the much-needed liquidity to developers and allow them to take out the capital value of completed projects for deployment in newer projects.

Moreover, REITs take up entire projects, and hence tenants may not be faced with the prospect of dealing with multiple landlords. REITs also serve as an effective vehicle for broader participation by investors in the real estate market. By providing liquidity and transparency, which India's real estate markets currently lack, REITs allow an investor to add real estate as a separate asset class in their portfolios.

…BUT ARE SOME TIME AWAY…

The ball has been set rolling with an expert committee under the Association of Mutual Funds of India (AMFI) recommending the launch of Real Estate Mutual Funds (REMFs) in India. However, we believe it will be another 6-12 months before a formal regulation is framed and implemented and then for real estate investment schemes to be launched.

…TRIGGERING A RUSH TO RAISE CAPITAL

Considering the scale of development planned, we expect a rush for raising capital

While the need for capital is becoming critical and urgent, the avenues for raising capital have remained limited and restrictive. With most developers having large outstanding land payment commitments and other development obligations, there is a rush among real estate companies to raise capital.

In addition to the domestic primary equity markets, developers are looking to raise funds from private equity players, real estate funds and other institutional investors. Other developers are evaluating alternative avenues of raising capital, including accessing the Alternative Investment Market (AIM) on the London Stock Exchange.

KEY RISKS

While the Indian real estate sector offers huge opportunities for developers, some risks remain that may impact demand for real estate going forward. The sharp run up in property prices over the last 2-3 years and upturn in the interest rate cycle are the key risks to demand for residential real estate. Commercial and retail properties are threatened by the trend of rising rentals which impact profitability while SEZs are affected by continuing confusion on regulations.

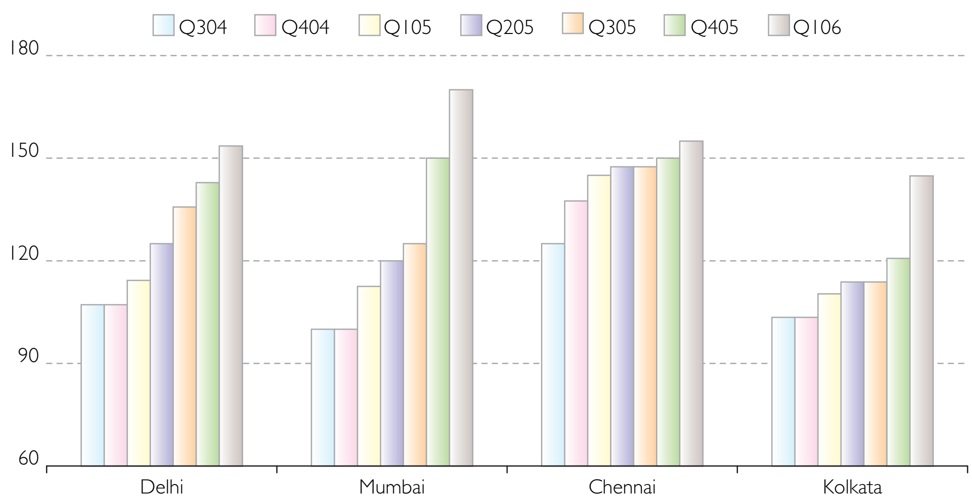
RESIDENTIAL REAL ESTATE

❑ Increasing property prices…

We believe current property prices are prohibitive and are stifling housing demand

Demand for residential housing tends to be significantly price sensitive. Though the underlying demand for housing is huge, it exists only at a price affordable to the buyer (else the purchasing decision is postponed). There has been a sustained upward movement in property prices in India over the last 2-3 years, with prices having shot up significantly in the last one year. We believe current property prices are prohibitive and are stifling demand for residential housing.

