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Real Estate

Cross country analysis of property cycles indicates a long down cycle

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Executive summary



- * Volumes are closely linked with real returns on property and GDP growth
 - Our analysis of global property cycles (across 15 countries) indicates that:
 - Volumes are closely related to GDP (lag of ~1-2 years) and real returns on properties but share a weak relation with interest rates
- Down cycles in real estate cycles tend to give up their entire gains (in real terms) of the preceding up move.
- * Implications for Indian real estate an additional correction of 35%
- Our cycle analysis is supported by significant reduction of growth in IT sector, job generation across sectors, and funds flow in the real estate sector
- * Meanwhile, liquidity issues for developers continue to mount
 - While volumes have reduced sharply, banks' outstanding to real estate has increased even as real estate debt has been successively downgraded
- Impact on Indian developers:
 - Negative real returns on property are likely to drive property investors to exit holdings, keeping prices under pressure, keeping large project launches by developers at bay
 - Developer volumes and sales are likely to remain highly subdued over an extended period of time and debt servicing will get increasingly onerous for developers
- * Capitulation, though delayed, is likely to return to haunt the sector

Presentation outline



- Analysis of cross-country property cycles
- Impact on Indian real estate industry
- Impact on Indian real estate developers
- * Appendix 1: Job sentiments are weak
- * Appendix 2: Property brokers are pessimistic in near term
- * Appendix 3: Government measures have been so far ineffective
- Appendix 4: Global property cycles
- * Appendix 5: Impact of financial crisis on properties and employment
- * Appendix 6: Residential price index in India
- * Appendix 7: Office market analysis of India



Analysis of cross-country property cycles

Volumes are related to GDP and real returns

Volumes are related to GDP and real returns

- *
- We analysed global property cycles (across 15 countries) to study relation between real estate volumes and:
 - Nominal returns on property
 - Real returns of property
 - Interest rates
 - GDP growth rates
- * Our analysis threw interesting light on the relationship between these variables. Our analysis of volumes can be summed as:
 - Volumes are related to (in order of importance):
 - GDP (~1-2 year lag)
 - Real returns on properties
- * We also noted that relationship of volumes with interest rates was weak at best
- In studying real estate cycles, it is important to bear in mind the impact of real returns on property purchase behavior

Global properties analysis: Housing volumes are related to real returns



Source : STCA - Statistics Canada, Kookmin Bank - International Finance, Japan Institute of Real estate, Ratings and Valuation Department, Bloomberg, Edelweiss research

Housing volumes compared with nominal prices





Source : STCA - Statistics Canada, Kookmin Bank - International Finance, Japan Institute of Real estate, Ratings and Valuation Department, Bloomberg, Edelweiss research

Housing volumes lags GDP growth



Source : STCA - Statistics Canada, Ratings and Valuation Department, Australia Bureau of Statistic, Kookmin Bank - International Finance, Bloomberg, Edelweiss research

Analysis of volumes with interest rates indicates a weak relation

Source : STCA - Statistics Canada, Ratings and Valuation Department, Japan Institute of Real estate, Australia Bureau of Statistic, Bloomberg, Edelweiss research

Real prices tends to give up its entire gains: Retracement analysis

- Average retracement in nominal prices is ~46% against which real prices tend to give up all of its gains
- * Nominal prices have retraced in the range of 17% to 79% after reaching its peak
- In Singapore, nominal prices have retraced the most while in UK, they has retraced the least
- Real prices, on the contrary, have retraced in the range of 67% to 126%
- In South Korea, real prices have retraced most while in Sweden, they have retraced the least

Source: Edelweiss research

Key takeaways from analysis of global cycles

* Volumes are unlikely to recover before

- Economy recovers
 - In our view, volume recovery will have to be preceded by a recovery in GDP, and resultant increases in employment opportunities
 - Volume recovery is likely after GDP recovery with a 1-2 year lag
- Real returns on properties are positive
- * Downcycles in properties tend to take away the entire real gains

