Opportunities for institutional investors in Indian REITs

by

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Submitted to the Program in Real Estate Development in Conjunction with the Center for Real Estate in Partial Fulfillment of the Requirements for the Degree of Master of Science in Real Estate Development

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ABSTRACT

REITs offer investors the benefits of real estate investment along with the ease and advantages of investing in publicly traded stock. REITs are a very mature real estate investment vehicle in the U.S. REITs are at a very nascent stage in India. Indian real estate industry is growing rapidly. A large portion of the industry has become organized, with institutional investors, private equity firms and multi-national companies expanding aggressively.

From the journey of U.S. REIT industry, this study aims to study the Indian REIT regulations on the parameters of growth, volume, policy modulation and loopholes (if any) and analyze these details to reach the opportunities and challenges international institutional investors would face when investing in Indian REIT industry. This study also deep dives into the key REIT worthy asset classes and perspective REIT portfolios.

Thesis Supervisor: David Geltner

Title: Professor of Real Estate Finance

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Acknowledgments

Gratitude for my almighty, Waheguru.

I would like to thank **Professor David Geltner** from the MIT Center for Real Estate (CRE) for being my advisor, guiding me and providing his deep insight into this topic. This thesis would not have been possible without **Ajay Prasad**, from Taurus Investment Holdings. He has helped me learn and refine my understanding of the topic and has been a constant source of knowledge and inspiration. A heartfelt thank you to all the amazing industry leaders who spared their valuable time to share their experience and help this thesis.

Patricia Nesti for being a great friend and constant support.

Most importantly my family- parents, husband and siblings for their confidence in me.

Cheers!

Dedicated to my Mom,

My role model, my foundation.

Contents

1 Introduction

1.0 Introduction to REITs

Real Estate Investment Trust (REIT) is an investment vehicle that is a vertically integrated entity that owns and operates real estate and related assets and allow individual investors to own a part of their income producing portfolio without actually having to buy the capital-intensive asset.

National Association of Real Estate Investment Trusts (NAREIT) defines REITs as “A real estate investment trust (“REIT”) is a company that owns, operates or finances income-producing real estate. REITs provide all investors the chance to own valuable real estate, present the opportunity to access dividend-based income and total returns, and help communities grow, thrive, and revitalize.”

For the real estate developer and asset manager, REITs are a source of alternate funding and provide liquidity for operations. Access to high value real estate and earn steady returns is the unmatched advantage that REITs provide the investor.

1.1 Learnings from REITs in United States

In the U.S. “securitization revolution” of the 1990s that led to the growth and development of the public REIT and CMBS markets and a strengthening of the link between private real estate asset markets (Main Street) and wider capital markets (Wall Street).

According to NAREIT, REITs have proved to have the following advantages-

- Provide disciplined, market-based financing of real estate through liquid, transparent public markets
- Increase equity and reduce debt in the financing of real estate to make the industry more stable
- Provide all citizens with access to real estate investment to help build financial security, manage wealth and save for retirement
- Provide a means for investing in real estate in the same manner investors typically invest in other industries through listed corporate equities

REITs historically offer investors competitive long-term performance, substantial, stable dividend yields, liquidity, transparency and portfolio diversification.

According to NAREIT data, growth of the publicly-traded equity REIT sector has Multiplied over the decade. In 2009, the sector's share of institutional-quality commercial real estate was 8.9 percent, and REITs' estimated share of the entire commercial real estate market was 4.3 percent. As of the second quarter of 2020, REITs' share of institutional-quality properties had risen to 19.6 percent, with REITs' share of the entire commercial real estate market at 9.6 percent. [1]

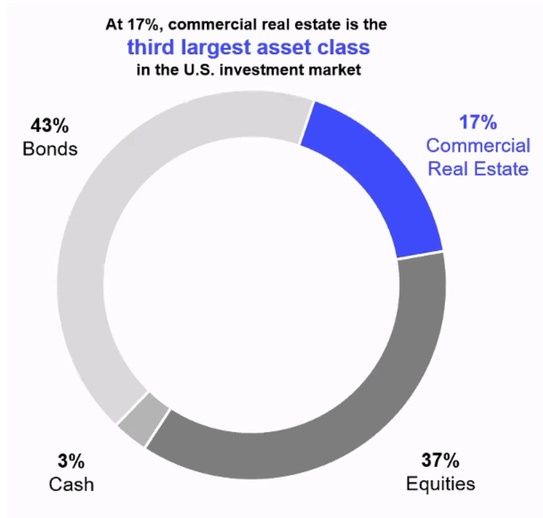


Figure 1 Commercial real estate as asset class in U.S. (Source NAREIT REIT world)

1.1.1 Diversification

The REIT model, Over the years, has been flexible enough to reflect economic changes.

E-commerce pushed logistics and Technology pushed data centers and cell towers, to emerge as a major player in the REIT sector.

