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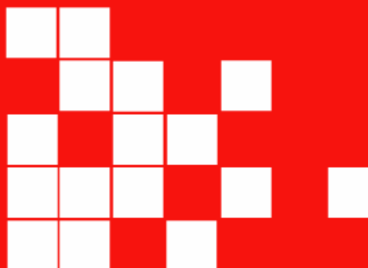

MACQUARIE

INDIA

India property

14 November 2006

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Get on the land wagon

Froth, bubble, hype… but potential

India is the flavour of the month (year). We don't aim to provide just another comprehensive assessment of India's outstanding potential – it has been done well elsewhere (our Senior Economist Bill Belchere has just upgraded his growth expectations). What we are concerned with is how the valuations of the listed stocks we cover measure up. A detailed assessment of each company's land bank is required for us to be confident of our NAVs. There clearly is substance behind the hype.

Setting the valuation benchmark

The key question remains: Lofty PERs or undervalued NAVs? In our view, these companies are NAV plays with earnings that are ramping up. The sector's 2006–09E earnings CAGR is expected to be >60x (off a low base). We have assessed each covered company on a project-by-project basis. We ascribe discount rates of ~14% and assume future price increases only on staged projects. Moreover, we have no terminal value. Should real estate stocks in India trade at NAV premiums? No, they shouldn't over the long term in our view.

Residential: Still a price *and* volume game

Regionally there continues to be a focus on volume growth over margin expansion from major price increases. This is not the case in India. The Tier-1 city boom is spreading more slowly to the Tier-2 and Tier-3 cities. We expect residential price growth of up to 15% in the Tier-2 cities and 15–25% in the Tier-3 cities over the next 12 months. Meanwhile, affordability has improved by a factor of 3x in the past ten years due to lower mortgage rates and increased tax breaks. Our banking analyst, Seshadri Sen, sees continuing credit growth.

SEZs likely to take some time to make an impact

Special Economic Zones (SEZs) are taking India by storm. The Ministry of Commerce and Industry estimates that there is about 5,000 acres of established SEZ land – tiny compared with regional peers. Tax breaks for India's SEZ operators are numerous. Our impression is that while the establishment of SEZs is undoubtedly positive, it will probably take developers longer to make money from them than the market currently anticipates.

Top initiation pick – Unitech, Outperform (30% upside)

Our key sector pick is the leading listed India property developer – Unitech. We see it as the asset-rich, high-margin national player – our recommended way to play India property. The leading SEZ play is Mahindra, also an Outperform.

Fig 1 Initiation of key India property stocks – key metrics

Company	Code (IN)	Rec	Price (Rs)	M. Cap US$m	NAV (Rs)	Target (Rs)	12 mth upside	FY07 PER	EPS Growth	FY07 ROE	FY07 ROA
Unitech	UT IN	OP	385	7,003	501	501	30.0%	48.6	66x	129%	12.5%
Mahindra GESC	MGSCO IN	OP	800	663	1,110	945	18.1%	73.2	58x	35%	10.3%

Source:Macquarie Research, November 2006. Prices as at 8 November, 2006. EPS growth is 06 – 09 CAGR

Please refer to the important disclosures on inside back cover of this document, or on our website www.macquarie.com.au/research/disclosures.

Fig 2 Stock summaries

Unitech (UT IN)
(Outperform, Target price Rs 501)

- Unitech has the largest land bank among the listed real estate developers in India. It owns 71% more land than its nearest competitor
- We expect EPS to surge 66x from Rs1.04 in FY06 to Rs68.9 in FY09. This impressive growth should consume only 13.5% of its total land bank.
- Land has come cheaply at an average of Rs150 psf. Post construction costs, average gross margins are expected to increase from 35% in FY06 to 51% in FY07 and further to 59% in FY08 when they should stabilise. This assumes minimal price increases from here.
- Our NAV does not assume any value to the Special Economic Zones (SEZ) of 10,134 acres and New Kolkata International Development Project (38,000 acres). Any clarity on SEZ policies can provide further upside.

Mahindra Gesco (MGSCO IN)
(Outperform, Target price Rs945)

- MGSCO is a pioneer in the SEZ space. MGSCO had an operational SEZ at a time when competitor's SEZ plans were still at the drawing board stage.
- Mahindra World City, MGSCO's Chennai SEZ, a large multi-sector SEZ of 1,400 acres, has been successful with 100% of industrial land either leased or committed.
- MGSCO has a superior execution expertise, client acquisition strategy and developmental plans in place to successfully develop proposed SEZs.
- We forecast a strong EPS increase of 58x from Rs2.6 in FY06 to Rs153.1n FY09. This impressive growth should consume only 12.5% of MGSCO's total developmental land.

Source: Macquarie Research, October 2006

Fig 3 Initiation of two India property stocks – detailed metrics

Company	Code (IN)	Rec	Price (Rs)	Market cap (US$m)	Free float (%)	Ave daily turnover (US$ m)	Current disc to NAV	Target disc to NAV	NAV (Rs)	Target (Rs)	12 mth upside	FY07 PER	EPS Growth 06–09E	FY06E ROE (%)	FY06E ROA (%)	Land bank (m sqft)	Years of land bank	FY06A Gearing (%)
Unitech	UT IN	OP	385	7,003	25	11	0%	30%	501	501	30%	48.6	66x	58.6	3.4	472	8	248
Mahindra Gesco	MGSCO IN	OP	799	662	45	6	15%	39%	1,110	945	18%	73.1	58x	8.7	5.4	135	8	112
Total/Ave						**11**		**31%**			**29%**	**50.8**	**65x**	**54.3**	**3.6**	**443**	**8**	**236**

Source: Macquarie Research, November 2006

Get on the land wagon

Froth, bubble, hype… but potential

How do the valuations of the listed stocks we cover measure up?

India is the flavour of the month (year). We don't aim to provide another assessment of India's outstanding potential – it has been done well elsewhere (our senior economist Bill Belchere has just upgraded his forecast for India's 2007 GDP growth to >8%). What we are concerned with is how the valuations of the listed stocks we cover measure up. Ideally we'd like to provide coverage on more than just two stocks, Unitech and Mahindra. However, the India property developers are only now just starting to share with the market details of their land banks. A detailed assessment of each company's land bank is required for us to be confident of our NAVs. Our research concludes that there clearly is substance behind the hype. Unitech is the market leader and can be compared to other key players in region. We see its land bank as significantly undervalued by the market. In short, we don't believe it is too late to enter India's listed real estate, despite the run-up in prices.

Setting the valuation benchmark

NAV plays with earnings ramping up

The key question remains: Lofty PERs or undervalued NAVs? In our view, these companies are NAV plays with earnings that are ramping up. The sector's 2006–09E earnings CAGR is projected to exceed 60x (off a low base). We have assessed each covered company on a project-by-project basis and have ascribed discount rates of ~14-14.5%. We assume future price increases only on staged projects and have no terminal value. Should real estate stocks in India trade at NAV premiums? No, they shouldn't over the long term, in our view. At such levels, secondary placements and general equity raisings become too tempting. In the short term, however, given demand and liquidity we expect to see NAV premiums.

Residential: Still a price *and* volume game

We expect residential price growth of up to 15% in the Tier-2 cities and 15–25% in the Tier-3 cities

Regionally there continues to be a focus on volume growth over margin expansion from major price increases. This is not the case in India. To be sure, prices have moved up rapidly in the past 12 months, particularly in the Tier-1 cities. However the boom is spreading to the Tier-2 and Tier-3 cities. In CY07 we expect residential prices to grow by as much as 15% in the Tier-2 cities and 15–25% in the Tier-3 cities. This is not factored into our models and offers further upside. Affordability has improved by a factor of 3x in the past ten years due to lower mortgage rates and increased tax breaks. Absolute affordability versus regional benchmarks though remains unclear.

SEZs likely to take some time to make an impact

Making money from an SEZ will probably take longer than the market currently anticipates

Special Economic Zones (SEZs) are taking India by storm. Well, in the media anyway. Recently established, the Ministry of Commerce and Industry estimates that there is around 5,000 acres of SEZ land in India on 13 sites in total. This compares with 320 sqkm in Shenzhen (China) alone. The first SEZ was established in China in 1970. Tax breaks for India's SEZ operators are numerous. However, a word of caution: Final approval of many SEZs is still pending. The administration required for the SEZ set-up is significant. Our impression is that while the establishment of SEZs is undoubtedly positive, making money from them for property developers will probably take longer than the market currently anticipates. As a result, we take a cautious stance on the SEZ roll-out for Mahindra and have not included SEZs in our Unitech valuation.

Risk is a significant part of the equation

Legislative changes, increasing interest rates and poor infrastructure are the key negatives

We see the key sector risks for India property as legislative changes regarding tax breaks currently available for mortgagees, generally higher interest rates and vastly inadequate infrastructure. Travel through India is still a bumpy ride. All modes of transportation are in desperate need of modernisation, roads are congested, airports are not up-to-date and, while rail is the preferred mode of travel for most. Many of India's laws remain archaic, even if they are being slowly repealed. Asset ownership is extremely fragmented for both office and retail space. The key company specific risk surrounds their ability to ramp up production to unprecedented levels. Failure to deliver is likely to lead to a significant sector de-rating.

Valuation questions

In this report, we discuss the growth drivers of India's economy and how they are positively impacting India's property markets. There can be little debate about the compelling fundamentals. There can and will be far more debate about how those fundamentals should and are priced in to the few investable listed securities in India that focus on real estate.

In this section, we discuss the following in detail:

- Our valuation approach;
- Other valuation methodologies;
- Our target NAV discount / premium methodology – the Macquarie DiNAV model;
- India property stock valuations versus the broader Indian equity market
- A comparison of India property valuations versus regional peers.

We conclude that despite the recent run-up in stock prices, there is still value to be found. Indian property companies are only now starting to share their land bank details with the market. Such detail is obviously critical in assessing the underlying value of the companies. We would argue that without this detail, the company cannot be covered in a prudent manner by analysts.

However, a word of caution. We have seen examples of land bank schedules in company presentations being what we would term 'highly optimistic'. It is essential to dig deeper via local inspections, discussions with agents and further consultation with management. This has been an important part of our initiation process.

Valuations most likely to be asset based

As with the balance of Asia, we use sum-of-the-parts (NAV) to value the assets of India property developers

Like most real estate stocks in Asia, we see investors moving towards asset based or NAV valuation approaches for India's real estate stocks. Currently there is very little formal broker coverage. Investors will buy these stocks for their underlying intrinsic value which will be derived from calculating the net present value of future development profits and the capitalised value of investment properties. In essence, we see this is no different to the balance of Asia. Target prices are likely to be derived by a blend of a perscribed discount or premium to NAV while paying some regard to earnings-based factors.

We therefore use sum-of-the-parts valuations (NAV) to value the assets of India property developers. For property developed for sale, we believe the discounted cashflow (DCF) approach can capture the cost, selling price and therfore the after tax margins of each property project or group of projects. We believe this is the most appropriate approach due to the fluctuating level of earnings driven by price increases, particularly in the near-to-medium term. In this way PERs can be misleading and volatile.

For projects held for long-term rental, we believe that yield capitalisation captures the inherent risk of the asset and the expected growth rate. The yield capitalisation rate refers to our estimate on a region-by-region basis, which varies depending on the quality of properties. Our investment yield for rental property on a gross, before-tax basis is 8-12%. At this point, however, we assume all inventory produced by both the stocks under coverage is sold post development.

How to treat large land banks

Large-scale Indian developers have very large landbanks often acquired at extremly low prices. This is unique in the region. Hong Kong company land banks are typically three-to-six years long. The China developers have land banks that will last an average of around seven years. We estimate that for Unitech and Mahindra, their land banks will last around eight years each.

In Hong Kong and China the approach in valuing residential development projects is reasonably straight-forward. Each project is mapped out and its net margin is discounted back to today's dollars. Most projects are known because they should start in the next two-or-three years. No terminal value is used. In theory, if no more land is acquired and, in the absence of any other changes, or the presence of investment properties, the company's value reduces to zero if all its land is used without future replenishment.

In India, company land banks are likely to last longer. How should one value a piece of land that may not be developed for another ten years?

In India, company landbanks are likely to last longer. How should one value a piece of land that may not be developed for another ten years?

We see that there are three approaches (no terminal value assigned):

- Take the NPV of future profit for all projects until land supply is exausted. Factor in long-term changes in construction costs and residential prices;
- Take the NPV of future profit for all projects over the next five-to-seven years. For the balance of the land, value it on a per sqft basis at today's market price;
- Take the NPV of future profit for all projects over the next five-to-seven years. For the balance of the land, value it at historical cost on a per sqft basis;

We prefer and have adopted the first approach. The second approach understates the total valuation as we are not assessing the future profitability of the entire landbank. Due to the the fact that historical cost is not disclosed and difficult to determine and does not accurately reflect the value of the land today, we don't think the third approach is appropriate.

NAV approach – how to factor in 'developing market risk'

India's growth potential is high, but so are the risks. We make the following assumptions in developing our WACC for each company:

Cost of debt specific to each company: The pre-tax cost of debt is specific to each individual company. The rate is determined by both the currency in which their loans are denominated, and the long-term expected interest rate. We use the 33% Indian corporate tax rate and the Minimum Alternate Rate (MAT) rate of 11.2% for SEZ developmentes. There is a possibility of developers having to pay no tax for SEZ devlopements, however we have opted for consertvative approach and assumed a tax rate at 11.2% for SEZ developments.

Risk-free rate and risk premium: We use the India 10-year bond rate as our risk-free rate. Unlike China, India's floating currency gives us some confidence that the long-term bond is a realistic, market driven 'risk free rate'. Our current house view on the long-term equity risk premium for India is 7%.

Betas of 1.4: The beta for each of the two companies – Unitech and Mahindra - is higher than their historical averages. In adopting the beta used for each stock, we do make reference to property stocks in other countries and their betas relative to their respective markets.

Fig 4 Historical betas of regional property developers

Hong Kong developers	1.2 - 1.5
Hong Kong landlords	0.9 – 1.4
China developers	1.0 – 1.6
Singapore developers	1.2 – 1.5
Philippines developers	0.9 – 1.5

Source: Macquarie Research, November 2006

We have adopted a WACC of 14% for Unitech and 14.5% for Mahindra

We have adopted a WACC of 14% for Unitech and 14.5% for Mahindra. The WACCs we use for the China developers range from 10.5% to 12.2% and for Hong Kong 9.6% to 11.3%. Intuitively, our India WACCs appear high enough relative to the rest of the region.

The question of clean title

The difficulty of obtaining title guarantees in India means that title records provide only for presumptive rather than guaranteed title. Many landowners invariably have irregularities of title such as non execution or non registration of conveyance deeds and inadequate stamping and may be subject to encumbrances that the 'owner' may not be aware of.

For now, we have decided to include all known land that has basic title

To detect these discrepancies among the publicly listed property companies in India is almost impossible. In most cases this is not disclosed. For now, we have decided to include all known land that has basic title, even though there may be some minor discrepancies involved. We have not included land that does not have title. An example of this is Unitech's proposed SEZ projects. Our valuation includes partly paid land that has been contracted for acquisition (for example, much of Mahindra's SEZ land that is under agreement with the state authorities but is being unilaterally acquired at present).

Specific valuation assumptions

We forecast our company NAVs on a project-by-project basis. In India, developers can undertake **pre-sales** and recent history has shown that they have typically sold 90-100% of a majority of projects during the first year of construction. This is a crucial aspect of cashflow management and allows the next development to be started or additional land to be acquired.

Our assumptons have this level of pre-selling slowing as prices appreciate and the developers step up supply schedules. In future years, we generally forecast that 70–100% of projects will sell before completion with the balance in the 12 months afterwards.

We forecast residential sale volumes on a company by company basis based on our assessment of their production schedules and forecast sales

We forecast **residential sale volumes** on a company-by-company basis using our assessment of their production schedules and forecast sales. Overall market volumes are only a guide as the data is sporadic and unreliable and due to the fragmented nature of the Indian market.

We forecast **residential price** appreciation in future years but only for staged projects. Staged projects provide us with direct market evidence of pricing levels and increased confidence of how much a specific unit will sell for. On new projects that will be completed in, say, four-or-five years from now we use an estimate of today's prices.

Fig 5 Our underlying valuation assumptions

Broad forecasting assumptions	FY07	FY08
Average residential pre-sales rates	70 - 100%	70 - 100%
Typical residential price increases (staged projects only)	5 - 10%	5 - 10%
Office cap rates	8 - 12%	na
Typical office rent growth	0 - 10%	0% - 10%
Retail cap rates	9 - 11%	na
Typical retail rent growth	5 - 10%	5% - 10%

Source: Macquarie Research, September 2006

Determining target prices

Our target prices are determined by estimating an appropriate discount to our assessed NAVs. However, while underlying real estate value should dominate most investors' approaches, some will look at earnings growth potential relative to the current pricing and broader equity market EPS growth. We allow for this by factoring in earnings based metrics into our model that determines the appropriate discount (see the following pages for an explantion of the Macquarie DiNAV Model).

Hard to justify a company trading in excess of a properly calculated NAV

There has been some debate of late on whether Indian property companies should trade at a premium or discount to NAV. We think that our target prices should be at a discount or at most on par with NAV. This is for several reasons.

Firstly, where property companies are not state-owned and have individuals or sponsors holding major stakes, the temptation is too great to sell-down a portion of their shares when the company is trading in excess of NAV. Similarly, it is also tempting to raise equity when trading in excess of NAV (which is actually the *right* time for exisiting shareholders). Once either of these two factors occur, there is typically downward pressure on the stock, bringing it down closer to NAV. There have been several examples of this occuring in the past two months in Hong Kong and China. The one market that can trade in excess of NAV quite regularly is Singapore. However, government interests own large stakes in two of the three major developers there and hence the tempation to sell down is lower.

Theoretically, why should a listed residential developer trade in excess of its NAV over the long term?

Theoretically, why should a listed residential developer trade in excess of its NAV over the long term? By buying the company, one is buying a collection of assets and businesses. Our NAVs include an assessed value for each residential developmant (DCF), each retail / office / industrial / hotel asset (cap rate applied) and each business owned (PER or EV/EBITDA multiple). In other words, it is a sum-of-the-parts valuation. NAVs that don't include each component are incomplete in our view.

Factor 1: Rolling out the Macquarie DiNAV Model

The market response to the Macquarie DiNAV Model (**D**iscount **I**mplied to **NAV**) in analysing China property discounts to NAV has been positive. While being far from a perfect quantitative model, it goes some way to quantifying the discount (or at par) specific property stocks should trade at relative to their NAVs.

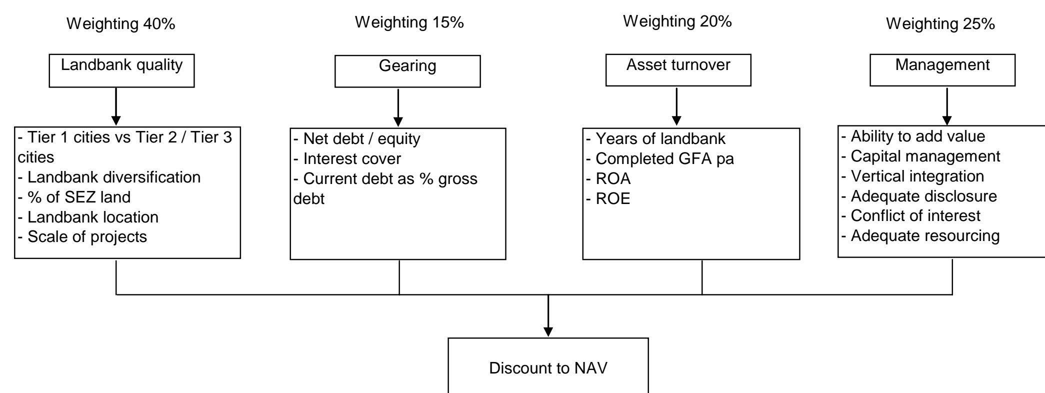
The market trading NAV discount (or premium) generally reflects the perceived qualitative factors that cannot be fully captured in fomulating a valuation. As the India property sector is developing quickly, it is not relevant to use historical NAV discounts in calculating the appropriate discount or premium today (also few have an accurate feel for what the historical NAV actually was). The Macquarie DiNAV Model utilises key factors that are important to the success of a property developer, utilising weightings on every factor. We think these characteristics are common across the region, its just that the weighting that varies. The results of the Macquarie DiNAV Model will determine the discount or premium applied to each valuation in order to derive our target prices.

These factors are:

- Land-bank quality
- Gearing
- Asset turnover, short
- Management

Our weightings reflect the importance of these items. In our view in India, the most important factor is land-bank quality (40%), followed by management (25%), asset turnover (20%) and finally gearing (15%).

Fig 6 Macquarie DiNAV Model (India) – Discounts to NAV are driven by four key factors



Source: Macquarie Research, October 2006

Land bank quality (40%)

- This is the most important factor as property is about 'location, location and location'. If location is good and the land bank has been substantially acquired at prices well below current levels, developments may see a very good response even if all the other qualities are substandard.
- Importantly, we rate SEZ-related land as inferior to separately acquired non-SEZ land for valuation purposes (even despite the SEZ tax breaks). There is still some uncertainty surrounding SEZs and their long-term development in India. No-one disagrees they are positive for industry and will greatly assist broader economic development in India. However the final rules and regulations surrounding SEZ's are far from being certain. Additionally we do not know how long it will take SEZ owners/managers to fully build out/complete SEZ's under management. Many are saying 5-6 years. We suspect it will take longer.

Quality of each developer's land bank is judged on four key criteria

- The quality of each developer's land bank is judged on four key criteria: 1) Tier-1 cities vs Tier-2 cities, 2) land-bank diversification, 3) urban vs suburban and, finally, 4) average scale of each project. In terms of preference, we rate land bank in urban areas of primary cities as the highest quality as we believe the underlying value of such land banks is most secure and easy to realise.
- By the same token, land bank in suburban areas in Tier-2 cities is the least preferred. In general, we prefer large-scale over small-scale projects, as this leads to economies of scale.
- **Unitech**: Unitech has about 70% of its land bank in either Tier-1 or Tier-2 cities. Unitech is one of very few companies that has acquired land bank to position itself as a pan-India developer. On average, Unitech's projects typically contain 600-700 dwellings which we consider relatively large scale for India. Unitech proposes to build SEZs (10,134 acres) in the state of Haryana and the New Kolkata International Development Project (38,000 acres) in joint venture with the Indonesia-based Salim group, which can prove to be significant opportunities in themselves. Also, we have not included any such land bank in the process of acquisition and hence which may not be public information.
- **MGSCO**: MGSCO has large land bank but mainly for its proposed SEZs. The land for proposed SEZ of total 6,000 acres in Jaipur and Karla are yet to be acquired by the State Government. The process for land acquisition has started and so far 1,000 acres of land is acquired. Besides these large SEZs, MGSCO has 506.2 acres in its Chennai SEZ, Mahindra World City out of which 272 acres is reserved for residential development. MGSCO has another 72 acres in Thane (near Mumbai) for its Biotechnology SEZ. Other than this, MGSCO has a land bank in Mumbai and nearby Tier-2 cities which amounts to only 7.9m sqf of residential development. A land parcel of 54.6 acres in Goa is also owned by MGSCO.

Management (25%)

Our assessment of management takes into account factors such as ability to add value, management of capital, conflict of interest etc

- Our assessment of management takes into account factors such as ability to add value, management of capital, conflict of interest, vertical integration of the business and adequate resources for business operations. Adequate disclosure is also a crucial component recently lacking in India's property market.
- **Unitech**: We rate Unitech's management as one of the best in the industry given its track record of project execution. All criteria for Unitech are rated above the industry average. Unitech's management team is one of the most transparent in the sector and on par with regional peers.
- **MGSCO**: We rate MGSCO management as one of the most able in the industry to develop proposed SEZ given its track record of project execution. MGSCO management is rated very high in the industry parlance and is backed by a highly reputed business group in the country; Mahindra Group.

Asset turnover (20%)

- Rapid asset turnover minimises the impact of market changes and recycles cash faster. Asset turnover is determined by the years of land bank, completed GFA pa, FY07 ROA and ROE. This is also where we bring in the companies' PER in our analysis.
- **Unitech**: Unitech's existing land bank should be sufficient for the next 8 to 9 years. This is long relative to the industry average. We view this as a positive as it indicates that Unitech has enough capability to scale up its production according to the demand for a longer period of time. Based on our forecast completion schedule, Unitech's ROA of 3.4% and ROE of 58% in FY06 place the company at the top-end of the industry range. Further, these ratios should undergo a significant improvement in line with our strong earnings forecast for Unitech.
- **MGSCO**: MGSCO's existing land bank should be sufficient for the next eight years until FY15. This is a long period as compared to the industry average. MGSCO has an asset turnover of 5.4% for FY06 that is marginally better than the industry rate which in this business is quite low especially during the land acquisition period. MGSCO's ROE of 8.7% in FY06 is lower relative to the industry range. However, these ratios should undergo a significant improvement in line with our strong earnings forecast for MGSCO.

Gearing (15%)

- In valuations for property companies where the cost of debt is lower than the cost of equity, DCF valuations generally suggest that the higher the gearing, the lower the discount rate. This may overlook stretched balance sheets, low interest coverage or short loan maturity, which may have an impact on the going concern of companies when markets are difficult.

We have identified three key criteria to determine the developers' gearing profile

- We have identified three key criteria to determine the developers gearing profile: net debt/equity, interest cover and percentage of current debt to total debt (assessment of loan maturity). We have adopted information from the latest annual results of each company for the comparison.
- **Unitech**: As at the end of FY06, Unitech had a very typical developer financial profile, with a gearing of 248% (obviously very high by regional standards) but a reasonable interest coverage ratio of 4x. In terms of cost and easy availability of debt Unitech is better placed in comparison to its peers on the back of its large size, long track record and brand name.
- **MGSCO**: As at the end of FY06, MGSCO had a typical developer financial profile, with a gearing of 112% and an interest coverage ratio of 2.8x. These ratios are better if compared with the industry average, although interest coverage is on the low side. In terms of cost and easy availability of debt MGSCO is better placed due to its past financial performance and its promoter group Mahindra & Mahindra.

Factor 2: Earnings based issues

As the Indian property market is in the initial development stage, some investors believe PER is the better valuation measurement. Even though PER indicates the market price to a company's earnings power, we argue that earnings-based metrics may not take into account the following elements:

- Unnecessary share price volatility due to fluctuations in property earnings as determined by completion schedules;
- Sustainability of earnings growth and consistency of management in replenishing land quicker than sales;
- The pace of development roll-out and expansion and the company's financial strength;
- The pace of pre-sales for projects under development.

Hence, as noted above, we base our valuations and target prices on NAVs rather than PERs. We also feed PERs into our DiNAV model and it therefore becomes an influencing factor rather than a main driver.

On a regional basis and from an NAV perspective, India looks reasonably attractive (if EPS growth is delivered…)

On a regional basis and from an NAV perspective, India looks reasonably attractive. As a group, the Singapore developers are trading at an 18% premium to NAV (although we do note that these are end-2006 NAVs). The China developers are trading at just a small discount of 4%. After their recent rally, the HK developers are at par with NAV (expensive on an historical basis). The two India stocks now under coverage offer 28-30% discounts.

Fig 7 Regional developers comparison (weighted by market cap)

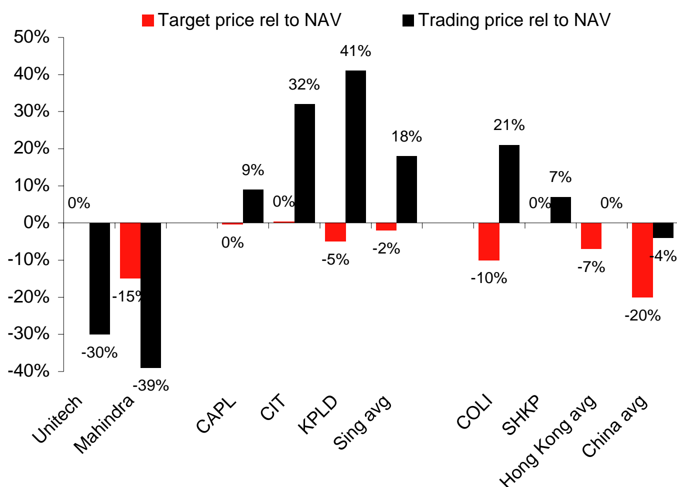
	India	China	Hong Kong	Singapore	Thailand	Malaysia
Rel to NAV (negative is discount to NAV)	-31%	-4%	0%	18%	20%	-14%
PER ratio FY07E (x)	50.8	15.0	19.4	40.1	25.0	10.5
PEGR FY07E (x)	0.2	0.6	2.9	2.0	-1.7	0.5
ROE FY07E (%)	121.1	19.3	7.4	7.3	15.2	13.7
ROA FY07E (%)	12.3	12.6	4.4	5.7	10.1	13.0
Earnings CAGR FY06-09E (%)	303	54	13	17	6	10
Baskets	(Stocks included: UT IN, MGSCO IN)	(Stocks included: 123HK, 688HK, 2777HK, 1109HK, 917HK, 2337HK, 754HK, 3383HK)	(Stocks included: 1HK, 101HK, 12HK, 16HK, 17HK, 683HK, 83HK)	(Stocks included: AG SP, CAPL SP, CIT SP, KPLD SP, SCOT SP)	(Stocks included: LPN TB, LH TB, LALIN TB, AP TB)	(Stocks included: MKL MK, MSGB MK, SPSB MK)

Regional peers are Macquarie covered stocks. PEGR uses FY06–09E EPS CAGR

Source: Macquarie Research, November 2006

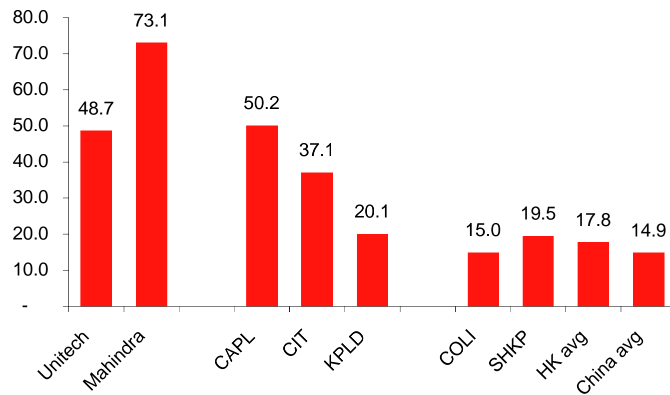
However, one needs to have faith that earnings can ramp up. The following figures show that on an earnings basis the India players are expensive. However, this does not take into account future growth which we believe will easily out-strip its regional peers. This is shown by the PEGR statistics and expected EPS CAGR.

Fig 8 Trading & target price NAV discount / premiums



Source: Bloomberg, Macquarie Research, November 2006. India NAVs end 07 and regional NAVs are end 06.

Fig 9 FY07 PER range



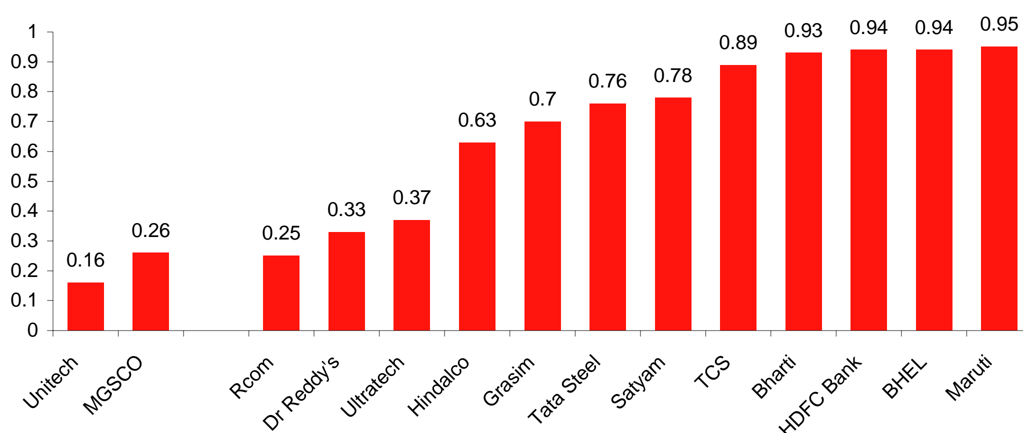
Source: Macquarie Research, November 2006

Valuation of property versus the broader India equity market

We see India as marginally more a country rather than sector play. At this early stage in the lifecycle of listed real estate we believe few specialist property funds are comfortable with the market as it currently stands with regards to disclosure and general knowledge of the market. Therefore we believe it is important to compare the relative merits of the two listed real estate companies we now cover with the broader equity market.

We consider PEGR as a good measure to compare the competitiveness of listed real estate versus specific India equity market sectors as it takes into account both earnings growth potential and respective PERs. The PEGRs of Unitech and Mahindra are 0.16x and 0.26x respectively. This compares well with high growth companies in other sectors like IT, telecom, pharma, capital goods, commodities and banks. Unitech clearly has the lowest PEGR, implying the cheap valuation of the company compared with other stocks in Indian market.

Fig 10 Property developers compared to other stocks in the Indian market



Source: Bloomberg Data, Macquarie Research, November 2006

Adopted target prices – NAV and earnings based blend

In the medium-to-longer term, the companies that possess quality land bank, healthy balance sheets, efficient market share, proactive management and strong local expertise are in a better position to capture market opportunities. These companies deserve to trade at tighter discounts to NAV.

According to our assessment, **Unitech should trade at par with its NAV** while **Mahindra should trade at a 15% discount to NAV.**

Therefore our target price for Unitech is Rs501 and Mahindra is Rs945. Further detail is as follows:

- Our NAV for Unitech is Rs501/share, 30% above current levels. Our target price is also Rs501, at par with NAV. Our forecast PER at current prices is 48.7x FY07, reducing to 15.4x in FY08. This compares to the broader Indian equity market's FY07 PER of 19.1x. However, the Indian equity market as a whole is forecast to have weighted average EPS growth of 16% from FY07-08. We forecast Unitech to have EPS growth of 215% from FY07 to FY08. At our target price of Rs501, Unitech remains at a significant earnings multiple premium to the broader equity market. Unitech also receives a premium due to the fact that it is the most investable stock in the Indian listed real estate market. We note though that this makes it vulnerable to new IPOs mooted to be entering the market.
- Our NAV for Mahindra is Rs1,110/share, 39% above current levels. Our target price is Rs945, 18% above current levels. Our forecast PER at current prices is 73.1x FY07, reducing to 13.5x in FY08. We forecast Mahindra to display EPS growth of 5.4x from FY07 to FY08. In our view, the key risk for Mahindra and, one of the reasons it should trade at a discount to NAV, is the uncertainty related to the roll out of SEZs in India. While there is little doubt SEZ development is a long-term positive for the market and involved companies, we feel they may take longer-than-expected to roll out and be monetised.