Implications for Indian Real Estate

A further 35% price correction over 3 years

Implications for Indian real estate : An additional correction of 35%

Source : NHB, Cushman Wakefield, Edelweiss research

- Peak prices
 - Property prices in India increased sharply over the past 6-7 years—rising 3.4x in nominal terms and 2.5x in real terms over 2001 prices
 - We expect a price correction of 48% in nominal terms and 58% in real terms from the peak
- * Correction so far
 - Price correction:
 - We believe, nominal prices have corrected by ~19% since then
 - However, real prices have corrected by ~24%
 - Time correction:
 - In nominal terms, we have already seen 8-10 months correction (sideways and downwards) of the expected 4-5 years
 - In real terms, we have already seen 8-10 months decline of the expected 5-6 years
- Future expectations
 - Price correction:
 - We expect prices to correct another ~30% in nominal terms in the next 3-4 years
 - However, prices in real terms will continue to decline for about a year thereafter

***** Worsening demand scenario:

- GDP growth slowed down considerably
- Pace of hiring reduced significantly in IT sector
- Home loan disbursements have declined
- ***** Worsening funding scenario:
 - Net outstanding to real estate developers increasing
 - Real estate paper has been downgraded successively
 - Borrowing cost has risen sharply for developers
 - Funds flow into the sector has been stemmed

Demand drivers slowing down

Source: CSO, Edelweiss research

- Since March 04, real GDP growth rate reached its peak at 10.2% in March 06
- From September 2006, the GDP growth rate has started falling and has come down significantly to 7.6% in September 2008
- We expect the rate to go down further to 6.0% by FY10E

- IT sector, which was one of the largest consumers of office space, has slowed down recruitment significantly
- 3 out of top 5 IT/ITES companies have reduced pace of recruitment considerably with Wipro reducing its head count marginally
- The average growth rate has come down from more than 8% (between Q1 FY06 to Q3 FY08) to marginal 3% since Q3 FY08

Source: Infosys, Wipro, TCS, Edelweiss research

Home loan disbursements have declined

Source: HDFC, ICICI, LIC, Edelweiss research

- Net outstanding to real estate has increased steadily at the industry level
- However, demand as evidenced by disbursements, has been falling sharply
- * Debt servicing requirement is increasing in the face of deteriorating demand

Real estate paper has been downgraded successively

Source: Bloomberg, Capitaline, Edelweiss research

Sobha - CARE - Short Term

Unitech - ICRA - Short Term

Borrowing cost has risen sharply for developers

25.0

20.0

10.0

5.0

0.0

25.0

20.0

5.0

0.0

Apr-08

Rate of interest (RHS)

Sep-07 Oct-07 Oct-07

Jul-07

15.0 10.0 [®]

Rate of interest (RHS)

15.0 °

Funds flow into the sector has been stemmed

3 per. Mov. Avg. (FDI)

Source: DIPP, Ministry of Commerce and Industry, Edelweiss research

Source: SEBI

Source: VC Circle, Edelweiss research

- * Volumes have been weak since past 9 months
- * Appetite for real estate has diminished significantly with foreign investors
- Developers are highly leveraged and their inability to serve debt obligation raised a threat of capitulation in the third quarter of FY07-08
- Government intervention allowed developers to restructure their debt, easing the immediate pressure of repayment
- However, we believe that volumes will remain muted for next ~3 years
- Developers, with their high debt servicing obligations, will continuously face strained cash flows
- * Thus, we believe, though the threat of capitulation has deferred, it still exists and is likely to re-emerge as a key issue in the sector

Risks to our recommendation

- Government has recently announced two stimulus packages which have marginal positive impact on the sector. Additionally, State Bank of India has reduced the interest rate on all categories of housing loans to 8% from 10.5 – 11%. While we do not expect sustained impact of these measures, any positive reaction of the sector towards these can present upsides to our estimates
- Revival of GDP in a shorter span than expected can increase the confidence level of prospective buyers in the economy. As discussed in the report, volumes increases if the confidence in the economy increases, volumes could increase earlier than expected.
- * Asset reflation: If government decides to pump in more money in the system to stimulate the economy, it can potentially lead to high inflation – causing nominal prices to correct lesser than estimated