Exhibit 40: Residential property price index – sharp jump in the last two years



Source: Trammel Crow Meghraj; SSKI Research

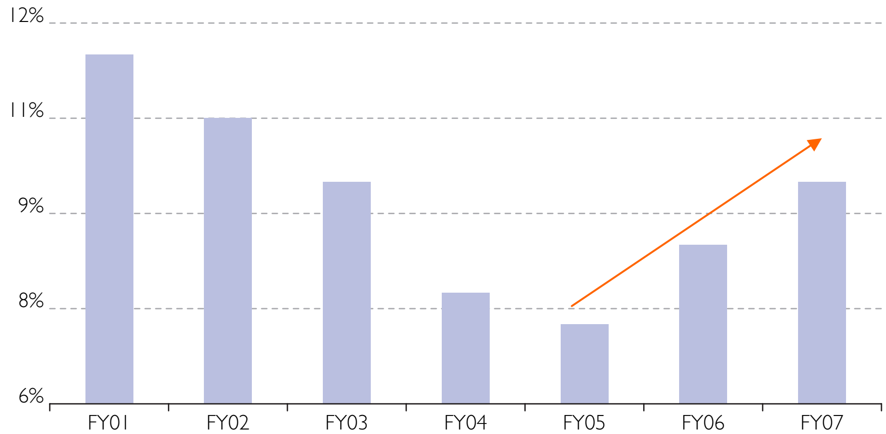
❑ …and rising home loan rates…

Uptrend in mortgage loans could hurt housing demand

Declining rates on housing loans have been one of the key demand drivers for residential housing in the last 4-6 years. However, home loan rates, in line with general interest rates in the economy, have started moving upwards in the last 12-15 months. From a low of 7.25% per annum in FY04, home loans are currently being offered at about 9.5% per annum.

From a low of 7.25% p.a. in FY04, home loan rates are currently pegged at ~ 9.5%

Exhibit 41: Home loan rates – starting to climb again



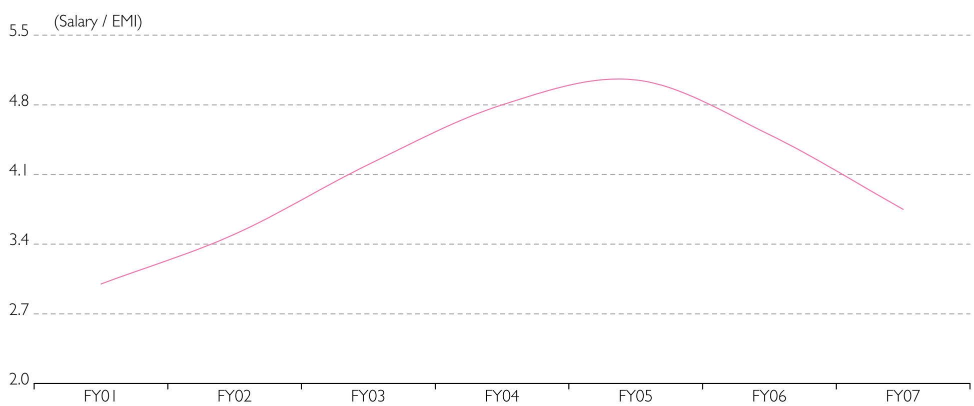
Source: HDFC, SSKI Research

❑ …impact home buying affordability

We have measured the affordability of buying a new house, defined as the number of times a housing loan EMI is a person's monthly salary. Considering the increasing interest rates and the rising property prices in the last 2-3 years, purchasing affordability has dropped sharply from about 5x EMI in FY04-05 to less than 4x EMI currently.

Purchasing affordability has dropped sharply from about 5x EMI in FY04-05 to less than 4x EMI currently

Exhibit 42: Affordability of buying a new house – at its lowest since FY02



Source: SSKI Research

Though salaries have also increased significantly in the said period, the impact of the same on affordability has been more than negated by the twin impact of increasing property prices and rising interest rates.

Impact of higher salaries negated by higher interest cost and rising property prices

Exhibit 43: Interest burden increases by 12-16% for every 100bps increase in interest rates

Interest rate (%)	EMI (Rs per million)	Total payments (Rs m)	Interest component (Rs m)	Change in interest burden (%)
7.5	8,056	1.93	0.93	
8.5	8,678	2.08	1.08	16.0
9.5	9,321	2.24	1.24	14.3
10.5	9,984	2.40	1.40	12.9
11.5	10,664	2.56	1.56	11.7

Source: SSKI Research

Already, there are reports of a slowdown in demand for houses from the salaried class of buyers, and this can be attributed in a large measure to the rising interest rates and reducing affordability.

