July –August 2020
ISSN: 0193-4120 Page No. 3320 - 3325

How Well Do Investment Trusts Perform in India?

Dr. Suresh Naidu Boddu
Associate Professor, Department of MBA and Research Centre, JSS Academy of Technical Education, Bangalore

Article Info Volume 83
Page Number: 3320 - 3325
Publication Issue:
July - August 2020

Article History
Article Received: *25 April 2020*
Revised: *29 May 2020*
Accepted: *20 June 2020*
Publication: *10 August 2020*

Abstract:
Investment trusts in India have started operations in 2014, providing an alternative investment avenue to the Indian investors to be included in their asset portfolio. Investment Trusts provide a chance to invest in infrastructure and real estate sector assets. The study has measured the performance of InvITs from 2017 to 2019 and the performance of only REIT for the year 2019. The performance of the two InvITs is not encouraging whereas the performance of only REIT is good to be included as an asset in the mixed asset portfolio of Indian Investors.

Keywords: *Investment Trusts, InvITs, REIT, Sharpe Ratio*

INTRODUCTION AND PURPOSE

Investment Trusts are the new investment avenues introduced in India with regulations for investment trusts in 2014 by SEBI for both Infrastructure and Real Estate Sectors. Both Real Estate Investment Trusts (REITs) and Infrastructure Investment Trusts (InvITs) collect funds from investors and invest in Real estate and Infrastructure sector assets. Even though SEBI regulations were introduced in 2014, the first Infrastructure Investment Trust (InvIT) , IRB InvIT was launched in the year 2016 followed by Ind Grid InvIT in the year 2017. The first REIT, Embassy REIT was launched in the year 2017 by Embassy Group in India. Even though Investment Trust Regulations were introduced in 2014, very few investment trusts were launched for the period from 2014 to 2019.

REVIEW OF LITERATURE

The decision to include REITs in the investor portfolio of assets depends on the performance of REITs against other assets in the asset portfolio. (Lee, Stephen L, 2010).

The positive correlation between returns from equity REIT and the real estate assets shows strong relation between REIT and real estate sector between 1993to 2008 in USA. REITs with Large Market Capitalization seem to resemble real estate sector performance than REITs with Small Market Capitalization. (Ming-Long Lee, Ming-Je Lee and Kevin C.H. Chiang, 2008).

Portfolio Managers in United States Could overcome the financial crisis through portfolio diversification using REITs as part of their well-diversified Portfolio between 2000 and 2011 period as REITs gave better performance over an S&P 500 index.(Brian D. Fitzpatrick, Shahid Ali, Garrett Wiegele, 2014)

Returns on REITs with larger size, region specific, specialized property type investments was maximum in Europe between 2000 and 2010 and also the non-diversifiable risk is maximum in REITs in Asian region due to higher levels of leverage during the same period. (Dirk Brounen, S Joerd De Koning, 2012)

As the Portfolio and Legal features of REITs are different from regulated funds, the future expected performance of REITs will be same as the current performance as the REITs recent actual performance is same as the expected performance. (Graff, Richard A, 2001)

The extremely better returns generated by REITs over the expected returns during the recent period suggests that REITs shares are mispriced which is contradictory to Efficient Market Hypothesis theory (James L. Kuble, Carl H. Walther, and Charles H. Wurtzebach, 1986).

The study found that region and property type specific REITs with better financial ratios showed good performance on risk adjusted basis than other REITs between 1986 and 1990. (Arnoldl. Redman, Herman Manakyan, 1995).

The study found that REITs in Turkey are betterrisk diversification than banks than sponsor company shares and also shown better financial soundness and diversity between 2008 and 2015 period. (Yener Coskun, A. Sevtap Selcuk-Kestel, Bilgi Yilmaz, 2017)

The tax benefits to the investors, accounting methods, better leverage position through increased market value of assets, property market stability will decide the financial soundness, viability and performance of REITs. (Colin Haslam, Nick Tsitsianis, Tord Andersson, Pauline Gleadle, 2015)

The performance of stocks is better compared with equity REITs on risk adjusted basis even though the effect of inflation and interest rates is more on stocks than on REITs. (K.C. Chan, Patric H. Hendershott, Anthony B.Sanders, 1990).