Appendix 1: Job sentiments are weak

Pan India Jobs Survey

Weak job sentiment

- Our Pan-India Jobs Survey conducted in December 2008 indicates that employment outlook for the future remains bleak:
 - 49% respondents believe the number of unemployed has increased over the past one year
 - 73% respondents believe the number of unemployed has increased over the past three months
 - 52% respondents believe the pace of recruitment has decreased in the past one year
 - 75% respondents believe pace of recruitment has decreased in the past three months
 - 60% respondents expect hiring to slow down over the next three months
 - 52% respondents do not expect the situation to improve over the next one year

Recruitment heat map: Negative over next three months

*

Recruitment expected over next three months

Recruitment expected over next one year

Appendix 2: Property brokers are pessimistic in the near term

Pan – India Brokers Poll

Our Pan-India Property Brokers' Survey conducted in December 2008 indicates:

* Property brokers remain bearish in the near term

While most property brokers (63% of respondents; 29% previously) believe that prices in the near term (3 months) will decline, 46% (42% previously) believe that prices will rise over the next 12 months

* Overall observations:

- 75% of brokers believe prices have fallen over the past one year
- 77% brokers believe prices have fallen over the past three months
- 87% brokers have seen a drop in transactions over the past one month
- 69% brokers have witnessed a reduction in enquires over the past month
- 63% brokers expect price trend to be negative over the next three months
- 46% brokers expect price trend to be positive over the next one year

Deteriorating environment

* 63% brokers are negative in the near term; up sharply from 29% earlier

Appendix 3: Government measures

So far ineffective

Impact of government measures marginal

Date	Issued by	Measure	Impact
Dec 8, 2008	Government of India	Banks can restructure loans without classifying them as NPA till June 2009	Will remove the disincentive for banks to restructure real estate loans and ease loan repayment pressures
		Reduction in repo rate by 100bps	Expectation of pass through of benefit to improve affordability by ~5%
		Subject to conditions, bank loans to HFCs to be treated as priority sector loans	Will improve refinancing for HFCs for loans below INR 2 mn
		National Housing Bank to receive a refinance facility of INR 40 bn	To improve fund flow for the sector
		Reducing excise duty across the board	Construction cost to reduce by 2%
Dec 15, 2008	Indian Bank Association (IBA)	Home loan rates fixed at lower rates for 5 years 8.5% for loans below INR 0.5 mn at 9.25% for loans below INR 2.0 mn 8.5%	Houses with ticket size less than INR 2.5 mn will become affordable. However, most listed developers do not have products in these categories. Therefore, no significant benefit to players

Date	Issued by	Salient features	Our view
Jan 2, 2009	Government of India	100bps cut in repo rate and reverse repo rate and reduction of 50bps in CRR	Will increase affordability by ~5.6% and cumulatively 11.7%
		GoI will work with state governments to encourage them to release land for low and mid income segments	Developers already announced their disinterest in acquiring new land bank
		ECB allowed for integrated township projects	Do not foresee developers being able to borrow money through this window in the current environment
Jan 27, 2009	RBI	Allows banks to avail liquidity support under LAF for meeting funding requirements for HFCs	Will improve sources of liquidity for HFCs
Jan 31, 2009	SBI	Home loan rates at flat 8%	Sentimentally positive and may serve as a potential trigger for demand recovery
Feb 26, 2009	Govternment of Maharashtra	FSI doubled for cessed buildings	Structually positive; will increase prospects for redevelopment in the Island city of Mumbai

Date	News item
10 th Dec 08	DECISION ON I-T WAIVER FOR SEZS EXPECTED SOON
30 th Dec 08	GOVT MULLING 0.5% CESS TO FUND AFFORDABLE HOUSING
13 th Jan 09	INCENTIVES SOON FOR REAL ESTATE TO PROVIDE AFFORDABLE HOUSING
14 th Jan 09	TN PLANS AFFORDABLE HOUSING PROJECTS
19 th Jan 09	CENTRE, STATES TO DISCUSS LAND FOR AFFORDABLE HOMES
20 th Jan 09	GOVT PLANS TO BUY HOUSES FOR POOR
21 st Jan 09	SLASHING READY RECKONER RATES: BUILDERS MEET MINISTER
22 nd Jan 09	UP GOVT TO AID DEVELOPERS IN NOIDA
23 nd Jan 09	AREA NORMS FOR FOREIGN FUNDING IN REAL ESTATE MAY BE PARED
3 rd Feb 09	REALTORS SET FREE OF SERVICE TAX BURDEN ON SALE OF APARTMENTS
3 rd Feb 09	JET GETS TIME TO PAY DUES
25 th Feb 09	GOVT TO TAKE MORE STEPS TO BOOST HOUSING SECTOR