COMMERCIAL REAL ESTATE

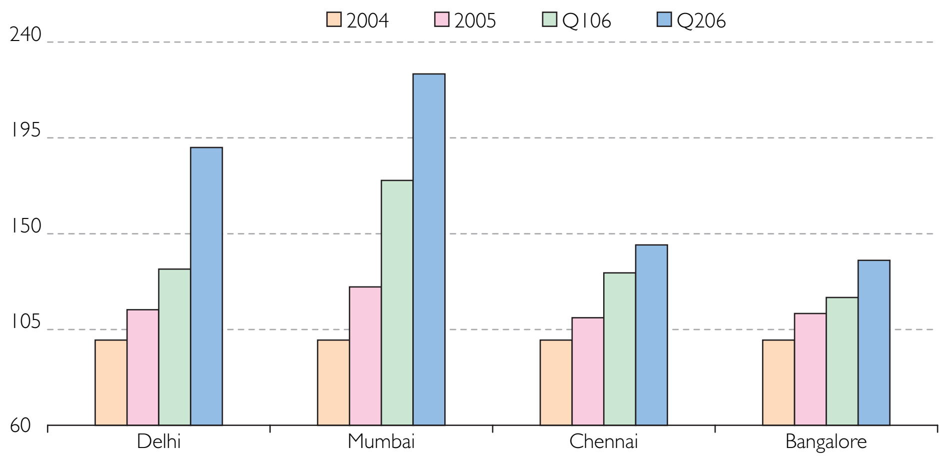
❑ Rising lease rentals

Rising lease rentals a risk to competitiveness of Indian outsourcing industry

In the commercial segment, significant cost savings in operating such services out of India have been one of the key growth drivers in the Indian IT and ITES sector. Lease rentals over the past 1-2 years have been rising steadily, and have more than doubled in some key markets. This trend of rising lease rentals is a risk to the competitiveness of the Indian outsourcing industry in general and could prove to be a threat to demand for commercial real estate.

Lease rentals rising steadily; have more than doubled in some key markets

Exhibit 44: Commercial Lease Rentals Index – up 50-100% in a year



Source: Colliers Jardine, SSKI Research

IT and ITeS companies looking beyond Tier I and Tier II centres

The impact of rising lease rentals on demand for office space is already visible in the trend of IT and ITeS companies expanding operations beyond Tier I and Tier II centres to cities such as Bhubhaneshwar, Mohali, Thiruvananthpuram, etc.

❑ Rising vacancy levels

Increasing lease impact the demand for office space, leading to higher vacancy levels. Vacancy levels impact the total lease income, and consequently the capital value of a property. Given that large investments go into development of commercial space, any vacancy adversely impacts the returns of the developer from the project.

RETAIL REAL ESTATE

Rising rentals impact return on retailers' equity investments

❑ Rising retail rentals

One fundamental aspect of the retail business is that the store should be able to generate sufficient revenues from the area occupied, so as to justify the rentals paid for that area. With rising rentals, though retailers may not run into losses, the return on their equity investments definitely suffers. From a developer's point of view, the real success of the mall is not how much rental income the property can command or whether the entire space has been leased out, but the longer-term occupancy levels of the mall and profitability of the retailer.

Exhibit 45: Rising rentals impact margins of retailers

		% increase in rentals over base case		
	Base Case	10%	20%	30%
Rentals (Rs psf / month)	45.0	49.5	54.0	58.5
Sales (Rs psf p.a.)	7,500	7,500	7,500	7,500
Operating costs (Rs psf p.a.)	5,840	5,894	5,948	6,002
Rentals	540	594	648	702
Other costs	5,300	5,300	5,300	5,300
EBITDA	1,660	1,606	1,552	1,498
EBITDA margin (%)	*22.1*	*21.4*	*20.7*	*20.0*
Change in EBITDA (%)		(3.3)	(6.5)	(9.8)

Source: SSKI Research, Industry sources

Anchor tenant, while occupying a significant portion of the mall, pays rentals that are much lower than the average

The problem of increasing rentals is compounded by the fact that the anchor tenant, while occupying a significant portion of the mall, pays rentals that are much lower than the average. Consequently, to make the mall profitable, the developer has to charge higher rentals from non-anchor tenants. And as these tenants occupy a comparatively much smaller area, the per sq. ft rentals tend to be very high.

The reason non-anchor tenants can afford to pay higher rentals is because they operate in niche areas (luxury brands, high-end accessories, etc), which have significantly higher margins as compared to a department store or a discount retailer. Nevertheless, increasing rentals dent the profitability of non-anchor tenants.