The real estate sector offered better risk diversification and returns than the stocks and bonds and also against inflation. (W.B. Brueggeman, A.H.Chen, T.G.Thibodeau,1984)

The performance of REITs is inconsistent, insignificant due to high volatility of REIT stocks on risk adjusted basis using different index models. (Sheridan Titman and Arthur Warga, 1986).

The return on a portfolio of stocks and REITs is same as the performance of stock portfolio even though the portfolio of stocks offered better risk diversification than the portfolio of REITs as the number of stocks increased to twelve from single stock in the portfolio. (James L. Kuhle, 1987)

The study analyzes the Investment Trusts performance in India from 2017 to 2019 to suggest the Indian investors whether Investment trusts as an asset to be included in the investor's portfolio.

RESEARCH METHODOLOGY

The sample data used for this study consists of Quarterly returns of two Infrastructure Investment Trusts (InvITs), one REIT, nine infrastructure mutual funds and also two benchmark indices BSE SENSEX and S&P BSE India Infrastructure Index for the period from 2017 to 2019.

The Quarterly returns was calculated using the following equation:

$R_i = [(P_{i1} - P_{i0}) + D_{i1}]/P_{i0}$

Where R_i= Quarterly yearly returns for Investment Trusti

P_{i1}= Stock or Fund Closing Value

P_{i0}= Stock or Fund Beginning Value

D_{i1}= Dividend Received or Paid at the end of the Period for Investment Trusti

Performance of Investment Trusts and Mutual Funds was measured on Risk adjusted basis using Sharpe Ratio.

$$S = \frac{R_i - R_f}{\sigma_i}$$

R_i= Average Return on the asseti.

R_f= Average return on risk free asset.

σ_i= Total Risk on the asseti.

Average Return on the asset R_i was the average quarterly returns for the period from 2017 to 2019. The Average return on risk free asset $R_f$was the average quarterly returns on 91 day T-bills in India from 2017 to 2019. The risk was calculated based on quarterly performance of Investment Trusts from 2017 to 2019.

The Sharpe measure was chosen over other risk adjusted measures as it considers the total risk of the assets. The effect of Sponsor or Special Purpose Vehicle (SPV) performance, Inflation, GDP, Leverage ratio and Risk Free Returns on the Quarterly returns of investment trusts was studied using regression method.

ANALYSIS OF RESULTS

Table 1: Performance of Infrastructure Investment Trusts (InvITs)

	Average Returns	Standard Deviation	Beta	Sharpe Ratio
INDGRID InvIT	0.0176	0.0410	-0.1465	-1.1184
IRB InvIT	-0.0117	0.0285	-0.0497	-2.6310
BSE India Infrastructure Index	0.0010	0.0852		-0.7333
91 Day T-Bill	0.0634			
BSE SENSEX	0.0315	0.0426		-0.748

Table 1 shows that average returns of InvITs are poor compared to returns of benchmark index, BSE SENSEX and T-bills. The risk adjusted returns measured using Sharpe Ratio shows that InvITs have generated higher negative returns than both the bench marks, BSE SENSEX and BSE India Infrastructure Index during the study period.

Table 2: Performance of Infrastructure Mutual Funds in India

Fund Name	Average Returns	Standard Deviation	Beta	Sharpe Ratio
DSP Tiger	0.0154	0.0840	0.9807	-0.5716
Fraklin Build India	0.0202	0.0798	0.8435	-0.5422
IDFC Infrastructure	-0.0281	0.0994	0.9978	-0.9210
Invesco India Infrastructure	0.0142	0.0882	0.9760	-0.5587
Kotak infrastructure and economic reform	0.0096	0.0850	0.9759	-0.6335
L&T Infrastructure	0.0087	0.0801	0.8402	-0.6830
SBI Infrastructure	0.0200	0.0976	1.0765	-0.4444
Sundaram Infrastructure	0.0120	0.0974	1.1270	-0.5274
Tata infrastructure fund-growth	0.0152	0.0815	0.9315	-0.5920

From Table 2, during the study period, it was observed that the infrastructure mutual funds have generated better average returns and also risk adjusted returns than InvITs.

