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Inside

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DLF curtain raiser II – the main event

Drum rolls begin, the curtain is raised

The DLF IPO is now in full swing. It appears that DLF is looking to raise US$2.2–2.4bn (Rs500–550 per share) via a ~10% equity dilution, valuing the company at US$21.2–23.2bn. The issue is likely to be wrapped by mid-June. Media reports indicate that there has been strong interest. This is no surprise; it is a one-time opportunity to invest in India's biggest property developer by size. However, the key issue (as always) is pricing. After our *DLF Curtain Raiser* report of 13 March, we are now into the main event.

Likely issue price a 25–35% premium to NAV

Based on a project-by-project analysis, we calculate DLF's NAV at Rs400 per share. We have assumed volume growth that is broadly in line with DLF's forecasts, which means that it may build out its 574m sqf in the next ten years. However, we have also assumed price growth of 15–20% from current prices, which we view as reasonably aggressive. We have not attributed any value to 23 hotel sites, various JVs entered into and SEZs that are still in the pipeline.

Such a premium is broadly consistent with some other leading property companies in Asia that are showing that such premium pricing is possible, although not common. We estimate that Country Garden (2007 HK, HK$6.67, NR), the largest China developer, is trading at a 30–50% premium to NAV and that City Developments (CIT SP, S$12.30, UP, TP: S$17.80) in Singapore is trading at a 40% premium to NAV. However, most property companies in the region are trading at NAV or at a discount to NAV.

Where could our NAV be wrong?

Real estate valuations are complex, and India is a large country. In all, DLF has 10,255 acres of land. While we have based our thesis on a combination of publicly available information, our own investigations and brief consultations with management, we cannot rule out price and volume fluctuations in specific projects that may skew our NAV calculation. Could our NAV be out by 10%? Possibly. Could we be out by >30%? Unlikely.

DLF – what we still like… and our biggest concern

DLF has a presence in 31 cities, including some premium locations. It has a well-rounded business with residential, commercial and retail exposure. Unlike many other listed developers, it is focusing more on commercial and retail development in the short term, which we think corresponds to strong demand in these segments. DLF will also be the biggest developer in India, likely attracting global interest from investors and those looking for an Indian partner.

Our single biggest concern is its ability to build and sell 232m sqf of residential development in Gurgaon in the next ten years. DLF needs to sell >1,200 apartments per month, every month, for the next ten years. We estimate that current monthly sales for all of Gurgaon from all developers are around 500 apartments. Similar questions surround the affordability of such apartments, assuming they sell for an average of Rs5,000 psf, as per our NAV calculation. Hence, we think that the pace of product absorption in Gurgaon is the key.

DLF curtain raiser II – the main event

DLF (Mach IV) at a glance

Fig 1 DLF – key metrics

Bloomberg code	Issue timing	Tot. land bank (m sqf)	Estimated mkt cap. (US$bn)	Asset value (US$m)	Current debt (US$m)	Gearing ratio* (%)	EV/sqf of land bank (US$)	Land cost to be paid (US$m)
DLFU IN	11–14 June 2007	574	21.2–23.2	1,415	2,465	250%	41.1–44.6	1,352

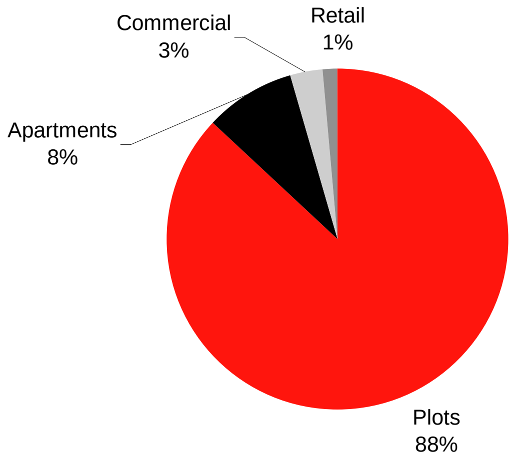
* Net debt to historical equity (essentially historical book value)

Source: DLF prospectus filed in May 2007, Macquarie Research, June 2007

DLF public issue to raise US$2.2–2.4bn by diluting 10.27% equity

DLF is one of the leading players in the Indian real estate developers market. With six decades of valuable experience, the company has been able to create a strong brand name. It has sold approxiately 224m sqf of developed area so far. However, a major portion of this has been plot sales (88%), and the remainder is attributablle to the sale of residential (8%), commercial (3%) and retail (1%) properties.

Fig 2 DLF – developed and sold 224m sqf so far



Source: DLF prospectus filed in May 2007, Macquarie Research, June 2007

To date, DLF has been involved in residential, commercial and retail property development. However, going forward, the company intends to expand into the hotel, entertainment and SEZ segments. To accomplish this, the company has entered into various alliances, such as those with Hilton and Laing O'Rourke. Its venture into the world of cinema entertainment is through the DT Cinemas brand name.

DLF has signed several MOU, including a JV with Nakheel for two large townships

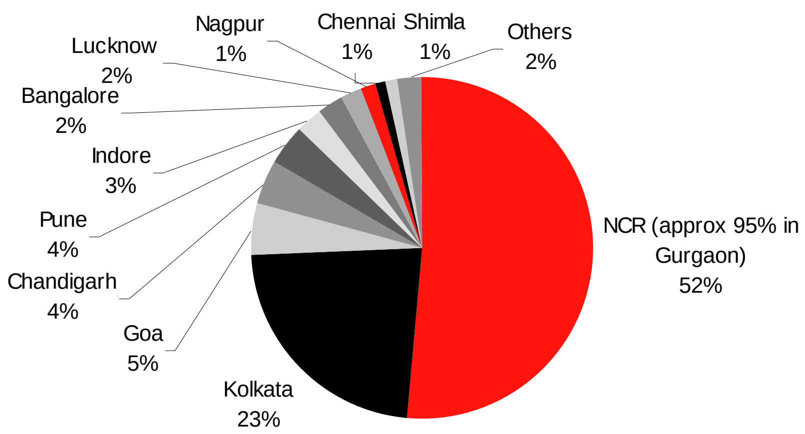
In addition to these, the company has also reached agreement, in principle, on an alliance with Prudential International Investments Corporation (PIIC). Together, they aim to establish an asset management joint venture company. DLF also signed a Memorandum of Cooperation with Fraport AG Frankfurt Airport Services Worldwide (Fraport) to establish a special purpose vehicle to focus on the development and management of certain airport projects in India. DLF also recently signed a memorandum of understanding with Nakheel LLC, United Arab Emirates, to develop, through a joint venture, two townships in India, each spread over an area of approximately 20,000 acres. Finally, DLF has signed a memorandum of understanding with Fortis Healthcare Limited to own, develop, establish, operate and manage, though a joint venture company, certain 250–400-bed hospitals.