Fig 11 Valuation summary relative to broader Indian equity market

	Current price (Rs)	NAV/sh	07E PER (x)	07E EPS growth	08E EPS growth	Target price (Rs)	PER at target price (x)	Disc to NAV at tgt price
Unitech	385	501	48.7	660%	215%	501	63.2	0%
Mahindra	799	1,110	73.1	311%	443%	945	86.4	15%
Equity market (index)	13,073			33%	16%	na	na	na

Source: Macquarie Research, September 2006

Key risks to our valuations

The key risk is the ability of the companies to actually deliver on volume growth expectations

The major risk to our valuations relates to a slow down in general production levels rather than a slowdown in price appreciation. Price movements from here don't really concern us. Both Unitech and Mahindra are looking to ramp up production in a manner unprecedented in their histories.

Should their production schedules falter there will be a material impact on valuations and on sentiment. Such a slowdown could be driven by broader economic factors, higher interest rates, uncertainty regarding a final framework for SEZs and numerous other factors.

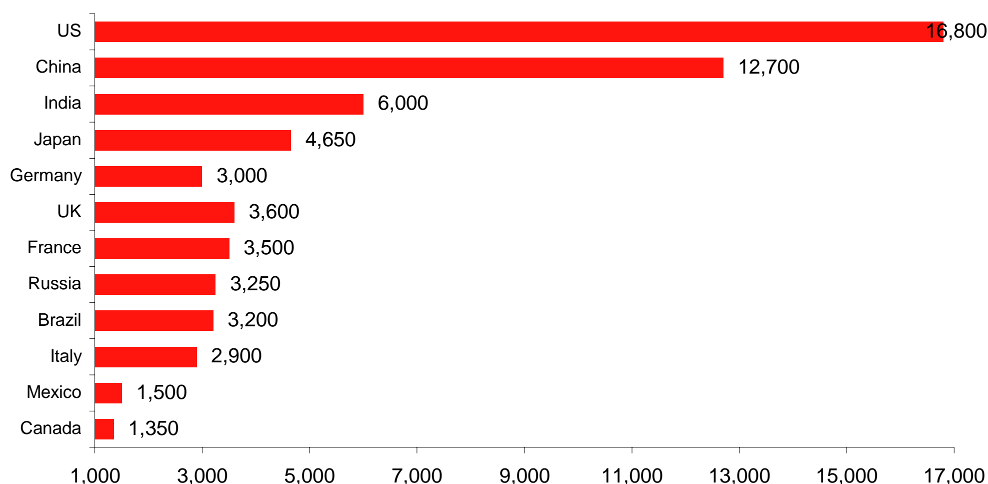
The individual notes on Unitech and Mahindra (at the end of the main report) spell out these risks in more detail.

Unique demographic drivers

The estimated size of the organized Indian real estate sector accounts for US$12bn of India's US$800bn economy

There is little doubt that India has huge potential. Even stating this risks stating the obvious. It is the fifth-largest economy in the world (ranking above France, Italy, the United Kingdom, and Russia) and has the third-largest GDP in Asia. It is also the second-largest among emerging nations. (These indicators are based on purchasing power parity). The estimated size of organized Indian real estate sector accounts for US$12bn of India's US$800bn GDP economy which is far less compared to mature economies.

Fig 12 World's largest economy's in 2010 (GDP, US$ bn); purchasing power parity)



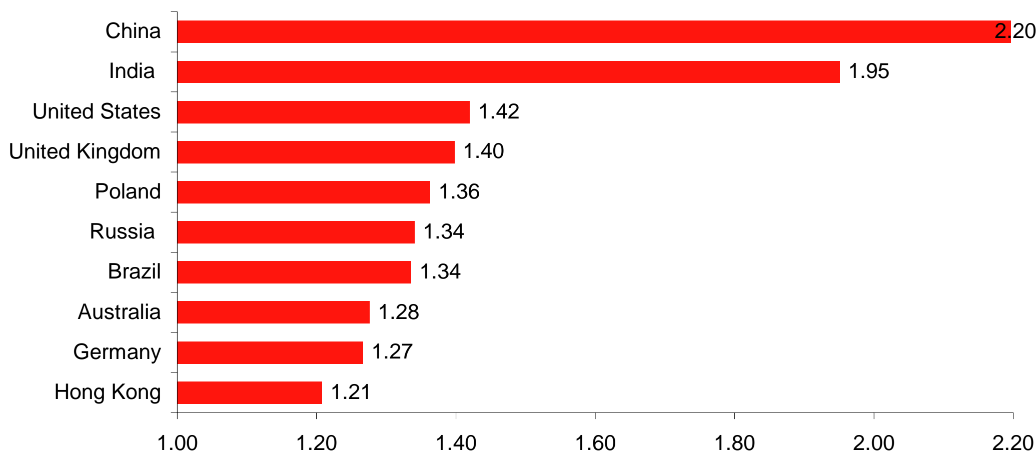
Source: EIU 2006

Relaxation of foreign direct investment rules has expanded the mountain of capital in every sector of Indian economy. The government is making efforts in liberalizing the guidelines and norms for investment through FDI, making them more NRI friendly. Growth in the Indian real estate sector was estimated at 30% last year, owing to FDI norms and related growth drivers. By 2010, the real estate sector is estimated to reach US$45-50bn in size. The real estate sector has the potential to touch US$90bn in size in 10 years.

Real estate prices in general have been on an upswing in all markets across most sectors over the last two years. An estimated 30m homes are expected to be sold in the next five years. Driving through major markets, the boom is very evident to the naked eye – with infrastructure being updated, BPO offices being built on the outskirts of almost every major city and residential towers springing up. Our bumpy ride through India was not caused so much by erratic driving but more due to new roads being built seemingly everywhere.

One thing that is abundantly apparent is that there is unbridled optimism in India. This optimism appears based on expectations for growth and a positive outlook for the property sector generally. The following figure shows that the attitude of only those in China is more optimistic.

Fig 13 FDI Confidence Index (X)



Source: AT Kearney Report, 2005

We see India as around 10–15 years behind China

Our impressions from earlier site visits and an assessment of the investable universe is that it is around 10–15 years behind China. CBDs have limited A Grade office choices, shopping malls are rare, investment grade logistics and warehouse distribution centres are non-existent. The primary residential market is dominated by a few large developers and dozens of small, very local, operators.

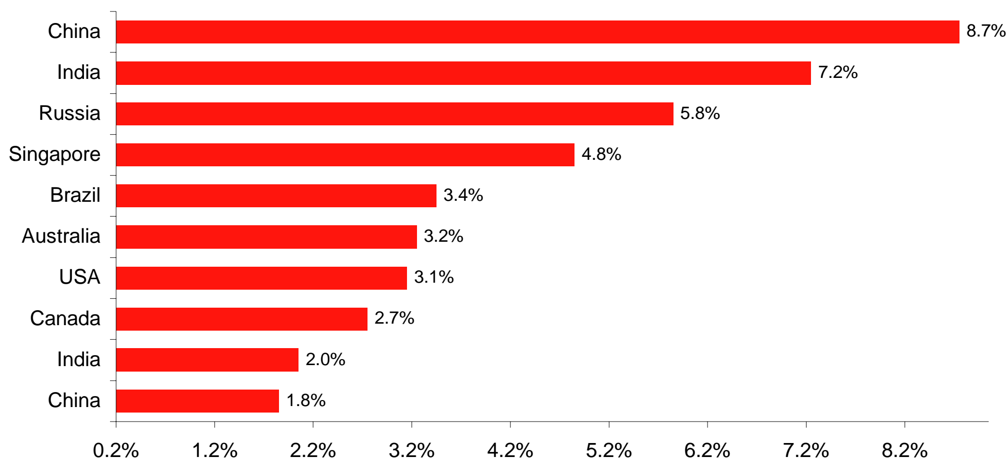
The country is recognized as a highly favoured investment destination through FDI and funds.

- **Residential:** Mortgage costs have reduced from 18% to 8% in the past ten years;
- **Office space (commercial):** IT space leasing continues to boom with 12m sqf leasing in Bangalore, 6m sqf in Mumbai and 7.7m sqf in NCR (National Capital Region) in 2006 so far;
- **Retail:** Organized retail – which accounts for just 2% of the US$200bn sector – expect it to grow from US$4bn to $15bn by 2010;
- **Hospitality:** Domestic and international operators are planning to invest in 3-4 star category hotels. India requires another 75,000 to 100,000 rooms in the next five years to meet growing demand.

Economic outlook

With two-and-a-half years of its five-year term still to run, the Indian National Congress-led coalition government will need to tread a fine line between its reform ambitions and policy compromises with its political allies.

Fig 14 Projected annual economic growth rates 2006-10



Source: EIU 2006

India's growth momentum remains strong - Bill Belchere, Macquarie's Senior Economist

Our senior economist, Bill Belchere, expects the Indian economy to expand more than 8% in FY2006/07 (year-ending 31 March 2007) compared to the 7% forecast made in our May quarterly. The strength of economic growth coming into the current fiscal year has been sustained through the first five months (April-August) of FY2006/07. India posted a 9.3% growth rate in the final quarter of FY2005/06 (1Q06) that lifted overall growth in FY2005/06 to 8.4% (only a shade under the 15-year high of 8.5% registered in FY2003/04). Growth remained strong at 8.9% in 1Q FY2006/07.

Fig 15 India's key economic metrics

Annual data	2005	Historical annual averages (%)	2001-05
Population (m)	1,095	Population growth	1.5
GDP (US$ bn; market exchange rate)	797.8*	Real GDP growth	6.8
GDP (US$ bn; purchasing power parity)	3,824	Real domestic demand growth	6.2
GDP per head (US$; market exchange rate)	728	Inflation	4.0
GDP per head (US$; purchasing power parity)	3,491	Current-account balance (% of GDP)	0.3
Exchange rate (av) Rs:US$	44.1	FDI inflows (% of GDP)	0.9

Source: Economist Intelligence Unit, August 2006. *Actual.

Industrial production has picked up on the back of exports & investment

Industrial production has accelerated from the final quarter of FY2005/06. It paints a picture of economic growth being driven by investment spending and exports. From April through August, industrial output climbed 10.6%YoY up from 8.7%YoY in 1Q06 and 8.2% for FY2005/06 as a whole. The increases have been broad-based with the pace of mining and manufacturing production quickening while gains in electricity sector output have been stable.

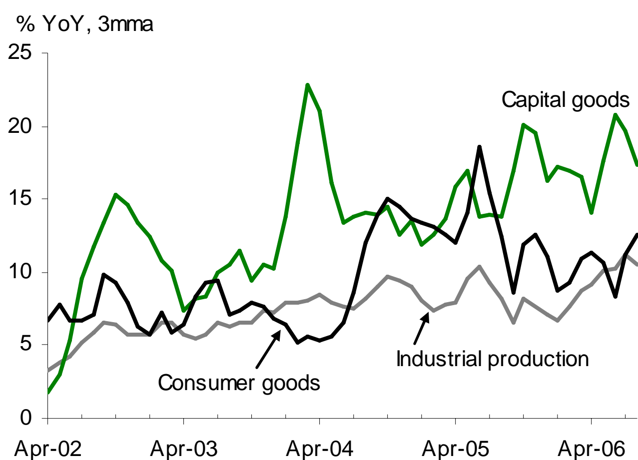
From a supply side perspective, gains in transport, metals, chemicals and pharmaceuticals, woollen yarn, fabrics, and machinery and equipment continue to sustain the expansion. Production of capital and intermediate goods has gathered momentum while output of consumer goods has been stable above 11%YoY (April-August). It is hard to get too worked up over rising interest rates choking off consumption anytime soon as consumer durables output has continued to grow strongly (16.5% YoY) through August.

The trade deficit has widened, but forex reserves continue to rise

The trade sector continues to surprise against the backdrop of a slowing global economy. The implication is clear. A greater share of India's export growth is structural rather than cyclical. From April through August, exports are up over 20%YoY. A broad range of manufacturing products such as textiles, engineering products, metals, chemicals and pharmaceuticals are contributing to the upsurge in exports.

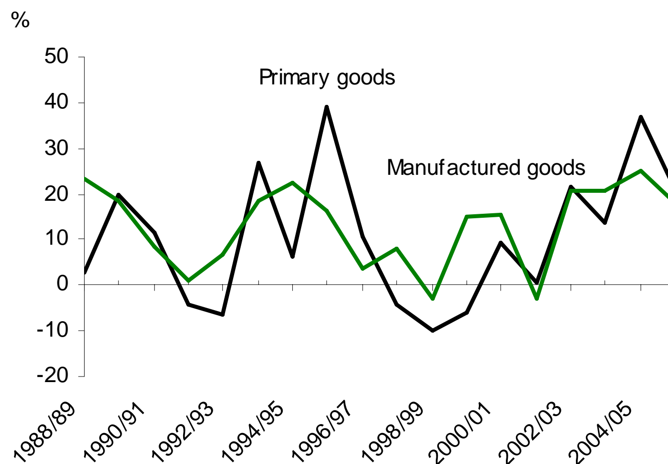
Import growth also remains strong, which is reflected in its 17% YoY rise over the same period. Oil imports (US$23.5bn up 40% YoY) continue to drive the overall import growth rate as non-oil imports have risen only 9% through August due to weak gold and precious stone purchases. The trade deficit fell US$1bn to US$18.1bn through August vs. the same period in FY2005/06.

Fig 16 Industrial production remains strong



Source: Macquarie Research, October 2006

Fig 17 Export growth remains strong & broad based

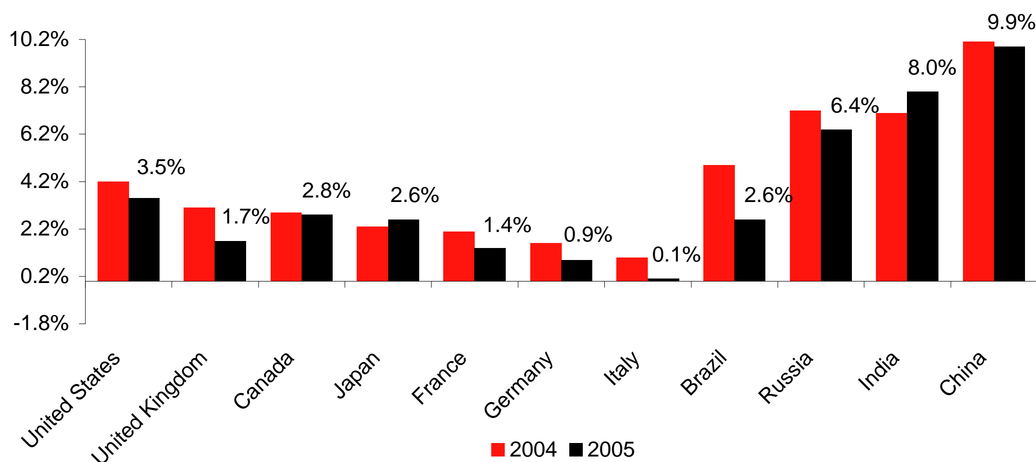


Source: Macquarie Research, October 2006

Improving Infrastructure

India has made significant progress in the development of its telecom infrastructure, and is now beginning to tackle its inadequate transport infrastructure. Major programmes include 'The Golden Quadrilateral' project to provide an interstate road link between its four largest metropolitan areas – Mumbai, Delhi, Kolkata and Chennai. New international airports are planned for Bangalore, Hyderabad and Pune, together with upgrades and privatisations of both Mumbai and Delhi international airports.

Fig 18 Real GDP growth in select economies



Source: World Wealth Report, 1997-2006

Shipping and logistics are the next focus of infrastructure investment, with growing dependence on global cost efficiency. Significant capital allocations are also expected for 'soft infrastructure' projects including healthcare and education. The current push for infrastructure development, with its accent on public-private partnerships, is likely to have a highly favourable multiplier effect on the Indian economy and real estate market.

We shouldn't get ahead of ourselves though. Travelling through India is not easy. It still has some way to go before it even matches China for ease of travel (and we are not saying for an instant that travelling through China is necessarily easy either). Growth in infrastructure provisions will be good, but this is coming off a fairly low base.

Significant growth potential in FDI

Key FDI sectors have been IT, telecoms, electronics, pharmaceuticals, automobiles and financial sectors

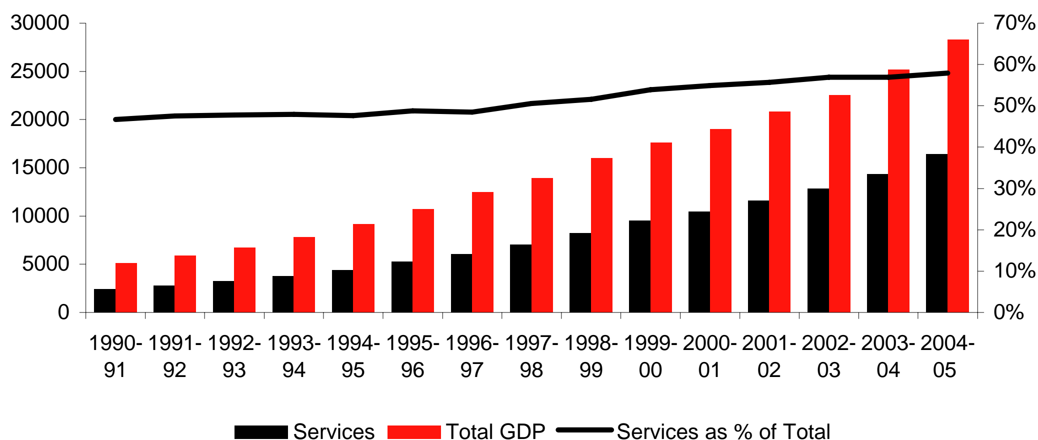
Key FDI sectors have been IT, telecoms, electronics, pharmaceuticals, automobiles and financial sectors. While growth has been strong, nonetheless FDI is still well below its full potential, and low by global standards, estimated at less than 1% of GDP (compared to 2.4% in China and 1.8% in Brazil). There should be a rapid acceleration in FDI inflows, as India increasingly attracts the attention of the global investment community and further reforms are introduced. In a recent survey by AT Kearney, India is ranked as the world's second most attractive investment destination, behind only China. However FDI flows are far behind those entering China. In 2005, China experienced US$60.6bn of FDI in flows versus India's US$5.3bn.

India the most preferred location for outsourcing

India has a large skilled labour pool, with 2.5m new graduates added to this pool each year, most of whom are proficient English speakers with strong technical and quantitative skills. The country has a total graduate population of nearly 50m, of which an estimated 14m are young university graduates (those with seven years or less of work experience). This pool is 1.5x the size of China's and almost twice that of the US. It is estimated that there are 150,000 IT professionals in Bangalore as against 120,000 in Silicon Valley. Meanwhile, wage levels and the cost of living are still low by international standards.

India's service sector accounts for 50% of the country's GDP and has been the main engine of economic growth in recent years.

Fig 19 Share of services in GDP (Rs in bn)



Source: Macquarie Research, August 2006

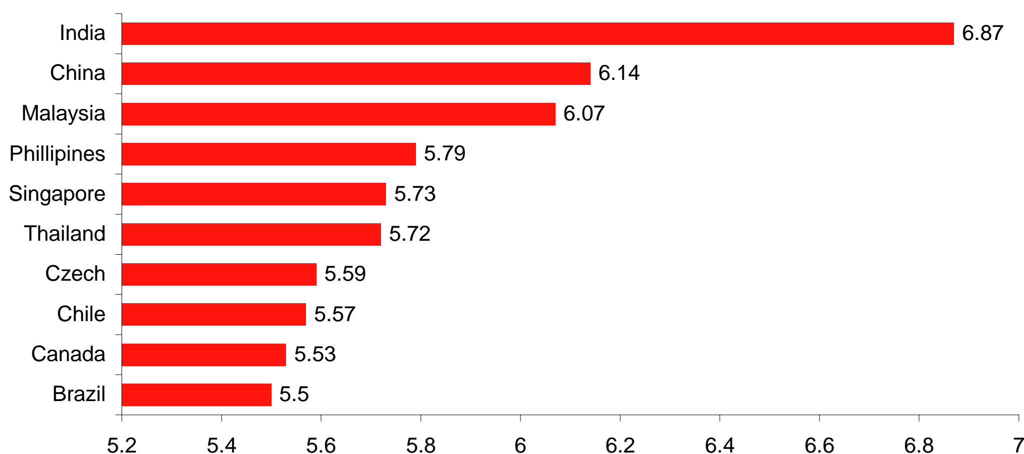
Led by IT and ITES (IT Enabled Services), India has become the favoured location for business outsourcing. However, it is important not to think of this as just call centres. India's service sector is rapidly changing, and moving up the value chain, from a provider of low-cost services (e.g. call centres) to high-value IT, business processing management and high level analytics and consulting.

New opportunities are emerging in engineering design, biotech research, equity research and market research. India is witnessing strong growth in R&D activity, particularly related to electronics and telecoms. Many of the major US and Asian IT and telecoms firms have a significant R&D presence in India, including Hewlett Packard, IBM, Intel, Cisco, Samsung, Microsoft, Oracle, Dell, Motorola, Nokia and Texas Instruments.

Over 10 years of outsourcing and off-shoring activities has established a deep multi-national and domestic corporate base, creating strong demand for commercial office space:

- Outsourcing is resulting in the rapid expansion of multi-national third-party service providers such as Convergys, EDS, Accenture and EXL.
- The large multi-nationals continue to spur growth - including GE, Prudential, HSBC, Bank of America, Standard Chartered and American Express.
- A significant trend is the emergence of Indian software companies as key drivers. The largest, such as TCS, Infosys, Wipro and Satyam are becoming global brands, and are not only expanding rapidly across India, but also internationally into markets such as China, Europe and North America.

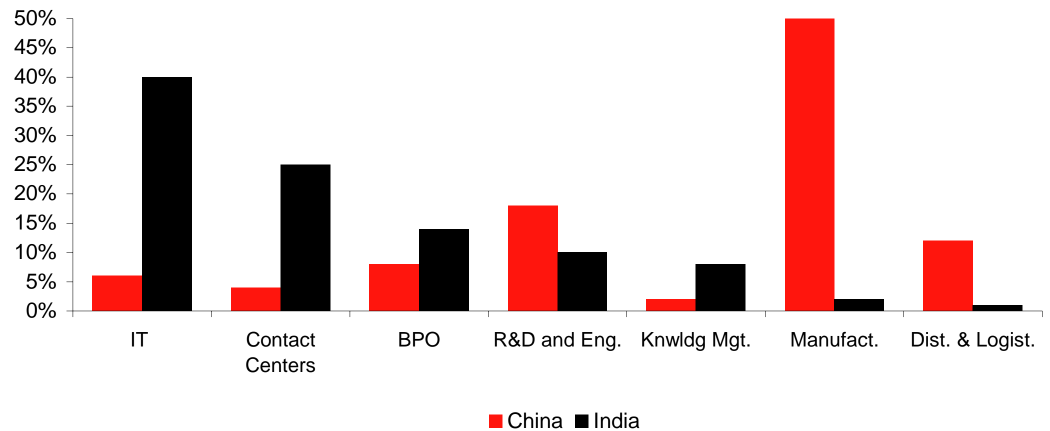
Fig 20 AT Kearny's 2005 Global Services Location Index (X)



Source: AT Kearney, 2005

India continues to top the AT Kearney Offshore Location Attractiveness Index by a significant margin, due to its mix of low costs, significant depth in human resources and critical mass of existing outsourcing activities. Exports will continue to be important to the IT and ITES sectors, but increasingly the domestic market will be the key driver of growth, underpinned by the strength in the economy.

Fig 21 Location preference by business functions



Source: AT Kearney, 2005

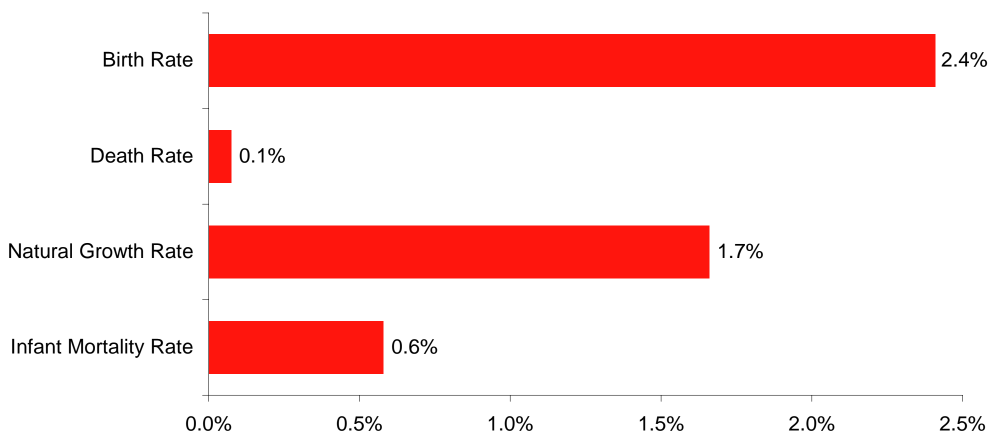
India is increasingly a source of healthcare products in emerging markets. Leading multi-national pharmaceutical companies, such as GSK, Pfizer, Merck and Novartis are already active, but the sector is expected to parallel the growth of the IT sector, with increasing outsourcing to Indian companies. Major pharmaceutical firms are looking at India as the favoured destination for clinical research and development.

Favourable demographics

A large middle class has emerged in India …

A large middle class has emerged in India and is currently estimated at around 300m, half of whom are under 25 years of age. India's National Council of Applied Economic Research expects a further 180m to join the middle classes by 2010. India has a large, young and urbanising population. The country is urbanising at a rapid rate of 2.5% annually. The number of cities over one million is expected to double from 35 in 2001 to 70 cities by 2025. India's 'mega-cities' of Mumbai and Delhi will be the world's second and third-largest cities by 2015.

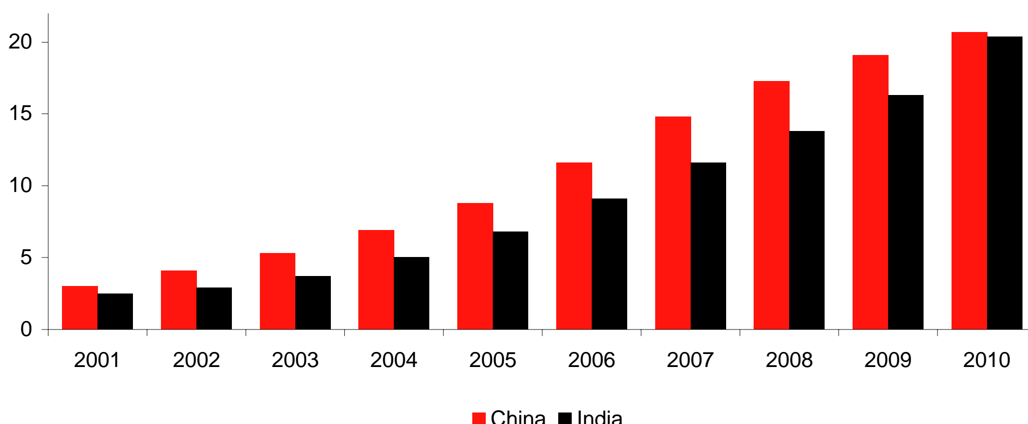
Fig 22 Population growth rate (Popn. in 2005 - 1,103m)



Source: Census of India 2001

With a strong economy, real annual personal disposable incomes are set to increase by 8-10% annually over 2006-10, providing a significant boost to the demand for lifestyle products and services. Median household incomes are expected to grow from US$2,000 in 2005 to US$3,200 by 2010. The following figure shows how households that earn >US$5,000 are expected to grow over the next four years. It should match China by 2010.

Fig 23 % of households earning more than US$5,000 pa

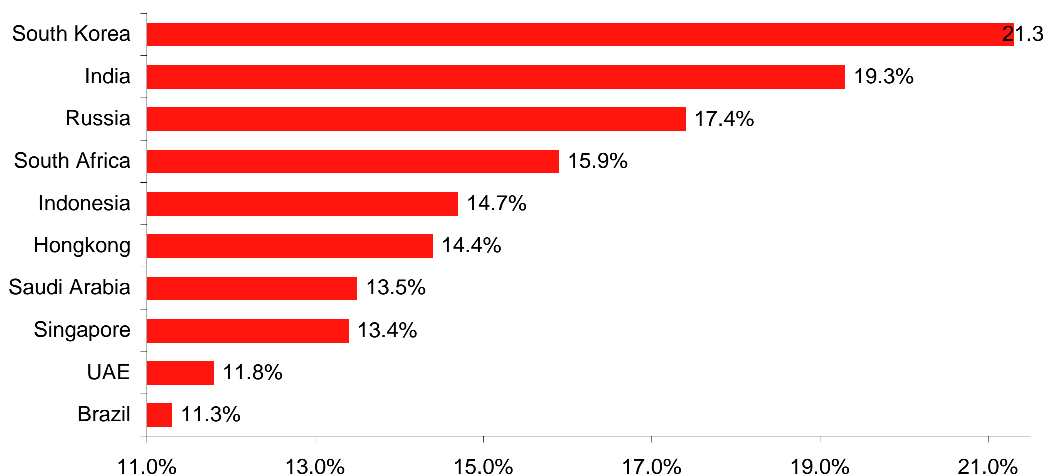


Source: Economists Intelligence Unit, August 2006

Rapid growth in the number of high net worth individuals

The number of high net worth individuals is rising rapidly in India. In macro terms, this is partly due to the fact that India is a free market economy (rather than state run) which is developing quickly. In fact, growth in this category is far higher than more developed Asian regions such as in Hong Kong or Singapore.

Fig 24 Growth in high net-worth individuals in 2004-05

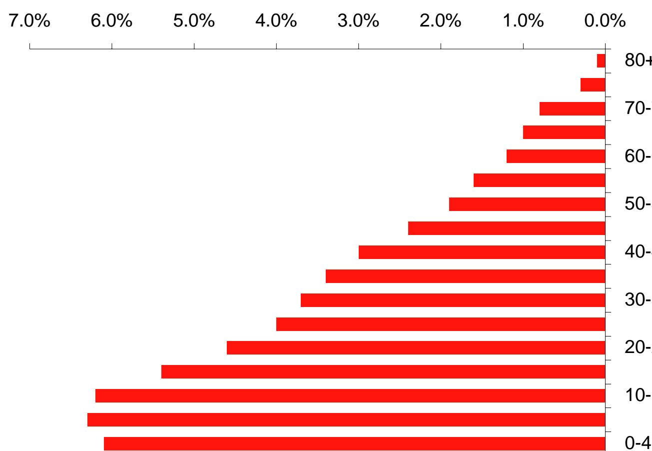


Source: World Wealth Report, 1997-2006

Population distribution unique

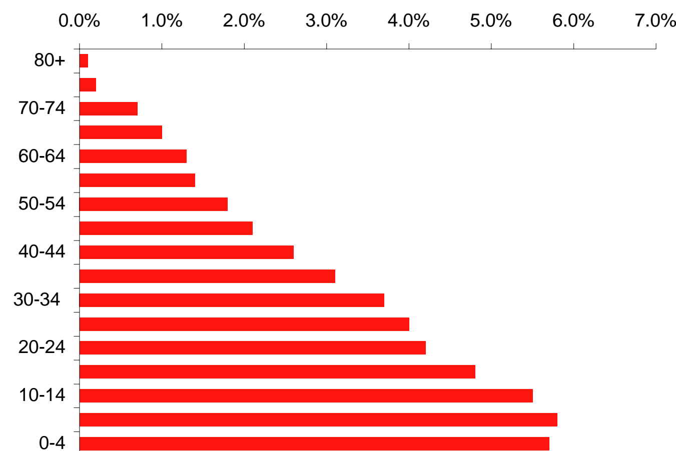
The country's population of 1.1bn is set to continue to increase until at least 2030, before stabilising at around 1.5bn. By this time, India will have overtaken China as the world's most populous country. India has a very young population profile. Half of its population is under 25 years, and the country's median age is 24 years (2005), compared to 33 in China and 43 in Japan. India's large population is now being viewed as one of its key strengths. A young and urbanising population is unleashing significant demand for products and services, and is providing massive labour market opportunities.

Fig 25 Male population (%) in 2001



Source: Census of India 2001, Macquarie Research, August 2006

Fig 26 Female population (%) in 2001

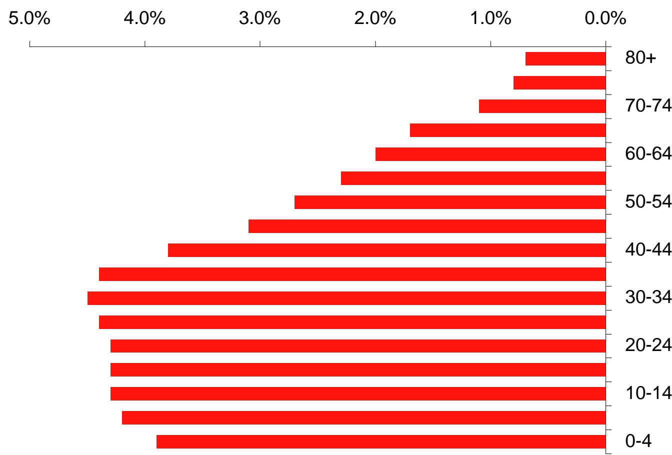


Source: Census of India 2001, Macquarie Research, August 2006

India's young population is clearly very different to both China and western nations. The aging population phenomenon that developed nations are facing is some time off for India. The difference with China is also significant. China's one child policy means relatively fewer working aged people are able to sustain the growing aged population. While not so much of an issue now, it will become an issue in the future.

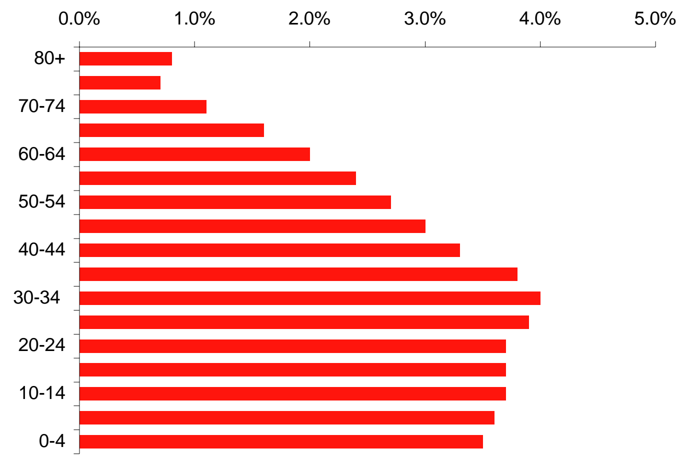
The following charts show that in 2026 India will have the majority of its population in the highly productive 20-40 year age range.