Table 3: Regression results

Variables	The Coefficients	Sample Standard Error	t Stat Value	P-value
Intercept	-0.070757396	0.716920066	-0.098696353	0.923329748
GDP	-0.014386229	0.032933151	-0.436831222	0.671515474
Inflation	-0.013099194	0.015987071	-0.819361678	0.431674476
Leverage	0.059409969	0.160574324	0.369984239	0.719109685
T-Bill	3.444201938	8.242030328	0.417882706	0.684864195
Sponsor	0.068196379	0.110011001	0.619905087	0.549184292
R Square	0.179629726			
Adjusted R Square	-0.230555411			
Standard Error	0.069320407			

@5% level of significance

Table 3 regression results indicate relation between the InvIT returns and GDP, Inflation, Leverage, T-bill and Sponsor returns is statistically in significant. The regression results indicate there is statistically insignificant negative relation between the InvIT returns and GDP, Inflation levels in India. The results also indicate there is positive relation between the InvIT returns and Leverage, T-Bill rates and Sponsor returns but the results are statistically insignificant.

Table 4: REIT performance from 01/04/19 to 30/06/19

	Average Returns
Embassy REIT	0.158232
91 Day T-Bill	0.0634
BSE SENSEX	0.0001

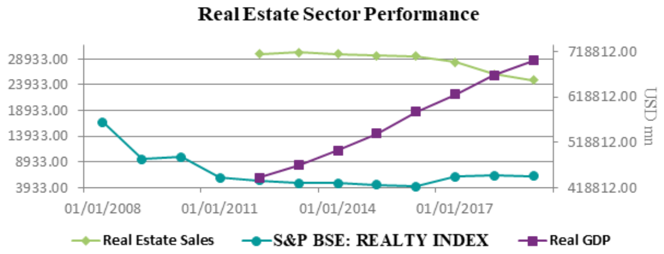
Table 4 shows that the only REIT registered in India, Embassy REIT has generated very good returns than T-Bills and Benchmark Index, BSE SENSEX.

July –August 2020
ISSN: 0193-4120 Page No. 3320 - 3325

Table 5: Real Estate Sector Performance

Date	Real Estate: Sales(INR mn)	Real GDP(USD mn)	S&P BSE: Realty
12/01/2019	24838.68	699261.26	6165.20
12/01/2018	26034.83	666912.94	6313.55
12/01/2017	28350.68	624707.02	6026.90
12/01/2016	29506.03	586290.78	4140.56
12/01/2015	29549.55	537871.10	4481.56
12/01/2014	29895.28	500437.98	4811.26
12/01/2013	30239.40	467861.31	4730.01
12/01/2012	29895.00	440854.92	5314.07
12/01/2011			5833.93
12/01/2010			9911.17
12/01/2009			9487.84
12/01/2008			16611.39

Source: CEIC Data



Source: CEIC Data

Figure 1: Real Estate Sector Performance

Table 5 and Figure 1 shows that real estate sales have shown decreasing trend from 2012 to 2019. The benchmark index S&P BSE: Realty has shown decreasing trend from 2012 to 2019. The Real GDP has shown increasing trend from 2012 to 2019.

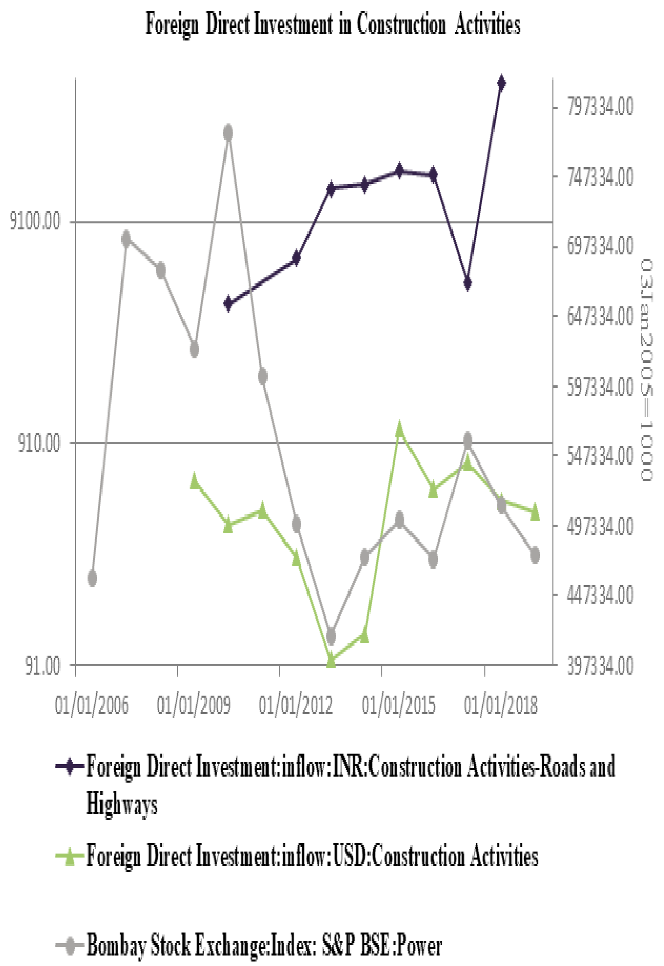
The muted performance of Real estate sector has not attracted many companies and investors towards REITs. Even though the REIT regulations introduced in 2014 only one REIT is introduced in the India. The real estate sector is not doing well for the last 10 years. So the companies could not create REITs thinking that they may not attract investors to buy REIT stocks.