DLF land-bank analysis

DLF has 72% of its land bank in Gurgaon (49%) and Kolkata (23%)

DLF is one of the largest developers, with a vast land bank aggregating 10,255 acres, amounting to 574m sqf of developable area. In terms of land-bank diversification, DLF looks good because its land bank is situated in 31 cities in India, even though it has a small presence (less than 100 acres) in 20 of these. It has a presence in prime cities such as Delhi and Mumbai, which gives it an edge over other developers. However, DLF's total land bank of 10,255 acres is highly skewed in favour of Gurgaon and, to some extent, Kolkata. DLF has approximately 72% of its total land bank in Gurgaon (49%) and Kolkata (23%). We show the citywise breakdown of DLF's land bank in Figure 3.

Fig 3 DLF land bank (10,255 acres) – diversified, yet concentrated in Gurgaon



Source: DLF prospectus filed in May 2007, Macquarie Research, June 2007

Risks associated with DLF land bank

DLF owns only 11.3% of its land bank and has tripartite agreements for the rest

- **Uncertainty about DLF's revenue share in 217m sqf of land bank:** Figure 4 shows DLF's land-bank details with respect to ownership and mode of acquisition. A more in-depth analysis, however, shows that the company owns only about 11.3% of its land bank and has tripartite agreements for the rest. Based on our understanding of the company data provided in the prospectus, we believe that there is not enough clarity on 217m sqf of land over which DLF has sole development rights through its subsidiaries and which accounts for 45% of its total acreage. For this 217m sqf, DLF's prospectus states "the commercial effect of sole development rights is to entitle us to substantially all the revenues from the relevant development." We believe that the definition of substantial revenues needs to be clarified because it is a vague term and does not quantify DLF's share in revenues. However the prospectus mentions that the company is entitled to all the revenue from the development for large number of sole development agreements at a payment of Rs500,000/acre to the grantor of the rights

Fig 4 DLF – land-bank ownership details

Land Reserve (by category)	Acreage	% of Total Acreage	Est. Developable Area (m sqf)	% of Developable Area
DLF Developments	**9,420**	**91.9**	**534**	**93.1**
Land Owned	1,160	11.3	116	20.2
By DLF	55	0.5	7	1.2
Through DLF's subsidiaries	1,104	10.8	109	19.0
Land over which DLF has sole development rights through it's subsidiaries	4,575	44.6	217	37.9
Land acquired through MoUs/ agreements to purchase/letters of Acceptance, of which:	3,685	35.9	201	35.1
Lands subject to government allocation	2,606	25.4	151	26.4
Lands subject to private acquisition	1,080	10.5	50	8.7
Joint Developments with Partners	**835**	**8.1**	**40**	**6.9**
Land for which JV has been entered into:				
Directly by DLF	163	1.6	6	1.0
Through DLF's subsidiaries	10	0.1	3	0.6
Through other entities	75	0.7	4	0.6
Proportionate interest in lands owned indirectly through JV	587	5.7	27	4.7
Total	**10,255**	**100.0**	**574**	**100.0**

Source: DLF prospectus filed in May 2007, Macquarie Research, June 2007

For 60% of land, a certificate for change of land use has not yet been obtained

- **Land pending certificate for change of land use:** A significant portion of the land owned by the company is earmarked as 'agricultural land'. In fact, of the company's total land bank of 10,255 acres, a certificate for change of land use has not yet been obtained for a major portion – about 60%. These approvals generally delay project execution for longer than estimated.

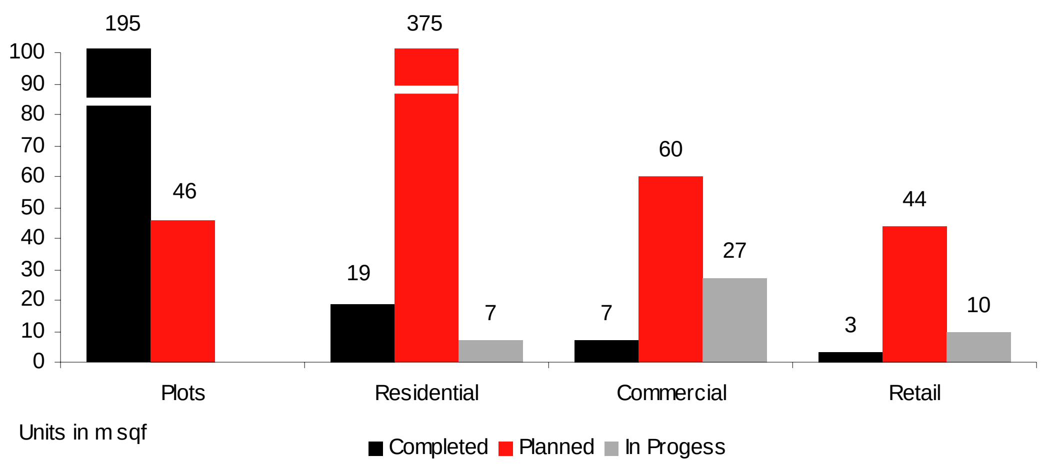
Snapshot of area developed, under construction and planned

- A total of 10,255 acres translates into 574m sqf of saleable area. The total 574m sqf involves the development of plots of 46m sqf, residential apartments of 377m sqf, commercial development of 88m sqf and retail development of 56m sqf. DLF believes that its current land bank is sufficient for the next ten years.

Aggressive ramp-up plans

- Of 574m sqf, DLF had a total of 46m sqf under development as of March 2007, with a major focus on commercial and retail in the mid-short-term accounting for 80% of total development under construction. This is in line with strong demand for these segments, especially in NCR. However, there remains a concern about monetisation of such a large land bank over the next ten years. We think that these are aggressive estimates and would require both strong demand for DLF's product mix and higher execution capabilities, especially at a time when every developer is competing for a limited number of contractors.

Fig 5 DLF – what is developed in 60 years… what is planned for next 10 years



Source: DLF prospectus filed in May 2007, Macquarie Research, June 2007

NAV estimate

Issue price 25–35% premium to NAV

Based on our valuation assumptions and analysis through the Macquarie DiNAV Model, we arrive at an NAV of Rs400 per share for DLF.

