Performance Analysis of Listed Indian Real Estate Developers

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ABSTRACT *Direct real estate investment is lumpy and illiquid in nature. It is further characterised by large initial investment and high transaction charges. Thus securitised real estate provides an opportunity to the retail investor to capitalise on and gain diversification for his portfolio. It offers advantages of high fungibility, high liquidity, and an indirect avenue through which they can participate in upward movement of property markets and garner the additional returns.Worldwide research shows that real estate can help an investor diversify his portfolio and act as an inflation hedge. Since REITS do not exist in India, listed property companies remain the only avenue for investors to participate in indirect real estate market. Thus we analyse the performance of real estate companies listed on BSE.*
The top 10 real estate developers by market capitalisation are considered as the sample for this analysis. Official data regarding historical share prices is used from Bombay Stock Exchange website. We find that risk adjusted returns for 60% of the real estate companies are better than those of stock markets (BSE).

Keywords: *Financial Performance, Real Estate Developers, securitised real estate, Risk adjusted returns*
JEL classification: G38

Introduction

The property market in India has witnessed significant over the past few years. Real estate is considered an attractive investment opportunity in India. Some arguments that makes real estate attractive are that it acts as inflation hedge, has potential for superior returns and provides diversification benefits.

The division of an investor's capital across all asset classes optimally is very important to maximise his returns. Real estate is found to be an effective portfolio diversifier[1]. The optimal allocation to real estate is 15% to 25%, and remains stable when the level of the standard deviation of real estate is altered[2]. Also real estate has an inverse relationship with stocks in the long run[3].

One of the main goals on any investor is protection against inflation i.e. avoiding real depreciation. Uncertainty of making real returns always casts a shadow on any investment made, even when nominal cash flows of investments are fixed. Traditionally real estate has been regarded as an investment with low inflation risk.

Investors are faced with several difficulties when they invest into real estate directly. Real estate as an asset class has always been lumpy and illiquid in nature. Another challenge ordinary private investors face is the large initial investment required and high amount of transaction charges. In order to avoid these hindrances, investors can acquire shares in companies specialising in investment in real estate. Therefore securitised real estate is the solution to effectively diversify the investor real estate portfolio. It provides the advantages of high fungibility, high liquidity, and an indirect avenue through which they can participate in upward movement of property markets and garner the additional returns.

The past two decades have seen enormous growth in publicly listed real estate companies in developed markets such as USA, UK, France, Australia and Germany. Most developing countries are yet to embrace the financial innovation of securitised real estate because of the high level of ignorance among retail investors. If investors have more and better information about potential gains, they will be able to make better decisions. This paper presents an analysis of investment performance of real estate companies listed on Bombay stock exchange.

The indirect real estate market consists of shares in listed real estate companies. However there is a difference between distributed earnings vehicles such as Real Estate Investment Trusts (REITS) and conventional real estate companies. Since REITS do not exist in India, listed property companies remain the

[1](Martin Hoesli, 2004)
[2](Martin Hoesli, 2004)
[3](Chaudhry, 1999)

only avenue for investors to participate in indirect real estate market. Thus we analyse the performance of real estate companies listed on BSE.

Review of Literature

Martin Hoesli, J. L. (2004)[4]: In his article titled "International Evidence on Real Estate as a Portfolio Diversifier" he states that "Real estate is found to be an effective portfolio diversifier, and even more so when both domestic and international real estate assets are considered. The optimal allocation to real estate is 15% to 25%, and remains stable when the level of the standard deviation of real estate is altered. Real estate allocation between domestic and nondomestic assets, however, varies substantially across countries, depending on whether returns are hedged or not."

Rasheed, Abdul (2004)[5]: In their article titled "Performance Analysis of Listed Construction and Real estate companies in Nigeria" they state that "The risk–adjustment performance of the companies, assessed through Sharpe ratios, show that both property and construction companies do not perform better than stocks, but, nevertheless, do offer diversification possibilities due to their low correlation with the stock market"

Ooi & Liow, (2004)[6]: In their article titled "Risk-Adjusted Performance of Real Estate Stocks: Evidence From Developing Markets" they state that "The empirical evidence suggests that size, book-to-market,value, capital structure and market diversification have significant influence on the performance of real estate securities. Asset structure and development exposure, however, do not appear to have any significant effect on the returns behaviour, whilst dividend yield has limited influence. As expected, interest rates and market condition have significant impact on returns of real estate stocks. The Asian Financial Crisis also has an adverse impact of the stocks' performance."