Table 6: Foreign Direct Investment in Infrastructure and Construction Activities in India from 2006 to 2019 and the performance of companies in Power Sector.

Date	FDI(Roads and Highways)	FDI(Construction Activities)	S&P BSE Power Index
12/01/2019		476042.63	445.87
12/01/2018	38525.38	511859.28	503.89
12/01/2017	4828.58	558164.98	749.87
12/01/2016	14743.66	473637.83	564.60
12/01/2015	15393.48	501360.83	1056.70
12/01/2014	13412.22	474811.46	126.11
12/01/2013	12855.15	418246.79	95.91
12/01/2012	6248.12	498383.37	277.74
12/01/2011		604156.70	453.95
12/01/2010	3860.51	779347.27	390.19
12/01/2009		624164.94	614.89
12/01/2008		681051.44	
12/01/2007		703157.57	
12/01/2006		459368.13	

Source: CEIC Data

TEST Engineering & Management
July –August 2020
ISSN: 0193-4120 Page No. 3320 - 3325

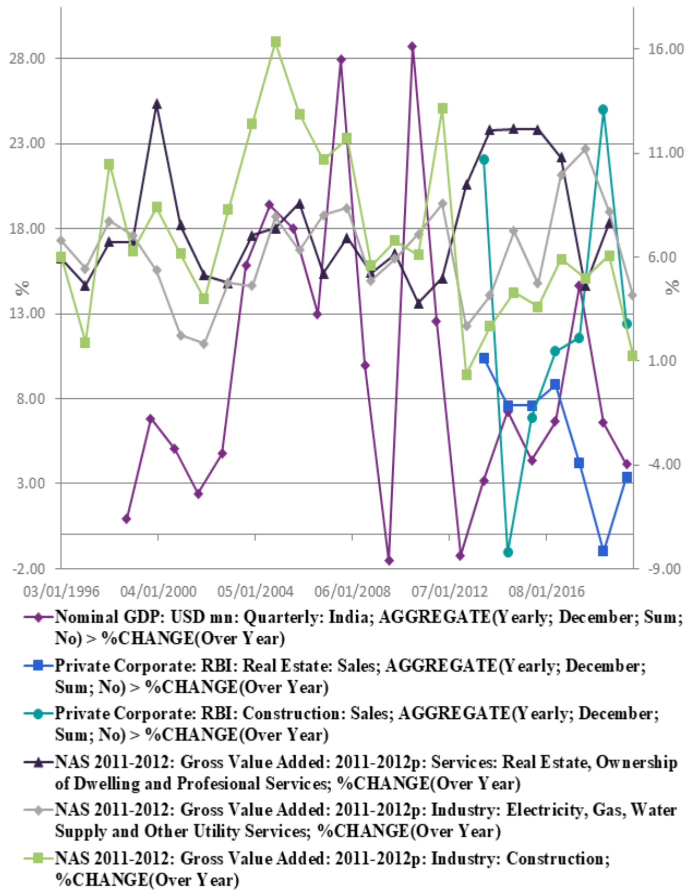


Source: CEIC Data

Figure 2: Foreign Direct Investment in Construction Activities

Table 6 and Figure 2 shows that Foreign Direct Investment (FDI) in construction activities has shown fluctuating trend from 2006 to 2019 but Foreign Direct Investment (FDI) in construction activities (Roads and Highways) has shown increasing trend from 2010 to 2019. The benchmark index S&P BSE: Power has shown decreasing trend from 2009 to 2019.