We estimate DLF NAV at Rs400/share

We believe that the issue price is about a 25–35% premium to the NAV based on saleable area of 574m sqf. In our valuation approach, we have been aggressive in our assumptions about pricing and volume growth. Although volume growth is broadly in line with the guidance of a very strong development schedule provided by DLF in its prospectus, we remain concerned about the monetization of 574m sqf in the next ten years. We arrive at an NAV of Rs400 per share; the desired issue price range of Rs500–550 per share equates to a premium of 25–35% to our calculated NAV.

Fig 6 Net asset value (NAV)

	(Rs m)	NAV/share (Rs)	% of pre Debt NAV
- Development Property			
- Residential (Plots & Apartments)	429,603	252	55%
- Commercial	193,304	113	25%
- Retail	158,289	93	20%
- Development Property sub total	**781,196**	**458**	
Less: Net Bank Borrowing	99,328	58	
Net Asset Value	**51,634**	**400**	

Source: Macquarie Research, June 2007

Our NAV is Rs400/share

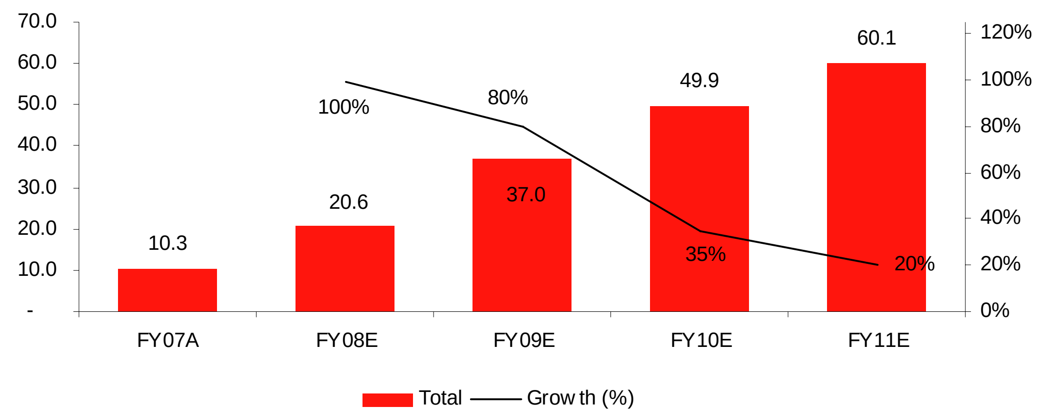
Our NAV, based on a sum-of-the parts methodology, is Rs400. Our valuation has incorporated the following assumptions.

- We have valued the entire 10,255 acres of the DLF land bank, amounting to 574m sqf of saleable area. It is worth mentioning that the title for a good portion of the land bank has not yet been secured and that the certificate of change of land use is still pending for 60% of the company's land bank.

Assuming an average price increase of 15–20% over current prices

- We have assumed an average price increase of 15–20% over current prices for individual projects for all 574m sqf, for property under development and planned for.
- The land bank of 574m sqf is expected to be developed over the next ten years includingin Guragon (284m sqf) and Kolkata (127m sqf). This is in line with DLF's guidance that its current land bank is sufficient for the next ten years.

Fig 7 DLF –development schedule forecast



Source: Macquarie Research, June 2007

- We have discounted after-tax cashflows at a rate of 14%. The sensivity to NAV is around 5% for every 100bp change in the discount rate.
- Our NPV calculation does not take into account any of the proposed SEZs (26,100 acres) or any of the JVs for other businesses DLF has entered or has signed an MOU for. We also have not included any land bank that is not public information.

Rolling out the Macquarie DiNAV model

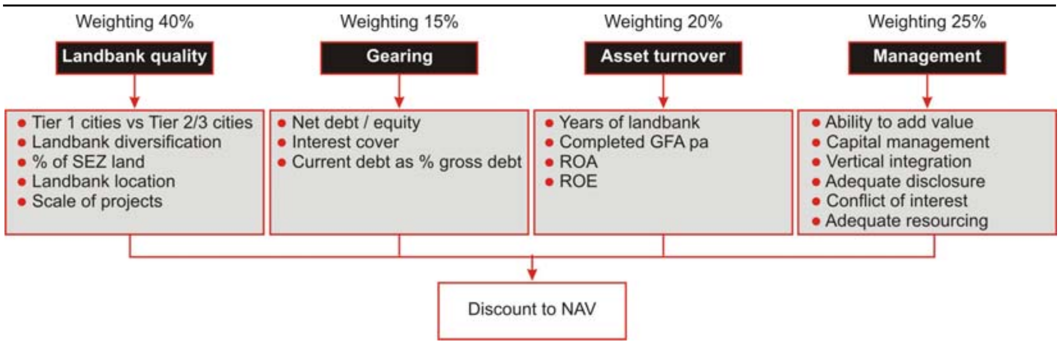
The market response to the Macquarie DiNAV Model (**D**iscount **I**mplied to **NAV**) in analysing China property discounts to NAV has been positive. Although far from a perfect quantitative model, it goes some way towards quantifying the discount (or at par) at which specific property stocks should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

Macquarie DiNAV model is a useful relative-valuation tool

The market trading NAV discount (or premium) generally reflects the perceived qualitative factors that cannot be fully captured in fomulating a valuation. Because the India property sector is developing quickly, it is not relevant to use historical NAV discounts in calculating the appropriate current discount or premium (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 that these characteristics are common across the region and that it is just 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 and management.

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

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



Source: Macquarie Research, June 2007

Land-bank quality (40%)

- This is the most important factor because property is about ‘location, location, location’. If location is good and the land bank has been substantially acquired at prices well-below current levels, developments may have a very good response even if all the other qualities are substandard.

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

- Of importance, we rate SEZ-related land as inferior to separately acquired non-SEZ land for valuation purposes (despite the SEZ tax breaks). There is still some uncertainty surrounding SEZs and their long-term development in India. No one disagrees that they are positive for the industry and will greatly assist broader economic development in India. However, the final rules and regulations surrounding SEZs are far from certain.
- The quality of each developer’s land bank is judged on four key criteria: tier-1 cities vs tier-2 cities, land-bank diversification, urban vs suburban and, finally, 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 that the underlying value of such land bank is the most secure and the easiest to realise. In general, we prefer large-scale over small-scale projects, as this leads to economies of scale.

DLF has a large land bank, with a presence in 31 cities

- **DLF:** DLF has a large land bank of 10,255 acres and a presence in the major cities of the country, mostly tier-1 and tier-2 cities. Although the company owns only about 11.3% of its land bank, it has tripartite agreements for the rest. Based on our understanding of the company data provided in the prospectus, we believe that there is not enough clarity on 217m sqf of land over which DLF has sole development rights through its subsidiaries and which accounts for 45% of its total acreage. In addition, the company has not yet obtained a change of land use certificate for 60% of its land bank, and any delay in obtaining such a certificate can significantly affect the company's development schedule, which otherwise is quite ambitious.