Fig 27 Male population (%) in 2026



Source: Census of India 2001, Macquarie Research, August 2006

Fig 28 Female population (%) in 2026



Source: Census of India 2001, Macquarie Research, August 2006

Fig 29 India economic indicators (fiscal year ending 31 March)

	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06E	2006/07F	2007/08F
Activity and prices								
Real GDP (ann avg % chg)	4.4	5.8	3.8	8.5	7.5	8.4	***8.2***	***7.8***
Domestic demand: incl stocks (ann avg %)	0.7	4.8	3.3	7.9	8.1	7.5	***8.2***	***7.5***
Domestic demand: excl stocks (ann avg %)	1.9	5.2	3.2	8.0	7.3	8.1	***8.4***	***7.5***
Private consumption (ann avg % chg)	2.1	6.1	1.6	7.8	6.5	7.5	***7.8***	***7.0***
Gross fixed capital formation (ann avg %)	0.0	5.0	9.9	11.3	6.5	12.4	***16.0***	***13.0***
Government consumption (ann avg %)	0.3	1.7	-0.6	2.4	9.2	2.0	***2.5***	***3.0***
Inventory Investment (contrib to GDP growth)	-1.2	-0.3	0.1	-0.1	0.7	-0.6	***-0.2***	***0.0***
Net Exports (contribution to GDP growth)	2.3	0.4	2.2	0.0	-1.9	-0.8	***-0.2***	***0.4***
Exports (ann avg % chg)	18.2	5.7	21.8	5.8	39.3	21.2	***21.6***	***19.2***
Imports (ann avg % chg)	3.5	3.4	10.4	16.8	41.9	25.9	***21.4***	***19.0***
Industrial production (ann avg % chg)	5.0	2.7	5.8	7.0	8.4	9.0	***8.0***	***7.0***
Nominal GDP (US$bn)	461	478	506	601	695	798	***860***	***978***
GDP Deflator (ann avg % chg)	3.1	2.3	3.5	3.9	5.2	4.3	***4.5***	***4.0***
WPI (ann avg % chg)	7.1	3.6	3.4	5.5	6.5	4.4	***5.2***	***4.5***
CPI, urban non manual workers (ann avg %)	5.6	5.1	3.8	3.7	3.7	4.7	***5.1***	***5.0***
Fiscal and external balance								
Budget balance (% of GDP: central govt)	-5.7	-6.3	-6.1	-5.1	-4.2	-4.2	***-3.8***	***-3.5***
Merchandise exports (fob) (US$ m)	45,452	44,703	53,774	66,285	82,150	104,780	***125,000***	***150,000***
- YoY % chg	21.1	-1.6	20.3	23.3	23.9	27.5	***19.3***	***20.0***
(% of GDP)	9.9	9.3	10.6	11.0	11.8	13.1	***14.5***	***15.3***
Merchandise imports (fob) (US$m)	52,123	50,652	58,021	72,006	106,906	140,708	***170,000***	***205,000***
- YoY % chg	4.6	-2.8	14.5	24.1	48.5	31.6	***20.8***	***20.6***
(% of GDP)	11.3	10.6	11.5	12.0	15.4	17.6	***19.8***	***21.0***
Merchandise trade balance (fob) (US$m)	-6,671	-5,949	-4,247	-5,721	-24,756	-35,928	***-45,000***	***-55,000***
(% of GDP)	-1.4	-1.2	-0.8	-1.0	-3.6	-4.5	***-5.2***	***-5.6***
Current account balance (US$m)	-2666	3400	6345	14083	-5,400	-10,612	***-18,000***	***-25,000***
(% of GDP)	-0.6	0.7	1.3	2.3	-0.8	-1.3	***-2.1***	***-2.6***
Foreign direct investment (US$m)	3,066	4,470	2,882	2,015	3,261	6,093	***7,500***	***9,000***
(% of GDP)	0.7	0.9	0.6	0.3	0.5	0.8	***0.9***	***0.9***
Foreign exchange reserves (ex gold, US$bn)	40.2	51.7	72.6	108.8	136.5	145.9	***165.0***	***180.0***
Months' Import Coverage	7.7	10.2	12.5	15.1	12.8	10.4	***9.7***	***8.8***
Liquidity and market rates								
Narrow money supply (%, Mar-Mar)	9.8	11.5	11.9	22.2	11.9	27.5	***18.0***	***15.0***
Broad money supply (%, Mar-Mar)	9.6	11.4	11.8	22.0	11.8	27.2	***18.0***	***15.0***
Domestic credit growth (%, Mar-Mar)	15.7	13.3	16.3	10.8	13.8	18.8	***18.0***	***15.0***
Reverse repo rate (%, FY year end)	7.0	6.0	5.0	4.5	4.8	5.5	***6.3***	***5.8***
91-day Treasury Bill Rate (%, FY year end)	8.7	6.1	5.9	4.2	5.3	6.1	***6.7***	***6.5***
Exchange rate (Rs/US$, FY year end)	46.6	48.8	47.6	43.5	43.8	44.5	***46.0***	***44.5***
Exchange rate (Rs/US$, FY ann avg)	45.7	47.7	48.4	46.0	44.9	44.3	***45.8***	***45.3***

Source: Macquarie Research, October 2006

Residential fundamentals compelling

The evolution of listed real estate almost always sees residential dominate prior to office or retail property becoming more prominent

In the next three sections, we look at the structure, fundamental drivers and key issues surrounding residential, retail and office markets in India. In its current stage of development, our main focus will be on residential markets. The evolution of listed real estate almost always sees residential dominate prior to office or retail property becoming more prominent.

This is for three reasons. First, a basic human requirement is to have a place to live. This obviously comes before organised retail or the proliferation of office space. Second, at this point the Indian economy is not sufficiently advanced to sustain enough investment grade property for the broader investment community. Finally, a lack of financing options mean that developers are motivated to build residential housing, sell it and achieve a return of cash as quickly as possible.

According to DTZ, approximately 80% of the demand in the real estate sector in India lies in the residential segment. Low per capita housing stock, higher disposable income, the falling age of first-time home buyers and all-time low interest rates coupled with surging home loans is fuelling demand for the sector. The housing sector is currently growing at 30-35% pa. Significant demand is also coming from investors who view housing as a safer investment option when compared to shares and mutual funds.

Residential analysis and outlook

Indian residential fundamentals are quite compelling. There is a rapid shift from sub standard dwellings to more permanent accommodation.The preceding section on the favourably changing demographics of India explains much of the optimism on the sector. In addition, the Indian banking sector is healthly (more on that later).

India's floating currency means there is little requirement for China-like austerity measures. The government is likely to cool the sector via use of monetary policy. However as we will show, real, post tax interest rates are far lower than five years ago.

Rising disposable incomes, particularly among young urban professionals and easier access to finance are two factors fuelling residential in India.

Key drivers include:

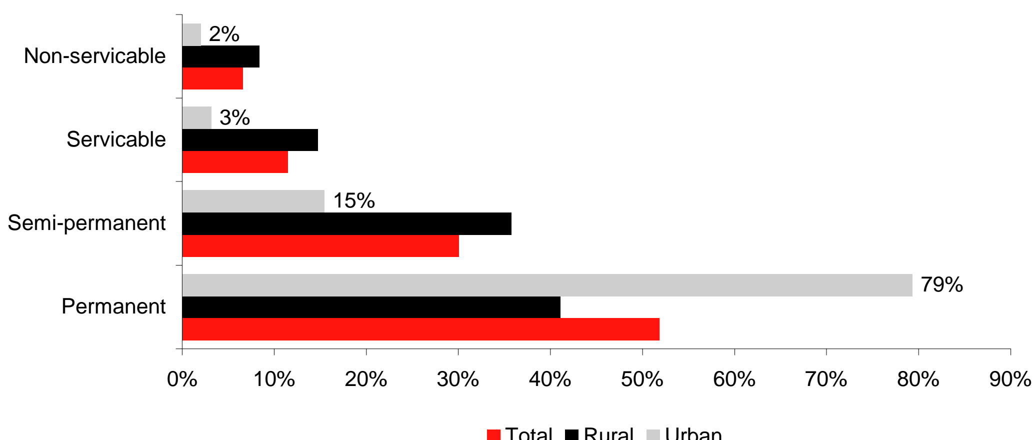
- A growing middle class and increasing urbanization, resulting in shortages of housing units in the suburban regions of urban areas;
- An increase in disposable income levels, due to a decrease in marginal tax rates and increase in total incomes making housing more affordable;
- An increase in the rate of household formation, due to a structural shift from a joint family system to nuclear families. Young professionals are moving out of home earlier than in previous decades;
- Changing attitudes to home ownership – the current average age of a new homeowner is now 32 years, compared with 45 years a decade ago;
- Increasing affordability of residential property, due to declining interest rates and tax related incentives.

Shortage of housing stock

…the country is facing a housing shortage of over 20m units

According to the government's 10th Five-Year Plan, which ends in 2007, the country is facing a housing shortage of over 20 million units. Within this shortage 70% - 80% is in the low-income segment. The plan estimates the country's housing requirement at 4.5 million units per year. The government aims to provide housing for all its citizens by 2012, requiring an investment estimated at close to $800bn. While admirable, this would appear an impossible target to meet.

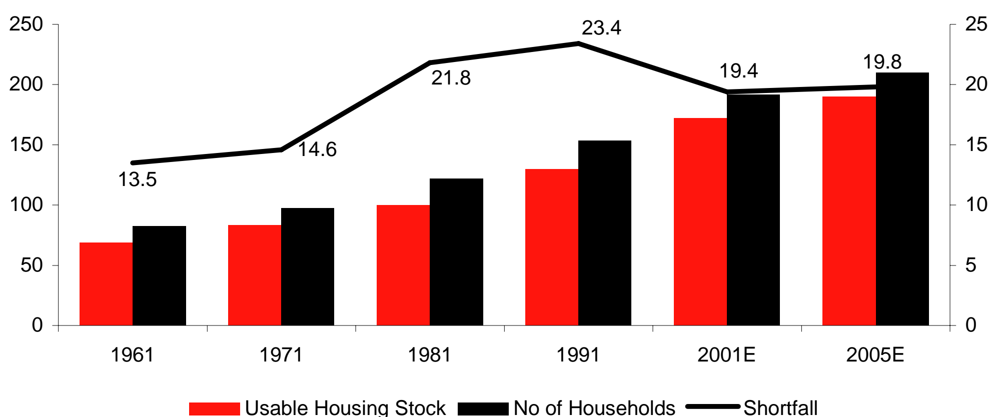
Fig 30 Households by type of houses occupied



Source: Census of India, 2001

The following chart shows how this shortage has changed over time. What is interesting is that there has been a significant shortage for the last fifty years. This tells us that India's current housing boom is not being driven by the shortage alone. We look at the shortage as an underlying positive for future housing stock production and a key reason why future Government housing related policy is more likely than not to be accommodative.

Fig 31 Housing shortage in India (millions)



Source: NBO, 2005

According to industry body ASSOCHAM (Association of chambers of commerce) the demand for dwelling units is slated to grow to 80m for the lower middle and low income groups, involving an estimated investment of US$670bn, the housing sector will see four million new jobs by 2015. According to the ASSOCHAM report, the real estate sector has the potential to grow at 14% pa to double its contribution to GDP from the current level of less than 1%. Further, demand for dwelling units will grow to 90m by 2020, which would require a minimum investment of US$890bn.

Availability of mortgage financing

It is becoming easier to secure mortgage financing. Our banks analyst, Seshadri Sen, believes currently conditions in the banking industry are close to "perfect" for mortgage growth. Higher average income levels, the growth in private sector employers and a more pro-active banking sector mean that credit growth has run at 40 - 45% for each of the last three years. Moving forward we expect growth of around 20–25%, still high. Private sector growth is around 3x growth in the public sector.

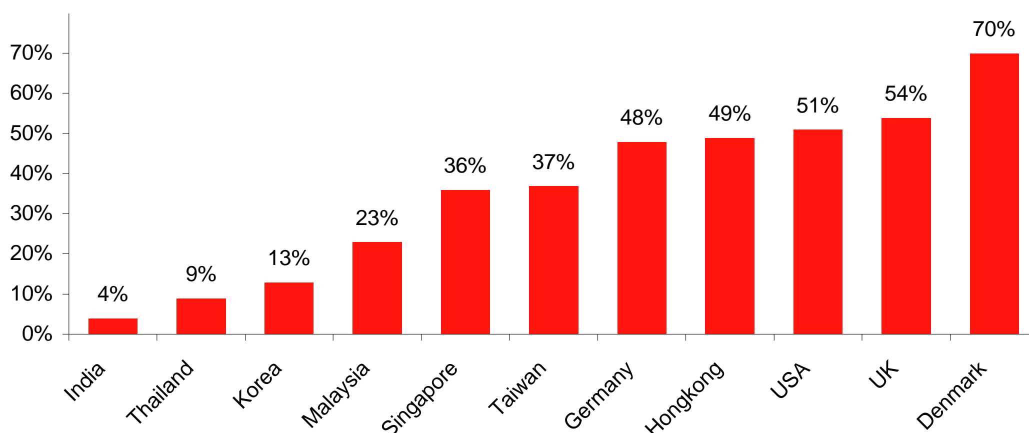
According to our banking analyst, getting a mortgage is easier than ever

Getting a mortgage is easier than ever. Modernisation of systems and a higher level of commercial focus along with lower interest rates relative to a few years ago has revived interest. The rise of the private sector banks has assisted this greatly. However, they still account for only around 20% of the Indian banking sector which shows substantial opportunity for additional growth.

Additionally, India is moving away from the old system of the employer (say, a government sector) providing emplyees with accommodation, cars etc. Now packages are more likely to be financial remuneration only, enabling the employee to buy their own dwellings.

The mortgage to GDP ratio (ratio of outstanding home loans to GDP) in India is tiny in comparison with other economies. In developed countries the ratio varies from 25% to 70%. For the latest available year, the mortgage to GDP ratio in India is just 4%.

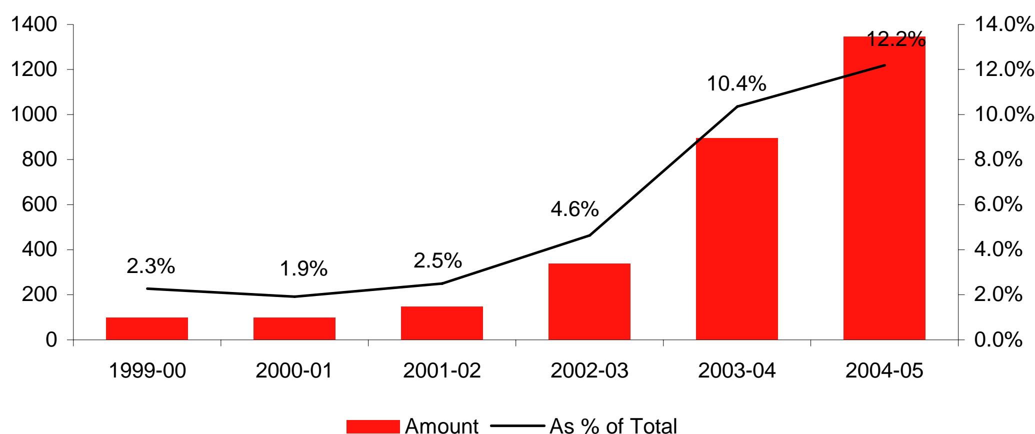
Fig 32 Mortgages as a % of GDP



Source: NBO, August 2006

From the following chart, it is clear that mortgages will become an increasingly important part of India's economy. After being just 2–3% of total bank loans in 2000-02, residential mortgages in 2004-05 were 12.2% of total bank credit.

Fig 33 Housing loans as a percentage of total bank credit (Rs bn)

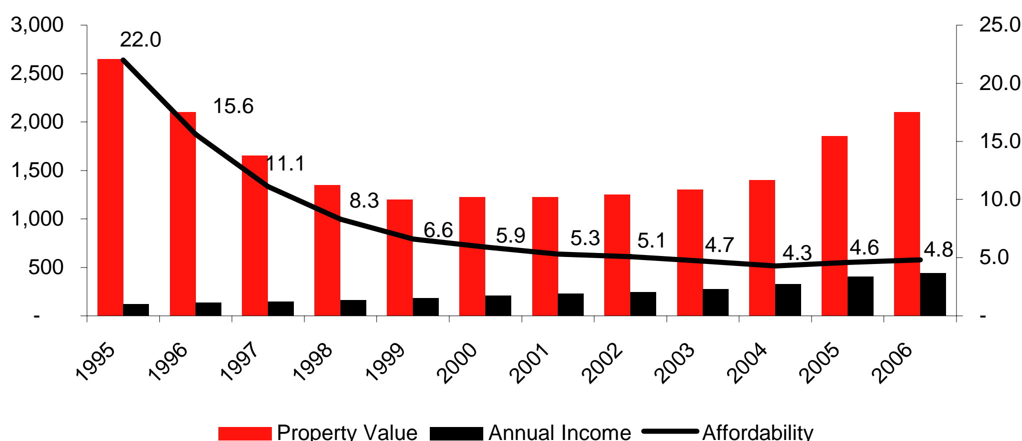


Source: Macquarie Research, NHB, RBI, August 2006

Affordability actually improving…

Despite rising mortgage rates, housing is now far more affordable relative to ten years ago. The chart following shows the affordabily level as defined as average property value divided by average annual income. In 2006, the average residential property is 4.8x higher than the average annual household income. This compares to 5.3x five years ago and 15.6x ten years ago. This is by no means a perfect measure, but firm and reliable data on historical disposable income as well as average mortgage repayments can be hard to come by in India.

Fig 34 Improving affordability (Income in Rs '000)



Source: HDFC, Macquarie Research, July 2006. 'Affordabily' defined as as average property value divided by average annual income.

However if we combine this exercise with a look at average after tax interest rates, quite a positive picture emerges. Overall, there are a couple of tax-related factors that are at play here. They include:

- Personal tax rates have declined considerably. The top rate of tax was previously ~50% about ten years back and it is now down to 30%;
- A greater proportion of interest paid is tax deductible relative to five years ago.

HCFC indicates that the effective after tax interest rate is currently just 5.2%

In fact, HCFC indicates that the effective after tax interest rate is currently just 5.2% (based on a mortgage of Rs2m). This is 6.6% below the effective rate that would have been paid in 2000. This is because the typical mortgage rate in 2000 was 13.25% and the maximum tax deduction on interest paid was Rs75,000 (versus average interest rate today of 9-9.5% and a maximum tax deduction of Rs150,000.

Therefore while further interest rate hikes may occur, real, after-tax interest rates are likely to remain low relative to previous years and quite acceptable given India's current economic growth level.

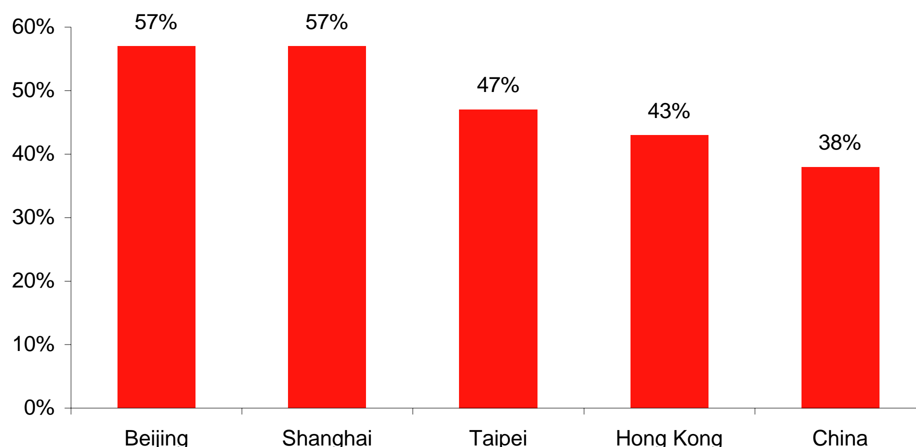
However, on a regional basis, affordability is difficult to measure. The preceding exercise looks at affordability now versus a few years ago. It says little about the absolute level of affordability. There is even less data on this. Our usual definition of affordability is: Average mortgage repayments as a percentage of household disposable income. For India, if we run this definition based on average numbers we get an affordability ratio of >100% (ie, extremely poor).

However, we do question the validity of such a level for a market (markets) such as India. Its markets are so undeveloped and there is such a massive gap between rich and poor, average numbers often don't carry significant meaning. Additionally, as the preceding sections explain, there is a significant housing shortage in India, having the effect of driving prices higher. Therefore the relatively few that can afford housing are generally catered for but at a level of average affordability not seen in other countries across the region.

Certainly, the word in Mumbai is that housing is incredibly unaffordable

Certainly, the word in Mumbai is that housing is incredibly unaffordable. This sentiment is coming from those that should be able to easily afford to buy a unit or house. This doesn't necessarily mean prices are going to come down. If the mentality is that one will buy when prices come down, then there is a good chance prices won't come down.

Fig 35 Residential affordability across the region



Source: Macquarie Research, October, 2006. Affordability defined as the annual average mortgage payment / annual average household disposable income.

Expectations for price growth

Below we state our expectations for average residential price growth over FY07. We have also included what we believe price growth has been in the immediate past. We use the resources of Cushman & Wakefield, Knight Frank, Macquarie Property, India and our own investigations with property agents in attempting to determine these changes.

It must be said though that statistics and data collection in India is less than a perfect science

It must be said though that statistics and data collection in India is less than a perfect science. Also, averages are only of limited assistance. In our models we generally assume no price appreciation for reasons of conservatism. We also model on a project by project basis and therefore assess each project on its merits rather than rely on average prices alone.

Fig 36 JLL's city tiering system

Tier-1 cities	Tier-2 cities	Tier 3 cities
Mumbai	Hyderabad	Kolkata
Delhi	Chennai	Ahmedabad
Bangalore	Pune	Chandigarh
		Kochi
		Mangalore
		Mysore
		Jaipur
		Thiruvananthapuram
		Bhubaneshwar
		+ potentially 9 others

Source: Jones Lang LaSalle, October, 2006.

We look at as many cities that have reasonable data available. City categorisation in India is best defined by Jones Lang LaSalle. Tier-1 cities include Mumbai, Delhi and Bangalore. Tier-2 cities Hyderabad, Chennai and Pune. Tier 3 cities are listed in the preceding table.

Fig 37 Macquarie's average residential price estimates

City	Current pricing level (Rs / sqf)	Typical price rises in past 12 mth	2007 price rise forecast*	Comment
Tier 1				
Mumbai	9,000 – 11,000	40 - 50%	0 - 5%	Higher base, lack of new stock, price growth to slow
Delhi (Ind Houses)	11,000 – 12,000	70 - 100%	5 - 10%	Lack of new stock, Increased activity due to upcoming commonwealth games
Gurgaon	4,000 – 5,000	25 - 35%	5 - 10%	New supply key risk, new Urban Territory
Noida	3,500 – 4,500	20 - 30%	5 - 10%	New supply key risk, new Urban Territory
Bangalore	4,000 – 5,000	80 - 100%	0 - 5%	IT / ITES demand shifting to other cities + Infrastructure Problem
Tier 2				
Hyderabad	3,500 – 4,500	70 - 100%	5 - 15%	New airport / infrastructure positive driver, city expanding in almost every direction
Chennai	4,500 -5,500	10 - 20%	10 - 15%	Expanding IT / ITES + favourable relative pricing
Pune	4,000 – 5,000	40 - 50%	10 - 15%	Expanding IT / ITES + favourable relative pricing
Tier 3 cities	1,500 – 2,000	20 - 50%	15 - 25%	Lack of infrastructure biggest impediment, Lower base effect

Source: Macquarie Research, Cushman & Wakefield, Knight Frank, Macquarie Property, India October, 2006. * Our forecast

Office: Driven by IT / ITES sectors

Office investment, India-style

Investment office markets in India are dominated by suburban, campus style office parks. This is mainly because of the fragmented nature of established typical CBD office markets. Walking through the Mumbai or Delhi “CBDs” cannot be compared to more developed markets. The extensive strata, fragmented ownership structure has meant that no-one has taken genuine responsibility for building maintenance or management. Similarly achieving agreement and securing capital for new development is very difficult. In addition, the provision of services (water, electricity etc) to new CBD assets is unreliable at best.

The result is that real investment in the office sector is generally restricted to greenfields development sites leased to the likes of Microsoft or Unisys located on the fringes of Tier-1 and Tier-2 cities. At this point, the listed developers are only now really focussing on the office sector. Their true love remains residential.

Rents are defined on a rupee per square foot, per month basis. Rents are all-in or gross with the owner taking care of operating expenses. Smaller, older buildings have leases that are two-four years while the larger newly constructed buildings that have single owners and multinational tenants can have leases of 5 + 5 years.

There is very little office space that is developed and kept long term by the developer

There is scant office space that is developed and kept long term by the developer. Most is sold off via en-bloc or strata sales, so that cash can be recycled into the next development. The exceptions includes the likes of Ascendas although we believe even Ascendas will look to monetise its investments, eventually via a REIT or other means down the track.

Typical cap rates of 8-12% may appear high on face value but when the risk free rate of ~8% is taken into account, the basic spread is small. There can be little doubt that market growth prospects are strong, but depending on the region, significant new supply approaches.

IT / ITES sectors main growth driver

Whilst the IT/ITES sectors will continue to be the main engine growth, their successes are gradually extending to the broader economy, which is resulting in a more diversified and robust commercial (office) real estate sector.

Several industries are being opened up by India’s reform programme, and whilst large sections of the economy remain sheltered from global competition, further economic reforms are likely:

- India’s financial services will enjoy strong growth driven by rising personal incomes, financial sector restructuring and liberalisation, and the growth of a more credit oriented economy.
- The manufacturing sector is booming, growing by 10%+ per year, and is expected to perform well, particularly in automotive, telecommunications and pharmaceuticals.
- India is one of the world’s largest food producers, which has significant untapped commercial potential.

With India emerging as a leading hub of IT and ITES/BPO activities, these sectors will continue to be the main drivers of suburban office demand. The IT and ITES sectors accounted for 80% of the 25m sqf of office space absorbed in 2005. Jones Lang LaSalles estimates a requirement for about 50-70m sqf from the IT and ITES sectors over the next two to three years. As noted, the suburban fringe of the main cities has emerged as the primary growth market for offices, with 75% of office development in these areas. This sub-sector will continue to be fuelled by a 30% + annual growth forecast for the IT and ITES sectors.

The IT/ITES sector is expected to form 7% of GDP by 2008 (3% currently) and to generate 4m jobs (1m currently). According to Jones Lang LaSalle, Leasing of IT/ITES spaces in 2004 equated to 9.5m sqf in Bangalore, 4.8m sqf in Delhi and its surrounds and 4.2m sqf in Mumbai. Almost 80% of demand for commercial space today is originally out of IT/BPO/Call centre sector. Most developers are providing a more efficient and better class of product now available, at a cheaper cost. Regionally though, from what we have seen, India still lags behind the rest of the region in regard to asset quality. As the ability to meet demand on time is the key success factor in this business, many developers have delivered built-to-suits (BTS) at a rate above 1,000 sqf per day. This means that a standard 120,000 sqf of building for a call centre client can be provided, fully fitted out, in under four months.

A study executed by McKinsey-Nasscom estimates the total demand for office space will be a possible 500m sqf in the next ten years

There have been some pretty significant numbers talked about with regards to future demand. A study executed by McKinsey-Nasscom estimates the total demand for office space will be a possible 500 m sqft in the next ten years.

The study cites the continued growth in the IT/BPO industry as being primarily responsible for 60-75 per cent of commercial real estate demand during 2005-15. While growth in the rest of India's non-IT and manufacturing sectors will fuel the remaining 25-40% of commercial real estate demand by 2015.

The DLF Group (not listed…yet), possibly the largest developer in India is aiming to provide around 25% of this. It has zeroed-in on the projected need for office space and is aspiring to develop 110m sqf in the next ten years. The company is planning 39m sqf of office space over the next three years.

Demand to be spread across Tier-1 and Tier-2 cities

Office space demand for the next five years is likely to be concentrated in Tier-1 and Tier-2 cities including Delhi, Kolkata, Mumbai, Pune, Ahmedabad, Bangalore, Hyderabad and Chennai. Most areas appear to be dominated by a few large developers. This has a partial 'self regulation' effect. In our drives through India's IT office areas, we often saw what appeared to be half-finished office buildings. There are generally no regulations enforcing developers to finish developments they have started. When supply pressures occur and tenants are difficult to find, developers often simply stop building and start again when the market improves.

According to Jones Lang LaSalle, India's office space has doubled in the past three years to >100 m sqf in 2005 with the majority of space located in Mumbai, Bangalore and Chennai. Despite recent growth, domestic office space is much less compared to other Asian countries or cities. Mumbai has just 12m sqf of office space against 70m sqf in Singapore.

Our basic thoughts on India's key markets:

Mumbai remains India's financial centre with almost all investment banks, brokers and investment institutions making it their head office

- **Mumbai – financial centre:** The CBD is stagnating due to virtually no supply of stock and poor quality assets. There is limited scope for new development. Mumbai remains India's financial centre with almost all investment banks, brokers and investment institutions making it their head office. Medium-term some scope exists in the Mills land which has been dogged by controversy and court cases. IT office parks are being established on the outskirts although rents are rising causing tenants to look to Tier-2 cities. IT companies generally won't pay more than Rs100/sqf. Rents in CBD Mumbai for better product are now ~Rs250 (HK$44 sqf/mth) and in office parks on the outskirts are around Rs90.
- **Delhi – political capital:** This is arguably India's most regulated office market. The market is relatively stagnant. For a city of its size and its national importance, the CBD surprises on the downside given its general state of disrepair and lack of new development. Almost all land in Delhi and the National Capital Region (NCR) is owned by the Delhi Development Authority (DDA). Therefore most commercial assets are under a 99-year lease. The general view is that the DDA has not efficiently promoted development. Most major development is in Gurgaon, which is a one hour drive from the CBD. On our recent drive through Gurgaon, it is apparent that the quality of buildings and planning here is superior to that in traditional Indian cities. However, master planning and quality of design still lag that in developed markets.

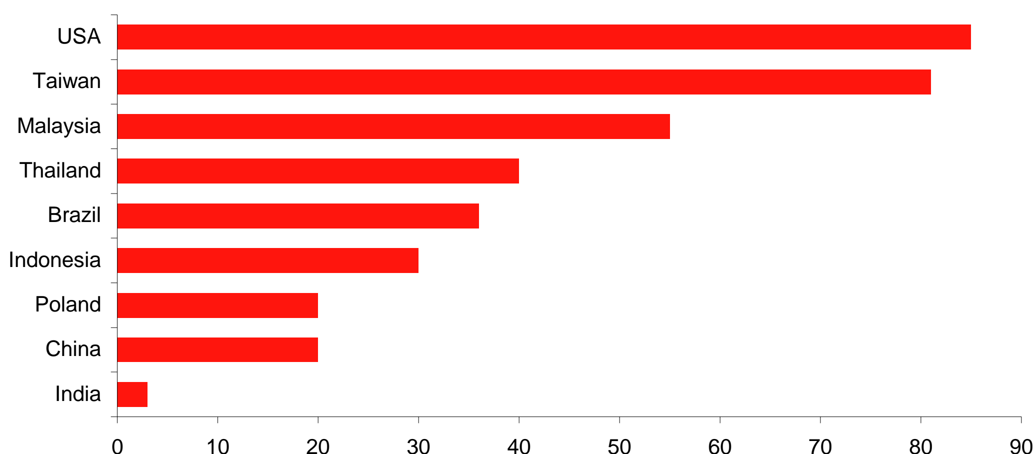
- **Bangalore – IT leader:** The outskirts of the city boasts scores of relatively new IT/ITES occupied buildings. This city highlighted to us that while the developer is likely to build acceptable roads and infrastructure, they are of limited use if the surrounding public roadways are inadequate (like they appear to be in Bangalore). It took us well over an hour to drive the relatively short distance from the city to the Whitefield BPO district in non-peak hour traffic. Supply is the second major issue. Economic rents in Whitefield are around Rs30 and current market rents are around Rs35. Rents have shown very little growth in the last few years and they are expected to be flat at best in the near future. The situation is similar for the other BPO regions such as Electronics City in the south.
- **Chennai –** high growth market. The overall market is expected to see supply of close to 10m sqf in the next 12 months. Originally it was serviced by just local developers and now all the majors are there. Rents are at around Rs38. However facilities and infrastructure are still clearly developing.

Retail: Early days in long-term boom

Retail investment, India-style

India's retail segment is dominated by fragmented, one-off, generally unorganised retail. Again, the key feature of organised shopping centres (of which there are very few) is the strata component. We see multi-owner shopping centres as particularly badly placed in the long term as it makes it almost impossible to remix or redevelop them. They cannot be updated to move with consumer tastes. Additionally the retail mix is always sub-optimal – each individual owner wants to attract the highest rent paying usage, to the detriment of the centre as a whole (and to themselves ultimately).

Fig 38 Organised retail penetration is low in India



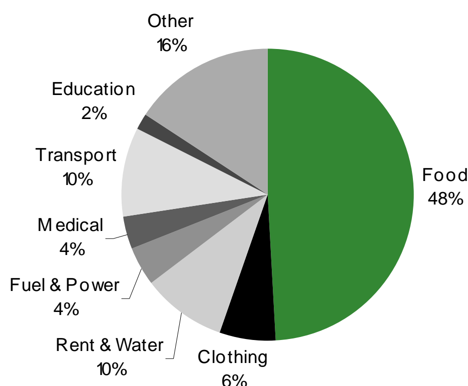
Source: Macquarie Research, August 2006

There certainly is a lot of excitement in India when it comes to discussing the development of organised retail. And why not. Organised retail generates just 2-3% of India's overall retail sales. More than half of India's 1.1bn people are under the age of 25, and their disposable incomes are rising in a country where the economy is growing by on average 8% a year. India's US$300bn retail market is growing even faster, at about 30% annually. India's organised retail market, estimated at about US$6bn is forecast by AT Kearney to grow at 25-30% a year over the next four years.

India's consumer market approaches $500bn

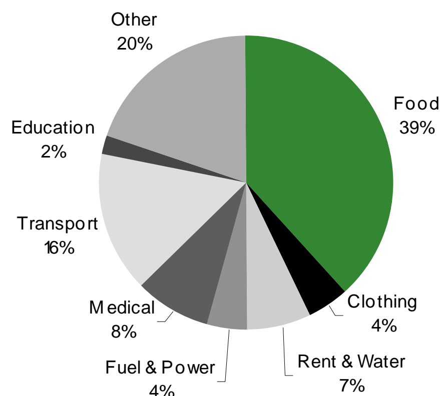
Indian consumption has grown slower than overall GDP since the turn of the century. Even so, at nearly US$500bn, India is Asia ex Japan's second largest consumer market. Private consumption in India accounts for two-thirds of GDP in real terms and over 60% in nominal terms. These ratios have fallen several percent of GDP since the beginning of the new millennium as the investment-to-GDP ratio has risen into the 25-30% range over the same period. This shift underpins our revision of the medium growth outlook to 8%.

Fig 39 India's consumption mix in FY1990/91



Source: Macquarie Research, September 2006

Fig 40 India's consumption mix in FY2003/04



Source: Macquarie Research, September 2006

Food is accounting for less of the consumer basket…

Consumption patterns are changing as well. The bulk of this shift reflects rising incomes, but at least some part of the shift reflects a change in relative prices. The expenditure on food as a percentage of total consumption has dropped from nearly 50% of total consumer outlays to less than 40% over the past 15 years. They are also spending less on rent and water (7%) and clothing (4%) than in FY1990/91.