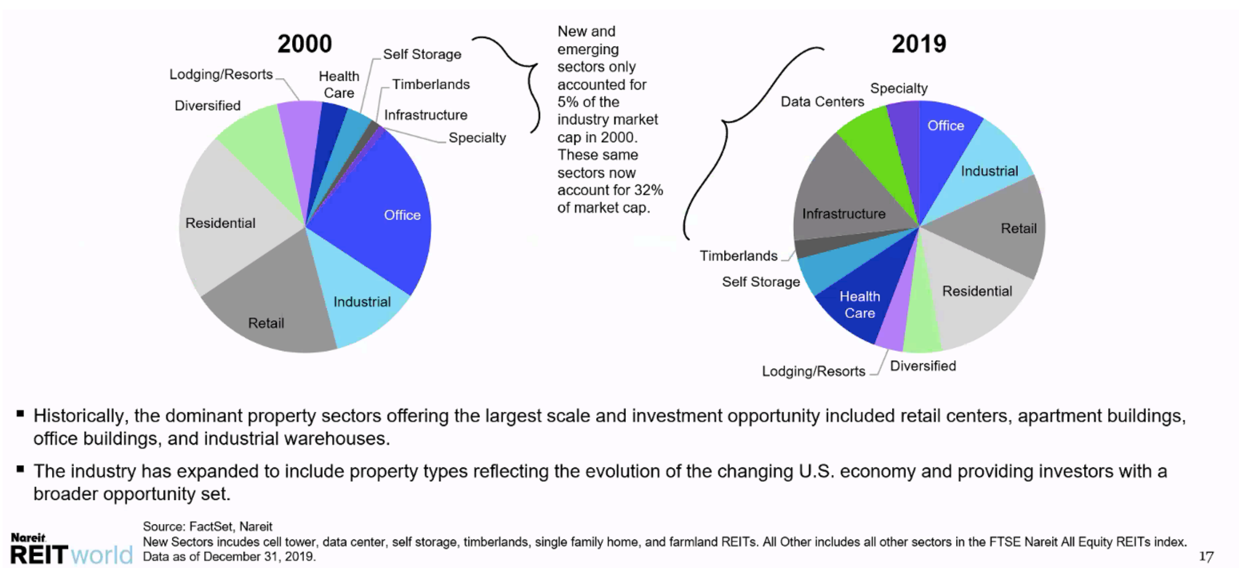


Figure 2 Changing U.S. REIT diversification 2000 to 2019

[1] Looking Back on 60 Years of REITs (nreionline.com)

1.1.2 Returns

As tabulated in the tabulation below, REITs have outperformed leading U.S. benchmarks over extended historical periods.

CEM benchmarking 2020 study [2]highlights REIT performance versus private real estate, analyzes ***realized investment performance*** (gross and net average annual total returns, correlations and volatilities) across 12 asset classes over a 21-year period (1998-2018), using a unique dataset covering over 200 public and private sector pensions with nearly $3.9 trillion in combined assets under management, with appropriate adjustments for reporting lags associated with illiquid asset classes (unlisted real estate and private equity).

	1-year	3-year	5-year	10-year	15-year	20-year	25-year	30-year	35-year	40-year
FTSE Nareit All Equity REITs	13.01	5.92	8.88	16.03	9.41	10.66	10.47	10.51	11.06	12.02
FTSE EPRA/Nareit Developed	8.64	5.45	5.79	11.45	8.00	8.83	8.40	N/A	N/A	N/A
Russell 1000 (Large-Cap Stocks)	10.02	14.15	10.45	14.77	8.94	6.19	10.09	10.13	11.45	11.81
Russell 2000 (Small-Cap Stocks)	-3.31	12.30	7.06	13.45	8.15	7.77	9.26	9.29	9.83	10.92
Bloomberg Barclays US Aggregate Bond	7.87	2.31	2.95	3.90	4.27	4.93	5.50	5.99	7.21	7.32

Nareit. Source: Nareit analysis of monthly total returns through June 2019.

Figure 3 U.S. REIT performance (Source NAREIT)

Listed equity REITs had the 2nd highest average annual net return, 10.2% whereas, unlisted real estate produced average net returns of 7.5%. The expense percentage in REITs is way more efficient than Private Equity or other real estate however U.S. large caps and Bonds have lower expenses.

[2] CEM Benchmarking Study Highlights REIT Performance Versus Private Real Estate | Nareit