Fig 9 Snapshot of DLF's land bank

City	Developable Area Acres	% of Total	Residential Sqf (m)	Commercial Sqf (m)	Retail Sqf (m)	Total Sqf (m)
NCR (Gurgaon 93%)	**5,269**	**51%**	**241.4**	**47.1**	**17.2**	**305.8**
Kolkata	**2,331**	**23%**	**103.1**	**12.8**	**11.3**	**127.2**
Goa	524	5%	15.6	4.9	1.3	21.7
Bangalore	242	2%	13.7	1.5	0.7	16.0
Chandigarh	433	4%	11.2	1.7	1.4	14.2
Chennai	113	1%	6.1	6.6	1.3	14.1
Pune	385	4%	9.4	3.4		12.7
Indore	265	3%	9.2	0.4	0.9	10.5
Nagpur	153	1%	6.0	2.0	2.0	10.0
Others	540	5%	11.9	7.9	15.5	35.2

Source: Macquarie Research, June 2007

The prospectus provides more clarity on DLF's plans for development of special economic zones in Gurgaon, Chennai, Pune and Amritsar. DLF has plans for four large SEZs, covering a total of 26,100 acres. The details of all the SEZ plans are outlined in the table below.

Fig 10 SEZ development plans

SEZ	Area (Acres)	Development Status
Amritsar Multi-sector SEZ	1,087	In principle approval obtained
Ludhiana Multi-product SEZ	2,500	In principle approval obtained
Gurgaon SEZ	20,000	Approval from Haryana Investment Promotion Board
Ambala SEZ	3,000	Approval from Haryana Investment Promotion Board

Source: DLF prospectus filed in May 2007, Macquarie Research, June 2007

Management (25%)

DLF management falls into Tier-1 category

- 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.
- **DLF**: The management of DLF definitely falls into the Tier-1 category, especially considering other real-estate players in India. We believe that DLF's edge over other developers lies in its execution capabilities and resources for business operations, mainly because it has more experience in the industry and a larger area developed to-date. However, on factors such as conflict of interest and management of capital, some investors have questioned DLF's minority shareholder debenture conversion issue.

Asset turnover (20%)

- Rapid asset turnover minimises the effect 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 consider companies' PER in our analysis.
- DLF claims that its existing land bank is sufficient for the next ten years. This is a long time relative to the industry average. We view this as a positive as it indicates that DLF has enough capability to scale up its production according to demand for a longer period of time. However, we do not rule out slippage of a couple of years because of execution difficulties and an unrealised strong demand forecast.

DLF land bank should be sufficient for ten years

- For FY3/07, DLF's ROA was 17.3%, supported largely by one-time income from the sale of commercial assets to DAL and higher-margin products from DLF. However, DLF's ROE of 39.4% is comparatively not as strong because of its lower equity as a proportion of total assets. We expect these ratios to undergo further improvement in FY07.

Fig 11 Snapshot of key financial metrics

	FY07	FY06
ROA	17.3%	6.1%
ROE	39.4%	22.5%
PAT (Rs m)	19,413	1,917
Avg. total Assets for FY06 (Rs m)	125,572	48,467
Avg. net-worth for FY06 (Rs m)	24,660	8,535
Total Assets to Equity (x)	5.1	5.7

Source: DLF prospectus filed in May 2007, Macquarie Research, June 2007

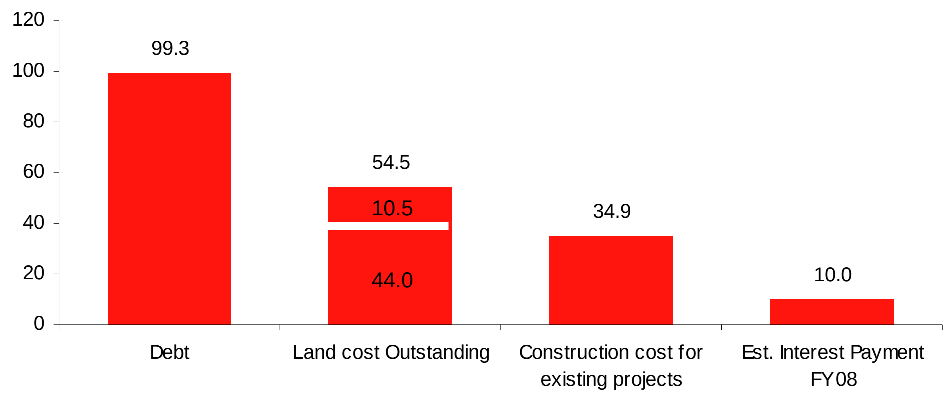
Gearing (15%)

- In the valuations of property companies for which 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 effect on the going concern of companies when markets are difficult.
- We have identified three key criteria to determine developers' gearing profile: net debt/equity, interest coverage and percentage of current debt to total debt (assessment of loan maturity). We have adapted information from the latest annual results of DLF, published in latest prospectus filed.

DLF has a high gearing of 250%, but should ease off a bit post IPO

- DLF has very high debt levels. As of the end of FY3/07, the company had outstanding debt of about Rs99.3bn, which resulted in a high gearing ratio of about 250%. High gearing ratios are prevalent in the Indian real estate industry because it is in a growth phase. We also note that 75% of DLF's debt has been secured at a floating interest rate. DLF had capitalised Rs4.8bn of the total interest charge of Rs7.9bn for FY3/07. We conservatively estimate that the interest payment for FY3/08 could be Rs10bn because interest rates have gone up by roughly 200bp in the past year. We estimate that, out of the proceeds of the public issue, DLF could repay at least 25% of its current debt, thereby reducing the gearing to a more-manageable level of 188%. However, its total asset value is understated given that land for development is not revalued while it awaits redevelopment.

Fig 12 Significant debt and land cost outstanding...



Source: DLF prospectus filed in May 2007, Macquarie Research, June 2007

Comparison with regional and domestic property companies

DLF priced at a substantial premium to its domestic peers

DLF is priced at a substantial premium to other Indian developers

- Clearly recognising that property is more about location and less about size, we note that DLF appears to be priced at a substantial premium to its peer group, even after factoring in the better location of its land bank and its quality product. A look at the EV/sqf ratio tells us that the company trades at the highest multiple (41.1–44.8x) compared to peers that are trading at an average multiple of ~20x.
- Post the public offer of a 10.27% stake, DLF would be one of the five largest property companies in Asia. We have compared DLF with its regional peers in Figure 13. We cannot compare these companies on an EV/sqf basis because the property price variations are huge across geographic regions. Accordingly, a more-meaningful comparison would be an earnings basis. The table below shows where DLF is vis-à-vis its regional peers. We identify that the Indian property market is in the initial development stage, so PER is not the best valuation measure, but we think that it provides a fair basis for comparison.