Ling, David (2002)[7]: In their article titled "Commercial Real Estate Return Performance: A Cross-Country Analysis" they state that "real estate securities may provide intenational diversification opputunities".

Piet, Ronald, Kees, & Lisa, (1998)[8]: In their paper titled " Continental factors in International Real Estate Returns they state that "The results suggest that, for European, North American andAsia-Pacific real estate portfolio managers, the Asia-Pacific region providesattractive international diversification opportunities."

Nguyen, (2011)[9]: In his paper titled "The Significance and Performance of Listed Property Companies in Asian Developed and Emerging Markets" he finds that "The overall study concludes that from a various background and at a different level of maturity and growth rates, all Asian real estate markets are significantly growing and integrating into the global wide market, thus explaining an increasing interest from global investors.

Bradford Case, (2000)[10] : In their paper titled "Global Real Estate Markets - Cycles And Fundamentals" they argue that "The correlations among international real estate markets are surprisingly high, given the degree to which they are segmented. While industrial, office and retail properties exist all around the world, they are not economic substitutes because of locational specificity. In addition, the broad securitization of real estate property companies has, until recently, lagged that of other types of companies. Never-the-less, international property returns move together in dramatic fashion. In this paper, we use eleven years of global property returns to explore the factors influencing this comovement. We attribute a substantial amount of the correlation across world property markets to the effects of changes in GNP, suggesting that real estate is a bet on fundamental economic variables which are correlated across countries. A decomposition shows that a local production factor is more important in some countries than in others."

Research Methodology

Objective

To analyse the performance of listed Indian Real estate Developers.

Data Sources

Data on the quarterly share prices of listed companies has been compiled from official BSE figures from 2010 to 2017. The listed real estate companies considered in the analysis were: Dlf Ltd, Godrej Properties Ltd,Oberoi Realty Ltd, Prestige Estates Projects Ltd, Indiabulls Real Estate Ltd, Sunteck Realty Ltd, Sobha

[4](Martin Hoesli, 2004)
[5](Amidu Abdul-Rasheed, 2004)
[6](Ooi & Liow, 2004)
[7](Ling, 2002)
[8](Piet, Ronald, Kees, & Lisa, 1998)
[9](Nguyen, 2011)
[10](Bradford Case, 2000)

Limited, Omaxe Ltd, Brigade Enterprises Ltd, Purvankara Ltd.BSE index was considered as the benchmark index.

Data analysis and Interpretation

Returns Analysis

The return for shares of each company was calculated by using the following formula:

$$R_{it}=\frac{(P_t-P_{t-1})}{P_{t-1}}$$

where,

R_{it}= Return of share of ith company for time period t

P_t= Price of share at the end of period t

P_{t-1}= Price of share at the end of previous period t-1

Risk adjusted returns analysis

Risk is quantified by standard deviation(σ_i) of annual returns for each security. In order to account for risk with respect to returns we use the sharpe ratio. Sharpe ratio provides us with risk adjusted returns for asset. It is defined as:

$$S_i=\frac{R_{it}-R_f}{\sigma_i}$$

Where,

S_i=Sharpe ratio for i^{th} investment

R_{it}= Return of share of ith company for time period t

R_f =Risk free rate of return

σ_i = standard deviation in returns for i^{th} investment.

The risk free rate of return considered here is the yield on 364 day treasury bonds as on 05/01/2018= 6.49%.

Table 1
Investment Performance Analysis: 2010-2017

Company	Average Yearly Return	Risk	Risk/ Return Ratio	Sharpe ratio	Rank
OMAXE LTD	16.67%	22.39%	1.34	0.45	1
BRIGADE ENTERPRISES LTD	34.70%	83.01%	2.39	0.34	2
GODREJ PROPERTIES LTD	22.44%	51.61%	2.30	0.31	3
SOBHA LIMITED	27.41%	69.43%	2.53	0.30	4
Purvankara LTD	31.23%	103.46%	3.31	0.24	5
PRESTIGE ESTATES PROJECTS LTD	22.05%	67.86%	3.08	0.23	6
BSE INDEX	10.26%	18.83%	1.84	0.20	7
SUNTECK REALTY LTD	27.42%	107.26%	3.91	0.20	8
INDIABULLS REAL ESTATE LTD	20.34%	85.19%	4.19	0.16	9
OBEROI REALTY LTD	10.27%	29.18%	2.84	0.13	10
DLF LTD	4.23%	52.58%	12.42	-0.04	11

Results

Table 1 presents the risk adjusted performance analysis (using average annual share price of listed real estate developers and average annual index for stock market, as shown in appendix) over eight years from 2010 to 2017. All companies recorded average annual returns in excess of the stock market(10.26%) except DLF LTD(4.23%).