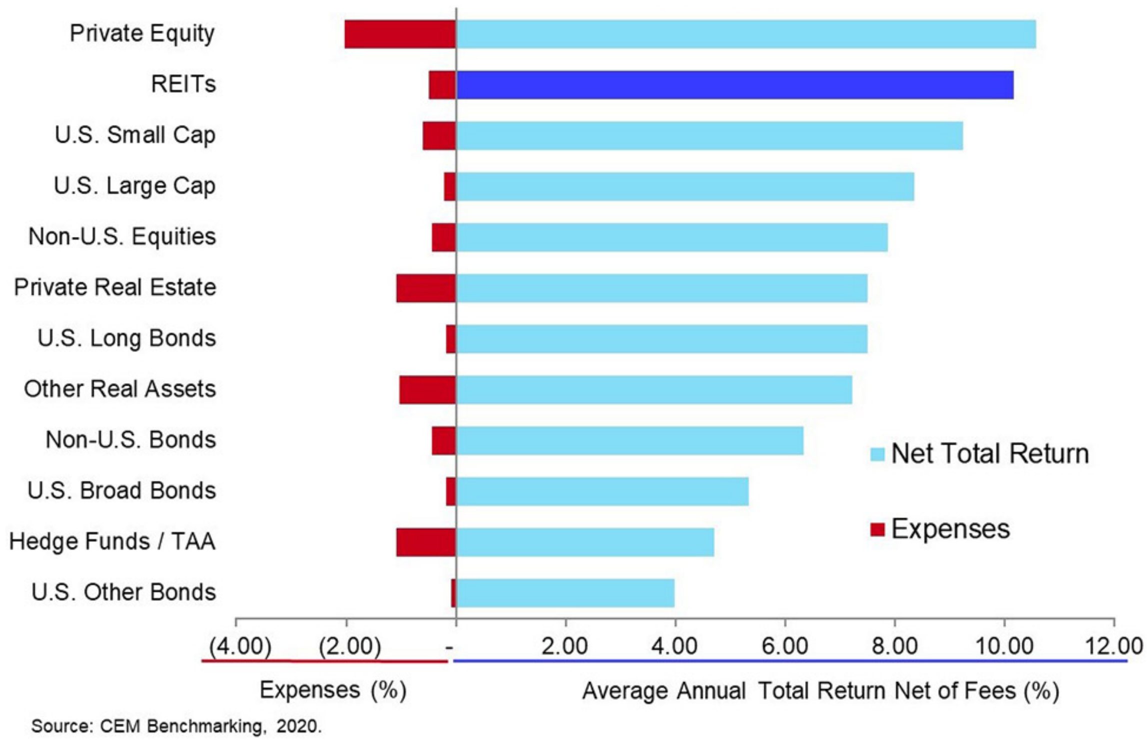


Figure 4 Annual net return and expense by asset class for U.S. defined pension funds 1998-2018 (CEM Benchmarking study 2020)

The CEM study also concluded that REITs outperform private real estate that irrespective of ownership style of unlisted or private real estate (Internally managed direct, core funds, value added/opportunistic funds and fund of funds- each with different risk profiles and costs.)

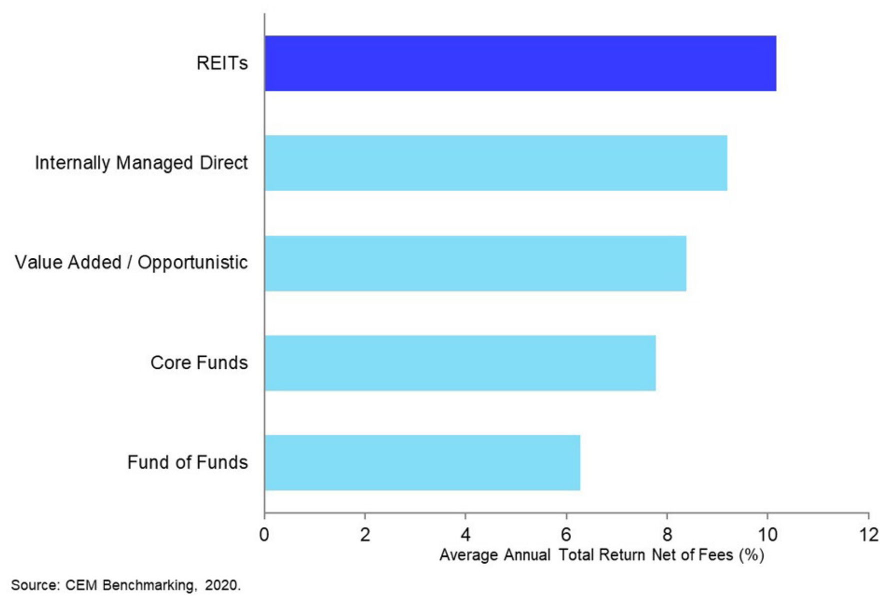


Figure 5 Annual net total return for real estate according to ownership 1998-2018 (CEM Benchmarking study 2020)

1.1.3 Portfolio allocations

In a research by investment consulting firm Wilshire Associates found that during 1976-2014, a portfolio including global listed REITs produced a **higher annualized portfolio return and lower annualized portfolio risk** than a portfolio without global listed REITs, **resulting in an ending portfolio value that was 6.5 percent higher.**

REIT and unlisted real estate returns, according to the CEM benchmarking report 2020, had low correlations with bonds and listed equity returns. Forming the basis for diversification benefits associated with the real estate (REITs or unlisted) asset class. REIT and unlisted real estate returns were highly correlated when illiquid returns are adjusted for reporting lags.