Fig 13 Snapshot of comparison – DLF with regional property companies

	Mkt cap (US$bn)	EV (US$m)	Sales (US$m)	Net profit (US$m)	EV/Sales (x)	PER (x)
Mitsubishi	43.4	50.6	8,102	888	6.2	48.9
EMAAR	19.7	20.76	3,917	1,735	5.3	11.4
Cheung Kong Holdings	30.8	35.7	3,761	2,326	9.5	13.2
Sun Hung Kai Properties	29.1	33.32	5,882	2,558	5.7	11.4
DLF Ltd (At higher band of Rs550)	**23.3**	**25.7**	**1,001**	**482**	**25.7**	**48.4**

Source: Bloomberg, Macquarie Research, June 2007

Where could our NAV be wrong?

Despite aggressive price assumptions we might go wrong if prices rise higher

- **Pricing assumptions**: Although we have assumed an average increase of 15–20% over current prevailing prices for all 574m sqf, we still run the risk of underestimating selling prices for all the proposed future development. In Figure 14, we analyse the effect of a further rise in prices and a lagged escalation in cost on our NAV per share. We note that the given growth rates have been applied to the residential sector only, starting in FY3/10, as the projects presently under construction are pre-sold at current prices.

Fig 14 Sensitivity analysis

Price Increase (%)	Cost Increase (%)	NAV	% Increase
2.0%	0.0%	427	7%
5.0%	2.0%	460	15%
7.5%	5.0%	478	20%
10.0%	7.5%	501	25%
12.5% (Nominal GDP Growth)	5% (Inflation Rate)	572	43%

Source: Macquarie Research, June 2007

- **DLF's product is generally high quality**. It is not out of the question that DLF could sell future product at levels well above the market average. DLF has the ability to surprise on the upside due to its market positioning.
- Although our analysis in fig 14 projects various upsides at different price levels, we think that it is more prudent to value the proposed development at current prices because property prices have risen by more than 100% in the past 24 months and are expected to stabilise at these levels. Moreover, an increase in interest rates has further dampened sentiment.
- **Volume growth assumptions**: We have assumed that constructible 574m sqf will be developed and sold over the next ten years; that includes Guragon (284m sqf) and Kolkata (127m sqf). This is in line with DLF guidance that its current land bank is sufficient for the next ten years. However, if there is stronger demand for DLF's product mix and DLF is able to deliver faster than the entire 574m sqf could be absorbed in a shorter time than estimated.
- **23 hotel sites and JVs are not valued in our NAV**: Our NPV calculation does not take into account any of the JVs for other businesses and 23 hotel sites as the information on these tie-ups is scarce. We would be able to value them in light of more information from the company and to that extent there would be an upside to our NAV of Rs 400. We also have not assigned any value to any land parcels that the company is still in process of acquisition, awaiting approvals and is not revealed in its latest filed prospectus.
- **No inclusion of SEZ developments**. We have excluded the value of potential SEZ developments. In our view, SEZ-related uncertainties are significant in India at the present time. However, regulations relating to SEZs can change very quickly. SEZs have the potential to surprise on the upside for DLF.
- **Acquisition potential**. In all likelihood, DLF sees more deals than any other developer. Future acquisitions have the potential to add to our NAV. However, because the company is so big, incrementally adding value will be difficult.

DLF – what we still like…

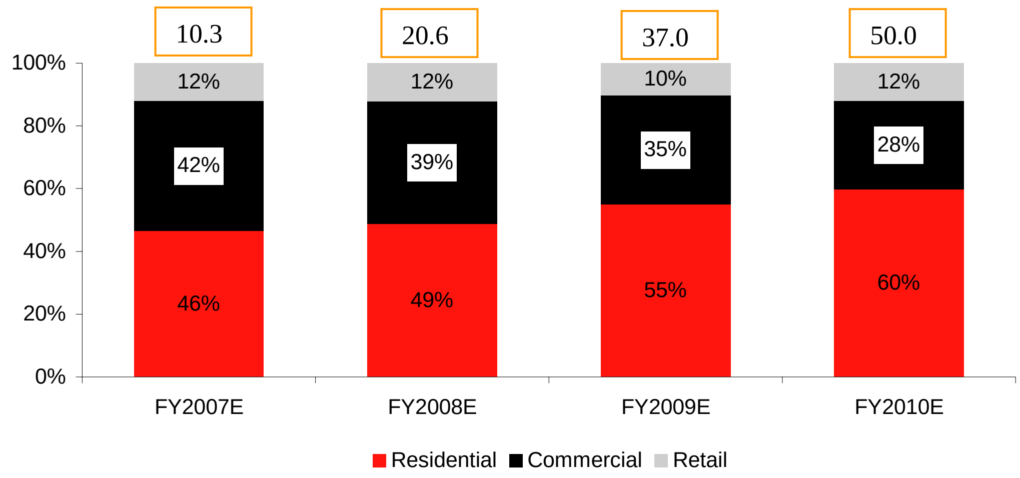
1. **Presence in 31 cities and owns some premium locations**

   DLF presently has its land bank in 31 different cities, although it has a small presence (less than 100 acres) in 20 of these. In addition to the 574m sqf land bank, DLF has 23 super luxury hotel sites, a golf course and clubs. We think that even a small presence in a larger number of cities would help DLF make in-roads in those cities without much effort.

DLF's focus on commercial and retail segment is positive

2. **Focus on commercial and retail development in the short term:** Commercial and retail accounts for 80% of total development under construction. We think that DLF will focus more on these commercial and retail segments in the short-mid-term. Industry reports suggest that real estate demand for the commercial and retail segments is still strong, especially in NCR. Hence, we think that DLF's focus on the commercial and retail segments in the short to mid term is correct. However, the plans still look very aggressive as total demand for the commercial and retail segments cumulatively would be at best 400m sqf, implying that DLF aims to capture 12% of the total commercial and retail real estate market. In our view, a 12% market share is very optimistic considering real estate in India is still a very fragmented market.

Fig 15 DLF –favourable product mix forecast (FY07–10)



Source: Macquarie Research, June 2007

DLF's presence in New Delhi and Mumbai is positive

3. **DLF's land bank includes one of the most prime locations in Mumbai and New Delhi**: it has 23 acres of land in one of the most expensive locales in New Delhi, aggregating nearly 1.5m sqf of saleable area. DLF plans to develop this land bank for super luxury apartments and, hence, should be able to register high margins on this project. Similarly, DLF has a total of 22 acres in Mumbai, including 17.5 acres acquired in 2006 in NTC mills at a cost of Rs400m/acre. The Mumbai land bank is situated in Central Mumbai in a high-priced location. DLF plans to utilise the majority of the Mumbai land bank for high-end retail development and would be able to attract high rentals from this development.