Fig 41 Organised retail - strong growth forecast

	FY06	FY11	CAGR
Retail Industry (US$ b)	230	308	6
Share of organised Retail (%)	3	10	
Size of organized Retail (US$ b)	7	31	35

Source: Industry, Macquarie Research, August 2006

The country's largest private energy company, Reliance Industries, the largest telco Bharti, and country's largest real estate company DLF are planning to step up their focus on India's retail market. The likes of Wal-mart and Tesco are looking to partner with these players.

Fig 42 Number and total GLA shopping malls in India

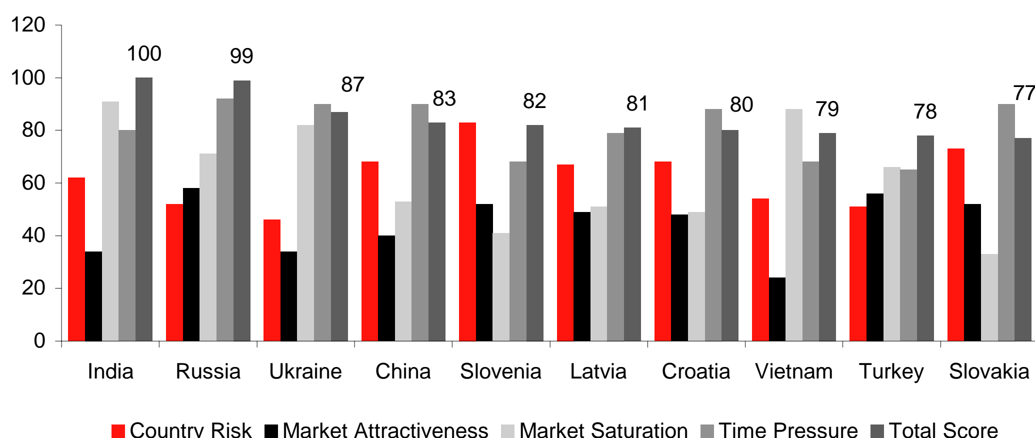
	# of malls	GLA (sqf m)
Delhi	96	23.5
Mumbai	55	16.2
Bangalore	14	8
Chennai	6	2.5
Kolkata	10	3.2
Hyderabad	12	4.2
Pune	19	5.6
Ahmadabad	7	2.7

Source: Tent Limited, 2005

India ranked 5th in the list of 30 emerging retail markets in the world and ranked first in AT Kearny's 2005 Global Retail Development Index. Key findings of the studies:

- An estimated 20% annual growth rate for the organised retail segment by 2010.
- 500 shopping malls to be built in the next seven years.
- 25m sqf by 2007
- Investment in the retail real estate segment yields 12-15%, higher than residential (5-6%) and office (9-12%).

Fig 43 AT Kearny's 2005 Global Retail Development Index



Source: AT Kearney, 2005

Foreign penetration inevitable… eventually

India's authorities continue to protect local retailers… (over foreign groups)

India's retail market remains closed to foreign competition relative to China with which it is often compared. This is the result of the authorities protecting local retailers. Local players are aggressive in their lobbying efforts, contending that local jobs will be lost if foreign companies like Wal-mart are allowed to operate in India. Wal-mart currently does not have a presence in India. At last count it was in 30 cities in China. The local retail landscape is still characterised by local shops and street shops, the vast majority family owned and run.

According to The Economist, the proportion of retail chains was just 3% of the total retail offering in India in 2004. The scope for growth is clear. However, foreigners can only have ownership of up to 51% in their direct investment – a strategy not suited to many overseas firms that don't like the JV approach.

Fig 44 Major funds chasing the Indian property sector

Fund	Size (US$ m)
Goldman Sachs proprietary India Fund (partly for real estate)	1000
ICICI India Advantage Fund	800
HDFC India Real Estate Fund	720
Horizon International Fund (Pantaloon Group)	350
Citigroup Property Investors	350
India aReit Fund (Piramal Group)	350
AIG Group	300
Deutsche	300
Maia (Malini Alles)	250
3i Group	160
Xander RE Fund LLC	150
Kotak Mahindra	100
Kshitij Venture Capital Fund (Pantaloon Group)	100
Dream Fund (Dewan Housing Finance Ltd.)	100

Source: Macquarie Research, September 2006

Fig 45 Funds deployed so far

Investor	Investee company	Amount (US$ m)	Nature
Citigroup Property Investors	Gera Developers	125	JV 50:50
HDFC India Real Estate Fund	Ansal IT City & Parks	100	Stake-33%
Siachen Capital LLC	Nitesh Estates	100	PE
Capitaland	Runwal Group	100	JV 49:51
Laing O'Rourke	DLF	100	50:50 JV
Morgan Stanley	Mantri Developers	68	PE
Morgan Stanley	Alpha G Corp	65	PE
3i Group	Suntech group	41	PE
India aReit Fund (Piramal Group)	Suntech group	13.6	PE

Source: Macquarie Research, September 2006

Unravelling the rules and regulations

In this section, we aim to bring together all the relevant rules and regulations that have a major impact on India's real estate market. We also include thoughts on what we see as changing in the short-to-medium term and how that will impact real estate markets.

There are a myriad of state and national real estate laws in India. While many are being improved or repealed, trying to navigate through them can be difficult. The main implication is clear – local developers are best placed from a regulatory perspective. Foreign developers are generally best placed (there are exceptions) to enter the market via a joint venture structure.

It appears also that the cash economy is rife, meaning the rules are often bypassed. The Indian authorities are slowing realising that if taxes or restrictions are too harsh then the participants will find ways around laws via payments not officially registered ('off the books').

For instance, there are signs of the stamp duty being revamped in Delhi. This will involve a reduction in the rate but also a different process of assessment. Instead of the authorities relying on the stamped purchase documentation in order to assess the payable duty, it will appoint independent surveyors to determine the rateable value of the property. In this way it believes the amount of stamp duty actually collected will increase as the tax rate comes down due to the changed procedure.

Urban Land Ceiling and Regulation Act – being repealed… slowly

Enacted in 1976 to reduce land speculation and distribute land to the poor

The Indian Urban Land Ceiling and Regulation Act (ULCRA) was enacted in 1976 to reduce land speculation and distribute land to the poor in urban areas by imposing a ceiling on the amount of land which could be owned by an individual. It imposed a ceiling on the amount of vacant land that any individual could possess in an urban area. In 'A' class cities such as Delhi and Mumbai, this was no more than 500 sqm. The excess land identified was required to be acquired by the central government after compensating the owners and used to provide housing to various sections of the population.

However the Act failed its purpose as it had too many escape routes and could not achieve its objective

However, the Act ended up being unworkable. Sections 20 and 21 of the ULCRA provided a host of loop holes for the land owners who were not willing to part with their land. These sections empowered the state governments to grant discretionary exemptions for a variety of reasons, prompting almost all landowners with excess land to claim such exemptions. The ULCRA thus became a vehicle for corruption. Those who could not or would not "coerce" the relevant authority to provide an exemption went to court, and the acquisition process became fraught with legal battles. Three decades after the enactment of the ULCRA, the government has so far acquired less than 4,000 hectares out of an estimated total amount of 166,000 hectares of excess urban land.

Some states have repealed it while others are yet to

As a result, the central government has repealed this archaic law in 1999/2000, but the state governments have not followed the lead. Some states like Punjab, UP, MP, Rajasthan, Gujarat and Haryana have repealed this act. States like Maharashtra, Karnataka, Kerala and Orissa are yet to act on it. In fact, Maharashtra wants to repeal the ULCRA and enact another one of its own.

Stamp duty so high it promotes avoidance

Stamp duties in India range from 10-15%

One of the many problems challenging the industry is the high stamp duty rates in the Indian states. These range in most Indian cities from 10-15%, payable by the purchaser. States such as West Bengal, Kerala and Bihar levy it as high as 20%. Some states even have a double stamp incidence, first on land and then on its development. Developed countries like Singapore have stamp duty levels of about 1-3%, Australia up to 5% and most others far lower than India. It is imperative that the stamp duty is lowered as otherwise it gives rise to a parallel economy which leads to a huge loss of government revenue.

Reducing stamp duty and registration cost would widen the collection base

Reducing stamp duties will encourage sellers to pay the lower stamp duties, instead of trying to avoid stamp and registration costs. The government collections may also increase due to this lower rate of stamp duty and wider collection base. The high duties have also encouraged unaccounted moneys being used in most real estate transactions in India. Similarly, the registration procedure requires to be made transparent and simple in order to facilitate additions/deletions and to put a check on corruption.

Rent Control Act keeps rents low and buildings badly maintained

Act freezes rent at levels of 1950 and is detrimental to owner

This act is provincial in nature and therefore differs from state to state. However the basic objective of the Act is common to all states. The Act has the effect of freezing rent at a certain level. This is clearly outdated and does not compensate the landlord appropriately. The Act allowed thousands of people to find affordable housing, at rents that were kept frozen at 1950 levels as long as the tenants stayed, (rents could be raised if a new tenant came in).

Low rents are responsible for old and weak buildings

This Act allows tenants to live in the rented flat and pay exorbitantly lower rents. As a result, typical rental yields on residential property in Mumbai for instance are practically negligible. In some cases the amount a tenant extracts from their landlord for vacating the flat is good enough for him to buy another flat in a smaller city. Naturally, the amount a landlord earns from rent is not enough to pay the costs of maintenance on his aging building. As a result the tenant stops maintaining it and does not carry out repairs. The building often deteriorates to a state of disrepair. This is particularly evident when travelling through India.

The unusual thing about this state of affairs is not just that tenants pay extremely low rents. They also want their landlords to carry out repairs and keep their buildings in shape. Obsolete tenancy and rental control laws keep a large number of the urban properties off the market. As a result real estate prices are so inflated (via restricted supply) that many tenants can never hope to move from their rent-controlled flats. So they have no option but to stay.

Why is the Act not done away with?

Tenants form the major vote bank

Since the number of tenants out number the number of landlords, the low rent the Act has them paying outweighs all other considerations. So any government that is considering repealing the Act will promptly lose the votes of millions of tenants. It will probably gain the votes of landlords, but in India tenants far out number landlords.

Implications for the property industry are many

The act has significant implications for the property industry:

- As mentioned, a key implication is that the general maintenance of investment properties is poor with little reinvestment;
- Developers always put their properties up for sale rather than rent;
- Buyers look at residential properties as plays on capital appreciation rather income yield. Rental yields are low and hence won't serve as a support for prices should the scope for capital gains reduce;

Mill Owners Act being unwound… slowly

According to municipal rules—the Bombay Industrial Relations Act 1946 and the Factories Act 1948, the mill lands are reserved for industrial use only. They were mostly given to the mill owners at cheap rates by the British colonial government in Bombay in the early twentieth century to promote industrial production - mostly cotton manufacturing.

However in 1991, the city's land regulation laws were amended to allow 'development' of the mill lands. The Development Control Rules (DCR) of 1991 and subsequent amendments in 2001 paved the way for the lease or sale of a portion of mill land to private builders and to city authorities for infrastructure projects to 'modernise' India's financial and industrial hub.

Until 2003 an insignificant amount of development took place as the mill owners felt that the DCR was not favourable. As a result, in 2003 the Urban Development Ministry issued a 'clarification' reinterpreting the 2001 amendment in favour of the builder-mill lobby. That is until the citizens of the city protested and the Mumbai High Court in its order upheld the original 2001 amendment. Finally in March 2006 the Supreme Court upheld the 2003 clarification by Urban Development Ministry.

Now 58 mills spread over 602 acres of prime land will be developed into commercial spaces, shopping malls and high-end apartments.

Increased supply in central Mumbai might slow price growth rate

Though this Supreme Court order was a big plus for property developers in Mumbai, it might turn out to be a positive for buyers in Mumbai as they are constrained from buying houses at the moment by increasing real estate prices.

It is expected that anything up to 20m sqf of surplus textile mill land will be released over the next 18 months, both for commercial and residential development. This is expected to accelerate the transformation of the once-industrialised central Mumbai belt into a residential and commercial hub, and offer high-quality property at relatively reasonable prices. However, while some land will be released over the next 18 months, this

This latest judgement provides an opportunity to foreign developers and investors who have been looking for investments in the financial capital of India. The additional supply could assist in bringing average prices down. However, given the likely lift in quality in these new areas this is by no means a certainty. According to real estate consulting firm Knight Frank India, the financial capital of India has only 0.03 acres of open land per 1,000 people, which is among the lowest ratios in the world.

Fig 46 The soon to be released Mills Land in Mumbai – 5.5m sqf of potential residential area

Source: Macquarie Research, October 2006

The following table shows further details of the Mills Land in Mumbai. As previously noted, certain land has been allocated to commercial, residential and mixed use development. The total potential GFA is 5.5m sqft. While most of the land is likely to be released in the next 18 months, we don't expect full development of the sites to be completed for another five-to-ten years.

Fig 47 Development plan of private mills

Mill Name	Location	Project Name
Commercial Development		
Ruby Mills	Dadar (W)	Ruby Corporate Park
Raghuvanshi Mills	Lower Parel	Commercial Bldgs
Victoria Mills	Lower Parel	Oasis Complex
Morarjee Gokuldas	Parel	Peninsula Centre
Morarjee Gokuldas	Lower Parel	Peninsula Park
Kamala Mills	Lower Parel	Commercial Complex
Brady Mills	Mahalaxmi	Brady Plaza
Residential Development		
Modern Mills	Mahalaxmi	Belvedere Court - GESCO Corp
Khatau Mills	Byculla	Unnamed - Marathon Group
Simplex Mills	Mahalaxmi	Planet Godrej
New Great Eastern Shipping	Byculla	Unnamed - Mahindra GESCO
Swan Mills	Sewri	Ashok Gardens - Piramals
Srinivas Cotton Mills	Lower Parel	Unnamed Lodha - Group
China Mills	Sewri	Unnamed - Dosti Group
Matulya Mills	Lower Parel	Casa Grande - Ashford Housing
Standard Mills	Prabhadevi	Beaumonde - Sheth Builders
Crown Mills	Lower Parel	Unnamed - Raheja Universal
Mixed-use Development		
Shree Ram Mills	Worli	Commercial & retail
Hindustan Spinning	Mahalaxmi	Residential Commercial and Retail
Mafatlal Mills	Lower Parel	Commercial and Retail
Phoenix Mills	Lower Parel	Residential Commercial and Retail
Piramal Spinning	Lower Parel	Marathon Innova/ Next Gen
Bombay Dyeing	Worli	Commercial and Retail

Source: Macquarie Research, September 2006

Foreign Direct Investment (FDI) quite restrictive

The foreign investor must have a Joint venture (JV) with Indian partner(s)

Limited foreign investment is permitted in the real estate sector, except for development of integrated townships and settlements where FDI is permitted with prior Government approval. The foreign investor must have a Joint venture (JV) with Indian partner(s). The foreign investor should have a fully owned subsidiary in India and should also be registered under the Indian Company Act (ICA), 1956. The foreign investor should have a record of successful execution of related projects.

The clear implication here is that relative to, say, China, India has been quite closed to foreign direct investment. This is possibly the most lively real estate debate today in India. There is a very strong lobbying effort by local retailers in particular to keep the status quo. Wal-Mart for instance does not have a presence in India while it has 60 stores in 30 cities in China. While there are certain noises in the market today about this changing, we don't believe major change is imminent.

Non resident investments (NRI) are allowed, subject to certain conditions, to invest in the following activities:

- Development of serviced plots and construction of built up residential premises.
- Investment in real state covering construction of residential and commercial premises including business centres and offices.
- Development of townships
- City and regional level urban infrastructure facilities, including both roads and bridges.
- Investment in manufacture of building materials, which is also opened to FDI.

Specifically, guidelines include:

- **Land area -** 10 ha of minimum area (for serviced housing plots), and 5 Ha for development under a JV;
- **Built-up area -** minimum 50,000 sqm, and 25,000 sqm for projects under JV. Minimum capital norms of US$10m for wholly owned subsidiaries, and US$5m for JV with Indian partners. In addition;

⇒ 50% of integrated project- to be complete within five years from the date of possession of land.

⇒ No permission to sell undeveloped plots.

⇒ Lock-in period to be three years from the date of completion of minimum capitalization.

⇒ The foreign developers / partners can exit before three years, but with prior approval of the FIPB.

⇒ The state government / municipal / local body concerned, would monitor the concerned project.

NRIs are permitted to invest up to 100% in the new issue of equity shares / debentures of Indian companies engaged in the following areas:

- Development of serviced plots and construction of residential premises.
- Real estate covering construction of residential and commercial premises including business centers and offices.
- Development of township. Manufacture of building Material.
- Financing of housing development

An Indian citizen who is an off shore resident does not require any permission from the Reserve Bank of India for purchasing a property, residential or commercial. In case of NRIs holding a foreign passport, the filing of relevant documents and declarations has to be done with the Reserve Bank of India. Normal banking channels are applicable. Also an NRI can earn by renting out his/her property in India. However, the proceeds out of this lease is taxable.

This set of foreign investment rules are in place now after being changed in 2005. A full list of the changes is outlined in the table that follows.

Fig 48 FII Regulations

Asset Class	Previous Regime	2005 Regime	Comments
Office	Foreign investment not allowed in pure office developments – as being different from IT and business parks.	Foreign investment is allowed in city centre or suburban office buildings even if the occupiers were not classified as forming part of the IT/ Back office sector.	However, under the new regime, such an investment is allowed only at the construction stage and for projects of proposed built up area of a minimum of 50,000sqm.
IT/Business Parks	100% foreign investment allowed in IT / Business parks approved under Industrial Parks Scheme 2002 (whereas in reality, suburban office buildings have been occupied only by IT companies or by companies engaged in back office processing activity)	No Change	In the previous regime, foreign investment was allowed in IT Parks at the construction stage, subject to that such parks proposed to provide space to at least 3 tenants. Under the new regime, even facilities that are proposed to be occupied by a single tenant only are eligible for foreign investment at the construction stage but subject to a proposed minimum built up area of 50,000 square metres. Thus, foreign investors can now invest even in part of a business park or a standalone office facility dedicated to a single tenant at the construction stage, provided the proposed minimum built up area of 50,000 sqm.
Residential	100% foreign investment in residential asset class was allowed under the ambit of Press Note 3 (2002 Series) only in townships of a size of minimum of 100 acres planned with a minimum of 2,000 dwelling units.	100% foreign investment is allowed in any kind of residential development subject to a minimum proposed built up area of 50,000sqm. Though such an investment needs to be greenfield in nature and not in acquisition of a developed property.	100% foreign investment apart from being allowed in development of residential properties, is also allowed in development of plotted housing projects. Plotted housing projects are defined as projects wherein investor acquires raw land and provides for infrastructure (power/utilities) and further sells down individual plots within such a development to individual home owners who may develop their own houses. In order to be eligible for foreign investments, the minimum size of land for such developments should not be less than 10 hectares.
Hotels/Services Apartments	100% foreign investment allowed in development or acquisition of existing assets	No Change	The regime for hotels, resorts and serviced apartments was always opened to foreign investments. Hence February 2005 announcement has no impact on the said asset class.

Fig 48 FII Regulations

Asset Class	Previous Regime	2005 Regime	Comments
Industrial/Logistics/ Warehousing	Framework of foreign investment by intl. investors (and not just international occupiers themselves) was unclear in nature.	100% foreign investment is allowed in development of such facilities even by international investors.	However, such an investment by foreign investors would be allowed only at the construction stage, subject to a proposed minimum built up area of 50,000sqm.
Shopping Centres/Malls	Foreign investment was not allowed in shopping centres/malls.	100% foreign investment is allowed in development of such facilities by international investors.	However, such an investment by foreign investors would be allowed only at the construction stage, subject to a proposed minimum built up area of 50,000sqm. It may be noted that there has been no change in the government's policy to not allow international retailing companies to establish operations in India.
Townships	100% foreign investment allowed, under the ambit of Press Note 3 (2002 Series), only in townships of a size of minimum of 100 acres planned with a minimum of 2,000 dwelling units.	100% foreign investment continues to be allowed in townships.	Previously, plotted housing projects were not eligible for foreign investment. The new regime allows foreign investment even in plotted housing projects subject to a minimum land size of 10 hectares (i.e. approximately 25 acres).
Special economic Zones (SEZ)	100% foreign investment was allowed in real estate development within SEZ projects.	100% foreign investment was allowed in real estate development within SEZ projects.	The regime for real estate components of the SEZ schemes was always open to foreign investments. The February 2005 announcement has no impact on the said asset class.

Source: JLL, Macquarie Research, August 2006

Unlisted real estate funds now prolific

From April 2004, Securities Exchange Board of India (SEBI) permitted high-risk capital, Venture Capital Funds to invest in real estate. Several large financial firms and private equity funds have launched exclusive funds targeted at the real estate sector. This has paved the way for organized debt and equity instruments and the establishment of Real Estate Funds (REFs). Examples are listed in the following table. Indeed, feedback from recent visits to India is that there is no lack of capital trying to find its way into India real estate. The biggest difficulty is finding the projects to invest in and developers with adequate experience.

While most of the funds are targeting institutions as their investors, high net worth individuals (HNIs) are also forming an important part of these funds. The minimum investment required is around US$10,000. The funds are closed ended, therefore limiting the exit strategies for the investor. Once REITs are introduced (more on that later), there will be more exit options. The target IRRs of these funds range from 15% to as high as 30%.

Fig 49 Major land transactions

Purchaser	Location	Land size (acres)	Size (US$ m)
DLF	Kolkatta	4,900	583
Adani Group	BKC, Mumbai	48	500
Unitech	Noida, Delhi	340	350
Unitech	Noida Expressway	340	342
Reliance Group	BKC, Mumbai	18	250
DLF	Mumbai Textile Mills	17.5	155
Parsvnath	Chandigarh	180	123
Unitech	Greater Noida	100	120
Kenneth Builders	Delhi	36	100
India Bulls	Elphinstone Mills	Mill	95
Matoshree/Kohinoor	Kohinoor Mills	Mill	90
Emaar MGF	New Town, Kolkata	6	47
DLF	Uppal, Hyderabad	12	27

Source: Macquarie Research, September 2006

The introduction of REMFs… still waiting

India's regulators have recently indicated that guidelines for Real Estate Mutual Funds (REMFs) are imminent

India's regulators have recently indicated that guidelines for Real Estate Mutual Funds (REMFs) are imminent. That was four months ago and we are yet to see the detail. The facts continue to be scarce but we believe the REMFs will be limited life, listed real estate vehicles that will invest in a mix of direct property, unlisted real estate funds and listed real estate companies. They seem to us a little like Australian Listed Investment Companies (LICs). Given their structure they will be probably be valued on an NAV basis, pay a dividend yield above the prevailing market level (but below what we would expect from a REIT) and have some mechanism for renewal at the end of the fixed term.

The objective here appears to provide retail and institutional investors with a way to invest in real estate in the listed environment. Previously investors have had to invest in the few listed developers with investment in unlisted real estate funds and direct property being the domain of high net worths and institutions. This objective is different to the key objectives surrounding REIT markets. REITs aim to provide stable, sustainable cash flows from primarily rental property. REMFs won't necessarily provide this.

From our discussions with the regulators, it appears REMFs will take the place of REITs for now. On first glance this appears a sound move and a logical first step. At this moment there is still a lack of investment grade real estate in which we would normally see REITs invest. It is for this reason that we believe it is probably a little too early to expect REITs to be a major force in India. This will change of course over time. However for now multi purpose listed real estate vehicles may be better suited to this market. As we have previously written, for a true assessment of the success of otherwise of REMFs we await the release of the full set of guidelines.

The rise of the SEZ

When in India last month, we saw two newspapers that had special features on the rise of the Special Economic Zone or SEZ. The emergence in recent times, of SEZs in their new form in India, makes for a significant leap in the activities and scope of investors. It appears modelled along similar lines of the successful Chinese format to promote exports, attract FDI and encourage overall economic growth. With the promise of an internationally competitive hassle-free business regime, and significant fiscal incentives, the new SEZ scheme is set to focus on supporting the development of specific industrial clusters.

It is anticipated that the new SEZ regime will trigger a large flow of domestic and foreign investment into India, which should lead to the generation of additional economic activities and employment in India. However, a word of caution. There are still many rules and regulations on a national and provincial level that are as yet to be resolved. The administration required for the SEZ set up is significant. Our impression is that while the establishment of SEZs is undoubtably positive, making money from them for property developers will probably take longer than the market currently anticipates.

What's a SEZ and where did they come from?

According to KPMG, the concept was first envisioned by China in 1970

According to KPMG, the concept was first envisioned by China in 1970 with an aim to initiate development in economically backward areas of the country. The government had declared a few areas as "development technology promotion zones" to promote transfer of superior foreign technology. The government also offered various fiscal incentives, flexible labour laws and favourable foreign ownership laws. The focus was a clear promotion of export activity. The concept was a success and was copied with modifications in other countries in South East Asia and South America.

Fig 50 Foreign SEZs

Location	Area (sq. km)
Thailand	134
Jebel Ali	100
Shenzen	320
Singapore	620
Phillipines	162

Source: KPMG April 2006, Macquarie Research, September 2006

According to KPMG, SEZs have become an important part of the Chinese economy. SEZs now account for 12% of the country's GDP and SEZ exports account for 40% of China's total exports.

Still early days…

SEZ development in India is in its infancy and the detailed guidelines are not set in stone at this stage. However, there are complications. What happens to the value of land that is nearby and is not zoned as a SEZ? It will surely drop significantly in value? In our discussions with various parties, the tax benefits are brought up regularly and in our view the tax concessions are the main incentive for developers. The Finance ministry and the Central Bank have expressed their concerns on the potential revenue loss due to the tax free status and also due to Overseas Business Unit (OBU) status awarded to banks operating within SEZs.

In October it was reported that the Commerce Ministry has taken strong exception to a recent RBI order to banks for treating lending for special economic zones as exposure to commercial real estate. This, it said, contradicted the RBI's own Annual Report which had said that SEZs would lead to massive investments and improvement in infrastructure. Questioning the equating of SEZs with real estate, the ministry, in a letter to the central bank, asked it to share with it any instance where "SEZ development has taken place only as real estate activity." While not necessarily a major issue it shows that the Indian market is still adapting to the on-set of the SEZ structure.

Fig 51 SEZ tax benefits

Particulars of Participants	Available fiscal benefit
A 'Developer' is a person who has received approval for developing an SEZ. The developer owns / leases the requisite land, develops infrastructure and invites entrepreneurs to function within the SEZ. However, a developer is not permitted to sell the land in the SEZ.	▪ Income-tax is 100% exempt for 10 consecutive years in a block period of 15 years ▪ Relief from Minimum Alternate Tax (MAT) provisions ▪ Exemption from Dividend Distribution Tax on dividends declared ▪ A host of other exemptions from customs duty, excise duty, service tax, central sales tax, research & development cess, all state and local taxes including Value Added Tax (VAT), and stamp duty
A 'Unit' (includes branch of a non-resident) is one set up by an entrepreneur, carrying on business (Manufacturing, Services including Trading (restricted) and sub-contracting on behalf of a foreign principal) functioning in the SEZ.	▪ 100% income-tax exemption for the first 5 years, 50%, unconditional, for the next 5 years, and 50%, conditional, for the subsequent 5 years. ▪ MAT is exempt ▪ Entitled to similar indirect tax benefits as in case of a Developer, with reference to the authorized business operations carried through the SEZ ▪ Is required to 'export', a term liberally defined, without a prescribed threshold, and earn positive 'net foreign exchange', cumulatively over a period of five years
An 'Offshore Banking Unit (OBU)' is a branch of a bank (including a foreign bank) carrying on wholesale banking operations in an SEZ.	▪ Income-tax is 100% exempt for the first 5 years and 50%, unconditional, for the next 5 years. ▪ Exemption from maintaining Statutory Liquidity Ratio and Cash Reserve Ratio subject to certain conditions ▪ Exemption is available from MAT, and the other various benefits applicable to a unit
An_'International Financial Service Centre' (IFSC), though not defined under the SEZ law, is conceived as a provider of multiple financial and related services to Units in an SEZ.	▪ Income-tax would be 100% income-tax exempt for the first 5 years and 50%, unconditional, for the next 5 years ▪ Exemptions from MAT and stamp duty and other indirect tax benefits are available ▪ Non-residents are exempted from levy of Securities Transaction Tax on transactions executed through an IFSC

Source: KPMG, September, 2006

Presently there are already 13 SEZs operational in India and more than hundred proposals in pipeline.

Fig 52 SEZ already operational in India

Name of the SEZ	Size (Acres)	Sector
Indore SEZ	2,600	Multiproduct
Mahindra City, Chennai	841	IT, Hardware, Auto, Apparel and Fashion Accessories
Vishakapatnam	560	Multiproduct
Kandla SEZ	280	Chemical, Engineering, Apparel, Plastic etc
Falta SEZ	280	Multiproduct
Noida SEZ	125	Electronic, Engg, Apparel, Chemical, Leather etc
Jaipur SEZ	110	Gems & Jewellery
MEPZ SEZ	109	Engg, Leather, Garments, Chemical, Food, Yarn etc
Surat SEZ	108	Diamond cutting, IT, Hardware, Pharma, Chemicals etc
Cochin SEZ	105	Multiproduct
SEEPZ SEZ	40	Hardware, Gems & Jewellery, Software
Salt lake electronic city	16	Software development and ITES
Manikanchan SEZ	5	Gems & Jewellery

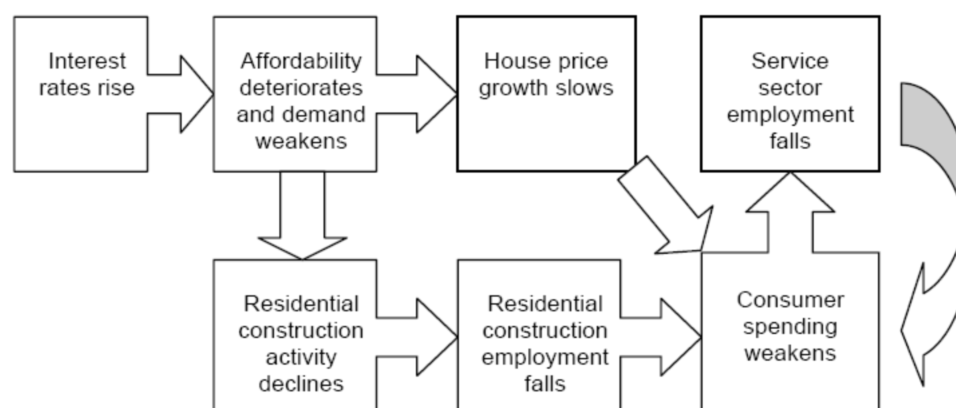
Source: Ministry of Commerce & Industry,

Key risks

Property story is heavily based on overall market growth

A slowdown in economic growth in India could dampen the euphoria surrounding the sector. The economy is dependent and hence could be severely affected by various factors such as political or regulatory intervention, including unfavourable changes in liberalisation policies, social disturbances and other acts of violence or war, natural calamities, commodity and energy prices and various other factors. The real estate sector is significantly impacted by changes in socio-economic factors like demographic trends, employment & income levels and interest rates, among other factors. These factors can negatively affect the demand for and valuation of the sector.

Fig 53 Potential interest rate impact



Source: Macquarie Research, November 2006

Rising mortgage rates and stricter RBI regulations

However, interest rates in India are heading north, which could discourage consumers from borrowing

Lower interest rates on housing finance from India's retail banks and housing finance companies and favourable tax treatment of loans, have helped fuel the recent growth of the Indian real estate market especially residential. However, interest rates in India are heading north, which could discourage consumers from borrowing to finance real estate purchases and depress the real estate market. Additionally, regulations like stricter provisioning increased risk weightage norms imposed by the RBI in relation to real estate loans could reduce the attractiveness of property or developer financing. RBI or the GoI may take further measures designed to reduce or having the effect of reducing credit to the real estate sector.

Infrastructure improving but still a significant issue

Travel through India is still a bumpy ride. All modes of transportation are in desperate need of modernisation, roads are congested, airports are not up to date and while rail is the preferred mode of travel for most, Mumbai for instance does not have enough rail tracks for a city of 15m plus people. For an office asset to be classified as A Grade, it must have its own water tanks and back-up power generator as government-provided services are not reliable. Water supplies have a 'waste' factor of 50% due to unauthorised diversions from government-laid pipes. Partly as a result of this floor space ratios (FSR) across the country are generally <2:1 as current infrastructure cannot keep up with development potential.

Though the real estate sector is growing at a blistering 30 per cent annually, cities in India are crumbling with little or non-existent infrastructure, traffic snarls and increasing pollution: all a result of haphazard or no urban planning. This is apparent in Tier II and Tier III cities that are seeing so much real estate action for the first time.

Cities around the globe have been through major transformations in the past decade in order to remain magnets for business and growth. While some have undertaken impressive redevelopment programmes, others are creating new models such as multi-core urban zones to reduce congestion. Dubai, Beijing, Hong Kong, Bangkok, Tokyo and Singapore are key examples. Mumbai, the financial powerhouse of India, houses the headquarters of some of India's and the world's most respected corporations and institutions. There is no dearth of visions for Mumbai city, but what is lacking is effective implementation. Public investments with Central help and State facilitation need to leverage private investments.

Regionally fragmented market

Although likes of DLF and Unitech are rolling out pan India, yet real estate market in India remains largely unorganised and fragmented with a handful of real-estate developers dominating a city / region. Going national is difficult to do and few, if any, developers have done it successfully. Property regulations are very much state based. The key reason has been importance of understanding of local market and environment. It also can be a matter of 'who you know', not 'what you know', particularly in Tier II and Tier III cities. New entrants will likely take a while to understand these local nuances.

Transparency levels are improving yet far from international standards

Real estate sector in India has traditionally been unorganised

Real estate sector in India has traditionally been unorganised involving illegal transactions to evade tax or utilise their unaccounted money. However this trend is witnessing a decline mainly due to a change in buyer profile (larger proportion of buyers are end users), increasing easy availability of housing finance which would obviously not fund the cash component and favourable changes in the stamp duty law. Additionally property transactions, ownership records as well as land titles are unclear and the legal system is fraught with loopholes. Also in the building industry, standards are not uniform or enforced. .

Restrictions on foreign direct investment in the real estate sector

While the GoI has permitted FDI of up to 100% without prior regulatory approval in townships, housing, built-up infrastructure and construction and development projects, but such investments are subject to certain restrictions like minimum built up area and minimum capitalisation. Similarly for capital repatriation, investors need to apply for approval from the RBI.

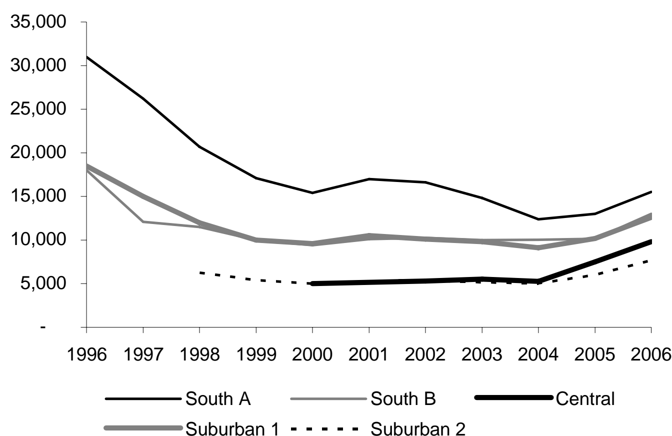
Such laws have been liberalised of late but foreign retailers can only enter India independently in 'single brand' retail outlets. FDI in retail was allowed in China in 1992. Retail sales have grown at a CAGR of 13.5% since then. Sales showed CAGR of 19.5% for 1992–1996. Initially it was restricted to six major cities and SEZs in addition to specific ownership levels. There is evidence that FDI lifts employment levels, reduces prices, grows the overall retail pie and adds significantly to the government's tax take. Local retailers are no doubt opposed to further liberalisation as are certain elements of the government. The press reports that leftist elements of the government continue to be against further liberalisation. Therefore foreign direct investment is restricted to a limited set of opportunities.