Exhibit 46: Higher margin retailers can afford higher rentals

Base case	Discount retailer	Dept. store	Speciality store	High-end brand
Rentals (Rs psf / month)	45	45	75	150
Sales (Rs psf p.a.)	10,000	7,500	10,000	18,000
Op. costs (Rs psf p.a.)	8,740	5,840	7,100	10,300
Rentals	540	540	900	1,800
Other costs	8,200	5,300	6,200	8,500
EBITDA	1,260	1,660	2,900	7,700
EBITDA Margin (%)	12.6	22.1	29.0	42.8

Source: SSKI Research

If a mall fails to attract footfalls, its occupancy levels will suffer

❑ Increasing vacancy levels

The risk of vacancy impacts retail projects equally. A mall is a 'concept' or a 'destination' development project and involves a number of 'softer' or qualitative issues than just construction of stores. If a mall does not emerge as a popular destination and is not successful in attracting footfalls, its occupancy levels will suffer. Occupancy levels may also get impacted by over-supply of retail space in any locality. Occupancy levels eventually determine the lease income of the developer and also the valuations the developer may get for the property at the time of exit.

A glut of malls in a small radius leads to higher vacancy levels

❑ Urban proliferation of malls

A large proportion of mall / retail projects under construction or announced by developers so far are in the large towns and cities. The proliferation of malls in urban areas may lead to a glut in some markets. Prominent examples include Saket in Delhi, where 3-4 malls are either already operational or under construction including DLF's South Court and Courtyard, MGF's Metropolitan and Select Infrastructure's Select City. Similarly, in Mumbai's Lokhandwala / 4-Bungalows area, City Mall, Fun Republic and Infinity Mall are operational within a radius of less than 1 km. Excess supply in concentrated markets will result in higher vacancy levels, therefore impacting the success of all projects within a given area.

SEZs

❑ Confusion prevalent on regulation

Ever since the SEZ Rules were promulgated in January 2006, there have been regular debates within different government departments on the interpretation as well as implementation of the rules. Moreover, there are differing views on SEZs among the various factions of the incumbent UPA government at the Centre.

Issues like prudence of using agricultural land for SEZs, extent of compensation and number of SEZs being debated

The major points of debate range from basic issues like number of SEZs to be allowed to politically sensitive issues like whether prime agricultural land can be acquired for SEZs or not as also the amount of compensation to be provided to displaced families and project-affected persons.

❑ SEZs in land locked areas

The SEZ Board of Approvals has formally approved 150 SEZs so far, of which as many as 28 are proposed to be located in land locked states. The export competitiveness of such SEZs is highly questionable, especially the nine SEZs in the manufacturing sector. If these SEZs are unable to attract industrial users and kick-start economic activity, all future development within the SEZ may suffer, impacting the developer's returns.

Exhibit 47: SEZs in land-locked states

#	Name of the developer	State	Type of SEZ	Acres
1	Chandigarh Administration	Chandigarh	Electronics and IT/ITES	111
2	Delhi Metro Corporation	Delhi	IT	15
3	Haryana Technology Park	Haryana	IT	7
4	Uppal Housing Ltd.	Haryana	Multi-services	269
5	Luxor Cyber City Pvt. Ltd.	Haryana	IT/ITES	69
6	Sunwise Properties Pvt. Ltd	Haryana	IT/ITES	25
7	Dr. Fresh Healthcare Pvt.Ltd.	Haryana	IT/ITES	75
8	Orient Craft Infrastructure Ltd	Haryana	Textile	280
9	Ansal Properties and Infrastructure Ltd	Haryana	Engineering goods	247
10	Assotech Realty Pvt Ltd	Haryana	IT/ ITES	26
11	Adityapur Industrial Area Development Authority	Jharkhand	Automobiles and components	89
12	Madhya Pradesh State Industrial Dev. Corpn.	Madhya Pradesh	IT	20
13	Medicaps IT Park Pvt. Ltd.	Madhya Pradesh	IT Park	30
14	Quarkcity India Pvt. Ltd.	Punjab	IT	49
15	Ranbaxy Laboratories Ltd.	Punjab	Pharmaceuticals	79
16	Vividha Infrastructure Pvt Ltd	Punjab	Engineering Sector	247
17	Mridul Infrastructures Pvt Ltd	Punjab	Textiles	247
18	Mahindra Gesco	Rajasthan	IT/ITES	121
19	M/s. Vatika Jaipur SEZ Developers Ltd.	Rajasthan	IT/ITES	50
20	Somani Worsted Limited	Rajasthan	Electronics Hardware and Software/ ITES	49
21	State Industrial Development Corp. of Uttaranchal	Uttaranchal	Multi-product	1,087
22	State Industrial Development Corp. of Uttaranchal	Uttaranchal	IT/ ITES	35
23	Wipro Ltd.	Uttar Pradesh	IT/ITES	49
24	Moser Bear India Ltd.	Uttar Pradesh	Non-Conventional Energy	29
25	Ansal IT City and Parks Ltd.	Uttar Pradesh	IT/ITES	75
26	Seaview Developers Ltd.	Uttar Pradesh	IT/ITES	30
27	HCL Technologies	Uttar Pradesh	IT/ ITES	42
28	NIIT Technologies Ltd.	Uttar Pradesh	IT/ ITES	25