	REITs	Private Real Estate	U.S. Long Bonds	U.S. Large Cap	U.S. Small Cap	Non-U.S. Equities	Private Equity	Hedge Funds
REITs	1.00	**0.84**	0.04	0.54	0.64	0.57	0.51	0.52
Private Real Estate		1.00	0.02	0.45	0.54	0.49	0.51	0.41
U.S. Long Bonds			1.00	-0.31	-0.38	-0.38	-0.44	-0.21
U.S. Large Cap				1.00	0.92	0.89	0.85	0.92
U.S. Small Cap					1.00	0.88	0.89	0.79
Non-U.S. Equities						1.00	0.90	0.85
Private Equity							1.00	0.80
Hedge Funds								1.00

Source: CEM Benchmarking, 2020

Figure 6 Key Asset Class Correlations 1998-2018

The appropriate REIT allocation to REITS in an investment portfolio will vary based on each investor's goals, risk tolerance and investment horizon.

According to NAREIT EIT world, multiple studies have found that the optimal REIT portfolio allocation may be between 5% and 15%. David F. Swensen, PhD, noted CIO of Yale endowment and author of *Unconventional success: A fundamental approach to personal investment*, recommends a 15% allocation to REITs for most investors.

1.1.4 Impact of COVID 19 on U.S. REITs

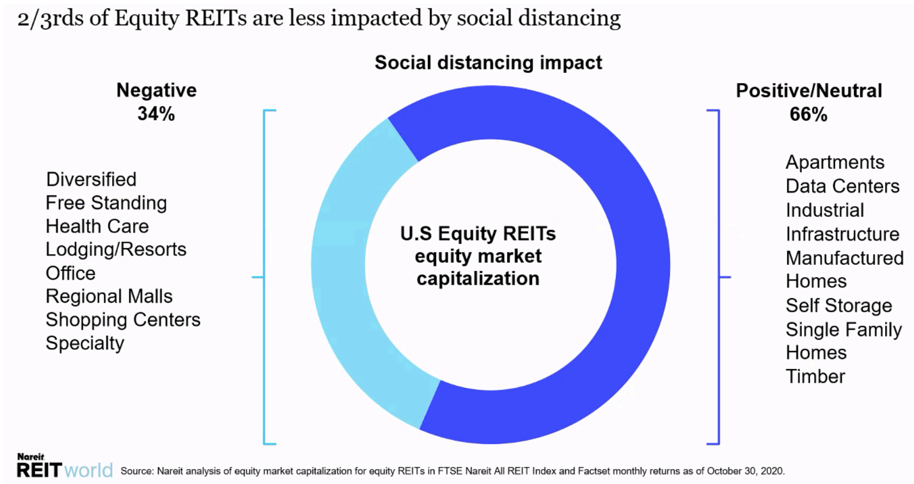
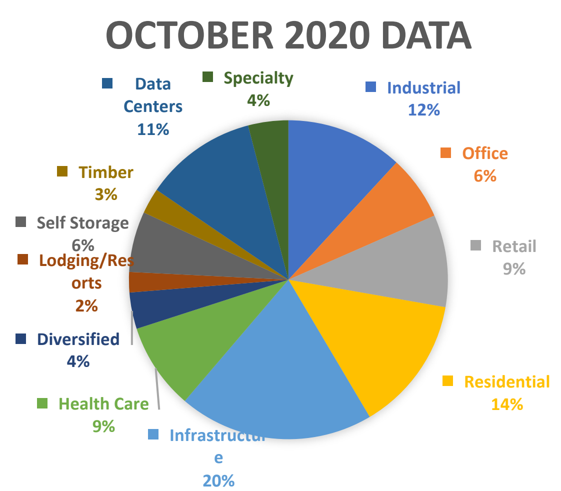
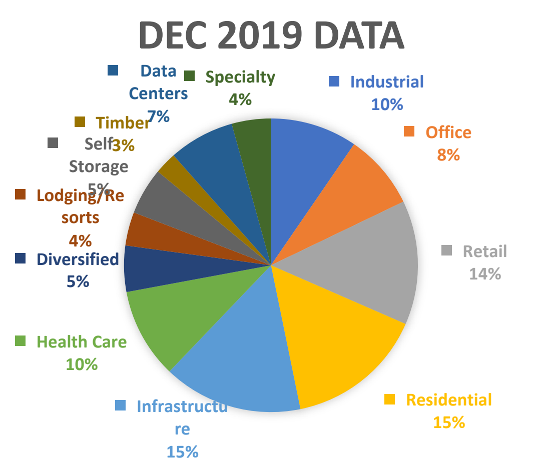


Figure 7 Impact of COVID 19 on REIT sectors in U.S.

The black swan event COVID 19 has largely impacted life across the world. While some asset classes benefited from the new normal, some were adversely impacted. The overall market valuation went from $1,018 million in December 2019 to $841 million in October 2020. Hospitality and retail were adversely impacted. Office took a major hit as employees were forced to work from home and companies evaluated space requirements for this "new normal". Technology and e-commerce boom were capitalized by data center infrastructure and logistics related asset classes.