Appendices

Market snapshots - Mumbai

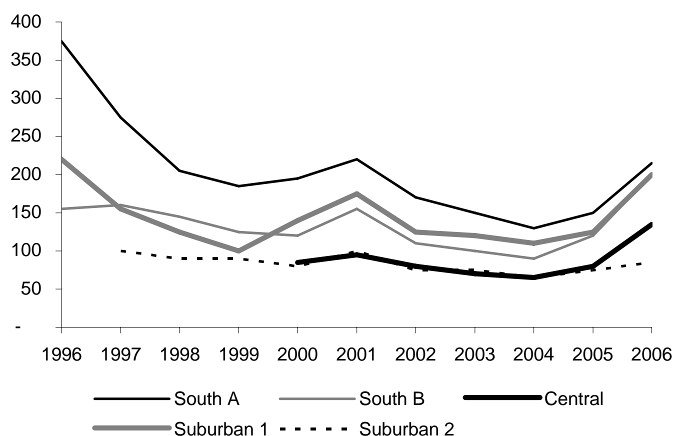
A total of 7m sqf. of Grade A and B space is expected to be constructed across the city in 2006. According to the current time lines, an additional 2.5m sqf of space is expected to come up in 2007-08. The total stock of Grade A and B buildings in Mumbai is currently 28m sqf. The suburban markets of Andheri (E), Powai and Malad which form the hub of IT/ITeS operations in the city currently has a total stock of 12.6m sqf. These areas are also witnessing the highest levels of construction activity totaling to 5.4m sqf, which is slated to be completed over 2006-07.

Fig 54 Prime capital values – Mumbai office district



Source: Cushman & Wakefield, Macquarie Research, August 2006

Fig 55 Prime rentals – Mumbai office districts



Source: Cushman & Wakefield, Macquarie Research, August 2006

Fig 56 Mumbai Grade 'A' Office Rental values

	Achievable Lease Rents			% Change from		
	US$/Sqf/ Yr	Euro/Sqm/ Yr	INR/Sqf/ Month	3M Ago	1 Yr Ago	Peak (1995)
South (CBD-Nariman Point)	64	543	245	9%	73%	37%
Central (Worli)	65	554	250	25%	117%	67%
Central (Lower Parel)	52	443	200	33%	135%	NA
Suburban (Bandra Kurla)	68	576	260	30%	132%	21%
Suburban (Andheri)	25	210	95	6%	32%	NA

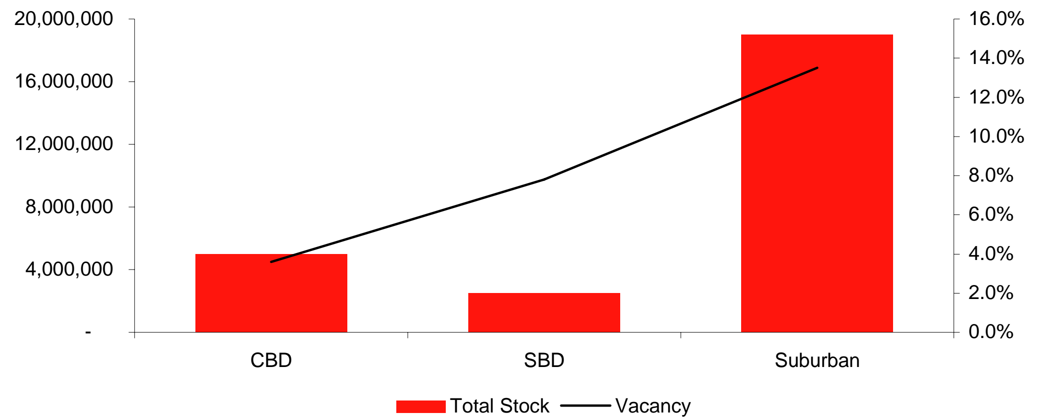
Source: Cushman & Wakefield, Macquarie Research, September 2006

Fig 57 Mumbai Grade 'A' office rental values

	Capital values			% Change from		
	US$/Sqf	Euro/sqm	INR/Sqf	3M Ago	1 Yr Ago	Peak (1995)
South (CBD-Nariman Point)	434	3,692	20,000	0%	51%	-34%
Central (Worli)	391	3,323	18,000	0%	64%	0%
Central (Lower Parel)	326	2,769	15,000	0%	94%	NA
Suburban (Bandra Kurla)	478	4,061	22,000	5%	115%	20%
Suburban (Andheri)	185	1,569	8,500	0.00%	34%	NA

Source: Cushman & Wakefield, Macquarie Research, September 2006

Fig 58 Mumbai office stock & vacancy data



Source: JLL, Macquarie Research, July 2006

Fig 59 Mumbai residential rental values

	Achievable lease rents*			% Change from		
	US$/Yr	**Euro/Yr**	**INR/Month**	**6M Ago (Dec'05)**	**1 Yr Ago**	**Peak (1995)**
South A	54,747	43,217	210,000	5%	31%	5%
South B	65,175	51,449	250,000	4%	20%	9%
Central	48,229	38,072	185,000	0%	23%	16%
Suburban 1	48,229	38,072	185,000	5%	42%	54%
Suburban 2	24,766	19,551	95,000	5%	46%	NA

Source: Cushman & Wakefield, Macquarie Research, September 2006

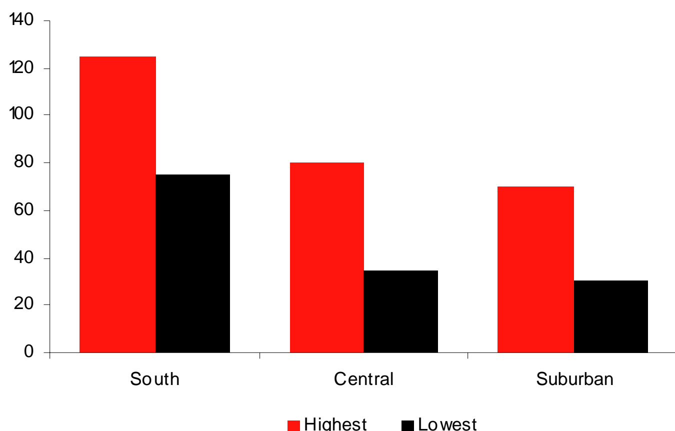
The rates are given for standard 1,400 -2,000 sq. ft. apartments

Fig 60 Mumbai Residentail Capital Values

	Capital Values (Gross)			% Change from		
	US$/Sqf	**Euro/Sqm**	**INR/Sqf**	**6M Ago (Dec'05)**	**1 Yr Ago**	**Peak (1995)**
South A	434	3,692	20,000	0%	38%	-5%
South B	500	4,246	23,000	0%	28%	-4%
Central	358	3,046	16,500	3%	32%	10%
Suburban 1	261	2,215	12,000	0%	33%	37%
Suburban 2	114	969	5,250	11%	40%	NA

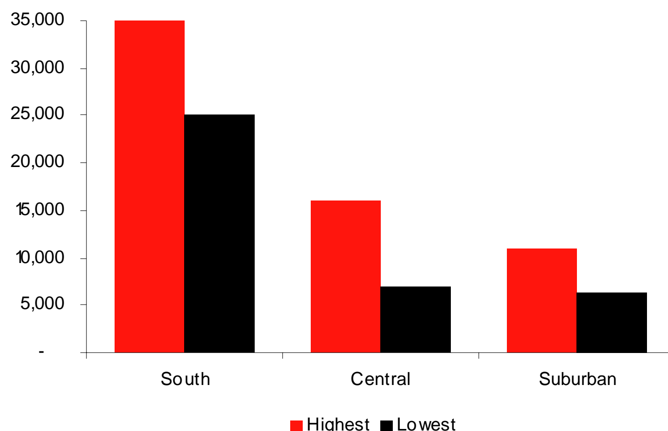
Source: Cushman & wakefield, Macquarie Research, September 2006

Fig 61 Mumbai residential - rental values



Source: JLL, Macquarie Research, July 2006

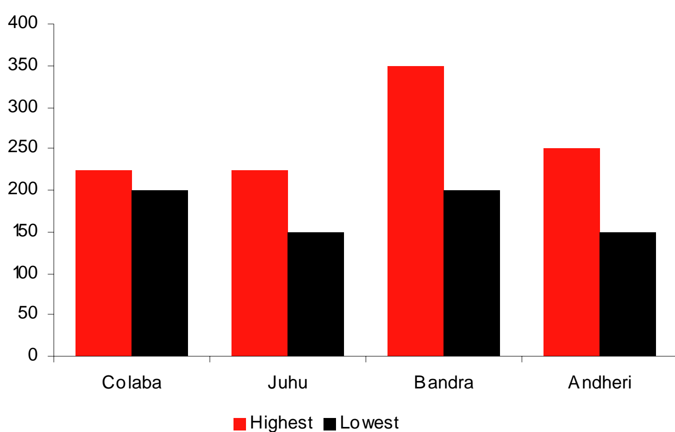
Fig 62 Mumbai residential - capital values



Source: JLL, Macquarie Research, July 2006

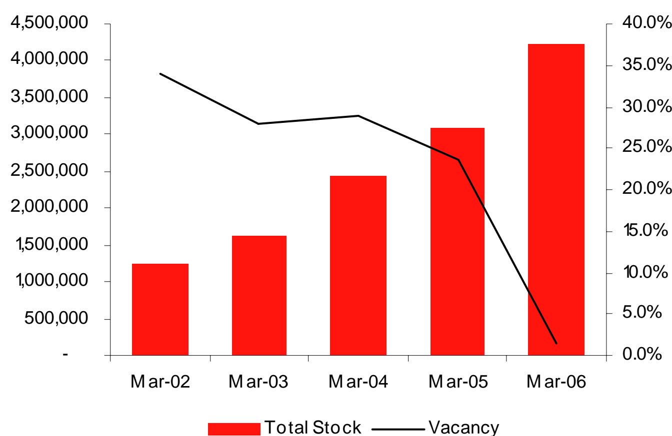
The city has been witnessing robust demand across high streets and malls in 2005. On an average about two third of the mall is pre leased prior to its completion

Fig 63 Mumbai retail rentals



Source: JLL, Macquarie Research, July 2006

Fig 64 Mumbai retail stock & vacancy situation



Source: JLL, Macquarie Research, July 2006

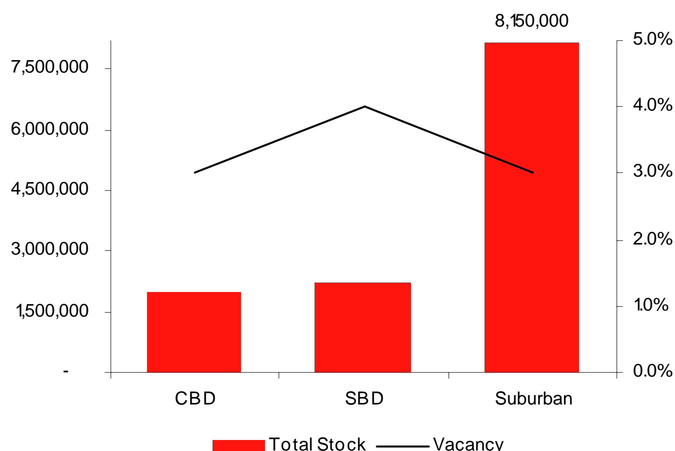
Fig 65 Mumbai market recent major deals

Company	Location	Area (Sq ft)
Gant	Marine Drive	3,000
Ruh	Phoenix Mills	1,000
Bossini	Infinity Mall	3,300
Landmark	Infinity Mall	15,000

Source: Macquarie Research, July 2006

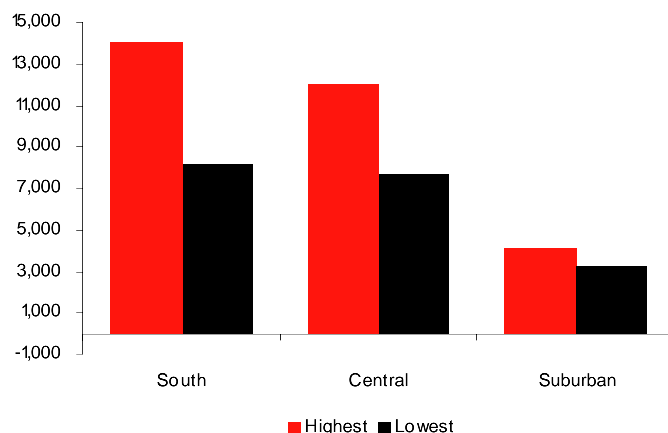
Market snapshots - New Delhi

Fig 66 Delhi - stock & vacancy situation



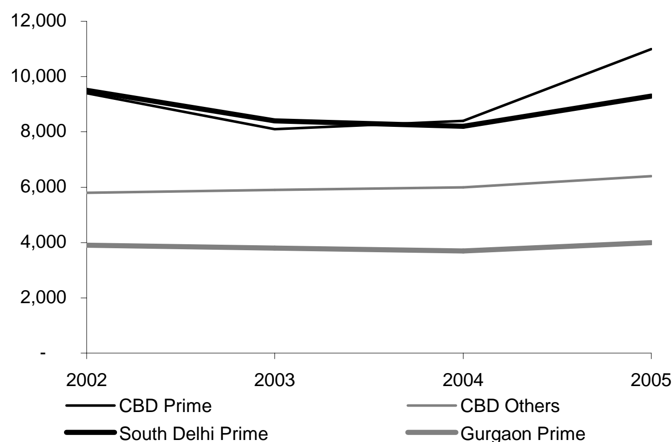
Source: JLL, Macquarie Research, July 2006

Fig 67 Delhi office - capital values



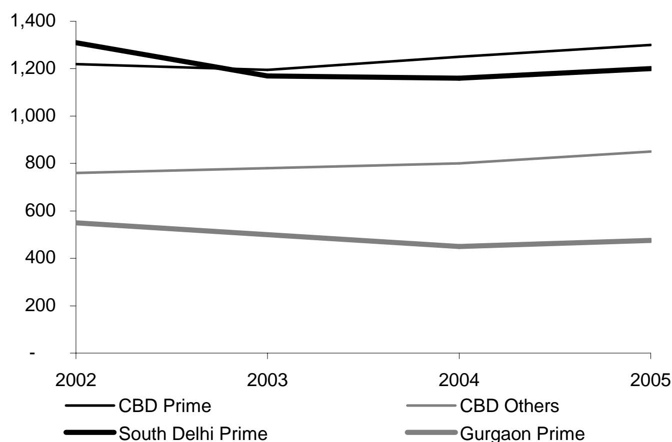
Source: JLL, Macquarie Research, July 2006

Fig 68 Delhi office capital values



Source: Cushman & Wakefield, Macquarie Research, September 2005

Fig 69 Delhi office rental values



Source: Cushman & Wakefield, Macquarie Research, September 2005

Fig 70 Delhi prime office rental values

	Achievable lease rents			% Change from		
	US$/Sq ft/ Yr	Eur/Sq Mt/Yr	INR/Sq ft/M	3M Ago (Mar '05)	1 Yr Ago	Peak (1995)
CBD-Prime	49	414	187	6%	93%	-14%
CBD-Others	39	332	150	12%	120%	51%
South Delhi-Prime	42	361	163	4%	80%	-18%
South Delhi-Micromarkets	28	239	108	4%	65%	36%
Gurgaon-Prime	17	142	64	17%	79%	-49%
Noida-Prime	11	93	42	20%	35%	NA

Source: Cushman & Wakefield, Macquarie Research, September 2006

Fig 71 Delhi prime office capital values

	Capital Values			% Change from		
	US$/ Sq ft	**Euro/ Sqm**	**INR/ Sq ft**	**3M Ago (Mar '05)**	**1 Yr Ago**	**Peak (1995)**
CBD-Prime	601	4,713	25,851	44%	187%	78%
CBD-Others	413	3,098	16,992	50%	194%	45%
South Delhi-Prime	448	3,599	19,739	31%	113%	-1%
South Delhi-Micromarkets	320	2,584	14,171	30%	125%	89%
Gurgaon-Prime	179	1,381	7,575	26%	124%	-39%
Noida-Prime	93	794	4,300	1%	43%	NA

Source: Cushman & Wakefield, Macquarie Research, September 2006

Fig 72 Delhi residentail rental values

	Apartments*			% Change from	
	US$/Yr	**Euro/Yr**	**INR/Month**	**6M Ago (Dec'05)**	**1 Yr Ago**
Central	61,343	47,811	237,500	27%	27%
South A	71,029	55,360	275,000	29%	22%
South B	30,994	24,157	120,000	50%	50%
Suburban 1	26,474	20,634	102,500	86%	86%

* High Quality Apartments, size ranging from 2,000-3,000 sqft

Source: Cushman & Wakefield, Macquarie Research, September 2006

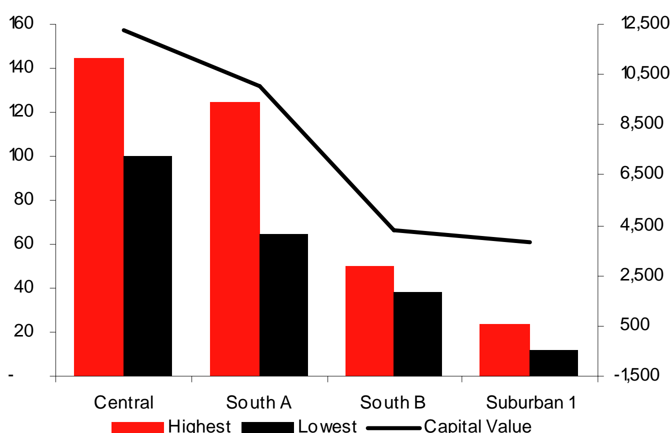
Fig 73 Delhi residential capital values

	Apartments*			% Change from	
	US$/Sq ft	**Euro/Sq ft**	**INR/Sq Yd**	**6M Ago (Dec'05)**	**1 Yr Ago**
Central	570	4,785	26,500	39%	39%
South A	441	3,703	20,500	21%	71%
South B	237	1,986	11,000	5%	47%
Suburban 1	124	1,038	5,750	44%	77%

High Quality Apartments, size ranging from 2,000-3,000 sqft

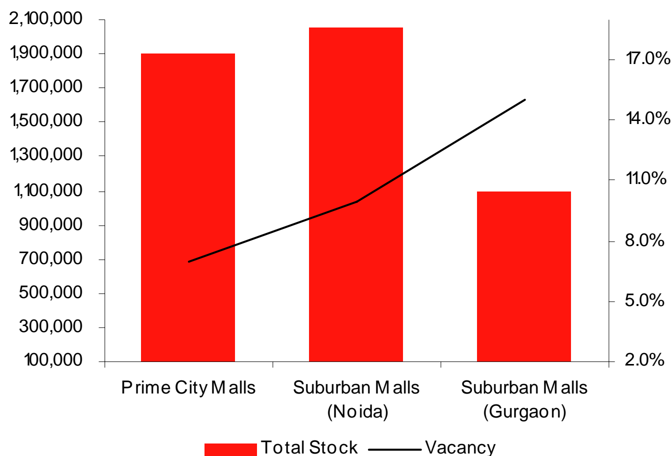
Source: Cushman & Wakefield, Macquarie Research, September 2006

Fig 74 Delhi residential rental & capital values



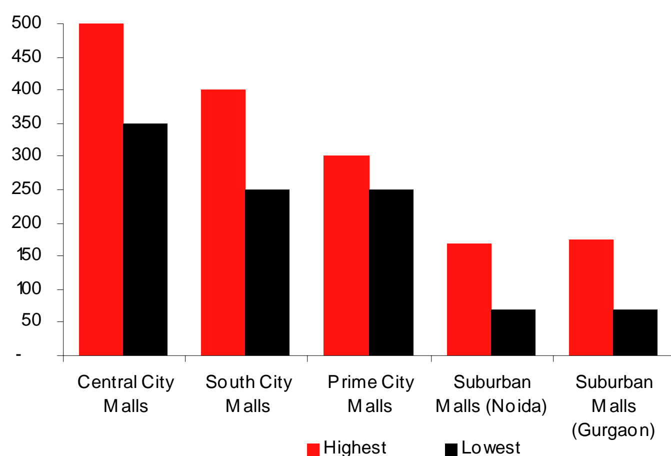
Source: JLL, Macquarie Research, July 2006

Fig 75 Delhi retail - stock & vacancy situation



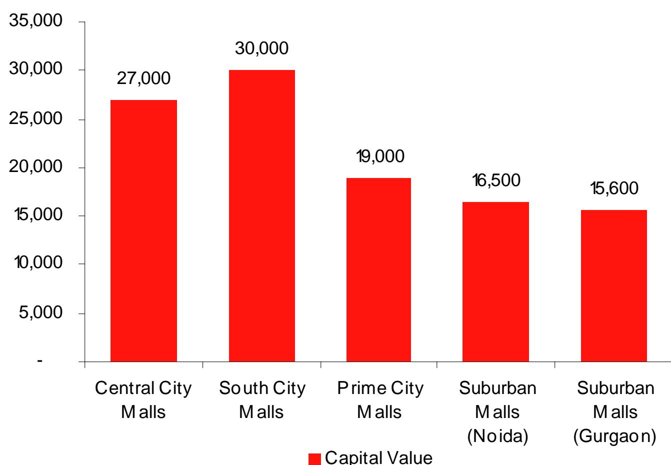
Source: JLL July 2006, Macquarie Research

Fig 76 Delhi retail - rental values



Source: JLL, Macquarie Research, July 2006

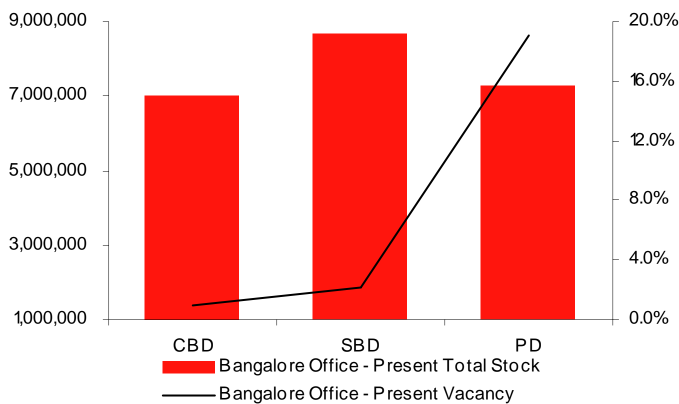
Fig 77 Delhi retail - capital value



Source: JLL July 2006, Macquarie Research

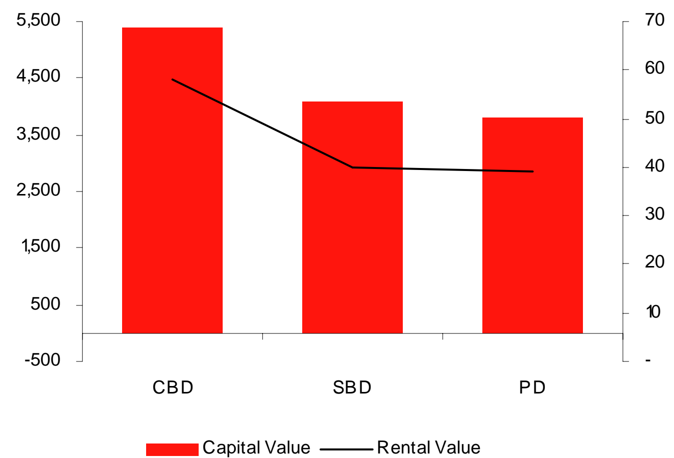
Market snapshots - Bangalore

Fig 78 Bangalore office stock & vacancy situation



Source: JLL July 2006, Macquarie Research

Fig 79 Bangalore office rental & capital values



Source: JLL July 2006, Macquarie Research

Fig 80 Bangalore office rental values

	Average rent			% Change from		
	US$/Sqf/Yr	Euro/Sq-M/Yr	INR/Sqf/M	3M Ago	1 Yr Ago	Peak (Sept'96)
CBD-MG Road	16	135	61	5.2%	22.0%	1.7%
Off-CBD	15	124	56	7.7%	14.3%	9.8%
Suburban	11	91	41	2.5%	10.8%	46.4%
Electronic City	7	60	27	0.0%	-3.6%	NA

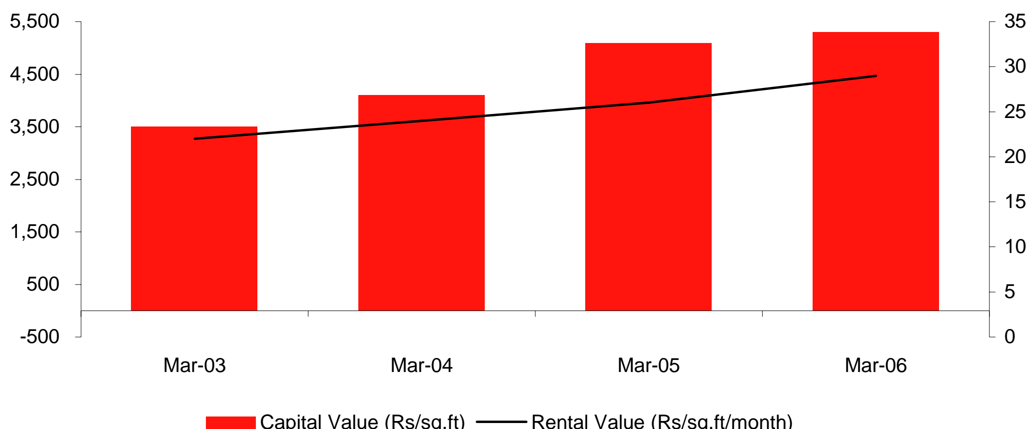
Source: Cushman & Wakefield September 2006, Macquarie Research

Fig 81 Bangalore office capital values

	Average capital value			% Change from		
	US$/Sqf	Euro/Sq-M	INR/Sqf	3M Ago (Mar'06)	1 Yr Ago	Peak (Sept'96)
CBD-MG Road	119	1,015.00	5,500	10.00%	22%	-18.50%
Off-CBD	115	978	5,300	12.80%	33%	-10.20%
Suburban	87	738	4,000	5.30%	14%	60%
Electronic City	50	425	2,300	0%	0%	NA

Source: Cushman & Wakefield September 2006, Macquarie Research

Fig 82 Bangalore residential capital & rental values



Source: JLL July 2006, Macquarie Research

Fig 83 Bangalore residential rental values

	US$/Sqf/Yr	Euro/Sqf/Yr	INR/Sqf/M
Central	39,105	30,869	150,000
North	19,552	15,435	75,000
South	11,731	9,261	45,000
Suburb - South	9,124	7,203	35,000
Suburb - North	6,517	5,145	25,000

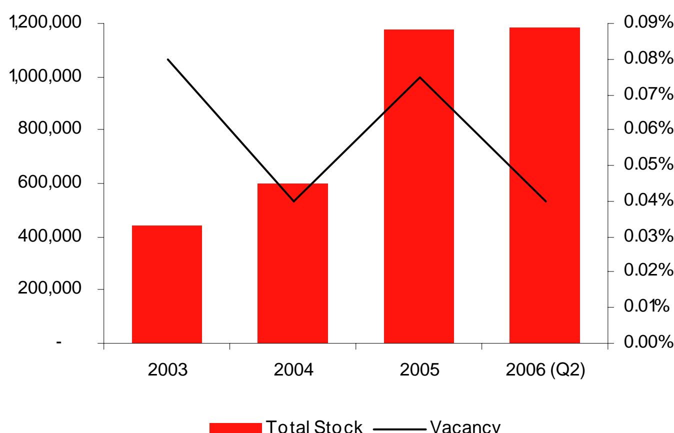
Source: Cushman & Wakefield September 2006, Macquarie Research, November 2006

Fig 84 Bangalore residential capital values

	US$/Sqf	Euro/Sq-M	INR/Sqf
Central	217	1,846	10,000
North	98	831	4,500
South	98	831	4,500
Suburb - South	59	498	2,700
Suburb - North	59	498	2,700

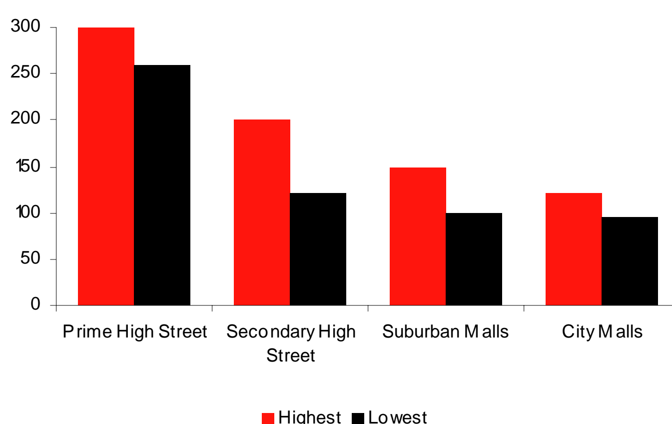
Source: Cushman & Wakefield September 2006, Macquarie Research, November 2006

Fig 85 Bangalore retail stock & vacancy situation



Source: JLL July 2006, Macquarie Research

Fig 86 Bangalore retail rental values



Source: JLL July 2006, Macquarie Research

Market snapshots - Chennai

Fig 87 Chennai office rental values

	Achievable Lease Rent			% Change from		
	US$/Sqf/Yr	Euro/Sqm/Yr	INR/Sqf/M	3M Ago	1 Yr Ago	Mar-01
CBD	13	111	50	0%	19%	11%
Off CBD	11	97	44	0%	16%	26%
Suburban	10	84	38	0%	19%	65%
Peripheral 1	8	71	32	0%	33%	NA

Source: Cushman & Wakefield September 2006, Macquarie Research

Fig 88 Chennai office capital values

	Achievable Capital Value			% Change from		
	US$/Sqf	Euro/Sqm	INR/Sqf	3M Ago (Mar'06)	1 Yr Ago	Mar-01
CBD	113	960	5,200	0%	37%	45%
Off CBD	100	849	4,600	0%	24%	53%
Suburban	85	720	3,900	0%	56%	56%
Peripheral 1	74	628	3,600	0%	36%	NA

Source: Cushman & Wakefield September 2006, Macquarie Research

Market snapshots - Hyderabad

Fig 89 Hyderabad office rental values

	Achievable leasable value			% Change from		
	US$/Sqf/Yr	Euro/Sqm/Yr	INR/Sqf/M	3M Ago	1 Yr Ago	Mar-01
CBD	10	84	38	0%	15%	23%
Off CBD	10	84	38	0%	15%	27%
Suburban 1	9	75	34	0%	10%	17%
Suburban 2	8	66	30	0%	25%	25%
Peripheral	9	80	36	0%	3%	3%

Source: Cushman & Wakefield May 2006, Macquarie Research

Fig 90 Hyderabad office capital values

	Achievable capital value			% Change from		
	US$/Sqf	Euro/Sqm	INR/Sqf	3M Ago (Mar'06)	1 Yr Ago	Mar-01
CBD	67	572	3,100	0%	15%	35%
Off CBD	63	535	2,900	0%	16%	32%
Suburban 1	52	443	2,400	0%	20%	20%
Suburban 2	48	406	2,200	0%	38%	33%
Peripheral	65	554	3,000	0%	5%	NA

Source: Cushman & Wakefield May 2006, Macquarie Research

INDIA

Unitech Limited

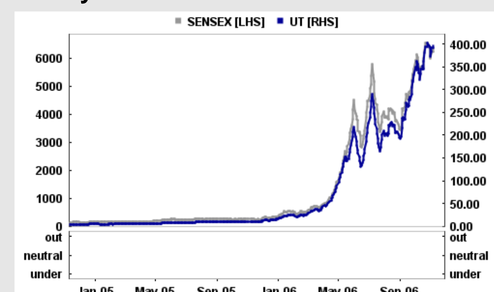
14 November 2006

UT IN		**Outperform**
Stock price as of 10 Nov 06	Rs	405.70
12-month target	Rs	501.00
Upside/downside	%	+23.5
Valuation	Rs	501.00
- Sum of Parts		
GICS sector		real estate
Market cap	Rs m	329,307
30-day avg turnover	Rs m	402.9
Market cap	US$m	7,390
Number shares on issue	m	811.7

Investment fundamentals

Year end 31 Mar		2006A	2007E	2008E	2009E
Total revenue	bn	9.4	25.8	63.2	162.1
EBITDA	bn	2.0	11.5	33.2	85.3
EBITDA growth	%	0.0	485.7	188.1	156.8
Recurring profit	bn	1.4	9.2	29.0	79.9
Reported profit	bn	0.9	6.4	20.3	55.9
Adjusted profit	bn	0.8	6.4	20.3	55.9
EPS rep	Rs	0.02	7.92	24.97	68.88
EPS rep growth	%	0.0	47,764.7	215.1	175.8
EPS adj	Rs	0.02	7.92	24.97	68.88
EPS adj growth	%	nmf	49,281.3	215.1	175.8
PE rep	x	24,504.6	51.2	16.2	5.9
PE adj	x	25,281.1	51.2	16.2	5.9
Total DPS	Rs	0.004	0.396	1.248	6.888
Total DPS growth	%	0.00	10,990.74	215.08	451.70
Total div yield	%	0.0	0.1	0.3	1.7
ROA	%	4.2	17.7	27.3	40.1
ROE	%	32.6	113.8	110.5	105.2
EV/EBITDA	x	10,880.8	31.9	11.1	4.3
Net debt/equity	%	1,074.2	681.4	377.3	114.3
Price/book	x	8,234.2	37.8	11.8	4.2

UT IN rel SENSEX performance, & rec history



Source: Datastream, Macquarie Research, November 2006 (all figures in INR unless noted)

Analysts

Siddhartha Gupta
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Matt Nacard
852 2823 4731 matt.nacard@macquarie.com

It's not too late

Event

- We initiate coverage on Unitech Limited (UT IN, Rs385) with an Outperform rating and a target price of Rs501. Unitech is our most preferred real estate play in India.