Source: Ministry of Commerce; SSKI Research

VALUING REAL ESTATE COMPANIES

In our opinion, using the NAV approach – by discounting free cash flows to equity at a suitable rate – is the most appropriate methodology of valuing real estate companies. We prefer the NAV approach over an earnings based valuation, which applies a multiple to non-recurring land profits also. The NAV approach also scores over land bank valuations as the latter ignores the critical aspects of taxation and future land payments.

❑ Earnings based valuations distort real estate companies' valuations

Assigning a multiple to non-recurring profits distorts valuation of a developer

Profits from real estate development comprise two components – pure development margins and profits from appreciation in the value of the land. Land profits are non-recurring in nature; on a sustainable basis, developers are more likely to earn development margins only. This is a more probable scenario in the future, given that land and property prices have increased significantly in the past 2-3 years.

Assigning a multiple to such non-recurring profits is likely to distort the valuation of a developer significantly. Consequently, we believe valuing a real estate company on the basis of earnings based multiple is not the most appropriate method.

❑ Valuation of land banks

Time value of cash flows from development of land bank ignored by land bank valuation methodology

Assessing land banks has been another suggested method of valuing real estate companies. However, the developer is likely to develop his land bank over a period of time, and the time value of these cash flows is ignored by the land bank valuation methodology. This is especially true in cases of companies with large land banks, which would not likely be absorbed in a few years' time and could take longer to develop. Moreover, land bank valuations ignore the crucial aspects of taxation and future land payments.

❑ NAV the most appropriate valuation tool

Discounting cash flows from development of entire land bank over a period of time appears the most appropriate tool for valuing real estate companies

Discounting the cash flows from development of the entire land bank over a period of time is, in our opinion, the most appropriate tool for valuing real estate companies. This method has the following advantages:

- Given that large land banks would typically be developed over a period of time, the cash flows from development are appropriately discounted to take into account the time value of money.
- The NAV method is suitable for developers with a mix of residential, commercial and retail projects, as all of these have very different cash flow timings.
- Discounting cash flows is suitable for SEZ projects given that these are long-term in nature. Any other method (say, assigning multiples) will prove inappropriate.

However, determining and estimating property prices is a challenge

The likely challenge in valuing real estate companies would be the difficulty in determining and estimating property prices. India's property markets are undeveloped and lack transparency. Moreover, there are different micro-markets within cities and regions, each with its own demand-supply and price dynamics, which makes price determination all the more difficult.

Exhibit 48: NAV approach using DCF most appropriate for valuing real estate companies

Method	Advantages	Disadvantages
Earnings based valuation	• Simple to use • Easy to understand	• Assigns multiple to non-recurring profits from land bank appreciation: • Overstates value • Assumes consistent growth in land prices in the future
Land bank valuations	• Simple to use • Popular with property consultants	• Ignores critical elements such as: • Taxation • Future land payments • Time value of money
NAV - using DCF	• Accounts for time value of money, since large land banks would be developed over a number of years • Suitable for developers with a mix of projects with differing cash flow timings • Suitable for SEZs given their long gestation periods • Allows analysis of land price sensitivity	• Requires detailed calculations