Appendix 4: Global real estate cycles

Impact of real return and GDP on volumes: Canada

Source : STCA - Statistics Canada, Bloomberg, Edelweiss research

Impact of real return and GDP on volumes: Hong Kong

Source : Ratings and Valuation Department, Bloomberg, Edelweiss research

Impact of real return and GDP on volumes: Japan

Source : Japan Institute of Real estate, Bloomberg, Edelweiss research

Impact of real return and GDP on volumes: South Korea

Source : Kookmin Bank - International Finance, Bloomberg, Edelweiss research

Impact of real return and GDP on volumes: Singapore

Source : Urban Redevelopment Authority, Bloomberg, Edelweiss research

Impact of real return and GDP on volumes: Australia

2 per. Mov. Avg. (Nominal Index (RHS))

Bldg Approvals(LHS) Poly. (Bldg Approvals(LHS))

Impact of real return and GDP on volumes: USA

	Downcycle in years		Downfall in price	
Year of start	Nominal		Nominal	Real
of downcycle	Price	Real Price	Price	Price
2006 - 07	1	2	8%	14%

Impact of real return and GDP on volumes: Sweden

	Downcycle in years		Downfall in pric	
Year of start	Nominal		Nominal	Real
of downcycle	Price	Real Price	Price	Price
1980	NC	6	NC	35%
1992 - 93	1	3	11%	14%

Note: NC: No correction

Thailand

Nominal home price index 200 21.0% 160 14.0% 7.0% 120 80 0.0% 40 -7.0% 0 -14.0% Jan-96 Dec-96 Sep-04 Aug-05 Aug-06 Aug-07 Mar-92 Feb-93 Nov-00 Oct-02 Sep-03 Feb-94 Jan-95 Dec-97 Nov-98 Nov-99 Oct-01 Nominal index (LHS) - Change (RHS)

	Downcycle in years		Downfall in price	
Year of start	Nominal		Nominal	Real
of downcycle	Price	Real Price	Price	Price
1994	NC	13	NC	21%
1998	4	NC	10%	NC

Note: NC: No correction

Source : Bank of Thailand, Bloomberg, Edelweiss research

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Switzerland

	Downcycle in years		Downfall in pric	
Year of start	Nominal		Nominal	Real
of downcycle	Price	Real Price	Price	Price
1973 - 74	3	4	13%	22%
1989 - 90	10	11	25%	37%

Nominal home price index

Spain

28.0% 21.0% 14.0% 7.0% 0.0% -7.0% - Change (RHS) Nominal index _____ Source : Ministerio de Vivienda, Bloomberg, Edelweiss research

Nominal home price index

	Downcycle in years	Downfall	Downfall in price	
Year of start	Nominal	Nominal	Real	
of downcycle	Price Real Price	e Price	Price	
2008	NC	1 NC	5%	

Note: NC: No correction

UK

	Downcycl	le in years	Downfall in price		
Year of start	Nominal		Nominal	Real	
of downcycle	Price	Real Price	Price	Price	
1989 - 90	5	7	10%	30%	

Source : Halifax, Bloomberg, Edelweiss research

Norway

Source : Statistics Norway, Bloomberg, Edelweiss research

Ireland

Year of start	Downcycl Nominal	e in years	Downfall i Nominal	n price Real
of downcycle	Price	Real Price	Price	Price
2007	1	1	15%	19%

France

Source: Price of existing apartments, Paris, Bloomberg, Edelweiss research

	Downcycle in years		Downfall in price	
Year of start	Nominal		Nominal	Real
of downcycle	Price	Real Price	Price	Price
1992	6	6	29%	35%

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Appendix 5: Impact of financial crisis on properties and unemployment