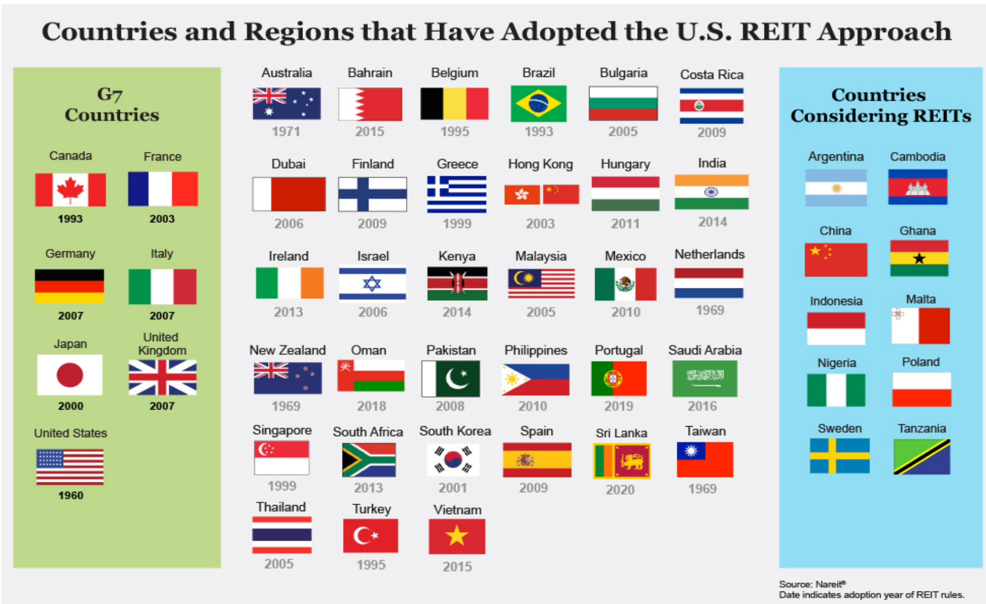
FTSE Nareit Equity REITs (Number of REITs - 149)-
Market Valuation $841,040,338



FTSE Nareit Equity REITs (Number of REITs - 155)-
Market Valuation $1,018,121,515

1.2 Global REITs

41 countries offer REITs as an investment vehicle. In 2019, US REITs market capitalization was 96% of the real estate market; Singapore and japan with 55% and 51%.



2 Methodology and Data Requirements

The research will be done using focused interviews and market reports.

The interviewees will be selected and approached keeping the three buckets – REIT fundamentals, REITs in U.S. and REITs in India.

2.0 Key Interview questions

- Comments on the India story and Macro factors
- Which would have been the companies in each sector, office, retail, industrial/logistics that you would watch out for?
- What are the key considerations and process to decide the REIT share price?
- Multi Asset REIT or single asset REIT? (product wise) How crucial is the mixed asset class portfolio help, what should be that percentage diversification?
- The participation of domestic retail capital in Indian REITs? MF have jumped 249 to 735 in 12-18 months. Do you think this investment takes REITS to the next level?

- What would you recommend to change in the policy?

- In this study, one thing that you would want to see, any issue you are facing at _(company name)___ /with ___, OR what is that one piece of jigsaw, that would tackle this to the next report level?

2.1 Methodology

On the basis of the literature review and multiple interviews with industry leaders this project finds the following parameters essential (elaborated parameters in word doc)

- Product Type
- Portfolio Size and Valuation
- Asset Quality
- Tenant Base, Occupancy, Average lease length, MTM potential
- Financial Health- Debt Ratio (and its impact on dividend distribution and growth)
- Credibility and Reputation of partners, legal history

Evaluating future Indian REITs	1. Macro fundamentals of product type (industry map /demand -supply)
	2. Who are the top player- Volume and valuation size (map asset quality)
	3. Who could become a credible exit as a REIT (map other said parameters)

3 Analysis -REITs in India

3.0 Indian Real Estate Industry Macro

Infrastructure and Real Estate are arguably the two most critical sectors in a developing economy like India as they

- propels the overall development of a country,
- steady inflow of private and foreign investments,
- augments the capital base available for the growth of key sectors in an economy,
- helps several sectors develop significantly through the multiplier effect.

Currently, India's Real Estate sector is the second-largest employer in the country after agriculture and is slated to grow at a steady pace over the next decade.[3] India's Real Estate sector

[3] India's new real estate and infrastructure trusts: The way forward -Sixth edition -October 2020

is expected to reach a market size of U.S.$1 trillion by 2030[4]. The real estate industry in India has been unorganized and fragmented. The real estate industry, like any other country, has some very local characteristics including legal system, political complexities, nature of real estate leases, permitting and many more factors.

Since the turn of the century, India has emphasized on public private partnerships (PPP) to boost its infrastructure sector and drive the economy. This attracted huge domestic and international capital. The economy grew at a GDP growth average of 6.63% (2000-2018).

The boom and slowdown in Indian commercial real estate industry in **2005- 2010 is** very important because of Globalization **demand push**, **SEZ policy** and **FDI in real estate**. The capital rush and local lacunas such as inflationary environment in India, delays in land acquisition, a policy-permitting gridlock, and environment clearances, led to a **frothy, speculative and overpriced space market**. Capital flows were drastically impacted by global financial crisis 2008 and debt increased of developer balance sheets. The Indian real estate sector had been facing a lack of fund to stimulate growth, imperative that additional channels of financing were put in place. This brought the era of opportunities for large PE players like Blackstone. Concentration/**consolidation of assets in fewer into fewer larger, more institutional developers in India** (From 20-25 players in 2005 to maybe 7 in 2014). The second-tier players fell through financial distress, lack of scale or faded away.