4. **Joint ventures with strategic partners:** DLF has struck JVs with strategic partners for its infrastructure and hotel business. It has also bought a stake in a leading firm in management consulting for its infrastructure, SEZ and townships. We view this as positive because execution is one of the main risks with all the Indian developers; thus, partnering with experienced players should reduce the execution risk to some extent.

Joint ventures will help in better and faster execution of projects

⇒ **JV with Laing O'Rourke plc for infrastructure business**: DLF recently entered into a joint venture with Laing O'Rourke plc, a leading UK-based construction company, to expand its operations in infrastructure development. The joint venture has already commenced construction on 14 projects covering 25.7m sqf and had an order book of Rs42bn. The JV will work on DLF's development projects such as the Magnolias and the Belaire and will participate in infrastructure projects, including roads, bridges, tunnels, pipelines, harbours, runways and power projects.

⇒ **JV with Hilton for hotel business**: DLF recently entered into a joint venture with Hilton to set up operations in the hotel segment and serviced apartments in India. DLF is looking to enter into joint ventures with other hotel companies to develop hotels in the budget, business, four-star, five-star and deluxe segments.

⇒ **Purchased equity stake of 19% in Feedback Ventures**: DLF has purchased 19% stake in Feedback Ventures for Rs 158m. Feedback Ventures provides consulting, engineering, project management and project development services for infrastructure projects in India. DLF is looking to obtain management consulting services from the company. DLF also intends to benefit from Feedback Ventures' experience by streamlining its planning and execution capabilities, particularly in relation to infrastructure, SEZs and townships.

⇒ **Signed an MOU with Nakheel for two large integrated townships:** DLF recently signed a memorandum of understanding with Nakheel LLC, United Arab Emirates, to develop, through a joint venture, two townships in India, each spread over an area of approximately 20,000 acres.

⇒ **JV (26:74) with Fortis**: DLF has signed a memorandum of understanding with Fortis Healthcare Limited to own, develop, establish, operate and manage, through a joint venture company, certain 250–400-bed hospitals with a minimum built up area of 20,000sqm and similar other healthcare facilities.

⇒ **Signed an MOU with AG Frankfurt Airport Services for airport modernisation**: DLF has chosen Germany's Fraport AG Frankfurt Airport Services Worldwide, the owner and manager of Frankfurt Airport, as partner in its foray into airport modernization. According to the prospectus, the two companies signed a memorandum of cooperation in April to explore airport projects. A special purpose vehicle, DLF Fraport SPV, has been set up to focus on the development and management of airports in India. The shareholding of DLF and Fraport in the special purpose vehicle (SPV) will at least be 26% each, according to press reports.

DLF – top five concerns…

1. **Large concentration in Gurgaon: DLF expects to sell 232.5m sqf of residential space in Gurgaon in the next ten years**

Biggest concern is large concentration in Gurgaon

We think that DLF has a large concentration of 5,000 acres in Gurgaon, with a 3,000-acre satellite town that took DLF almost 30 years to develop (DLF City). We estimate that it will not take a similar amount of time to develop 5,000 acres, yet a 10-year horizon is also a very aggressive estimate for such a large land mass in a single satellite township. As a result of its 49% of the total land bank in Gurgaon, DLF becomes susceptible to any adverse developments in Gurgaon, such as a change in land use regulations, zoning laws, taxes, natural calamity or any social or political development that depresses the real estate sentiment.

We estimate that Gurgaon residential land is unlikely to be absorbed in the next ten years unless Gurgaon experiences much stronger demand than anticipated. Figure 16 shows that DLF will have to sell, on an average, 1,210 apartments per month in order to monetise this land bank. However, we estimate that current (average of past 12 months) total monthly apartment sale in Gurgaon is not more than 500 apartments.

Fig 16 Gurgaon residential land unlikely to get absorbed in ten years

Total residential area owned by DLF in Gurgaon	232.5m sqf
Average apartment size	1,600 sqf
Total number of apartments	145,280
No. of years estimated by DLF for absorption	10
Average yearly apartment sales	14,528
Average monthly apartment sales	1,210
Macquarie estimate of present total monthly apartment sales in Gurgaon	500

Source: Macquarie Research, June 2007

Affordability at Rs5,000 per sqf looks stretched

Although DLF is currently selling its existing luxury residential apartments at Rs7,000–8,000/sqf, in our model we have assumed a selling price of Rs5,000 for most of Gurgaon's future residential apartments as large land parcel would be priced at lower range. Figure 17 shows that selling such large residential land bank at an average price of Rs5,000 would be difficult to monetize as affordability looks out of gear at such high prices and high interest rates.

As a new city, Gurgaon would thrive from demand originating from the salaried class, so affordability is an important parameter. It is also possible that in future DLF might come out with residential apartments in Gurgaon priced in the range of Rs 3,000-3,500/sqf which would lead to relatively faster absorption of the land bank.

Fig 17 Affordability is still a question mark at these prices in Gurgaon

Average price psft assumed for DLF apartment (Rs)	5,000
Average apartment size	1,600
Total apartment cost - including stamp duty @6% in Gurgaon (Rs)	8,500,000
Loan amount - assuming LTV of 80%	6,800,000
Monthly mortgage payment on loan of Rs 6.8m @ 11% for 20 years	70,000
Pre-tax household annual income - assuming average household spending 50% of monthly income towards mortgage repayment (Rs)	1,680,000
Total annual post-tax household income (Rs)	2,400,000
Total annual post-tax household income (US$)	$60,000
Macquarie estimate of individuals earning >Rs 2.4m p.a. by 2010	10,000

Source: Macquarie Research, June 2007

2. **What does DLF mean by substantial revenues in the case of 217m sqf of land over which DLF has sole development rights, as noted in the prospectus?**

There is a lack of clarity on revenues for 217m sqf

Of the total 574m sqf, 217m sqf is land where DLF has sole developing rights, but does not own the land. For this 217m sqf, DLF's prospectus states that "the commercial effect of sole development rights is to entitle us to substantially all the revenues from the relevant development." The definition of substantial revenues needs to be clarified, however, because 'substantial' is a vague term and does not quantify DLF's share of revenues. Although we have computed NAV assuming 100% of revenues flowing to DLF from the development of the above-mentioned 217m sqf, our NAV estimate of Rs400 could be reduced by the amount of the revenue share that would not accrue to DLF.