The fluctuating trend of overall Foreign Direct investment in construction activities and decreasing performance of power sector from 2009 to 2019 has not attracted many investors towards Infrastructure Investment Trusts (InvITs). Even though the InvIT regulations introduced in 2014 only two InvITs are introduced in the India. So the Infrastructure companies could not introduce more InvITs thinking that they may not attract investors to buy InvIT stocks.



Source: CEIC Data

Figure 3: The Total Value Added by Real Estate and Infrastructure services

Figure 3 shows that The Real Estate and Construction activities sales, the total value added of real estate and infrastructure services have shown either decreasing or fluctuating trend from 1996 to 2019.

The fluctuating or decreasing trend of Real estate and Infrastructure sector sales and Value addition of these Sectors to GDP has not attracted many companies and investors towards REITs and InvITs. So the Real Estate and Infrastructure companies could not introduce more REITs and InvITs thinking that they may not attract investors to buy REIT and InvIT stocks.

CONCLUSION

The investment trusts in infrastructure, InvITs could not generate positive returns to investors but the only REIT, Embassy REIT has shown stellar performance during the study period. Investment Trusts will gain popularity among investors in the future if they generate steady returns than stocks and bonds.

July –August 2020
ISSN: 0193-4120 Page No. 3320 - 3325

REFERENCES

1. Arnold L. Redman, Herman Manakyan (1995), A multivariate analysis of REIT performance by financial and real asset portfolio characteristics, Journal of Real estate Finance and Economics,10, 169-175.
2. Brian D. Fitzpatrick, Shahid Ali and Garrett Wiegele (2014), Surprising Comparison of Risk and Return factors between Real Estate Investment Trusts(REITs) and the S&P 500 Index during the 2000-2011 time period, 12:1, 47-54.
3. Colin Haslam, Nick Tsitsianis, TordAndersson, Pauline Gleadle(2015), Real Estate Investment Trusts(REITS): A new business model in the FTSE100, Accounting Forum, 1-10
4. Dirk Brounen and Sjoerd De Koning (2012), 50 years of Real estate investment trusts: An international examination of the rise and performance of REITs, Journal of Real Estate Literature, 20:2, 197-223.
5. Graff, Richard A(2001), Economic analysis suggests that REIT Investment characteristics are Not As Advertised, Journal of Real estate portfolio management, Apr-Jun 2001, 7:2,99-124.
6. James L. Kuble, Carl H. Walther, and Charles H. Wurtzebach(1986), The financial performance of Real Estate Investment Trusts, The Journal of Real Estate Research, 1:1, 67-75.
7. James L.Kuhle(1987), Portfolio Diversification and Return Benefits- Common Stock Vs Real Estate Investment Trusts (REITs), the Journal of Real Estate Research, 1-9.
8. K.C. Chan, Patric H. Hendershott, Anthony B.Sanders(1990), Risk and Return on Real Estate: Evidence from Equity REITs, AREUEA Journal,18:4, 431-452.
9. Lee and Stephen L(2010), The changing Benefit of REITs to the Mixed Asset Portfolio, Journal of Real estate Portfolio Management, Sep-Dec 2010, 16:3, 201-215.
10. Ming-Long Lee, Ming-Je Lee and Kevin C.H. Chiang(2008), Real estate Risk exposure of Equity Real Estate Investment Trusts, Journal of Real Estate Financial Economics, 36, 165-181.
11. Sheridan Titman and Arthur Warga (1986), Risk and Performance of Real Estate Investment Trusts: A Multiple Index Approach, AREUEA Journal, 414-431.
12. W. B. Brueggeman, A.H. Chen and T.G.Thibodeau(1984), Real Estate Investment Funds: Performance and Portfolio Considerations, AREUEA Journal ,12:3, 333-354.
13. Yener Coskun, A. Sevtap Selcuk-Kestel, Bilgi Yilmaz(2017), Diversification Benefit and return performance of REITs using CAPM and Fama-French: Evidence from Turkey, Borsa Istanbul Review, 17:4, 199-215.