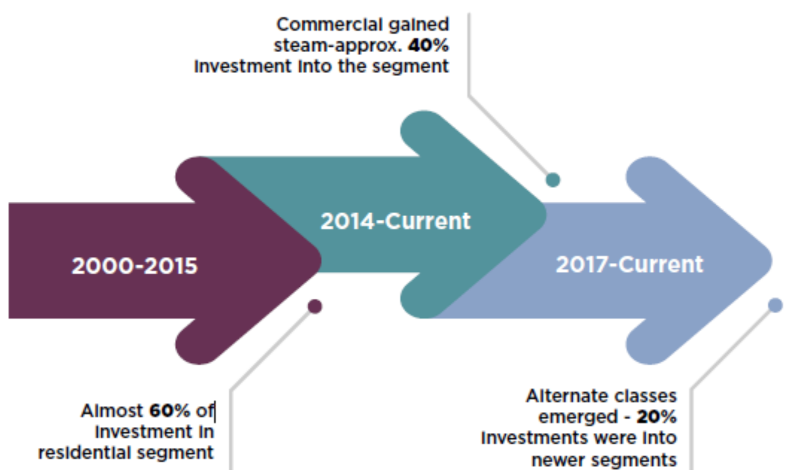


Figure 8 Timeline of investment trend by asset class (Source Savills India Research)

The political stability and policy initiatives since 2014 have brought vitality and vigor to the real estate industry. These include liberalization of FDI rules in real estate sector, setting up Real Estate (Regulation and Development) Act, 2016, Goods and Services Tax (GST) 2016, schemes on *housing*

[4] IBEF. (2020). Indian Real Estate industry. Retrieved from https://www.ibef.org/industry/real-estate-india.aspx

for all, creation of smart cities, Amendments to the Prevention of Money Laundering Act (PMLA) and approval of REIT platforms has made the sector more enterprising than ever before.

3.1 The Evolution of Indian REIT

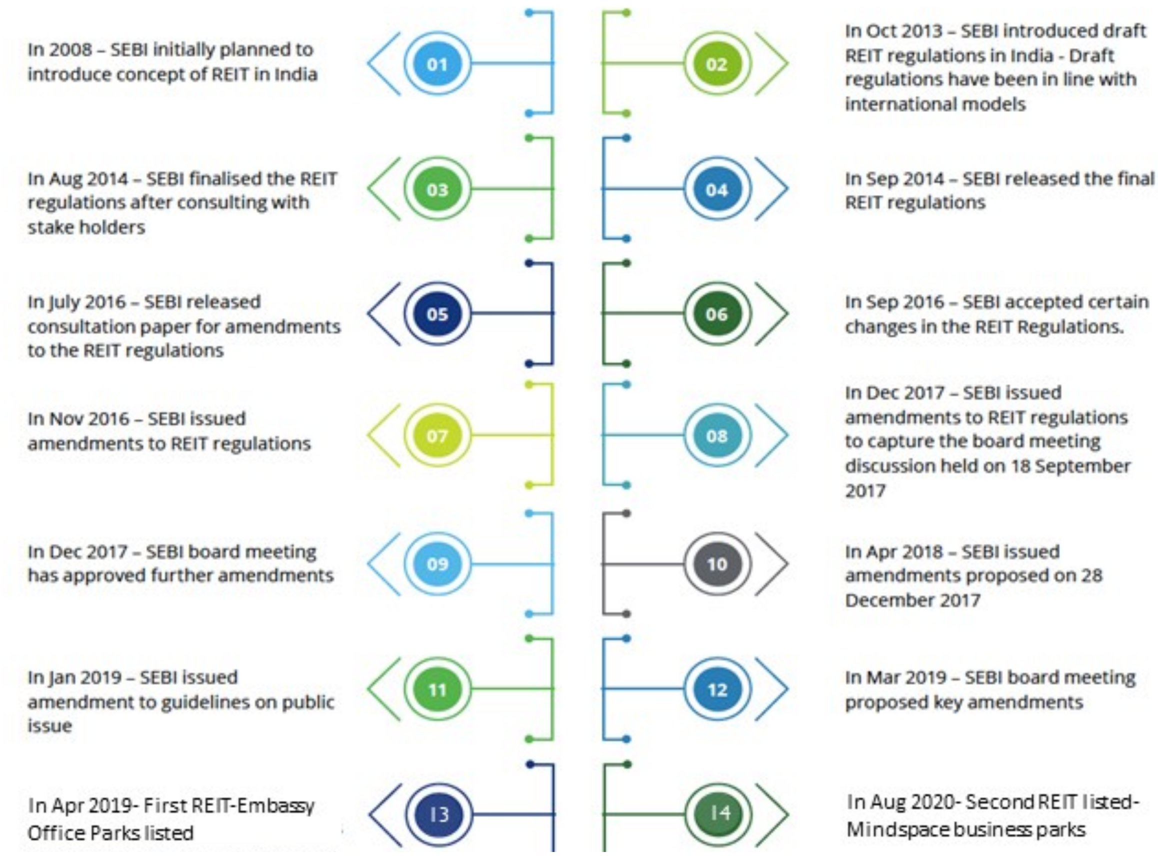


Figure 9 Indian REIT timeline (Deloitte research)

Real estate investment trusts (REITs) are investment vehicles that can be used to attract private investment in the real estate sector, and also relieve the burden on formal banking institutions.