However the prospectus mentions that the company is entitled to all the revenue from the development for large number of sole development agreements at a payment of Rs 500,000/acre to the grantor of the rights

3. Focus on premium apartments in residential sector

- Not only is DLF focusing less on residential in the short term, but it is also offering only high-end residential apartments. A closer look at DLF's residential offering tells us that the minimum price for a unit is US$400,000 (Rs17.5m) and goes up to US$1m (Rs44.1m). DLF focuses on the development of luxury residential accommodations and offers theme-based projects such as The Magnolias development in DLF city, which includes a golf course. In the case of such expensive and large-sized apartments, investors/speculators buy such apartments when the companies offer a Rs700–800/sqf discount on the first day of the launch and then sell them at a discount of Rs300–400 per sqf to another customer later.
- All of DLF's below-mentioned projects were started in 2006, and we estimate that the company still has not been able to sell 40% of its total 1,754 apartments. The absorption of such high-end luxury products in the market of Gurgaon is limited.

Fig 18 Snapshot of current DLF residential projects in Gurgaon

Project name	No. of units	Avg unit Size (sqf)	Scheduled completion	Avg. sale value (Rs/ sqf)*
DLF				
DLF Park Place	988	2,250	2010	7,088
The Belaire	364	3,600	2010	7,412
The Magnolias	402	6,200	2009	5,982
*** Sales in progress**				

Source: DLF prospectus filed in May 2007, Macquarie Research, June 2007

4. **Underlying property market not very supportive**

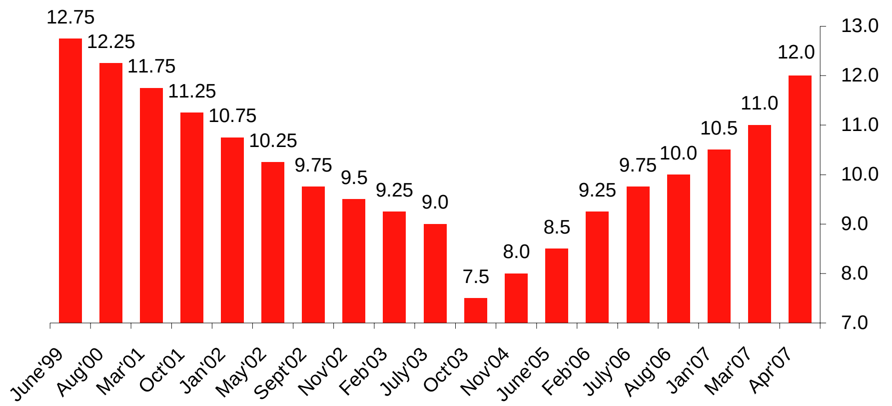
Property prices in Gurgaon have also corrected by 10-15%

Property prices are stabilised (if not corrected) and transaction volumes are down: In our attempt to build a best-case scenario for DLF, we have assumed a 15–20% premium in property prices from current levels. There has recently been a slight correction in property prices in a few locations, including Gurgaon, and transaction volumes are slowly drying up as a result of that and the interest rate hikes. Various press reports suggest that prices in the Gurgaon residential market have corrected by 10–15% in the case of plot sales and by 8–10% in the case of apartment sales. We note that these price declines are in secondary transactions and that developers are still holding onto their prices. However, transaction volumes are down significantly for residential development.

Mortgage rate has risen by 300bp in the past 12 months

Interest rates: Until recently, factors such as lower interest rates on housing finance and the favourable tax treatment for housing loans contributed to increasing residential demand. However, mortgage rates have increased by almost 300 basis points in the past 12 months. At these higher interest rates, affordability is likely to be affected, and this, combined with the fact that 70% of residential demand emanates from the middle class bracket, is likely to dampen the growth prospects of this sector.

Fig 19 Rising mortgages…

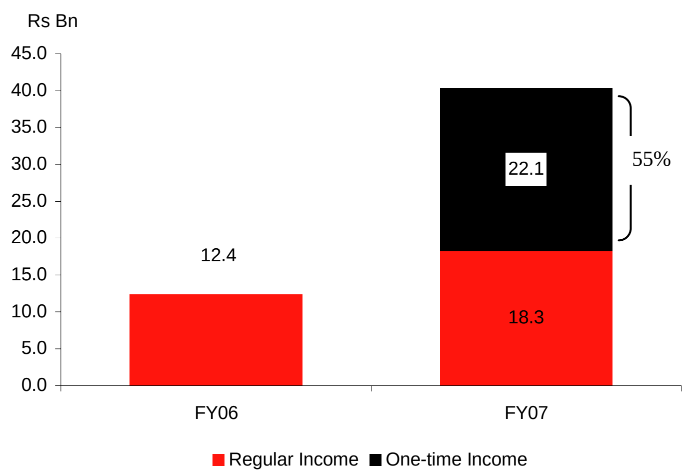


Source: HDFC, Macquarie Research, June 2007

One-time income accounted for 55% of revenues and 61% of PBT

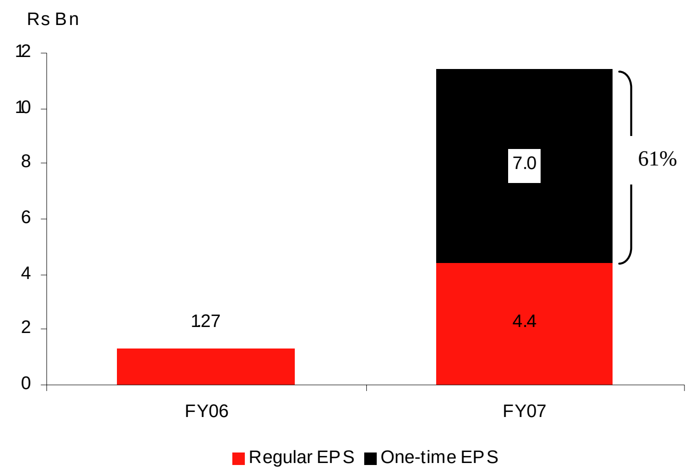
5. **Strong growth in FY3/07 results is unlikely to be sustained:** DLF reported a 255% increase in FY3/07 revenues and a 610% increase in pretax profits, mainly from the inclusion of one-time income of Rs22.1bn from the sale of commercial properties to DLF Assets Private Limited, a promoter group company. This sale accounted for 55% of total revenue and an additional Rs15.6bn of pretax profits. Such a revenue stream is not a regular feature because DLF earlier operated on a 'develop and lease' model for its commercial development. However, the company has decided to follow a 'develop and sale or lease' model; as a result, the company has sold its existing commercial assets and recorded one-time income of Rs22.1bn.