Source: SSKI Research

Notes

Notes

Notes

SSKI INDIA

Analyst	Sector/Industry/Coverage	E-mail	Tel. +91-22-6638 3300
Pathik Gandotra	Head of Research: Banking, Strategy	pathik@sski.co.in	Ext: 304
Shirish Rane	Cement, Construction, Power	shirish@sski.co.in	Ext: 313
Nikhil Vora	FMCG, Media, Retailing, Mid Caps	nikhilvora@sski.co.in	Ext: 308
Ramnath S	Automobiles, Auto ancillaries	ramnaths@sski.co.in	Ext: 380
Nitin Agarwal	Pharmaceuticals	nitinagarwal@sski.co.in	Ext: 395
Chirag Shah	Textiles, Metals	chiragshah@sski.co.in	Ext: 306
Bhoomika Nair	Construction, Power	bhoomika@sski.co.in	Ext: 337
Shiladitya Dasgupta	Mid Caps	shiladitya@sski.co.in	Ext: 365
Avishek Datta	Oil & Gas, Engineering	avishek@sski.co.in	Ext: 217
Bhushan Gajaria	FMCG, Retailing, Media	bhushangajaria@sski.co.in	Ext: 367
Shreyash Devalkar	IT Services, Telecom	shreyashdevalkar@sski.co.in	Ext: 311
Hiren Dasani	Banking	hiren@sski.co.in	Ext: 325
Ashish Shah	Automobiles, Auto ancillaries	ashishshah@sski.co.in	Ext: 371
Salil Desai	Cement	salil@sski.co.in	Ext: 373
Uday Joshi	Technical Analyst	udayjoshi@sski.co.in	Ext: 392
Dharmendra Sahu	Database Manager	dharmendra@sski.co.in	Ext: 382
Equity Sales/Dealing	**Designation**	**E-mail**	**Tel. +91-22-6638 3300**
Naishadh Paleja	CEO	naishadh@sski.co.in	Ext: 211
GV Alankara	Head of Dealing	alankara@sski.co.in	Ext: 201-210
Vishal Purohit	VP - Sales	vishalp@sski.co.in	Ext: 212
Nikhil Gholani	VP - Sales	nikhilgholani@sski.co.in	Ext: 363
Sanjay Panicker	VP - Sales	sanjaypanicker@sski.co.in	Ext: 368
V Navin Roy	AVP - Sales	navin@sski.co.in	Ext: 370
Rohan Soares	AVP – Sales	rohan@sski.co.in	Ext: 310
Rishi Kohli	VP – Derivatives	rishikohli@sski.co.in	Ext: 201-210
Pawan Sharma	AVP – Derivatives	pawansharma@sski.co.in	Ext: 201-210
Dipesh Shah	AVP – Derivatives	dipeshshah@sski.co.in	Ext: 201-210
Manohar Wadhwa	AVP – Derivatives	manohar@sski.co.in	Ext: 201-210

Disclaimer

This document has been prepared by S S Kantilal Ishwarlal Securities Private Limited (SSKI). SSKI and its subsidiaries and associated companies are full-service, integrated investment banking, investment management and brokerage group. Our research analysts and sales persons provide important input into our investment banking activities.

This document does not constitute an offer or solicitation for the purchase or sale of any financial instrument or as an official confirmation of any transaction.

The information contained herein is from publicly available data or other sources believed to be reliable. While we would endeavor to update the information herein on reasonable basis, SSKI, its subsidiaries and associated companies, their directors and employees ("SSKI and affiliates") are under no obligation to update or keep the information current. Also, there may be regulatory, compliance, or other reasons that may prevent SSKI and affiliates from doing so.

We do not represent that information contained herein is accurate or complete and it should not be relied upon as such. This document is prepared for assistance only and is not intended to be and must not alone be taken as the basis for an investment decision. The user assumes the entire risk of any use made of this information. Each recipient of this document should make such investigations as it deems necessary to arrive at an independent evaluation of an investment in the securities of companies referred to in this document (including the merits and risks involved). The investment discussed or views expressed may not be suitable for all investors.

Affiliates of SSKI may have issued other reports that are inconsistent with and reach different conclusion from the information presented in this report.

This report is not directed or intended for distribution to, or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject SSKI and affiliates to any registration or licensing requirement within such jurisdiction. The securities described herein may or may not be eligible for sale in all jurisdictions or to certain category of investors. Persons in whose possession this document may come are required to inform themselves of and to observe such restriction.

Reports based on technical analysis centers on studying charts of a stock's price movement and trading volume, as opposed to focusing on a company's fundamentals and as such, may not match with a report on a company's fundamentals.

SSKI & affiliates may have used the information set forth herein before publication and may have positions in, may from time to time purchase or sell or may be materially interested in any of the securities mentioned or related securities. SSKI and affiliates may from time to time solicit from, or perform investment banking, or other services for, any company mentioned herein. Without limiting any of the foregoing, in no event shall SSKI, any of its affiliates or any third party involved in, or related to, computing or compiling the information have any liability for any damages of any kind. Any comments or statements made herein are those of the analyst and do not necessarily reflect those of SSKI and affiliates.

This Document is subject to changes without prior notice and is intended only for the person or entity to which it is addressed to and may contain confidential and/or privileged material and is not for any type of circulation. Any review, retransmission, or any other use is prohibited.

Though disseminated to all the customers simultaneously, not all customers may receive this report at the same time. SSKI will not treat recipients as customers by virtue of their receiving this report.