First REIT policy draft 2013 released as a desperate attempt by the government to attract capital, based upon Singapore REIT policy- the most trusted policy in Asia. The Real Estate Investment Trust (REIT) and Infrastructure Investment Trust (InvIT) are investment vehicles enacted together (in effect since 26 September 2014) to foster investment in real estate and Infrastructure sectors.

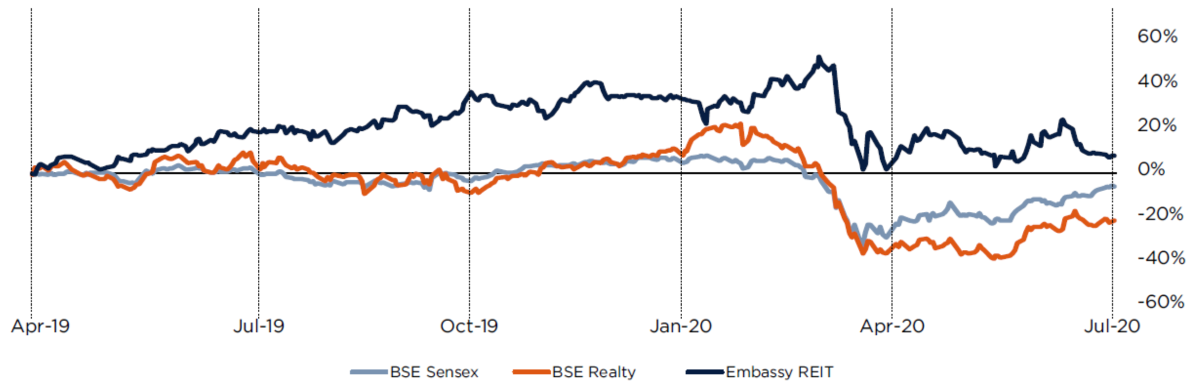
The **draft policy was pretty good except the taxation on dividends**, and took years to resolve.

The Securities and Exchange Board of India (SEBI) and the Ministry of Finance have focused on fostering growth. Amendments for both REITs and InvITs have been implemented. By allowing REITs/InvITs to raise debt at competitive rates from foreign investors, thereby enhancing returns through lower cost of capital, will lead to wider participation of institutional investors.

Key Facts

India saw its first REIT IPO in April 2019 when Embassy Office Parks listed ~33 million square feet. and the second REIT IPO in August 2020- Mindspace business parks with listed ~29 million square feet office space.

Embassy REIT vs. BSE Sensex



Source: Moneycontrol, July 9th 2020

In the U.S., REITs outperformed S&P 500 by ~440 basis points over 20 years, India's only REIT has outperformed equity markets by ~2000 basis points in the last 5 quarters since launch.

Kotak Mahindra Asset Management Launches International REIT Fund Of Funds

The new fund offer (NFO) opened for subscription on Monday, December 7. and will close on December 21 [5]

With the right kinds of evolutionary steps, India can join the elite club of global REITs. Establishing and nurturing such investment vehicles helps unlock the massive value of real estate assets and enable retail participation in the development of the nation.

Stakeholders and parameters		Benefits
Macroeconomy	Capital markets	• Development of primary and secondary capital markets by the establishment of a perpetual structure for raising capital at a reduced cost from long-term patient investors • Replacement of bank debt with long-term equity capital • A reduction in the financing burden on banks by the exposure to Real Estate/Infrastructure being decreased, leading to the creation of additional capital for other sectors
	Corporate governance	• Improvement in transparency, disclosure standards and professionalism in the sector • Informed decision-making enabled for investors
	Government	• Augmentation of the Government's revenues • Increased finance provided for critical sectors, including Transportation and Energy, and a boost being given to the Government's vision for 100 smart cities
	Societal benefits	REITs and InvITs augment direct and indirect employment opportunities through the following: • Fund management services • Project management and operation • Property management and operation • Valuation services • Trusteeship services • Assurance and other professional services

[5] (Kotak Mahindra Asset Management Company (AMC) Launches International REIT Fund Of Funds Dec 7 2020 (ndtv.com))

Stakeholders and parameters		Benefits
Developers	Liquidity	REITS and InvITs facilitate the following: • An increase in entry and exit opportunities for developers, asset owners and financial investors, enabling them to monetise their assets (Real Estate or projects) • Availability of last-mile funding for stalled projects
	Business	• Transformation of business from an asset-heavy to asset-light model • A focus on core competencies, and segregation of operations and infrastructure • Capital-raising avenues for developers of small companies
Investors	Retail investors	• Facilitation of easy entry and exit in the Real Estate sector • Enabling small retail investors to participate in asset classes that are normally unaffordable for them • Additional income generating and stable investment avenues offered for retirement planning • Enablement of diversification of investment holdings to help financial and strategic investors manage risk • Strengthening of risk management by allowing holdings of multiple assets to reduce their concentrated asset risk • Fragmentation of Real Estate asset holdings with multiple owners avoided, leading to focussed high-quality asset maintenance • Discouragement of forced strata sale of assets at a discounted valuation
	Broad-based institutional investors	• Facilitation of easy entries and exits for existing financial investors • Alternative financing offered • Low-risk investments offered to attract long-term investors such as insurance and pension funds