Fig 20 One-time income accounts for 55% of FY07 revenue



Source: DLF prospectus May 2007, Macquarie Research, June 2007

Fig 21 One-time income accounts for 61% of FY07 EPS



Source: DLF prospectus filed May 2007Macquarie Research, June 2007

Financials

Fig 22 DLF – profit and loss summary

	FY03/07 (Rs m)	% of Total Income	FY03/06 (Rs m)	% of Total Income	FY03/05 (Rs m)	% of Total Income	FY03/04 (Rs m)	% of Total Income
INCOME								
Sales & other receipts	**26,152**	**65%**	**11,536**	**93%**	**6,081**	**97%**	**5,058**	**96%**
- Sales Revenue	22,406	56%	9200	74%	4087	65%	3134	60%
- Rent & License Fee	1,546	4%	422	3%	375	6%	340	6%
- Maintenance Income	810	2%	481	4%	306	5%	209	4%
- Power Supply	997	2%	1087	9%	1035	17%	1149	22%
- Others	393	1%	346	3%	278	4%	226	4%
Investment Income	**20**	**0%**	**163**	**1%**	**0**	**0%**	**78**	**1%**
Other Income	**14,169**	**35%**	**721**	**6%**	**179**	**3%**	**130**	**2%**
- Interest	922	2%	553	4%	76	1%	84	2%
- Others	13,247	33%	168	1%	103	2%	46	1%
Total Income	**40,341**		**12,420**		**6,260**		**5,266**	
EXPENDITURE								
Cost of Revenue	**7,090**	**18%**	**5,243**	**42%**	**3,165**	**51%**	**2,685**	**51%**
- Project Cost	6,319	16%	4416	36%	2517	40%	2200	42%
- Other costs	771	2%	827	7%	648	10%	485	9%
Establishment Costs	922	2%	397	3%	447	7%	313	6%
Finance Charges	3,076	8%	1685	14%	390	6%	330	6%
Other expenses	3,187	8%	1139	9%	787	13%	848	16%
Depreciation	571	1%	361	3%	333	5%	288	5%
Total Expenditure	**14,846**	**37%**	**8,825**	**71%**	**5,122**	**82%**	**4,464**	**85%**
Profit before tax	25,495	63%	3,595	29%	1,138	18%	802	15%
Provision for tax	6,058	15%	1668	13%	259	4%	250	5%
Net profit after tax	19,424	48%	1,927	16%	879	14%	552	10%
Minority Interest	11	0%	10	0%	14	0%	14	0%
Net Profit	**19,413**	**48%**	**1,917**	**15%**	**865**	**14%**	**538**	**10%**
Diluted EPS (Rs)	**11.39**		**1.27**		**0.57**		**0.36**	

Source: DLF prospectus filed in May 2007, Macquarie Research, June 2007

Fig 23 DLF – balance sheet

	FY03/07 (Rs m)	As % of Total Assets	FY03/06 (Rs m)	As % of Total Assets	FY03/05 (Rs m)	As % of Total Assets
ASSETS						
Gross Block	17,787	10%	13,023	19%	8,253	30%
Less: Acc. Depreciation	2,412	1%	1,891	3%	1,549	6%
Net Block	15,375	8%	11,132	16%	6,704	24%
Capital Work-in-progress	26,497	15%	5,911	9%	3,506	13%
Total fixed assets	**41,872**	**23%**	**17,043**	**25%**	**10,210**	**37%**
Investments	**2,107**	**1%**	**8,300**	**12%**	**400**	**1%**
Current Assets, Loans & Adv.						
Stocks	57,006	31%	16,409	24%	7,049	26%
Sundry debtors	15,195	8%	6,580	9%	2,852	10%
Cash & bank balances	4,155	2%	1,950	3%	424	2%
Other current assets	67	0%	23	0%	20	0%
Loans and advances	52,371	29%	10,642	15%	6,019	22%
Total Current Assets	**128,794**	**71%**	**35,604**	**51%**	**16,364**	**60%**
Goodwill	**8,935**	**5%**	**8,489**	**12%**	**522**	**2%**
Total Assets	**181,708**		**69,436**		**27,496**	
LIABILITIES & PROVISIONS						
Secured loans	92,053	51%	39,560	57%	7,952	29%
Unsecured loans	7,275	4%	1,760	3%	1,724	6%
Current liabilities & provisions	42,429	23%	18,469	27%	9,344	34%
Deferred tax liability (net)	187	0%	93	0%	962	3%
Total Liabilities & Provisions	**141,944**	**78%**	**59,882**	**86%**	**19,982**	**73%**
NET WORTH						
Share capital	12,557	7%	378	1%	35	0%
Reserves	27,115	15%	9,123	13%	7,436	27%
Minority interest	92	0%	54	0%	43	0%
Net worth	**39,764**	**22%**	**9,555**	**14%**	**7,514**	**27%**

Source: DLF prospectus filed in May 2007, Macquarie Research, June 2007

Fig 24 DLF – cashflow summary

Summary cash flow information	FY03/07 (Rs m)	FY03/06 (Rs m)	FY03/05 (Rs m)
Net cash from operating activities	(58,311)	(9,493)	5,754
Net cash from investing activities	(4,834)	(20,119)	(7,681)
Net cash from financing activities	64,589	30,520	1,934
Cash at beginning of the year	1,105	197	191
Cash generated during the year	**1,444**	**908**	**7**
Cash at end of the year	**2,549**	**1,105**	**198**

Source: DLF prospectus filed in May 2007, Macquarie Research, June 2007

Important disclosures:

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%

Macquarie First South Securities (South Africa)
Outperform – expected return >+5%
Neutral – expected return from -5% to +5%
Underperform – expected return <-5%

Recommendations – 12 months

Note: Quant recommendations may differ from Fundamental Analyst recommendations

Recommendation proportions

	AU/NZ	Asia	RSA
Outperform	44.37%	58.37%	42.60%
Neutral	44.01%	21.30%	46.80%
Underperform	11.62%	20.33%	10.60%

For quarter ending 31 March 2007

Volatility index definition*

This is calculated from the volatility of historic price movements.

Very high–highest risk – Stock should be expected to move up or down 60–100% in a year – investors should be aware this stock is highly speculative.

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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Thomas Renz (Geneva)	(41) 22 818 7712
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Stuart Smythe (India)	(9122) 6653 3200
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K.Y. Nam (Korea)	(822) 3705 8607
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Julien Roux (London)	(44) 20 7065 5887
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Depository Receipts - Robert Ansell	(852) 2823 4688
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