Impact

- **Asset rich, largest land bank among peers.** Unitech has the largest land bank of the listed real estate developers in India, owning 71% more land than its nearest competitor. Its land bank totals 10,332 acres comprising 400m sqf of constructible area and 8m sqyd of plot area (74% to be used for mid to high end residential development). This is the primary driver of our Rs501 NAV which we believe is conservative. More importantly though, Unitech is rapidly monetising its land bank. Completions should grow from 3.5m sqf in FY06 to 7.84m sqf in FY07 and up again to 15.7m sqf in FY08.
- **'Monetisation' ramping up… significant earnings growth.** We forecast a strong EPS increase of 66x from Rs1.04 in FY06 to Rs68.9 in FY09. This impressive growth should consume only 13.5% of the total land bank. Unitech's PER should modify to 48.7x in FY07 and reduce further to 15.4x in FY08. We believe the company has potential to enjoy NAV accretion through large land bank acquisitions given its size and negotiating power. We also note that Unitech has pre sold >90% of its FY07 completions.
- **Land diversified and has come cheaply – adds margin growth to the mix.** Unitech acquired its land at an average of around Rs150/sqf. Post construction costs, average gross margins are expected to increase from 35% in FY06 to 51% in FY07 and further to 59% in FY08 at which point they should stabilise. Unitech has its land in Chennai (25% of land bank), Kolkata (20%), and national capital region (19%). This provides Unitech diversification in a market that has a dearth of national players and hence some risk mitigation.

Price catalyst

- 12-month price target: Rs501.00 based on a Sum of Parts methodology.
- Catalyst: Surging residential demand and higher realisations.

Action and recommendation

- We initiate coverage of Unitech with an Outperform rating and a target price of Rs501 based on a sum-of-the-parts methodology (NAV). Our NAV is based on our assessment of the future profitability of Unitech's land bank.
- Our NAV does not assume any value for the Special Economic Zones (SEZ) of 10,134 acres and New Kolkata International Development Project (38,000 acres). Any clarity on SEZ policies can provide further upside.
- **Key risk**: The physical delivery of forecast development schedule is the key risk. We have forecast strong delivery growth, increasing from 3.5m sqf in FY06 to 34.2m sqf in FY09.

Unitech: Size does matter

Largest land bank among listed companies

- Unitech has the largest land bank among the listed real estate developers. It has land bank of 10,332 acres comprising 400m sqf of constructible area and 8m sqyd of plot area. Unitech owns 71% more land than its nearest competitor.

Fig 1 Land bank of real estate developers

	Land size (acres)
Unitech	10,332
Sobha Developers	6,059
Ansal properties	5,924
DLF (as per prospectus filed in May'06 by the company)	4,265
Mahindra Gesco	1,637

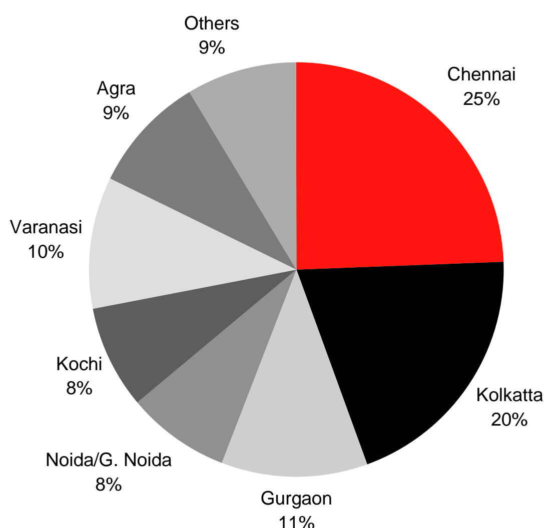
Source: Company Reports, Macquarie Research, November 2006

- Unitech has disclosed its land bank aggregating 10,332 acres; we also understand the company is in the process of acquiring more land. Unitech is also proposing to develop various multi-product SEZ and integrated township in Kolkata.
- Unitech has clearly stated that it does not intend to participate in any of the land auctions at prime locations. Instead the company will focus on buying agricultural land and get conversion rights as well as acquiring land via private negotiation which is undervalued by the market.

Cheap and diversified land bank

- Unitech has acquired land cheaply at about Rs150/sqf. Unitech has Rs40bn (10% of our estimated NAV of Rs 501/share) outstanding towards the payment of 10,332 acres which, according to our estimates, represents approximately 60% of the total land acquisition cost of 10,332 acres. The cheap land acquired is one of the competitive advantages that Unitech is going to harvest over the next 3–5 years. We calculate EBITDA margin on developed product for Unitech will be 44% in FY07 and 52% in FY08.

Fig 2 Land bank – diversified portfolio



Source: Company Data, Macquarie Research, November 2006

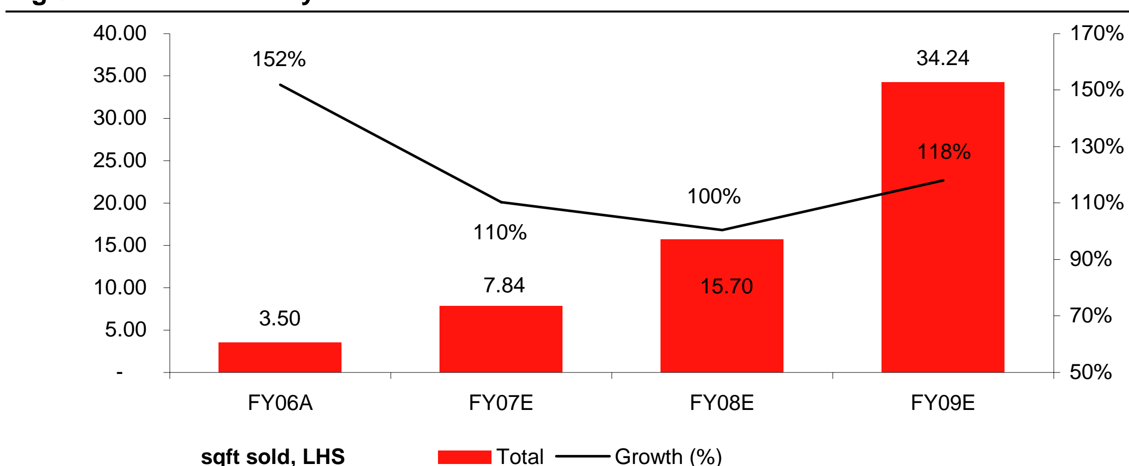
- Unitech has the most diversified land bank among its competitors, with a pan-India presence. Land acquisitions have been in Chennai (25%), Kolkata (20%), and national capital region (19%). We summarise the land bank city-wise detail in figure 2.

- Unitech has focused on IT/ITES growth while acquiring the land bank across the country. The selection of cities was driven by the fundamentals of job creation and capital flows. Unitech has acquired land in suburbs of metropolitan cities like Delhi, Chennai and Kolkatta and in tier-2 cities like Hyderabad, Bangalore etc.
- Unitech has acquired land in tier-3 cities of northern India like Agra, Varanasi and Mohali. Developments in national capital region of Delhi include presence in Gurgaon, Noida, Greater Noida and Faridabad. Kochi is only tier-3 city based outside of northern India.

Strong earnings growth

- We forecast a strong EPS increase of 66x from Rs1.04 in FY06 to Rs68.9 in FY09 mainly because 1) increased development schedule from 3.5m sqf in FY06 to 34.24m sqf in FY09 and 2) higher realisations given that property prices have increased by 60–70% in last two years. We have also forecasted a very strong revenue growth; rising from Rs9.4bn in FY06 to Rs162.1bn in FY09 implying a CAGR of 158%.
- This impressive growth would consume only 13.5% of the company's total land bank. We believe the company has potential NAV accretion through large land bank acquisitions given the size and negotiating power of the company.
- We have not assigned any value to the Special Economic Zones (SEZ) of 10,134 acres (further expandable to 20,250 acres) and New Kolkata International Development Project (38,000 acres) due to its uncertainty with regard to time and guidelines. Any clarity on SEZ policies can provide further upside.

Fig 3 Forecast delivery schedule

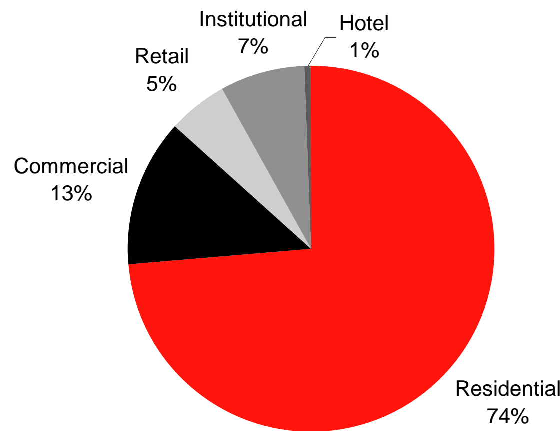


Source: Macquarie Research, November 2006

Residential focus

- 74% of the development plan of the company is for the residential sector. Unitech will focus on middle-to-upper-middle-class housing projects, townships, and luxury and super-luxury apartments. This is strategically positive as residential market is the largest growing segment of the real estate market.
- The residential segment is in a sweet spot among all forms of development as it is not only the largest growing market but also one of the most profitable too. In India developers rely on pre-selling route; as a result the company enjoys a very healthy cashflow for its working capital and to take up new projects (more on the detail later).

Fig 4 Land bank – usage



Source: Company data, Macquarie Research, November 2006

- The second most important focus area for company is commercial development. The company is planning IT parks in cities like Gurgaon, Greater Noida, Kolkatta, Chennai, Kochi and Hyderabad. It is also building modern commercial buildings again in suburbs of metropolitan cities of Delhi, Chennai and Kolkata to feed to the strong demand from IT/ITES industry. Unitech plans 31.5m sqf and 26m sqf of IT parks and commercial development respectively to be completed till FY13.
- Unitech plans retail development too but it would not in the form of malls or high streets. Unitech plans retail development in the form of residential shopping complexes which would be situated near to their residential developments. Unitech plans to develop 25.1m sqf of retail development largely in Varanasi, Agra, Chennai and Kochi by FY13.
- For all its non-residential property development we assume Unitech adopts a 'develop and sell' approach. We will monitor our assumption over time to see whether Unitech tends to retain property developments for investment purposes.

Fig 5 Uniworld City, Gurgaon

Source: Company information, November 2006

WACC and NAV discount analysis

Our discount rate – 14.03%

We use sum-of-the-parts methodology (NAV) to value the assets of property developers. Since Unitech follows the develop and sell model, we have followed the discounted cashflow (DCF) approach as it can capture the cost, selling price and margins of each property project. We believe this is the most appropriate approach due to the fluctuation in earnings, driven by volume increases, particularly in the near to medium term.

The weighted average discounted rate (WACC) is used to discount the future cashflow. WACC accounts for the target debt level, current risk free rate, projected beta and long-term market expected risk premium of individual companies.

Fig 6 Unitech Ltd: Our discount rate

		Notes
WACC	**14.03%**	
Pre-tax cost of debt	10.0%	Average cost of debt
Tax rate	30%	Company's tax rate
Post-tax cost of debt	7.0%	Post-tax cost of debt
Risk free rate	7.75%	10 year Govt. bond yield
Equity risk premium (Rm-Rf)	7.0%	
Equity beta (b)	1.40	Used higher beta considering volatility
Cost of equity (Re = Rf+b(Rm-Rf))	18%	
Target debt to total assets	33%	Management's long-term target gearing

Note: Current gearing levels are far higher, however if these were adopted; our valuation would be significantly higher due to the lower cost of debt versus equity. 33% is more realistic as a long term ratio.

Source: Macquarie Research, November 2006

Our NAV is Rs501/share

Our NAV, based on a sum-of-the parts methodology, is Rs501. Our valuation has incorporated the following assumptions:

- Current prices of individual projects for property under development are assumed in their valuations.
- Property price increases of 5% on each subsequent phase is assumed in light of the improved infrastructure and anxillary facilities as Unitech constructs its project in phases to capture the better prices for its name and quality develoement. Such assumption is independent of the potential property price increase.
- The land bank of constructible 400m sqf and plot area of 8m sqyd is expected to be developed over the next 8–9 years with the exception of one of the Kolkatta project (73m sqf) which is likely to be completed by 2020. We have assumed on an average slippage of about a year for medium term projects compared to company's estimates.
- For additional conservatism and due to difficulties in forecasting prices on a project by project basis we generally assume no price increases for future independent non-staged projects.
- Aside from projects for which land-use certificates have already been obtained, our NPV calculation does not take into account any of the proposed SEZs (10,134 acres) and the New Kolkata International Development Project (38,000 acres) in joint venture with Indonesia based Salim group, which can prove to be big opportunities in themselves. Also we have not included any such land bank where acquisition may be in process and hence is not public information.

For hotel projects we have assumed the company will be able to sell them as and when they are constructed. This is not entirely in line with company's strategy to run the hotels in assocoation with prominent international hotel chains for the initial couple of years before selling them off.

Fig 7 Net asset value (NAV)

	(Rs m)	NAV/share (Rs)	% of pre Debt NAV
- Development property			
- Residential	279,284	344	66.0%
- Commercial	77,457	95	18.3%
- Retail	32,826	40	7.8%
- Institutional	17,709	22	4.2%
- Hotel	15,993	20	3.8%
- Development property sub total	**423,270**	**522**	
Less: Net bank borrowing	17,000	21	
Net asset value	**406,270**	**501**	

Source: Macquarie Research, November 2006

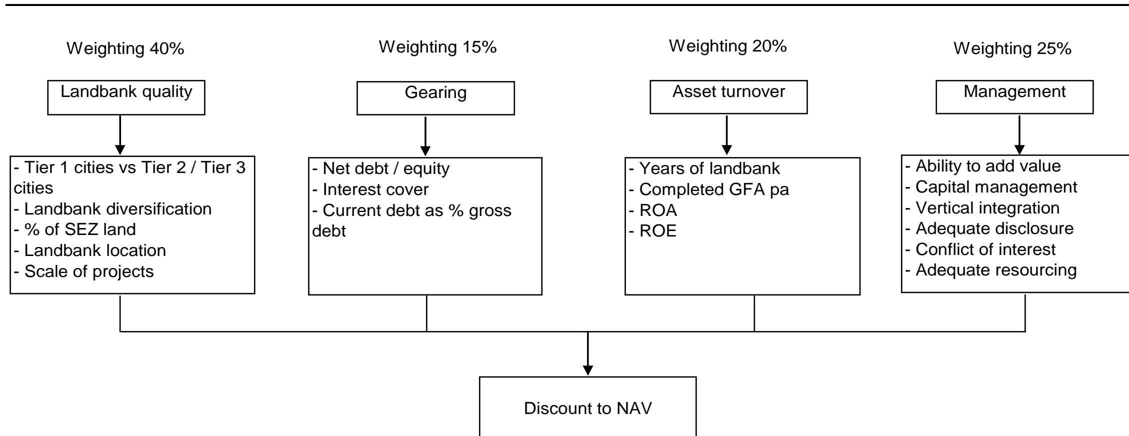
Target discount methodology (Macquarie's DiNAV Model)

Our DiNAV model helps us to set our target price relative to the underlying NAV of the company. It is relative valuation tool. That is, it helps us set the target discount/premium to NAV of one developer vs another. In absolute terms, the best developer in the market in India should trade at NAV in our view. This is because of the opportunity to make NAV accretive acquisitions, market positioning, brand recognition and the opportunities to benefit from the long-term growth of the Indian market with limited organised competition relative to other markets.

As a result, we have carefully chosen certain factors that are important to the success of Unitech and assign weightings on each factor. The respective weightings are then applied to Unitech for ascertaining discount or premium to NAV. In our view, we consider the important factors to be land-bank quality (40%), gearing (15%), asset turnover (20%) and management related factors (25%).

In our view the benchmark stock and market leader is Unitech. Due to its market leadership position, land bank, highly experienced management team and pan India platform it should trade at its underlying value or NAV. Hence our target price is at par with its NAV of Rs 501.

Fig 8 Macquarie DiNAV Model (India) – Discounts to NAV are driven by four key factors



Source: Macquarie Research, November 2006

Land bank quality (40%) – 70% of land bank in Tier-1 and-2 cities

We believe Unitech's land bank in Tier-I and Tier-2 is superior to that in Tier-3 cities. Unitech has about 70% of its land bank in either Tier-1 or Tier-2 cities. In terms of diversification, Unitech is one of very few companies that have acquired a land bank to position itself as a pan India developer. Generally speaking, we believe large-scale projects lead to economies of scale and therefore are preferred to small projects. On average Unitech's projects typically contain 600–700 dwellings which we consider relatively large scale for India. Unitech proposes to build SEZs (10,134 acres) in the state of Haryana and the New Kolkata International Development Project (38,000 acres) in joint venture with Indonesia based Salim Group, which can prove to be significant opportunities in themselves. Also we have not included any such land bank where acquisition may be in process and hence is not public information.

Gearing (15%) – High but interest coverage reasonable

We identified three key criteria to determine the developers' gearing profile: net debt to equity, interest coverage and current debt as a percentage of gross total debt. As at end of FY06, Unitech had a very typical developer financial profile, with a gearing of 248% (obviously very high by regional standards) but a reasonable interest coverage ratio of 4x. In terms of cost and easy availability of debt Unitech is better placed in comparison to its peers on back of its large size, long track record and brand name.

Asset turnover (20%) – long dated land bank and outstanding ROE

- Asset turnover is determined by the years of land bank, completed GFA pa, ROA and ROE. Unitech's existing land bank should be sufficient for the next 8–9 years. This is long relative to the industry average. We view this as a positive as it indicates that Unitech has enough capability to scale up its production according to the demand for a longer period of time.
- Unitech has an asset turnover that is in line with the industry rate which in this business is quite low especially during the growth phase. Based on our forecast completion schedule, Unitech's ROA of 3.4% and ROE of 58.6% in FY06 place the company at the top end of the industry range. Further, these ratios should undergo a significant improvement in line with our strong earnings forecast for Unitech.

Management (25%) – Best of breed

- Our assessment of management takes into account factors such as ability to add value, management of capital, conflict of interest, vertical integration of the business, adequate disclosure and adequate resources for business operations. We rate Unitech's management as one of the best in the industry given its track record of project execution. All criteria for Unitech are rated above the industry average. Unitech's management team is one of the most transparent in the sector and on par with regional peers.

Project delivery summary

Unitech's revenue and profit growth is unlike any other property company in the region. In fact on face value the numbers appear fanciful; how can a company ramp up EPS by a factor of 66x from FY06–09 and how can revenues grow by a factor of 17x from FY06–09?

Fig 9 Development schedule (FY07–09)

(m sqf, project completions)	FY07	FY08	FY09
Residential	6.75	12.06	21.87
Commercial	0.57	2.70	8.93
Retail	0.22	0.38	1.46
Institutional	0.30	0.56	1.43
Hotel	-	-	0.54
Total	**7.84**	**15.70**	**34.24**
Growth (%)	**110%**	**100%**	**118%**

Source: Macquarie Research, November 2006

Comparing profitability with the past or even FY06 can be dangerous. In our analysis we have determined future revenue growth by looking at what is currently under construction and planned commencements in the next few years. We make the following important points:

- Unitech currently has about total GFA of 20m sqf under construction predominantly in National Capital Region and Kolkata. They are in various stages of completion but as Unitech uses the percentage of completion method for profit booking; 39% of current GFA under construction will contribute to our FY07 revenue forecasts of 7.84m sqf. In comparison Unitech had GFA of 13m sqf under construction at the end of FY06 out of which 27% (approx. 3.5m sqf) contributed towards FY06 revenues.
- Revenue growth from FY07 to FY08 is 145%. We are expecting Unitech to start more projects in newer markets outside National Capital Region in FY08. With GFA of 25m sqf forecast to be under construction at the end of FY07 and 7.84m sqf being completed in FY07, the total GFA under construction at the end of FY08 is expected to be in excess of 45m sqf with 15.7m sqf (approx. 35%) contributing towards FY08 revenues.
- Throughout this period (ie FY06–08) gross margin is expected to grow from 35% in FY06 to 59% in FY08. In combination with the increase in number of projects underway from FY06 (GFA under construction 13m sqf) to FY08 (GFA under construction 45m sqf) it is not difficult to see how earnings can and should ramp up significantly.

Pre sales reduce risks to forecast

In India there are very few restrictions on pre-sales unlike elsewhere in the region. Unitech has been selling its products through pre-selling route. Unitech pre-sells only when it has land title and necessary government approvals. For its residential properties (average construction period 2.5 years), Unitech offers two types of pre selling plans:

- **Plan A:** Unitech collects 50% of selling amount within the first year and the balance 50% in next one and half years. This plan accounts for 60% of their total sales.
- **Plan B:** Unitech collects 90% of selling amount within first 45 days with a discount of 10% and the balance of 10% is collected at the time of delivery of product. This plan accounts for 40% of its total sales.

Unitech has been very successful in pre selling its products. We believe that close to 100% of FY07 revenue has been pre sold. It takes around 60% of the total purchase price in the first year of construction itself and collects the remainder linked to construction progress. The level of pre sales achieved provides us with additional confidence that our revenue and profit forecast are achievable.

Key risks for the group

- **Ambitious production schedule**: Though we believe that Unitech is one of the best players poised to ramp up production significantly especially in next couple of years yet there could be few difficulties Unitech might encounter especially in relation to contractors outside National Capital Region (NCR). Unitech so far had developed properties mainly in NCR so entering new markets and finding an appropriate contractor could act as a hindrance in our forecasted production schedule. *Quite simply, for a multitude of reasons, Unitech may not be able to ramp up production to the extent that we forecast. If this occurs its NAV will slip, its PER will stay at the current unsustainable level and the stock is likely to be de-rated.*
- **Financial leverage**: Unitech presently has in its book debt of Rs17bn issued by various commercial and housing banks. At the end of FY06 Unitech had very high gearing of 248%; however this is not out of line if compared to the Indian industry average. Real estate industry being at a high growth trajectory requires high financial leverage. The company has recently passed a board resolution enabling the company to raise a debt up to Rs30bn. Gearing ratio will further increase to 301% till FY08 before it starts declining in FY09 to 148%; as a result of increased earnings forecasts. However this decline in gearing might not happen so significantly if the company requires fund for land acquisition for its SEZ plans and New Kolkata International Development Project. Unitech has indicated that the efforts are already underway to acquire land for its SEZ projects.
- **Interest rate increase and impact on volumes**: Interest rate increase is an inherent risk to property development companies. However this looms large over a company that has significant residential portfolio. As the cost of financing becomes dearer there may be a clear and direct impact on residential property sales. We also believe that in India a 100bp increase should not affect the residential market significantly as housing loan interest rates are at a much lower level (9.5%) as compared to the late 1990s.

The land bank summary

- **Largest land bank**: Unitech recently released its land bank details with a projected development schedule. The Unitech's share of land bank comes to 10,332 acres which constitutes 400m sqf of constructible area and 8m sqyd of plot area. The constructible area includes residential, commercial, retail and hotel development. The plot area includes residential plots and institutional plots for schools, hospitals etc.

Fig 10 Land bank details

	Unitech's Share		Residential		Commercial	Retail	Institutional	Hotel	Total	
1,000	**Acres**	**% of Total**	**Sqyd (m)**	**Sqf (m)**	**Sqf (m)**	**Sqf (m)**	**Sqyd (m)**	**Sqf (m)**	**Sqyd (m)**	**Sqf (m)**
Agra	1,500	15%	0.73	19.60	7.84	3.92	0.58		1.31	31.36
Bangalore	83	1%		7.05	0.32	0.35		0.25		7.98
Chennai	2,063	20%	0.92	90.81	8.73	3.13	0.51		1.43	102.67
Delhi	29	0%			0.20	0.11				0.32
Faridabad	8	0%		0.66						0.66
Greater Noida	251	2%		15.96	5.40	0.18	0.02		0.02	21.55
Gurgaon	1,173	11%	0.37	33.60	9.39	2.37	0.48	0.58	0.84	45.95
Hyderabad	274	3%	0.20	11.81	3.65	0.54			0.20	16.00
Kochi	604	6%	0.30	28.23	3.54	3.01		0.44	0.30	35.21
Kolkatta	2,213	21%	0.73	62.34	12.74	1.59	1.19	0.88	1.92	77.55
Mohali	350	3%	0.13	10.32		1.43	0.17		0.30	11.75
Noida	286	3%		7.59	6.70	0.62	0.04	0.56	0.04	15.47
Varanasi	1,500	15%	0.73	22.34	3.92	7.84	0.87		1.60	34.10
Total	**10,332**		**4.10**	**310.32**	**62.45**	**25.11**	**3.85**	**2.71**	**7.96**	**400.58**

Source: Company data, Macquarie Research, November 2006

- **Cheap land bank**: As per the company report, the land bank includes only that land where the company has either a clear title or has paid for a firm commitment. In respect of the disclosed land bank detail, the company has outstanding commitment of Rs40bn. Out of this amount about 75% is outstanding towards the government and its agencies.
- **Diversified land bank**: Land bank details of the company reveal that Unitech is one of the very few real estate developers in the country that has a pan India presence. Unitech's strategy as clear from its land bank is to focus on suburbs of metropolitan cities and Tier-2 cities. Unitech has increased its concentration of land bank in Chennai and Kolkata which accounts for 25% and 20% of development respectively. The traditional forte of company is Gurgaon development which accounts for about 11% of their projected development.
- **Residential focus**: Also Unitech has its focus on mid to high end residential developments which accounts for 74% of its total developmental plans followed by commercial at 13%. Unitech has smaller portfolio of retail, institutional and hotel development too.
- **Hospitality and entertainment:** Unitech has tied up with Carlson Hospitality to manage Radisson group of hotels. It has also tied up with Marriot International to manage the courtyard brand of hotels. Unitech would lend its expertise in developing & constructing and the hotel would be managed by an experienced operator. Unitech is in the process of developing an amusement park "Adventure island" covering roughly around 65 acres and a big Entertainment City (roughly 140 acres).
- **SEZ:** Unitech has received in principle approval for many SEZ proposals submitted by Unitech. Among the large projects Unitech would jointly develop 9,884 acres SEZ in Kundli (Haryana) along with the Haryana government, which is likely to be a 90:10 partnership. This is further expandable to 20,000 acres. Unitech has also received in-principle approval of an auto component SSEZ in Gurgaon over 250 acres.
- **Mega development project of 38,000 acres in Kolkata**: Unitech is party to a three-member consortium with the Salim Group of Indonesia and Universal Success. The Kolkata government has taken the onus on itself to provide the necessary land at cheaper cost. In lieu Unitech is to build an expressway and bridge in the Hooghly district on a build and transfer basis. Unitech is also involved in infrastructure and construction projects in the road, power and industrial segment.

Company's land bank acquisition strategy

- **Focus on suburbs of metropolitan cities and key Tier-2 cities:** Unitech has focused on IT/ITES growth while acquiring the land bank across the country. The selection of cities was driven by the fundamentals of job creation and capital flows. Unitech has acquired land in suburbs of metropolitan cities like Delhi, Chennai and Kolkatta and in tier-2 cities like Hyderabad, Bangalore etc. Unitech has also acquired land in tier-3 cities of northern India like Agra, Varanasi and Mohali. Developments in national capital region of Delhi include presence in Gurgaon, Noida, Greater Noida and a small presence in Faridabad. Kochi is only tier-3 city based outside of northern India.
- **Acquire, develop and sell model**: Unitech plans to follow develop and sell model. Unitech would develop and then sell the assets. Unitech plans to develop and out rightly sell all its residential commercial and retail developments. For commercial and hotel development, Unitech plans to develop them and would sell after couple of years of operation to unlock the better value. Traditionally also Unitech sold all its development both residential and commercial.
- **Land acquisitions:** Unitech has clearly stated that the company does not intend to participate in any of the land auctions at prime locations. Instead the company would focus on buying agricultural land and get conversion rights as well as acquiring land via private negotiation which is undervalued by the market.
- **Residential focus:** Unitech has always focused on residential sector. 74% of the development plan of the company is for residential sector. Unitech will focus on middle-to-upper-middle class housing projects, townships, and luxury and super-luxury apartments. This is strategically positive as the residential market is the largest growing segment of the real estate market. The residential segment is in a sweet spot among all forms of development as it is not only the largest growing market but also one of the most profitable too. Also in India developers rely on pre-selling route; as a result company enjoys a very healthy cashflow for its working capital and to take up new projects.

Fig 11 Unitech Habitat, Greater Noida

Source: Company information, November 2006

Earnings growth analysis

- **Strong revenues forecast**: We forecast an impressive top line growth of 158% CAGR FY06–09 and an EPS increase of 66x from Rs1.04 to Rs68.9 in the same period. This would place the company on a 15.4x PER in FY08 and 5.6x PER in FY09. We forecast strong revenues beyond FY09 due to 1) increased production and 2) higher realisations on back of rising property prices especially over the past two years by almost 60–70%.
- **Sustainable high revenue growth**: This impressive growth until FY09 would consume only 13.5% of the company's total land bank and hence we believe the company should be able to maintain high revenues growth beyond FY09 also. The high margins would also be maintained on back of higher realisations, cheap land acquired and economies of scale arising out of company's large planned projects. The earnings forecast are summarised in the Fig 9.

Fig 12 Profit & loss A/C

	FY06A	FY07E	FY08E	FY09E
Total Operating Income	**9,417**	**25,819**	**63,231**	**162,059**
- Sales Growth	**43%**	**174%**	**145%**	**156%**
Less:				
Cost of Construction	6,136	12,550	26,132	67,538
- Gross margins	35%	51%	59%	58%
Selling, General & Admn Expenses	1,077	1,291	3,162	8,103
Personnel Expenses	366	548	822	1,234
Total Operating Expenses	7,578	14,389	30,116	76,874
EBITDA	**1,839**	**11,430**	**33,115**	**85,185**
EBIDTA Margin	**20%**	**44%**	**52%**	**53%**
Depreciation & Amortisation	112	283	374	510
Other Income	130	100	100	100
EBIT	1,857	11,247	32,842	84,775
Less: Interest	465	2,058	3,889	4,911
Recurring Pre-tax Income	1,392	9,189	28,952	79,864
Less: Taxation	513	2,757	8,686	23,959
Net Income (Reported)	**879**	**6,432**	**20,267**	**55,905**
- Net Profit Margin	**9%**	**25%**	**32%**	**34%**
- Earning Per Share	**1.04**	**7.92**	**24.97**	**68.88**

Source: Macquarie Research, November 2006

- **Expanding profit margins**: We forecast Unitech's EBITDA margins to improve from 20% in FY06 to 44% in FY07 and further to 52% in FY08. This is due to 1) higher realisations and 2) change in accounting policy with regard to regard to revenue recognition for projects after April '04 and 3) better economies of scale due to increased production. The increased share of residential segment also leads to higher profitability as the working capital requirement reduces.
- **Change in revenue recognition method**: Unitech has started following percentage of completion method in regard to projects commenced after April '04. For projects prior to that period, estimated profit basis of accounting was followed. Accordingly, revenue was recognised to estimate profit at 20% of actual collection during the year towards booking of properties and the final adjustment was done in the completion year of the respective project. Therefore the FY06 financials are not directly comparable to future estimated revenues of FY07–09.
- **Increased interest coverage ratio**: With higher forecasted revenues and better realisations the EBIT of the company is increasing in proportion to EBITDA margins and hence the interest coverage ratio of the company would increase from 4x in FY06 to 8.4x on FY08 and further to 17.3x in FY09.

Balance sheet analysis

- **Sharp decline in gearing post FY07**: Unitech had very high gearing of 248% as at FY06; however this is not out of line if compared to the Indian industry average. With a high growth trajectory, the real estate industry requires high financial leverage. The company has recently passed a board resolution enabling the company to raise a debt up to Rs30bn. Gearing ratio will further increase to 301% till FY08 before it starts declining in FY09 to 148%; as a result of increased earnings forecasts. However this decline in gearing might not happen so significantly if the company requires funds for land acquisition for its SEZ plans and New Kolkata International Development Project.
- **Higher return on capital employed:** Unitech's return on capital employed is likely to increase from 3.4% in FY06 to 28.1% in FY09 on back of 1) higher EBITDA margins at 52.6% in FY09 due to better realisations; 2) better economies of scale due to increased production and 3) higher residential development portfolio improves the working capital cycle. Return on equity (ROE) is outstanding (partly due to high gearing) at 58% in FY06 to 129% in FY07.
- **Reducing working capital cycle**: With the revenue growth forecasted at a CAGR of 258% from FY06–09 the requirement for working capital will increase from 194 days of sales in FY06 to 266 days in FY08; thereafter we forecast a decline in working capital requirement from FY09 (154 days) for the company mainly on account of higher customer advances and pre-sales in residential segment coming out of Unitech's residential development portfolio.
- **Improving current ratio**: Current ratio represents the amount of current assets like inventories, cash, and debtors to current liabilities like creditors, short term debt and advance from customers. The large cash amount resulting from higher sales and production schedule will lead to an improvement in current ratio of the company from 1.1x in FY06 to 2.2x in FY09 thereby depicting a better liquidity position for Unitech.

Fig 13 Financial ratios

	FY06A	FY07E	FY08E	FY09E
Dupont model				
Net profit margin (%)	9.0	24.9	32.1	34.5
Total Asset Turnover Ratio (x)	0.3	0.4	0.5	0.8
Total Asset to equity ratio (x)	23.3	12.6	6.7	4.0
Return on (Common) Equity (RoE)	58.6	129.2	112.9	105.5
Return / Profitability Ratios (%)				
EBITDA Margins	19.5%	44.3%	52.4%	52.6%
Return on Capital Employed (RoCE)	3.4%	12.5%	19.2%	28.1%
Return on Net Worth (RoNW)	58.6%	129.2%	112.9%	105.5%
Turnover Ratios				
Inventory Turnover Ratio (x)	1.2	1.1	0.9	1.4
Assets Turover Ratio (x)	0.3	0.4	0.5	0.8
Working Capital Cycle (days)	193.9	260.5	265.9	154.0
Average Collection Period (days)	36.5	27.3	28.2	27.8
Average Payment Period (days)	216.5	168.6	108.0	88.6
Solvency Ratios / Liquidity Ratios (%)				
Debt Equity Ratio (D/E)	247.8%	301.4%	147.9%	57.6%
Net Working Capital / Total Assets	10.8%	34.4%	38.5%	27.0%
Interest Coverage Ratio-based on EBIT	4.0	5.5	8.4	17.3
Current Ratio	1.1	1.6	1.9	2.2

Source: Macquarie Research, November 2006

Company profile

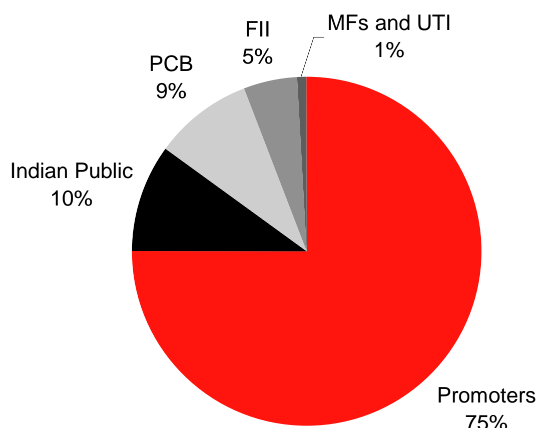
Unitech was started in 1972. The company is now one of the leading real estate developers in India and the largest listed (UT IN, US$7bn) real estate company. Unitech has set benchmarks in residential, commercial and retail projects for many years. Unitech was the first to receive the prestigious ISO: 9002 certification for design, planning, construction and marketing of real estate in the national capital region of Delhi.