Impact of financial crisis on properties and on employment

- It has been demonstrated* that property down cycles following banking crisis last 1 year to 6 years*, with the downside extending up to 16% to 40% in real terms
- Unemployment also increases materially* in the aftermath of a financial crisis
- While it may be argued that there is no banking / financial crisis in India, we argue that the crisis is global in nature, and India's financial markets and properties are unlikely to remain entirely unaffected
- Negative real returns on property are likely to drive property investors to exit their holdings, keeping prices under pressure
- Weak employment outlook and negative real returns on properties are likely to keep property demand subdued for an extended period 5-6 years in our view
- Developers are unlikely to launch large projects in view of supply pressure from investors
- Developer volumes and sales are likely to remain highly subdued over an extended period of time

Source: *Kenneth and Rogoff, 2009; Working Paper, National Bureau of Economic Research USA

Appendix 6: Residential price index in India

Delhi and Mumbai

Source : NHB, Cushman Wakefield, Edelweiss research

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Kolkata and Bangalore

Source : NHB, Cushman Wakefield, Edelweiss research

Bangalore regional residex

52

Appendix 7: Office market analysis of India

Office markets continue to underperform

Stock of office space across micro-markets

Bangalore - Office

Source: Cushman Wakefield, DTZ, Edelweiss research

- Highest supply was witnessed in 9mCY06 of ~16 mn sq ft
- 9mCY08 witnessed the highest absorption
- CY06 and Q3CY08 witnessed a sharp increase in vacancy rate
- Decline/stagnation in rentals were evident from CY08

Rising trend of vacancies continued in Q3CY08

Chennai: Office

Growth in rentals (RHS)

- * Highest supply in CY07 of ~6.4 mn sq ft
- 9mCY08 saw the highest absorption of ~10 mn sq ft
- Q3CY08 witnessed a sharp increase in the vacancy rate
- Decline in rentals was evident from Q2CY08
- Highest vacancies in Q3CY08 of ~10.5 mn sq ft

Hyderabad: Office

- * Highest supply in CY07 of ~4 mn sq ft
- 9mCY08 witnessed the highest absorption of ~4 mn sq ft
- Q3CY08 witnessed a sharp increase in the vacancy rate
- Decline in rentals was evident from beginning of CY08

Kolkata: Office

GIOWINITIENIAIS (RHS)

Source : Cushman Wakefield, DTZ, Edelweiss research

- * Highest supply and absorption in CY07
- Vacancy rate was constantly above 18% since CY04, except in CY07
- * Rising trend of vacancies continued in Q3CY08

Mumbai: Office

Source : Cushman Wakefield, DTZ, Edelweiss research

CY

2005 2006

СҮ

2007

2008

СҮ

2004

Average rental (LHS)

CY

Growth in rentals (RHS)

- Highest supply in 9mCY08 of ~ 8.1 mn sq ft
- ✤ Out of the total supply of ~8.1 mn sq ft in 9m CY08, only ~4.1 mn sq ft was absorbed
- Q2CY08 and Q3CY08 witnessed a sharp increase in the vacancy rate
- Decline in rentals was evident from beginning of CY08
- Rising trend of vacancies continued in Q3CY08

-20%

Q1CY Q2CY Q3CY

2008 2008

- Vacency as % of supply (RHS)

NCR: Office

40

CY

2004

Average rental (LHS)

- Growth in rentals (RHS)

CY

- Highest supply in 9mCY08 of ~13.3 mn sq ft
- Only ~6.4 mn sq ft was absorbed
- CY08 witnessed a sharp increase in the vacancy rate
- Decline in rentals was evident from Q3CY08 *
- Rising trend of vacancies continued in Q3CY08

CY

2005 2006

CY

2007

Q1CY

2008

Q2CY

2008

—— Vacency as % of supply (RHS)

Q3CY

2008

2%

-20%

Pune: Office

Highest supply in CY07 of ~7.8 mn sq ft Highest absorption in CY07 of ~3.3 mn sq ft

- From CY07, sharp increase in the vacancy rate *
- Decline in rentals was evident from O3CY08 *
- Rising trend of vacancies continued in Q3CY08 *

СҮ

2006

СҮ

2007

Q1CY Q2CY

2008

2008

СҮ

2005

СҮ

2004

Average Rental (LHS)

- Growth in rentals (RHS)

0%

Q3CY

2008

- Vacency as % of supply (RHS)

-10%

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