The risk of investment for all listed developers is higher than that of the stock market BSE index(18.83%).Thus the variation in returns for listed developers is much higher than BSE index.

On a risk adjusted basis, 6 out of 10 real estate developers are able to outperform BSE index(sharpe ratio= 0.20) with Omaxe LTD able to outperform it by more than 100%(sharpe ratio=0.45).

Conclusion

This paper examines the performance of ten listed real estate developers and BSE index over a period of eight years (2010-2017). We find that on a standalone basis of absolute returns only, 90% of the listed real

estate developers were able to outperform the stock market (BSE index). We also find that the risk of investing in listed real estate companies is higher than that of the stock market. Overall, on a risk adjusted basis, 60% of real estate developers are able to outperform the stock market. Thus, our research shows that majority of shares of real estate developers are able to outperform the stock market on both absolute and risk adjusted basis and they present a viable alternative for retail investors to invest into real estate.

Appendix

Average annual share price and returns calculated for sample of listed real estate developers and BSE index

Exhibit 1: Average annual share price of developers

Company	Year	2010	2011	2012	2013	2014	2015	2016	2017	2018
DLF LTD	Open Price	361.15	294.85	183.9	233.5	167.4	137.3	116	115.5	260
GODREJ PROPERTIES LTD	Open Price[11]	255	308	309	320	166.85	257.15	338.05	307.2	695
OBEROI REALTY LTD	Open Price	280	259.9	213	293.3	231.4	281	267	297.95	485
PRESTIGE ESTATES PROJECTS LTD	Open Price	190	176	72.5	180.8	163	241.05	195	172	320
INDIABULLS REAL ESTATE LTD	Open Price	227	139	47.2	75.75	68.4	68.7	64.1	72.15	224
SUNTECK REALTY LTD	Open Price[12]	299.5	275.42	151.52	235.8	152.4	140	117.5	110.32	421.9
SOBHA LIMITED	Open Price	247.5	327.85	192	386	315	485	310.5	248	614.35
OMAXE LTD	Open Price[13]	76.01	117.08	108.80	130.13	126.35	125.55	135.85	159.5	230.8
BRIGADE ENTERPRISES LTD	Open Price	131.85	114.1	41.85	93.9	60.5	155	155	150.95	320
Purvankara LTD	Open Price	92	112	57	101.8	81	83.85	63.7	45.55	167.65

Exhibit 2: Average annual returns of developers and stock market

Company	2010	2011	2012	2013	2014	2015	2016	2017
DLF LTD	-18.36%	-37.63%	26.97%	-28.31%	-17.98%	-15.51%	-0.43%	125.11%
GODREJ PROPERTIES LTD	20.78%	0.32%	3.56%	-47.86%	54.12%	31.46%	-9.13%	126.24%
OBEROI REALTY LTD	-7.18%	-18.05%	37.70%	-21.10%	21.43%	-4.98%	11.59%	62.78%
PRESTIGE ESTATES PROJECTS LTD	-7.37%	-58.81%	149.38%	-9.85%	47.88%	-19.10%	-11.79%	86.05%
INDIABULLS REAL ESTATE LTD	-38.77%	-66.04%	60.49%	-9.70%	0.44%	-6.70%	12.56%	210.46%
SUNTECK REALTY LTD	-8.04%	-44.99%	55.62%	-35.37%	-8.14%	-16.07%	87.79%	282.42%
SOBHA LIMITED	32.46%	-41.44%	101.04%	-18.39%	53.97%	-35.98%	-20.13%	147.72%
OMAXE LTD	54.03%	-7.07%	19.60%	-2.91%	-0.63%	8.20%	17.41%	44.70%
BRIGADE ENTERPRISES LTD	-13.46%	-63.32%	124.37%	-35.57%	156.20%	0.00%	-2.61%	111.99%
Purvankara LTD	21.74%	-49.11%	78.60%	-20.43%	3.52%	-24.03%	-28.49%	268.06%
BSE SENSEX	18.02%	-24.67%	25.61%	8.76%	29.51%	-5.04%	2.34%	27.51%

Exhibit 3: Annual prices of Stock Market(BSE index)

Year	BSE ALL SHARE INDEX Open price
2010	17473.45
2011	20621.61
2012	15534.67
2013	19513.45
2014	21222.19
2015	27485.77
2016	26101.5
2017	26711.15
2018	34059.99

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