The promoter family owns about 75% of the company and Mr Ramesh Chandra is the company chairman. Unitech traditionally had strong foothold in the national capital region of Delhi but in recent years Unitech has increased its presence in other parts of the country. Unitech to date has developed nearly 10m sqf of constructible space and 1,000 acres in plots. Unitech is currently developing various residential and commercial projects including IT parks. Unitech is working closely with various state governments to develop SEZs across the country. A example is the New Kolkata International Development Project (38,000 acres) in joint venture with Indonesia based Salim group and West Bengal Government.

Unitech has a small presence in the power transmission, prefabricated construction, paving blocks and ready mix concrete businesses. However going forward Unitech will reduce its exposure in this segment of business and will focus only on property development. Also Unitech has a tie-up with Carlson Hospitality for the Radisson brand of hotels and with Marriott International to manage three Courtyard-branded hotels.

Unitech has long partnered with internationally acclaimed architects and design consultants/ groups including Callison Inc (USA), RMJM (UK), FORREC (Canada), RSP (Singapore), HOK (USA). Unitech's corporate clients include global leaders such as Fidelity, HP, Gillette, EDS, Hewitt, Convergys, Reebok, Vertex, E-Value Serve, Keane, Fritolay, Sun Life Assurance, BCG, AT Kearney, Asahi Glass, Seagram, Perfetti, and General Motors etc.

Fig 14 Shareholding pattern (%) as of 30 June 2006



Source: NSE, Macquarie Research, October 2006

Unitech: A brand to reckon with

- Unitech is a very strong band name in the real estate business. Its brand name reflects trust and quality which helps the company with better pricing and saleability for its products. Unitech's strong brand name is evidenced from the company's ability to sell its products faster than its competitors in the same locations. The company has also been able to attract a premium of around 10–20% on its product over its competitors' prices.
- The strong brand name not only helps provide better demand; it also helps the company in attracting contractors, thereby reducing the scalability concern which is an imortant issue for other developers. Construction contractors in India are small and regional; and they are always more willing to work for better brand names and on larger projects inorder to have more certainity of income. Unitech is a developer that provides both, the brand name and large projects. This is one of the main reason why we believe that the company will not face any scalability issues.

Fig 15 Unitech landmark projects

	City	Area (m sqf)	No. of units
Residential			
Heritage City	Gurgaon	1.8	725
Uniworld City	Gurgaon	1.3	516
Nirvana Country	Gurgaon	1.0	797
Heritage Estate	Bangalore	0.3	372
Commercial			
Signature Towers	Gurgaon	0.3	
Millennium Plaza	Gurgaon	0.2	
Global Business Park	Gurgaon	0.5	
Unitech Trade Centre	Gurgaon	0.3	
Townships		**(Acres)**	
South City-1	Gurgaon	300	
Vista Villas	Gurgaon	15	
Greenwood City	Gurgaon	130	
South City	Lucknow	300	

Source: Company data, Macquarie Research, November 2006

- These projects have become landmarks in the locations in which they are situated. As a result these projects command a better price in secondary markets compared to competitor developments. Unitech has successfully built integrated townships which is not a very common trend in the Indian market and now plan to replicate this success in different parts of the country.
- On back of its brand and management reputation, the company has tied-up contracts with Carlson Hospitality for the Radisson brand of hotels and with Marriott International to manage three Courtyard-branded hotels.

Unitech Limited (UT IN, Outperform, Target price: Rs501.00)

Profit & Loss		2006A	2007E	2008E	2009E
Net Property Income	m	2,172	0	0	0
Development Income	m	5,110	25,819	63,231	162,059
Other Revenue	m	2,135	0	0	0
Total Revenue	**m**	**9,417**	**25,819**	**63,231**	**162,059**
Management Fees	m	0	0	0	0
Other Expenses	m	-7,578	-14,389	-30,116	-76,874
EBITDA	**m**	**1,839**	**11,430**	**33,115**	**85,185**
Dep & Amortisation	m	112	283	374	510
EBIT	**m**	**1,857**	**11,247**	**32,842**	**84,775**
Net Interest Income	m	-465	-2,058	-3,889	-4,911
Associates	m	0	0	0	0
Exceptionals	m	27	0	0	0
Other Pre-Tax Income	m	0	0	0	0
Pre-Tax Profit	**m**	**1,418**	**9,189**	**28,952**	**79,864**
Tax Expense	m	-513	-2,757	-8,686	-23,959
Net Profit	**m**	**905**	**6,432**	**20,267**	**55,905**
Minority Interests	m	-33	0	0	0
Reported Earnings	**m**	**873**	**6,432**	**20,267**	**55,905**
Adjusted Earnings	**m**	**846**	**6,432**	**20,267**	**55,905**
EPS (rep)		0.02	7.92	24.97	68.88
EPS (adj)		0.02	7.92	24.97	68.88
EPS Growth (adj)	%	nmf	49,281.3	215.1	175.8
PE (rep)	x	23,278.5	48.6	15.4	5.6
PE (adj)	x	24,016.1	48.6	15.4	5.6
Total DPS		0.00	0.40	1.25	6.89
Total Div Yield	%	0.0	0.1	0.3	1.8
Weighted Average Shares	m	52,707	812	812	812
Period End Shares	m	52,707	812	812	812

Profit & Loss Ratios		2006A	2007E	2008E	2009E
Revenue Growth	%	nmf	174.2	144.9	156.3
EBITDA Growth	%	nmf	485.7	188.1	156.8
EBIT Growth	%	nmf	505.8	192.0	158.1
EBITDA Margins	%	20.9	44.7	52.5	52.6
EBIT Margins	%	19.7	43.6	51.9	52.3
Net Profit Margins	%	9.6	24.9	32.1	34.5
Payout Ratio	%	22.3	5.0	5.0	10.0
EV/EBITDA	x	10,337.3	30.4	10.6	4.1
EV/EBIT	x	10,962.1	31.2	10.7	4.1
Balance Sheet Ratios					
ROE	%	32.6	113.8	110.5	105.2
ROA	%	4.2	17.7	27.3	40.1
ROIC	%	nmf	23.7	32.9	44.1
Net Debt/Equity	%	1,074.2	681.4	377.3	114.3
Interest Cover	x	4.0	5.5	8.4	17.3
Price/Book	x	7,822.2	35.9	11.2	4.0
Book Value per Share		0.0	10.7	34.4	96.4

Cashflow Analysis		2006A	2007E	2008E	2009E
EBITDA	**m**	**1,839**	**11,430**	**33,115**	**85,185**
Tax Paid	m	-153	-659	-2,757	-8,686
Chg in Working Capital	m	-2,677	-25,717	-39,186	-30,527
Net Interest Paid	m	-465	-2,058	-3,889	-4,911
Other	m	22	303	307	234
Operating Cashflow	**m**	**-1,435**	**-16,701**	**-12,410**	**41,295**
Investments	m	358	-273	-639	-959
Capex	m	-3,485	-2,899	-1,739	-5,218
Asset Sales	m	0	0	0	0
Other	m	127	100	100	100
Investing Cashflow	**m**	**-3,001**	**-3,072**	**-2,279**	**-6,077**
Dividend (Ordinary)	m	-60	-185	-322	-1,013
Equity Raised	m	0	1,499	0	0
Debt Movements	m	6,686	20,265	16,359	4,077
Other	m	-1,009	-2,556	0	0
Financing Cashflow	**m**	**5,617**	**19,023**	**16,037**	**3,064**
Net Chg in Cash/Debt	**m**	**1,182**	**-750**	**1,349**	**38,282**

Balance Sheet		2006A	2007E	2008E	2009E
Cash	m	3,900	3,150	4,499	42,780
Receivables	m	1,033	2,831	6,933	17,768
Inventories	m	30,870	64,327	127,056	163,950
Investments	m	0	0	0	0
Fixed Assets	m	4,887	7,503	8,868	13,577
Intangibles	m	824	526	226	0
Other Assets	m	3,009	4,297	10,548	26,331
Total Assets	**m**	**44,521**	**82,633**	**158,129**	**264,406**
Payables	m	5,270	6,324	9,146	23,638
Short Term Debt	m	23,889	33,387	63,822	81,356
Long Term Debt	m	10,449	30,715	47,074	51,151
Provisions	m	2,080	3,263	9,890	29,749
Other Liabilities	m	0	0	0	0
Total Liabilities	**m**	**41,688**	**73,688**	**129,932**	**185,894**
Shareholders' Funds	m	2,597	8,707	27,961	78,275
Minority Interests	m	237	237	237	237
Total S/H Equity	**m**	**2,834**	**8,944**	**28,198**	**78,512**
Total Liab & S/H Funds	**m**	**44,522**	**82,633**	**158,129**	**264,406**

All figures in INR unless noted.
Source: Macquarie Research, November 2006

INDIA

Mahindra Gesco Developers Ltd

14 November 2006

MGSCO IN		**Outperform**
Stock price as of 10 Nov 06	Rs	804.00
12-month target	Rs	945.00
Upside/downside	%	+17.5
Valuation	Rs	1,110.00
- Sum of Parts		
GICS sector		real estate
Market cap	Rs m	29,772
30-day avg turnover	Rs m	197.3
Market cap	US$m	668
Number shares on issue	m	37.03

Investment fundamentals

Year end 31 Mar		2006A	2007E	2008E	2009E
Total revenue	m	2,163	2,806	9,704	23,640
EBITDA	m	414	970	3,245	7,322
EBITDA growth	%	95.0	134.6	234.5	125.6
Recurring profit	m	249	697	2,823	6,719
Reported profit	m	82	405	2,196	5,670
Adjusted profit	m	82	405	2,196	5,670
EPS rep	Rs	2.66	10.93	59.30	153.12
EPS rep growth	%	2,254.3	311.4	442.7	158.2
EPS adj	Rs	2.66	10.93	59.30	153.12
EPS adj growth	%	2,254.3	311.4	442.7	158.2
PE rep	x	302.8	73.6	13.6	5.3
PE adj	x	302.8	73.6	13.6	5.3
Total DPS	Rs	1.512	2.634	3.049	7.712
Total DPS growth	%	0.00	74.23	15.78	152.92
Total div yield	%	0.2	0.3	0.4	1.0
ROA	%	7.7	14.3	28.4	36.1
ROE	%	4.6	20.4	70.1	84.6
EV/EBITDA	x	65.9	33.1	9.9	4.4
Net debt/equity	%	123.4	108.8	92.4	35.7
Price/book	x	13.8	13.7	7.3	3.2

MGSCO IN rel SENSEX performance, & rec history

Source: Datastream, Macquarie Research, October 2006
(all figures in INR unless noted)

Analysts

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Undervalued SEZ play

Event

- We initiate coverage on Mahindra Gesco with an Outperform rating and a target price of Rs945. MGSCO is our preferred SEZ play among all real estate developers.

Impact

- **Pioneer in Special Economic Zone (SEZ) space:** MGSCO is a pioneer in the SEZ space. An SEZ is a special low-tax industrial/business zone being promoted by various state governments to lift economic productivity in India. MGSCO had an operational SEZ at a time when competitors' SEZ plans were still on the drawing board. Mahindra World City, MGSCO's Chennai SEZ – a large multi-sector SEZ of 1,400 acres – has been successful with 100% of industrial land either leased or committed.
- **Well-poised to execute large SEZ plans:** Following the success of its Chennai SEZ, MGSCO is one of the best placed developers to execute large multi-sector SEZs. It has firm commitments from its Chennai SEZ clients for their upcoming SEZs at Jaipur and Karla (3,000 acres each). MGSCO has a high level of execution expertise, a sound client acquisition strategy and developmental plans in place to successfully develop these SEZs.
- **Strong earnings growth expected:** We forecast a strong EPS increase of 58x from Rs2.6 in FY06 to Rs153.1 in FY09. This impressive growth should consume only 12.5% of MGSCO's total developmental land. MGSCO's PER should 'modify' to 73x in FY07 and reduce further to 13x in FY08. We forecast that this earnings level should be at least be maintained, as only 5% of total SEZ forecast revenues are booked by FY09.

Price catalyst

- 12-month price target: Rs945.00 based on a Sum of Parts methodology.
- Catalyst: Monetising SEZ expertise.

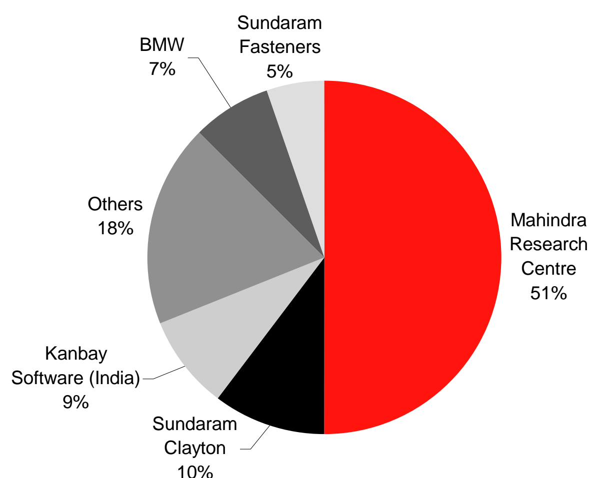
Action and recommendation

- We initiate coverage of MGSCO with an Outperform rating and a target price of Rs945 based on a sum-of-parts methodology (NAV). Our NAV is based on our assessment of the future profitability of its SEZs and other residential development plans.
- **Key risk**: MGSCO is heavily dependent on state governments for land acquisitions (5,000 acres is in process of acquisition) for its Jaipur and Karla SEZs. Any delay in land acquisition would delay MGSCO's SEZ development plans, which in turn would spell downside risk to our NAV calculation. Further political instability or local resistance in states where MGSCO has SEZ projects may delay the process of land acquisition.

MGSCO – a pioneer in SEZ space

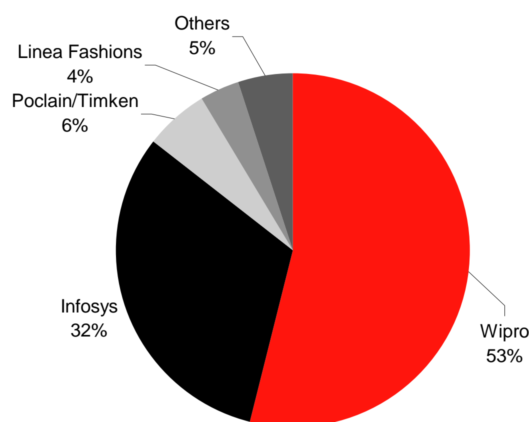
- **First private player in SEZ space:** MGSCO is a pioneer in the SEZ space. It had an operational SEZ at a time when competitors' SEZ plans were still on the drawing board. MGSCO, through one of its subsidiaries, has promoted corporate India's first operational SEZ and India's first integrated 'business city' in a public-private partnership model – Mahindra World City.
- Mahindra World City, MGSCO's Chennai SEZ – a large multi-sector SEZ of 1,400 acres – has been successful with 100% of industrial land either leased or committed. It is a multi-sector SEZ with a focus on information technology, apparel & fashion accessories and auto components. The list of clients includes names such as Infosys, Wipro, BMW and Kanbay Software.

Fig 1 Top 5 customers in FY06



Source: Company data, Macquarie Research, November 2006

Fig 2 Top 4 customers in FY07 (until August 2006)



Source: Company data, Macquarie Research, November 2006

- **Excellent support infrastructure and facilities:** The township has the necessary infrastructure, offering a host of fiscal and commercial benefits. MGSCO expects third party investments of over US$1bn and employment levels of 50,000 by 2010. There is a proposal to expand the current project by another 1,800 acres to cater to the demand generated.
- **Sizeable residential potential:** The project has 325 acres exclusively for residential development and social infrastructure – master planning has been completed by HOK, USA. MGSCO proposes to develop 10m sqf of residential accommodation with supporting premium lifestyle amenities such as schools, medical facilities, recreation centres and shopping malls.
- **Flexible real estate formats:** The project is designed to accommodate various flexible real estate formats. It has developed plots for corporate campuses. It also has plans for commercial development to be undertaken on a built-to-suit basis. These would be operated on a lease basis.
- **Commercial development:** The project has ready commercial built space for multi-tenanted occupancy. This commercial development is in joint venture (26% equity) with Ascendas. The project has 1m sqf of development planned. The first phase of 250,000sqf is expected to be completed by early 2007.

MGSCO – well-poised to execute large SEZ plans

- **Superior execution expertise:** On back of the success of its Chennai SEZ, MGSCO is one of the best placed developers to execute large multi-sector SEZs. MGSCO has firm commitments from its Chennai SEZ clients for their upcoming SEZs at Jaipur and Karla (3,000 acres each). MGSCO has superior execution expertise, client acquisition strategy and developmental plans in place to successfully develop the under-mentioned SEZs:
  - ⇒ **Jaipur (Rajasthan):** An SEZ of 3,000 acres in Jaipur in JV with RIICO-26% (Nodal state government agency for industrial development in Rajasthan).
  - ⇒ **Karla (Maharashtra):** An SEZ of 3,000 acres at Karla in joint venture with Maharashtra Industrial Development Corporation (MIDC)-26%.

⇒ **Thane (Maharashtra):** A sector-specific SEZ of 72 acres with a focus on the biotechnology sector.

- **MGSCO's strategies for client acquisition for its SEZs:** MGSCO follows a laid down strategy for its SEZ clients in order to maximise the revenue stream. It plans to follow the same strategy for its two proposed SEZs in Jaipur and Karla based on its experience from the Chennai SEZ. MGSCO focuses on the following while developing its customer base:

⇒ **Secure the industry leader:** MGSCO strives to rope in any industry leader as its first customer, known as "Gold Standard". This customer acts as an anchor tenant and then attracts more customers to the project site. This customer provides minimum economic impetus around which the project can be developed. MGSCO also ensures the line-up of other and smaller players from the same industry. An excellent example for this kind of customer would be Infosys.

⇒ **Secure a group company from a conglomerate:** MGSCO also strives to attract a group company from a large conglomerate to its SEZs. Once the customer is settled and satisfied then it helps ensure the line-up of other group companies. An excellent example of this kind of customer would be TVS Sundaram Brake Linings Ltd from the conglomerate TVS group.

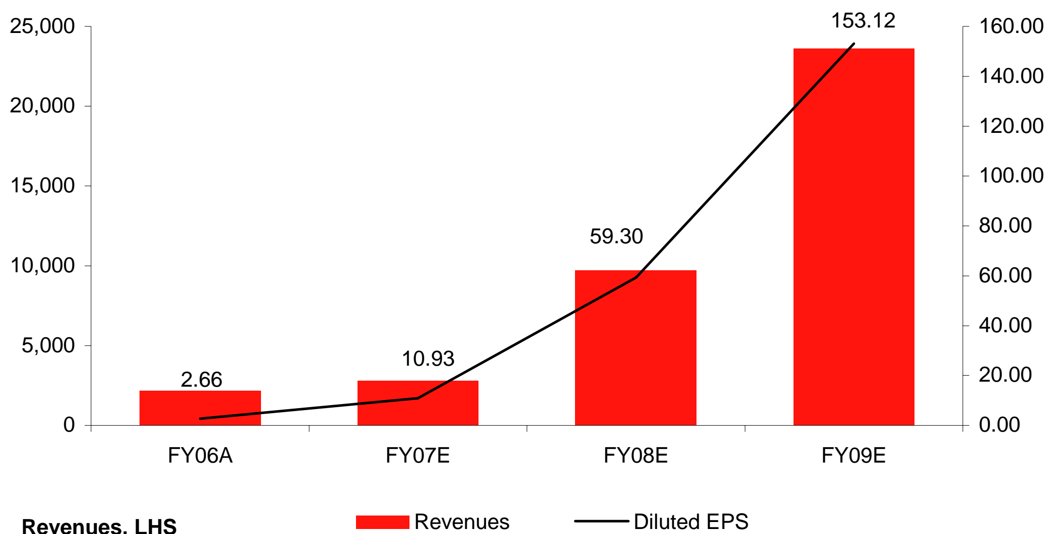
⇒ **Secure a best-in-class company from a particular country:** MGSCO also seeks to line up a best-in-class company from a particular country. This helps ensure enquiries from other companies from the country and to eventually get them interested in the project site. An excellent example for this kind of customer would be BMW.

- **Proven business model:** The company enjoys prior experience in various strategic decisions such as sector selection, phasing/rolling strategy and project management. MGSCO has a talent base and is learning to better handle the hurdles and challenges present in SEZ development.
- **State government as partner:** With the state government as partner, the land acquisition can be completed more easily and at a lower cost. Regulatory approval for the projects would be faster and there would be an assurance of utility infrastructure to the customers. The supporting infrastructure often becomes a big hurdle in the development of such promotional zones. Hence partnering with a state government is a big positive.
- **Client relationships:** Existing clients can easily rely on MGSCO while setting up their offices in different states. Satisfactory experience serves a long-term purpose, especially in products/services that are new to the country. In addition to repeat business there would also be referral customers.
- **Strong brand name of M&M:** The brand name of Mahindra Group in India is quite strong and as a result the customers are lead players in the industry. Due to its brand name MGSCO is able to attract and retain a human resource talent pool. With the help of a strong relationship with the government due to its brand name, MGSCO is also able to attain regulatory approval in better time.

MGSCO – Monetising SEZs:

- **Strong revenues and earnings growth forecast:** We forecast revenue growth of 11x from FY06–09 and EPS growth of 58x in the same period. Earnings improve impressively from Rs2.6 per share in FY06 to Rs153.1 per share in FY09. This impressive growth should consume only 12.5% of MGSCO's total developmental land. MGSCO's PER should modify to 73x in FY07 and reduce further to 13x in FY08. We forecast that this earnings level should at least be maintained as only 5% of total SEZ forecast revenues are booked by FY09. Clearly MGSCO has been in its establishment phase until now, sinking costs into the business in order to get it established.

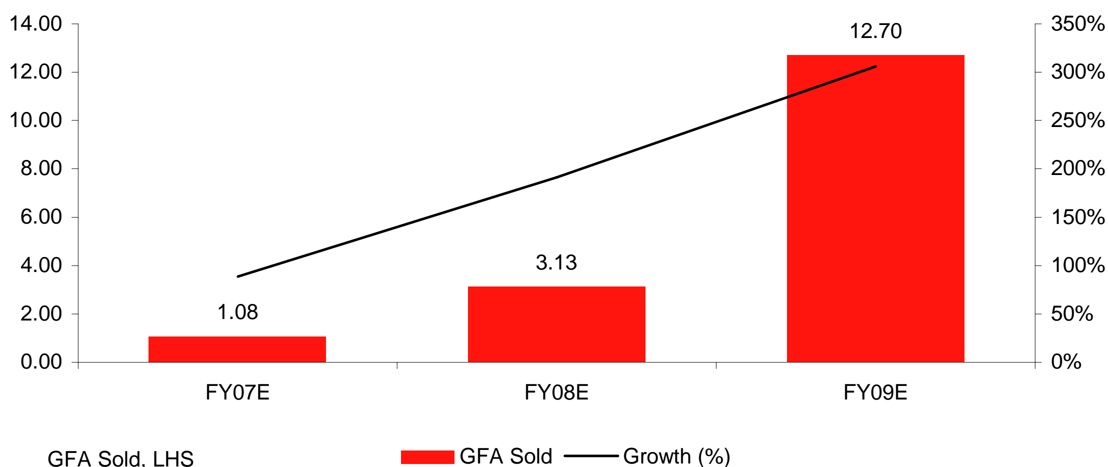
Fig 3 MGSCO revenues and earnings forecast



Source: Macquarie Research, November 2006

- **Forecast ramp-up in delivery schedule:** MGSCO's increased delivery schedule forecast is significant, with major contributions from residential development in Chennai SEZ and Thane SEZs in FY08 and Jaipur and Karla SEZs in FY09. In our development schedule we have determined future scaling up by looking at what is being planned and constructed now. We forecast MGSCO to deliver 1.08m sqf in FY07, which would increase to 12.7m sqf in FY09.

Fig 4 Projected delivery schedule



Source: Macquarie Research, November 2006

WACC and NAV discount analysis

Our discount rate – 14.5%

We use sum-of-the-parts methodology (NAV) to value the assets of property developers. Since MGSCO follows the 'develop and sell' model, we have followed the discounted cashflow (DCF) approach as it can capture the cost, selling price and margins of each property project. We believe this is the most appropriate approach due to the fluctuation in earnings, driven by volume increases, particularly in the medium term.

The weighted average discounted rate (WACC) is used to discount the future cashflow. WACC accounts for the target debt level, current risk free rate, projected beta and long-term market expected risk premium of individual companies.

Fig 5 MGSCO: Our discount rate

		Notes
WACC	**14.53%**	
Pre-tax cost of debt	10.0%	Average cost of debt
Tax rate	15%	Company's long term tax rate (SEZ Advantage)
Post-tax cost of debt	8.5%	Post-tax cost of debt
Risk free rate	7.75%	10 year Govt. bond yield
Equity risk premium (Rm-Rf)	7.0%	
Equity beta (b)	1.40	Used higher beta considering volatility
Cost of equity (Re = Rf+b(Rm-Rf))	17.6%	
Target debt to total assets	33%	Management's long-term target gearing

Note: Current gearing levels are far higher, however if these were adopted; our valuation would be significantly higher due to the lower cost of debt versus equity.

Source: Macquarie Research, July 2006

Our NAV is Rs1,110/share

Based on MGSCO's land bank, the total developmental area is 4.37m sqyd of industrial area and 95.76m sqf of residential. We estimate NAV for this development to be Rs1,110 which is mainly contributed by the Jaipur and Karla SEZs (71%), with residential projects contributing 15% to the total NAV pie. Our NPV calculation is shown in Figure 5:

Fig 5 Net asset value (NAV)

	(Rs m)	NAV/share (Rs)	% of Pre debt NAV
- Developmental Property			
- Residential Projects	6,287	170	14.6%
- SEZ (Jaipur and Karla)	30,562	825	70.9%
- SEZ (Chennai-Residential Development)	5,640	152	13.1%
- SEZ (Thane)	610	16	1.4%
- Developemnt Property sub Total	**43,098**	**1,164**	
Less:			
- Net bank borrowing	2,000	54	
Net asset value	**41,098**	**1,110**	

Source: Macquarie Research, November 2006

Our NAV, based on sum-of-the-parts, is Rs1,100 per share. Our valuation has incorporated the following assumptions:

- We have assumed prevailing market prices for residential projects under development. We have assumed almost all 7.9m sqf of non-SEZ residential development will be completed and delivered by FY09 and that only a couple of developments will slip over to FY10.
- We believe that both the Jaipur and Karla SEZs are similar in size (each 3,000 acres) and nature. Both have more or less equal advantage in terms of location, state support, infrastructure and availability of talent pool. Hence we have made similar assumptions for both the SEZs in terms of input cost, selling price and development schedule.

- Out of the total area of 3,000 acres for both Jaipur and Karla SEZs, we have assumed that 50% would be utilised for industrial with an FSI of 0.4 and that the 50% balance can be used for residential and related social infrastructure with an FSI of 0.8. The summary of total developmental area in these SEZs is given below. The industrial land will be sold off in medium to large blocks once basic infrastructure is in place. The tenant then typically builds its own premises.

Fig 6 Industrial and residential area (SEZ – Jaipur and Karla)

SEZ – Jaipur and Karla (3,000 acres Each)*	Land (acres)	FSI	Development Area
Industrial (1 sqyd = 9sqf, or just under one sqm)	3,000	0.4	5.81m sq yd
Residential and Related Social Infrastructure (m sqf)	3,000	0.8	104.54m sqf

* MGSCO share: 74% (4.3m sqyd of industrial area and 77.36m sqf of residential area)

Source: Macquarie Research, November 2006

- **Tax rate**: As SEZs are tax exemption zones even for developers, we have assumed a Minimum Alternative Tax (MAT) rate of 11.2% for SEZ developments. Though from present scenario it is likely that developers might not have to pay any tax yet conservatively we have assumed rate of 11.2% (MAT rate). On other other devlopments MFSCO would pay tax at the normal rate of 30%.
- **Land bank not considered for NAV computation**: We have discluded a portion of the land bank for which MGSCO currently has no develomental plans. This includes 54.6 acres in Goa, 234.2 acres in Chennai SEZ, Mahindra World City, Chennai and 12 acres in Thane, totalling 300.8 acres. The summary of MGSCO's total land bank is provided in Figure 7:

Fig 7 Land bank accounted for in our NAV calculation

	Acres	Remarks
Land where MGSCO has clear title		
- Goa	54.6	Not accounted in NAV in absence of any developmental plans
- Nasik	9.5	Accounted for in our NAV
- Mumbai	14.1	Accounted for in our NAV
- Faridabad	4.7	Accounted for in our NAV
Total	**82.9**	
SEZ Land where title vests wih MGSCO/Promoter/Subsidiary		
- Chennai SEZ	506.2	Development of 272 acres is accounted in our NAV
- Jaipur SEZ	1,000	Accounted for in our NAV
- Thane SEZ	84	Development of Biotech park of 72 acres is accounted in our NAV
Total	**1590.2**	
SEZ where land acquisition is in process		
- Jaipur SEZ	2,000	Accounted for in our NAV
- Karla SEZ	3,000	Accounted for in our NAV
Total	**5,000**	
Land held by third party for which MGSCO has developmental arrangement		
- Mumbai & Pune	**23.7**	Accounted for in our NAV
Land for which MGSCO has entered into contractual arrangement for title and are in process of acquisition		
- Vadodara (Gujarat)	**19.5**	Accounted for in our NAV

Source: Macquarie Research, November 2006

Strong sensitivity of delay in Jaipur and Karla SEZs to our NAV – this is the key risk

Considering 71% of MGSCO's NAV stems from Jaipur and Karla SEZs, it is imperative that these projects be developed in line with our projected schedule. Failing this, there is a downside risk to our NAV. The sensitivity analysis shows that a year over-run in these projects could dent our NAV by 9% and FY09 EPS by 45%. In the considered worst case scenario of a 3-year delay in these projects, our NPV reduces by as much as 26% with a reduction in FY10 EPS of 62% and FY11 EPS of 87%. The sensitivity of delay in the Jaipur and Karla developments to our NAV and EPS is summarised in Figure 8.

Delays could occur as a result of not all land being acquired yet by the relevant state governments for their SEZs. The government is currently compulsorily acquiring the land. The state governments are JV partners in both SEZs, hence the alignment of interests and incentive to complete acquisition. Nevertheless it is a key risk worth highlighting.

Fig 8 Senstivity analysis of delay in Jaipur and Karla SEZs

	NAV		EPS					
	(Rs)	Decrease (%)	FY09E (Rs)	Decrease (%)	FY10E (Rs)	Decrease (%)	FY11E (Rs)	Decrease (%)
Present	1,110		153.1		221.7		236.1	
1 Yr Delay	1,005	9	83.5	45	153.2	31	167.6	29
2 Yr Delay	906	18	83.5	45	84.7	62	99.1	58
3 Yr Delay	826	26	83.5	45	84.7	62	30.6	87

Source: Macquarie Research, November 2006

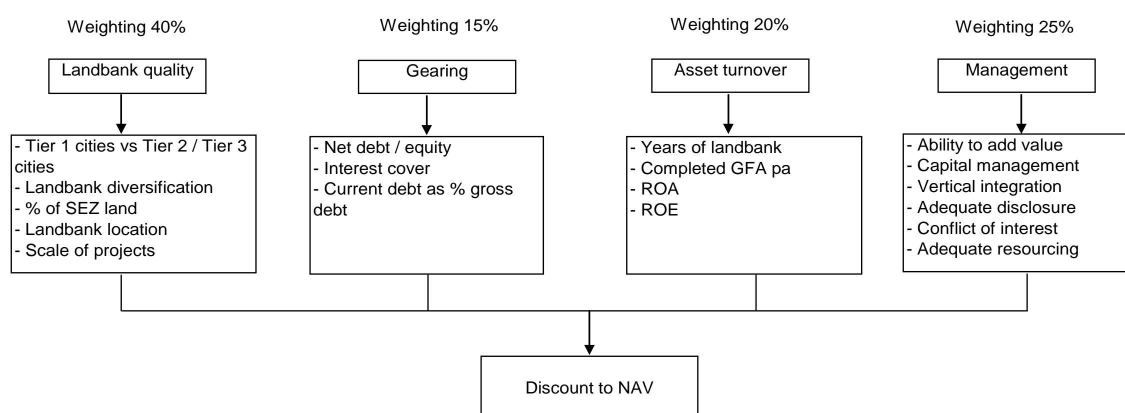
Target discount methodology (DiNAV model)

Our DiNAV model helps us to set our target price relative to the underlying NAV of the company. It is a relative valuation tool; that is, it helps us set the target discount/premium to NAV of one developer vs another. In absolute terms, the best developer in the market in India should trade at NAV. This is because of the opportunity to make NAV-accretive acquisitions, market positioning, brand recognition and the opportunities to benefit from the long-term growth of the Indian market with limited organised competition relative to other markets.

As a result, we have carefully chosen a few factors that are important to the success of MGSCO and assigned weightings on every factor. The respective weightings are applied to both of the covered property companies. We consider the important factors to be land-bank quality (40%), followed by gearing (15%), then asset turnover (20%) and finally management (25%).

In our view MGSCO is one of the better listed real estate developers. Its competitive position in multi-sector SEZ space and highly experienced management team are its major strengths. However MGSCO does not have a significant land bank other than proposed SEZs. There is uncertainty surrounding SEZ development. This is the primary driver in determining our target price discount of 15%. Hence our target price is Rs945 with an NAV of Rs1,110.

Fig 9 Macquarie DiNAV model (India) – discounts to NAV are driven by four key factors



Source: Macquarie Research, July 2006

Land bank quality (40%)

- MGSCO has a large land bank, but mainly for its proposed SEZs. The land for a proposed SEZ of a total 6,000 acres in Jaipur and Karla is yet to be acquired by the state government. The process for land acquisition has started and so far 1,000 acres of land has been acquired. Besides these large SEZs, MGSCO has 272 acres in its Chennai SEZ, Mahindra World City, for residential development. MGSCO has another 72 acres in Thane (near Mumbai) for its biotechnology SEZ. Other than this, MGSCO does not have a significant land bank; and it amounts to only 7.9m sqf of residential development. It is worth mentioning that MGSCO has a land bank of 300.8 acres for which it presently has no developmental plans and which is hence not considered by us in our NAV calculation.

Gearing (15%)

- We identified three key criteria to determine the developers' gearing profile: net debt to equity, interest coverage and current debt as a percentage of gross total debt. As at end of FY06, MGSCO had a typical developer financial profile, with a gearing of 112% and an interest coverage ratio of 2.8x. These ratios are better if compared with the industry average, although interest coverage is in line with the industry average. In terms of cost and easy availability of debt MGSCO is better placed due to its past financial performance and promoter group Mahindra & Mahindra.

Asset turnover (20%)

- Asset turnover is determined by the years of land bank, completed GFA pa, ROA and ROE. As stated earlier, MGSCO's existing land bank should be sufficient for the next eight years till FY15. This is a long period compared to the industry average. We view this as a positive as it indicates that MGSCO has enough land bank to ensure consistent revenue flow for a long time. MGSCO has an ROA of 7.6% for FY06 that is marginally better than the industry rate, which in this business is quite low especially during the land acquisition period. MGSCO ROE of 8.7% in FY06 is lower relative to the industry range. However, these ratios would undergo a significant improvement in line with our strong earnings forecast for MGSCO. ROE is expected to be 35.3% in FY07 and 91.6% in FY08.

Management (25%)

- Our assessment of management takes into account factors such as ability to add value, management of capital, conflict of interest, vertical integration of the business, adequate disclosure and adequate resources for business operations. We rate MGSCO management as one of the most able in the industry to develop the proposed SEZ given its track record of project execution. MGSCO management is rated very high in industry-speak and is backed by a highly reputed business group, Mahindra Group.

Project delivery summary

Fig 10 Development schedule (FY07–09)

(m sqf)	FY07E	FY08E	FY09E
Dev Projects	1.08	2.00	2.33
SEZ (Jaipur and Karla)			8.70
SEZ (Chennai)		0.66	1.11
SEZ (Thane)		0.47	0.56
Total	**1.08**	**3.13**	**12.70**
Growth (%)	**89%**	**191%**	**306%**

Source: Macquarie Research, November 2006

How MGSCO will benefit from its SEZ ownership?

Considering the Chennai SEZ development, we have assumed MGSCO would follow the ‘develop and sell’ model for both industrial and residential development. Industrial development would augment the need for residential and related social infrastructure, as seen in case of the Chennai SEZ. MGSCO already has firm commitments from its existing clients for the proposed SEZs. Considering the infrastructure development requirement for SEZs, we have assumed 0.6 FSI for the whole SEZ. We forecast that MGSCO would not experience large negative cashflows in the initial years as expected by the industry as the land acquired for the SEZ is very cheap at Rs2m per acre and MGSCO plans to pre-sell industrial plots.

MGSCO revenue and profit growth forecast is significant, with revenues starting to flow from the Chennai and Thane SEZs in FY08 and Jaipur and Karla in FY09. We forecast revenue growth of 11x from FY06–09 and EPS growth of 58x in the same period. This is due to a low base effect and large revenue stream flowing out of proposed SEZ development. In our development schedule we have determined future revenue growth by looking at what is being constructed now. We make the following important points:

- **Development projects:** MGSCO currently has 3.41m sqf under development and 4.5m sqf proposed to be built by FY09 with the exception of couple of projects that would slip into FY10. These projects are mainly in western cities of the country and some of them are located at premium locations.
- **Residential development in Chennai SEZ:** Residential development in the Chennai SEZ is already underway and we expect revenues to be booked from FY08 till FY13. We forecast revenues for the construction of 0.66m sqf would be booked in FY08 and another 1.11m sqf in FY09.
- **Thane SEZ:** Land for the Thane SEZ has already been acquired by the promoter company and would be transferred to MGSCO. We expect the sales to start at the end of FY07 itself, however the revenue would be recognised from FY08, and be completed by FY10 with a slippage of 10% in FY11. We forecast revenues for the construction of 0.66m sqf would be booked in FY08 and another 1.11m sqf in FY09.
- **Jaipur and Karla SEZs:** Land for these SEZs is still not acquired and is in the process of being acquired through the state government. The land acquisition process is both tedious and time consuming. Hence we do not expect any revenue booking from these projects before FY09. Though MGSCO expects to book revenue from FY08 only, we forecast a slip over of a year considering the uncertainty revolving around SEZ development in the country. We forecast revenues for the construction of 8.70m sqf (0.97m sqyd of industrial development) to be booked in FY09 and the total construction to be completed only by FY15.

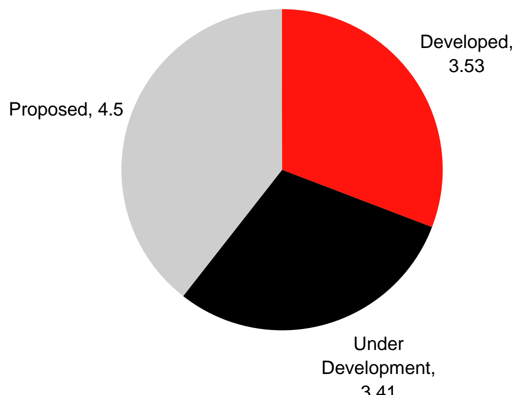
Key risks

MGSCO is largely an SEZ play and hence the risk relating to SEZ development in the country automatically becomes a risk for MGSCO. We list the key concerns for MGSCO for its SEZ developmental plans:

- **Heavily dependent on state government for land acquisitions**: MGSCO has a Public Private Partnership model for its SEZ and is dependent upon the state government for large contiguous portions of land for SEZ development. Further political instability or local resistance in states where MGSCO has SEZ projects may delay the process of land acquisition.
- **Uncertainties and differences/changes in governmental policies relating to SEZs**: The SEZ is a relatively new enactment. The policies relating to SEZs provide for fiscal and other incentives to SEZ developers and customers located within SEZs. The SEZ legal framework and related policies are evolving and there could be changes in rules for land acquisitions, land use and development. Further, changes and uncertainties in the SEZ legal framework may delay or adversely impact the demand for MGSCO SEZ developmental plans.
- **Competition from new expected SEZ:** Considering the fiscal and other incentives available for setting up operations in SEZs, a large number of companies have shown interest in developing SEZs in anticipation of huge demand for space within them. Since the enactment of the SEZ Act in 2005, the government so far has given at least 150 in-principle approvals.
- **Risks owing to long-term commitments required in SEZ**: SEZ projects have a long-term gestation period. Projects with a long gestation period have inherent risks in the form of time and cost overrun due to factors beyond the control of MGSCO such as delay in land acquisition, unforeseen cost increases and changes in the regulatory environment. Further, long gestation projects have a risk of varying demand due to changes in business environment/investment climate, etc.

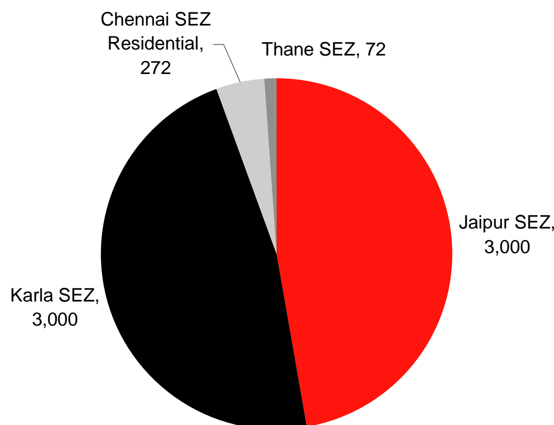
Land bank

Fig 11 Project development status (m sqf))



Source: Macquarie Research, November 2006

Fig 12 Proposed SEZ development (acres)



Source: Macquarie Research, November 2006

MGSCO has developmental plans for 7.9m sqf of residential construction and 6,344 acres of SEZ development. Of these 1,344 acres are already in possession of MGSCO and the rest would be acquired through state government. This translates into a total developmental area of 95.76m sqf of residential development and 4.37m sqyd of industrial development. MGSCO has total land bank of 300.8 acres for which it does not have any development plans and hence the same is not considered in our NPV calculation. The details of both the proposed industrial and residential projects (including SEZs) are summarised in Figure 13.

Fig 13 Total proposed developmental area (including ongoing projects)

	- Industrial (m sq yd)	**- Residential (m sqf)**
- Developmental Projects		7.9
- SEZ (Jaipur and Karla)	4.30	77.75
- SEZ (Chennai-Residential development)		8.85
- SEZ (Thane)	0.07	1.26
Total	**4.37**	**95.76**

Source: Macquarie Research, November 2006

Projects under development (other than SEZs)

- **Property development in premium locations:** MGSCO has so far developed over 3.54m sqf of residential and commercial space excluding SEZ development in Mumbai, Pune, Gurgaon, Delhi and Bangalore. MGSCO has developed residential space in some of the premium locations of Mumbai. MGSCO is currently developing about 3.4m sqf of residential projects in Mumbai, Chennai, Pune, Faridabad, Gurgaon and Pimpri (township near Pune). Along with the projects under development, MGSCO proposes to develop (other than SEZ development) another 4.5m sqf by FY09, mainly in residential space.

Fig 14 Summary of projects

	Area (m Sq. ft)
Developed	3.53
Under Development	3.41
Proposed	4.5
Total	**11.44**

Source: Company Report, Macquarie Research, September 2006

- MGSCO has indicated that, going forward, it plans to focus on integrated townships in Tier 2 cities such as Pune, Nasik, Faridabad and Baroda. The detail of the ongoing residential projects and its status is provided in Figure 15.

Fig 15 Ongoing/pipeline projects

	Location	Area (m sqf)	Status
Residential			
Central Park	Delhi	0.6	Ongoing
The Woods	Wakad, Pune	0.5	Ongoing
Sylvan Country (incl. 0.1m sqf Commercial)	Chennai	0.6	Ongoing
Mahindra Eminente	Mumbai	0.3	Ongoing
GE Gardens	Mumbai	0.1	Ongoing
Pimpri	Pune	0.6	Approvals awaited
Mahindra Eminente	Faridabad	0.4	Approvals awaited
GKW	Mumbai	0.3	Approvals awaited
Total		**3.3**	

Source: Company Report, Macquarie Research, September 2006

Earnings growth analysis

- **Strong revenues forecast:** We forecast strong top line growth of 122% CAGR in FY06–09 and an EPS increase of 58x from Rs2.6 to Rs153.1 in the same period. Strong growth is forecast on back of: 1) increased production due to SEZ development; and 2) better realisations as a result of rising property prices, especially over the past two years by almost 60–70%.
- **Sustainable high revenue growth:** This impressive growth till FY09 would consume only 12.5% of MGSCO's total development plan and hence we believe MGSCO would be able to maintain its stream of high revenues beyond FY09 as well. The high margins would also be maintained, mainly due to cheap land acquired for SEZs and better realisations than in the past. The earnings forecast are summarised in Figure 15.

Fig 16 Profit & loss A/C

	FY06A	FY07E	FY08E	FY09E
Total Operating Income	**2,163**	**2,806**	**9,704**	**23,640**
- Sales Growth	**75%**	**30%**	**246%**	**144%**
Less:				
Cost of Construction	1,597	1,470	5,606	14,722
- Gross margins	26%	48%	42%	38%
Selling, General & Admin Expenses	108	281	728	1,418
Personnel Expenses	90	135	175	227
Total Operating Expenses	1,794	1,885	6,508	16,368
EBITDA	**369**	**920**	**3,195**	**7,272**
EBIDTA Margin	**17%**	**33%**	**33%**	**31%**
Depreciation & Amortisation	25	32	33	39
Other Income	45	50	50	50
EBIT	388	938	3,212	7,282
Less: Interest	139	242	389	563
Recurring Pre-tax Income	249	697	2,823	6,719
Less: Taxation	78	209	565	1,008
Net Income (Reported)	**171**	**488**	**2,258**	**5,711**
- Net Profit Margin	**8%**	**17%**	**23%**	**24%**
- Diluted Earning Per Share (after pref. dividend)	**2.66**	**10.93**	**59.30**	**153.12**

Source: Macquarie Research, November 2006

- **Expanding profit margins:** MGSCO EBITDA margins would improve from 17% in FY06 to 33% in FY07 due to: 1) better realisations than in the past and; 3) better economies of scale. However we forecast EBITDA margins would finally settle around 30% from FY09 onwards as the share of SEZ income in the total income would increase significantly. We have assumed lower margins for SEZ development compared to residential development in a city, as MGSCO would also have to bear the cost of infrastructure in the development of an SEZ.
- **Increased interest coverage ratio:** As a normal offshoot of higher forecast revenues and better realisations, the EBIT of MGSCO will increase, and hence the interest coverage ratio will increase from 2.8x in FY06 to 8.2x in FY08 and further to 12.9x in FY09.

Balance sheet analysis

- Decline in gearing from FY08 onwards: MGSCO had a very high gearing of 112% as at FY06. However this is comparable to the Indian real estate industry average. The real estate industry in India requires funds to finance its increased production schedule. MGSCO's gearing ratio will further increase to 153% in FY07 before it starts declining in FY08 to 120% due to higher forecast earnings. However this decline will happen only if MGSCO sticks to its current development plan. If MGSCO plans additional development then it will require funds for land acquisition and construction purposes, in which case its gearing ratio may not decline as forecast.
- **Higher return on capital employed:** MGSCO's return on capital employed would increase from 5.4% in FY06 to 30.9% in FY09 on back of: 1) higher EBITDA margins at 30%; and 2) better economies of scale arising out of the large SEZ developments in Jaipur and Karla.
- **Reducing working capital cycle:** MGSCO's net working capital cycle is reducing from 420 days of sales in FY06 to only 24 days of sales in FY09. This is on account of: 1) lower revenue base in FY06 compared to higher sales forecast for the future; and 2) higher availability of cash from our strong forecast earnings and increasing customer advances.

Fig 17 Financial ratios

	FY06A	FY07E	FY08E	FY09E
Dupont model				
Net profit margin (after Pref. Dividend) (%)	3.8	14.4	22.6	24.0
Total Asset Turnover Ratio (x)	0.4	0.4	0.9	1.2
Total Asset to equity ratio (x)	5.1	5.6	4.7	3.2
Return on (Common) Equity (RoE)	8.7%	35.3%	91.6%	91.8%
Return / Profitability Ratios (%)				
EBITDA Margins	17.1%	32.8%	32.9%	30.8%
Return on Capital Employed (RoCE)	5.4%	10.3%	23.1%	30.9%
Return on Net Worth (RoNW)	8.7%	35.3%	91.6%	91.8%
Turnover Ratios				
Inventory Turnover Ratio (x)	0.7	0.5	1.2	1.9
Assets Turnover Ratio (x)	0.4	0.4	0.9	1.2
Working Capital Cycle (days)	420	186	55	24
Average Collection Period (days)	33	32	23	26
Average Payment Period (days)	124	150	62	39
Solvency Ratios / Liquidity Ratios (%)				
Debt Equity Ratio (D/E)	112.0%	153.0%	120.5%	70.6%
Net Working Capital / Total Assets	13.8%	28.0%	22.2%	18.9%
Interest Coverage Ratio-based on EBIT	2.8	3.9	8.2	12.9
Current Ratio	3.6	3.2	2.8	2.9

Source: Macquarie Research, November 2006

New SEZs at Jaipur and Karla

MGSCO has recently launched similar SEZs in Jaipur and Karla (Pune). Over 6,000 acres of development is planned in these SEZ. They will aim to be more professionally managed and focussed on customer requirements. MGSCO aims to position both its commercial and residential development as premium brands.

SEZ at Jaipur

MGSCO plans to set up an SEZ of 3,000 acres in Jaipur in JV with RIICO (nodal state government agency for industrial development in Rajasthan) on the back of advantages being offered by Jaipur in terms of the following benefits:

- **Resources:** The city is in the state of Rajasthan which is rich in natural resources and has the second largest deposit of minerals. The state is also one of the leaders in agriculture, with the largest producer of crops such as barley, spices etc. The state enjoys one of the best educational infrastructures, with some of the most reputed colleges in the country like BITS. BITS passes out more than 10,000 engineers every year. The total working population of the state is 15m with no history of labour unrest.
- **Infrastructure:** The state also has appropriate physical infrastructure with a fully equipped ICD and air cargo complex located in Jaipur for ease in logistics. The state enjoys well connected urban infrastructure and well equipped transport infrastructure with very good rail, road and air connectivity as it accounts for 33% of all tourists visiting India. The state has undertaken projects to achieve sufficient power and water supply.
- **Location:** The city is located only three hours from the national capital region and can very well act as a comparable alternative with much lower input costs for companies to set up or expand their operations. The city is strategically placed to exploit both the consumer and input markets. The city is a corridor between north and south-west, and provides access to and from the ports of Gujarat and the land-locked states of northern India. The city falls on the golden quadrilateral route, thereby cutting travel time between major cities. This location falls on a proposed Mumbai-Delhi freight corridor; which would provide a major boost to industrial activity in Jaipur.
- **State support:** A KPMG report suggests that industry perception of the state machinery in terms of efficiency and transparency is positive. The government has initiated major labour reforms. The government has also enacted the state SEZ act which is on the same lines as specified by the central government. There are firm commitments from the state government to provide high quality utility services and ease the process of land acquisition. The present state government appears to be proactive and keen to attract investments.

Project details: The project is planned to be located on National Highway #8 leading to the National Capital Region (NCR), 25kms from Jaipur city and 18kms from airport. The location is a nucleus for future growth aptly identified by the Government. The project will be spread over 3,000 acres. MGSCO projects it will employ 100,000 people by 2012. Industries targeted for this SEZ would be IT software and services, BPO, auto ancillaries and textiles. As mentioned earlier, 1,000 acres of the total 3,000 have already been acquired and transferred in the name of the company. For the remaining 2,000 acres, the land acquisition process is underway through the state government. MGSCO has firm commitments from its existing Chennai clients to take up industrial space in this SEZ.

Fig 18 Infosys campus in Chennai SEZ

Source: Company information, November 2006

SEZ at Karla (Pune)

MGSCO is also planning to set up an SEZ of 3,000 acres at Karla in joint venture with Maharashtra Industrial Development Corporation (MIDC). MGSCO plans to make it a multi-sector SEZ with probable sectors including IT, ITES, electronics, hardware, auto and auto ancillary etc. MGSCO is looking to exploit the advantages of Pune as a location: it offers very similar advantages to Jaipur:

- **Resources:** Pune is located in India's most industrialised state of Maharashtra. The state accounts for the largest FDI flowing into the country. Mumbai-Pune is the most significant commercial and industrial hub in the country and Karla is situated between the two cities. Pune is also home to 100 colleges and is popularly known as student's city. The city churns out 88,000 engineers and 6,400 management graduates every year.
- **Infrastructure:** The state has one of the best urban infrastructures in the country with abundant power and water supply. The city enjoys excellent transport and logistics connectivity being close Mumbai sea ports, the international airport and the proposed freight corridor.
- **Location:** Karla is well located, with Pune within an hour and with Mumbai within 1.5 hours. The location is well connected via an expressway. Like Jaipur, it is close to both consumer and input markets. Karla has close proximity to other major industrial bases and is ideal for any backward or forward linkages. Karla enjoys a salubrious climate and has in place a well developed social infrastructure.
- **State support:** MGSCO has a joint venture with MIDC for this SEZ. As a result, the land acquisition process has already been started. Maharashtra, the most industrialised state of India, has traditionally been supporting industrial activity for the state. The state has also promoted other kinds of industrial parks. There are investor friendly clauses in the draft state SEZ Act. There is a firm commitment from the state government to provide high-quality utility services and to ease the process of land acquisition for the project.

Project details: The project has a huge advantage with regard to its location, with connectivity to the business hubs of Mumbai and Pune. Industries targeted for this SEZ would be IT software and services, higher-end KPO/BPO, electronics & hardware, auto & ancillaries, higher education services and food processing. The land acquisition process for 3,000 acres is already underway by both MGSCO and the state government.

Fig 19 Areal view of infrastructure in Chennai SEZ

Source: Company information, November 2006

Company profile

MGSCO is the combined Great Eastern Shipping Co Ltd (GESCO) and Mahindra Realty & Infrastructure Developers Ltd (MRIDL). In order to synergise the strengths of two prominent developers and move towards becoming the largest corporate developer in the country, GESCO and MRIDL combined their operations in December 2001.

MGSCO is a pioneer in the SEZ space. It had an operational SEZ at a time when competitors' SEZ plans were still on the drawing board. Through one of its subsidiaries, MGSCO has promoted corporate India's first operational Special Economic Zone (SEZ) and India's first integrated business city in a public-private partnership model – Mahindra World City, New Chennai. It has recently launched Mahindra world City, Jaipur.

In partnership with International Finance Corporation Washington, MGSCO is also engaged in infrastructure projects in select sectors through one of its subsidiaries. Through this subsidiary MGSCO is currently pursuing opportunities in water supply projects and is the leader of the consortium that is executing the country's first private sector water project.

MGSCO's Quality Systems has been recognised with the prestigious certification of ISO 9001–2000 from BVQI (for excellence in design, development, construction and marketing of residential and commercial projects).

About the parent companies

One of the parent companies, GESCO, started as a shipping company and in 1992 diversified into real estate activities with the formulation of its property division. Over time it spread its area of operations to Mumbai, Navi Mumbai, Gurgaon, Pune and Bangalore.

The other parent company, MRIDL, was incorporated in August 1994 to execute the diversification plans of the Mahindra Group into real estate and infrastructure business, as a wholly owned subsidiary of Mahindra & Mahindra.

Management profile

Anand Mahindra, Chairman

An MBA from Harvard, Mr Anand Mahindra was appointed as the Managing Director of Mahindra & Mahindra Ltd in 1997 and has been a catalyst in MGSCO's extensive expansion programme ever since. In January 2003 he was handed the additional charge of Vice Chairman. His prominent achievements include the following awards:

- 'Knight of the Order of Merit' by the President of France.
- Rajiv Gandhi Award 2004 for outstanding contribution in the field of business.
- 2005 Leadership Award from the American India Foundation.
- Person of the Year 2005 by Auto Monitor.

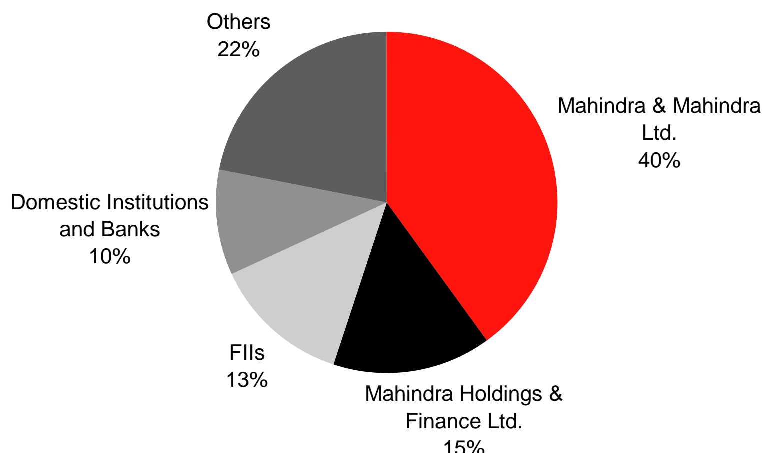
Pranab Datta, Director & CEO

Mr Pranab Datta joined MGSCO as President and CEO in 2003 and was later inducted to the board as Managing Director and CEO in January 2006. He is the person responsible for the day to day management of MGSCO. He has been mandated by the board to profitably expand the operations of MGSCO to become one of the leading players in the real estate industry. His career spans more than 34 years and includes significant stints with Tatas and Marico.

He started his career as a Finance Executive with Voltas at its head office and thereafter moved to Rallis where he held positions including Divisional Accountant, Regional Sales Manager, Marketing Manager and Corporate Planning Manager. Thereafter, he moved to Nelco as Vice President – Finance. From time to time, he was also entrusted with the responsibility of managing operations of the various business units when intervention was required to improve their performance.

He holds directorship in Mahindra Infrastructure Dev Ltd, Knight Frank (I) Pvt Ltd, and Mahindra Realty Limited. He is a member of the governing council of National Real Estate Development Council (NAREDCO) and is also member of the CII task force on Infrastructure.

Fig 20 Shareholding base (%)

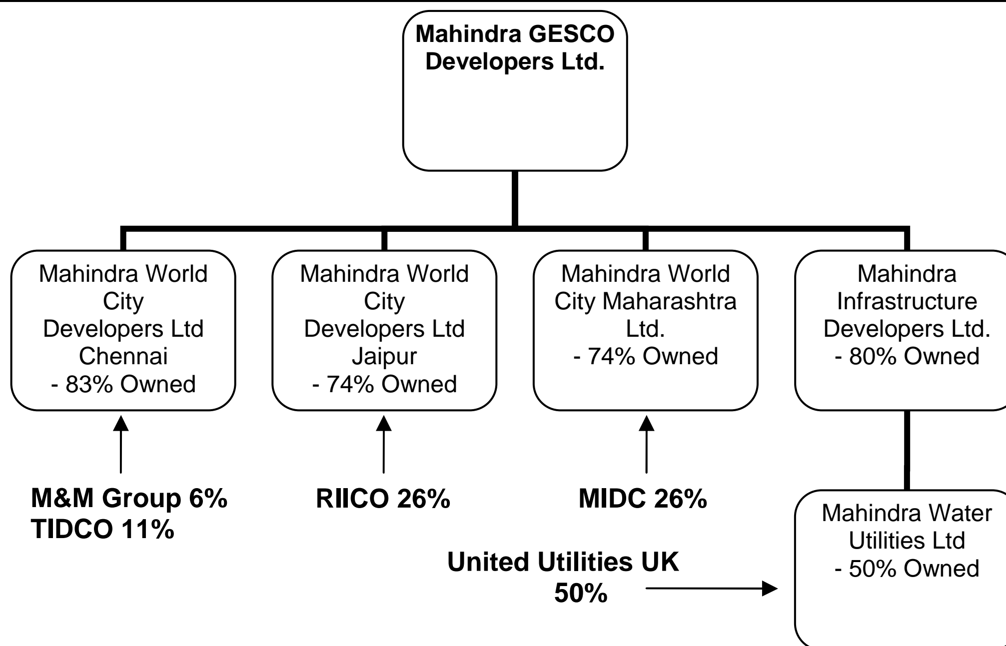


Source: Macquarie Research, October 2006

Key competitive strengths of Mahindra GESCO

- **Multiple formats and revenue streams:** MGSCO has in place a revenue model that provides multiple format revenue streams**.** This feature helps MGSCO protect itself from property price declines. MGSCO has diversified into residential, commercial, retail and, most prominently, SEZ space. Residential prices are insulated from price shocks to an extent of demand coming from end users. Industrial products are differentiated from regular offerings by providing value additions which help MGSCO command a premium to its peers.
- **Land procurement at reasonably low cost:** MGSCO has been on a land acquisition spree through statutory notification at low cost. All these acquisitions are with the consent of the buyer which reduces the risk of litigation. The public private partnership (PPP) structure of the company is aiding in acquiring the land at sites which either already are or have the potential to become extremely valuable.
- **Parent company/group support:** Mahindra group is very much diversified across various sectors/activities that provide a cushion against sector demand shocks. MGSCO is better suited to withstand economic slowdown compared to its peers due to corporate ownership. In fact MGSCO can acquire more land available at lower costs in times of economic slowdown.
- **SEZ competitiveness:** Because fiscal incentives are integral to the SEZ concept their removal is unlikely. MGSCO thrives on its SEZ competitiveness and markets it by focussing on the world-class infrastructure and hassle-free operations that its SEZs in Chennai provide to its customers. They provide cluster benefits and integrated offerings.

Fig 21 Current shareholding of Mahindra Gesco and its subsidiaries



Source: Company report, September 2006

Fig 22 Landmark projects

Project	Landmark Feature
Belvedere Court, Mumbai	Tallest residential building in India, when built in 1997
Mahindra Heights, Mumbai	Luxury redefined, swimming pool on 23rd floor
GE Gardens, Mumbai	Repositioned the industrial suburb of Kanjurmarg
The Woods, Pune	One of the prominent projects of Pune
Sylvan Country, Chennai	Premium residential development in India's first integrated township, Mahindra World City

Source: Company report, Macquarie Research, September 2006

Fig 23 Completed projects

	Location	Area ('000 sqf)
Residential		
Central Park	Delhi	520
GE Gardens	Mumbai	490
Mahindra Gardens	Mumbai	360
GE Links	Mumbai	350
Mahindra Park	Mumbai	190
GE Summit	Mumbai	170
Belvedere Court	Mumbai	160
Le Mirage	Pune	120
GE Royale	Mumbai	110
Nest	Pune	90
Mahindra Heights	Mumbai	60
GE Heights	Mumbai	50
Retreat	Pune	40
GE Villa	Bangalore	30
Chalet	Bangalore	20
Fairwinds	Mumbai	10
GE Shores	Mumbai	10
Total residential space		**2,780**
Commercial		
IL & FS Towers	Mumbai	380
GE Plaza	Pune	150
GE Centre	Delhi	50
GE Plaza	Delhi	70
GE Galleria	Mumbai	110
Total commercial space		**760**

Source: Company Report, Macquarie Research, September 2006

Mahindra Gesco Developers Ltd (MGSCO IN, Outperform, target price: Rs945.00)

Profit & Loss		2006A	2007E	2008E	2009E
Net Property Income	m	91	0	0	0
Development Income	m	1,997	2,806	9,704	23,640
Other Revenue	m	75	0	0	0
Total Revenue	**m**	**2,163**	**2,806**	**9,704**	**23,640**
Management Fees	m	0	0	0	0
Other Expenses	m	-1,794	-1,885	-6,508	-16,368
EBITDA	**m**	**369**	**920**	**3,195**	**7,272**
Dep & Amortisation	m	25	32	33	39
EBIT	**m**	**388**	**938**	**3,212**	**7,282**
Net Interest Income	m	-139	-242	-389	-563
Associates	m	0	0	0	0
Exceptionals	m	0	0	0	0
Other Pre-Tax Income	m	0	0	0	0
Pre-Tax Profit	**m**	**249**	**697**	**2,823**	**6,719**
Tax Expense	m	-78	-209	-565	-1,008
Net Profit	**m**	**171**	**488**	**2,258**	**5,711**
Minority Interests	m	-6	0	0	0
Reported Earnings	**m**	**82**	**405**	**2,196**	**5,670**
Adjusted Earnings	**m**	**82**	**405**	**2,196**	**5,670**
EPS (rep)		2.66	10.93	59.30	153.12
EPS (adj)		2.66	10.93	59.30	153.12
EPS Growth (adj)	%	2,254.3	311.4	442.7	158.2
PE (rep)	x	300.9	73.1	13.5	5.2
PE (adj)	x	300.9	73.1	13.5	5.2
Total DPS		1.51	2.63	3.05	7.71
Total Div Yield	%	0.2	0.3	0.4	1.0
Weighted Average Shares	m	31	37	37	37
Period End Shares	m	31	37	37	37

Profit & Loss Ratios		2006A	2007E	2008E	2009E
Revenue Growth	%	75.3	29.7	245.9	143.6
EBITDA Growth	%	95.0	134.6	234.5	125.6
EBIT Growth	%	107.8	141.7	242.3	126.7
EBITDA Margins	%	19.1	34.6	33.4	31.0
EBIT Margins	%	18.0	33.4	33.1	30.8
Net Profit Margins	%	7.9	17.4	23.3	24.2
Payout Ratio	%	56.9	24.1	5.1	5.0
EV/EBITDA	x	65.5	32.9	9.8	4.4
EV/EBIT	x	69.8	34.0	9.9	4.4
Balance Sheet Ratios					
ROE	%	4.6	20.4	70.1	84.6
ROA	%	7.7	14.3	28.4	36.1
ROIC	%	6.8	15.9	55.6	77.8
Net Debt/Equity	%	123.4	108.8	92.4	35.7
Interest Cover	x	2.8	3.9	8.2	12.9
Price/Book	x	13.7	13.6	7.2	3.2
Book Value per Share		58.2	58.6	110.5	251.5

Cashflow Analysis		2006A	2007E	2008E	2009E
EBITDA	**m**	**369**	**920**	**3,195**	**7,272**
Tax Paid	m	-60	-59	-209	-565
Chg in Working Capital	m	-487	226	-1,410	-2,188
Net Interest Paid	m	-139	-242	-389	-563
Other	m	43	22	48	48
Operating Cashflow	**m**	**-274**	**867**	**1,235**	**4,004**
Investments	m	0	-15	0	0
Capex	m	-9	-125	-205	-513
Asset Sales	m	0	0	0	0
Other	m	45	50	50	50
Investing Cashflow	**m**	**36**	**-90**	**-155**	**-463**
Dividend (Ordinary)	m	0	-130	-181	-175
Equity Raised	m	0	60	-163	-163
Debt Movements	m	145	1,222	1,729	1,749
Other	m	10	0	0	0
Financing Cashflow	**m**	**156**	**1,152**	**1,386**	**1,412**
Net Chg in Cash/Debt	**m**	**-82**	**1,929**	**2,465**	**4,952**

Balance Sheet		2006A	2007E	2008E	2009E
Cash	m	197	2,126	4,591	9,543
Receivables	m	216	280	968	2,358
Inventories	m	2,682	3,184	6,098	9,278
Investments	m	0	0	0	0
Fixed Assets	m	464	557	729	1,203
Intangibles	m	191	191	143	95
Other Assets	m	1,441	1,604	2,158	3,149
Total Assets	**m**	**5,190**	**7,942**	**14,687**	**25,627**
Payables	m	551	654	1,254	1,907
Short Term Debt	m	667	1,505	3,651	6,372
Long Term Debt	m	1,808	3,030	4,758	6,508
Provisions	m	317	539	890	1,485
Other Liabilities	m	0	0	0	0
Total Liabilities	**m**	**3,344**	**5,728**	**10,553**	**16,271**
Shareholders' Funds	m	1,804	2,171	4,092	9,313
Minority Interests	m	42	42	42	42
Total S/H Equity	**m**	**1,846**	**2,213**	**4,134**	**9,355**
Total Liab & S/H Funds	**m**	**5,190**	**7,942**	**14,687**	**25,627**

All figures in INR unless noted.
Source: Macquarie Research, November 2006

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Recommendation definitions

Macquarie Australia/New Zealand
Outperform – return >5% in excess of benchmark return (>2.5% in excess for listed property trusts)
Neutral – return within 5% of benchmark return (within 2.5% for listed property trusts)
Underperform – return >5% below benchmark return (>2.5% below for listed property trusts)

Macquarie Asia
Outperform – expected return >+10%
Neutral – expected return from -10% to +10%
Underperform – expected return <-10%

Recommendations – 12 months

Note: Quant recommendations may differ from Fundamental Analyst recommendations

Recommendation proportions

Macquarie Australia/New Zealand	
Outperform	42.81%
Neutral	44.60%
Underperform	12.59%
Macquarie Asia	
Outperform	57.12%
Neutral	26.36%
Underperform	16.52%

For quarter ending 30 September 2006

Volatility index definition*

This is calculated from the volatility of historic price movements.

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High – stock should be expected to move up or down at least 40–60% in a year – investors should be aware this stock could be speculative.

Medium – stock should be expected to move up or down at least 30–40% in a year.

Low–medium – stock should be expected to move up or down at least 25–30% in a year.

Low – stock should be expected to move up or down at least 15–25% in a year.
* Applicable to Australian/NZ stocks only

Financial definitions

All "Adjusted" data items have had the following adjustments made:
Added back: goodwill amortisation, provision for catastrophe reserves, IFRS derivatives & hedging, IFRS impairments & IFRS interest expense
Excluded: non recurring items, asset revals, property revals, appraisal value uplift, preference dividends & minority interests

EPS = adjusted net profit / efpowa*
ROA = adjusted ebit / average total assets
ROA Banks/Insurance = adjusted net profit /average total assets
ROE = adjusted net profit / average shareholders funds
Gross cashflow = adjusted net profit + depreciation
*equivalent fully paid ordinary weighted average number of shares

All Reported numbers for Australian/NZ listed stocks are modelled under IFRS (International Financial Reporting Standards).

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