3.2 Investors in Indian Real Estate

This means this era of opportunities in one of the largest emerging market of the world comes with its own covenants. Early movers will face a unique capital and regulatory ecosystem. For any international institutional entering this market, it is important to evaluate the unique ecosystem to make a prudent decision.

Tremendous improvement in the ease of doing business ranking [6] and JLL global real estate transparency index[7] in the past few years have improved investor confidence.

There are broadly two buckets of opportunities where global capital is focused in India. First, **core side which is a yield play,** where a lot of institutional capital has been coming in to acquire leased stabilized assets to own long term for them income yield perspective. Because of the significant capital seeking core assets, cap rates have moved down very significantly (11% -12% in 2012-13 and are currently around 8%). There may be some expansion in the cap rates just purely on account of the dislocation caused by COVID in the capital markets.

Because of the competition, the valuations have increased, the cap rates have come down and there is limited quality stock available. It's gone into the portfolios of likes of sovereign funds, pension funds or private equity funds or in many cases REITs. A lot of institutional capital is evaluating **the build to core strategy-** institutions come in at the land stage, build the ground up, lease it and create the core asset instead of buying it. The rationale is that while core cap rates-that was up at 8% approximately, the build to core yield on cost can be 12-13%, in some cases even 14%. There is a substantial/healthy spread in yield, around 500 basis point. Obviously, there is **additional risk** involved because of the approval, development and leasing process. But if someone is able to mitigate these risks- large (domestic /international) developers can potentially mitigate leasing risk by pre-commitments or **build to suit** or other such strategies.

Source Savills India Research
Notes: Quantum of total investment expected in 2020 is based upon the deals closed till December 6 , 2020. A large commercial office deal of around USD 2 bn is in final stages of completion and has been considered in our projections for the next year

Figure 10 PE investments in real estate and expected recovery

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[6] World bank ease of doing business India Rank changed from 100 in 2017 to 63 in 2019
[7]India ranked 34 in JLL global transparency index 2020 and was Top Transparency Improvers, 2018-2020

The graph shows the private equity investment in Indian real estate over the past decade. Institutional investments remain resilient despite challenges Institutional investments in Indian real estate crossed the USD 5-bn mark for the last three years, but 2020 missed this mark.

This graph just depicts Private equity and not considers the REIT fund raising. These are, not mutually exclusive. The Embassy office parks NCDs if were not through REIT, Blackstone would probably have invested that money to acquire the new asset for the REIT portfolio

If these numbers are combined, show how much real estate in India is receiving.

Domestic Investor potential

REITS give the average investor to invest in commercial real estate, and thereby gain the benefit of that reliable cash flow and appreciation that previously had only been available to very wealthy investors.[8] Research from Nareit shows nearly 144.7 million Americans (~44 percent of American households) invest in REIT stocks.

Indian HNIs are more aggressive on equity and real estate investments in their portfolios. An analysis of HNI investment during FY 2013 and H1 FY 2018 indicated real estate and equity together account for 70% share of total investment[9].

The tentativeness around whether REITs are an instrument of equity or debt, small or large returns, NOI driven or growth driven, how will be the multiples, still remains for an average Indian investor. This is a very different instrument than other equity instruments based on PE ratio or growth potential they are used to. Time-tested fixed income products have usually been preferred by them Retail investors. However, range-bound post-tax returns barely provide a clear or discernible choice, except perhaps the PPF.

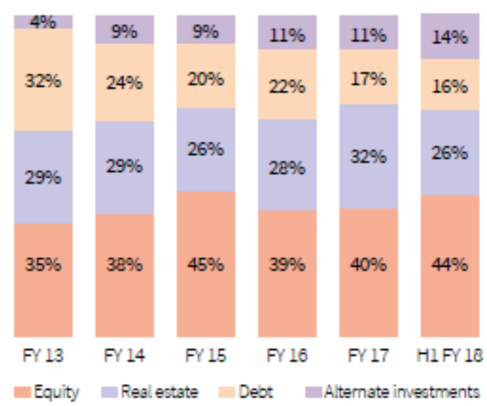

Figure 11 Indian HNI investment analysis

Mutual funds are increasingly picking up more REIT and InvIT in their portfolios.

Mindspace road show had 8000+ HNI reach out across India- who bought into the product, asset class, brand and credibility, intrinsic value of real estate and tax-free returns. Higher domestic understanding of REITs as a product -being the second REIT and better outreach to HNI helped Mindspace. According to the Mindspace team, domestic individual or HNI, returns post tax at 7.5% and diversification into a liquid real estate asset becomes a no brainer.

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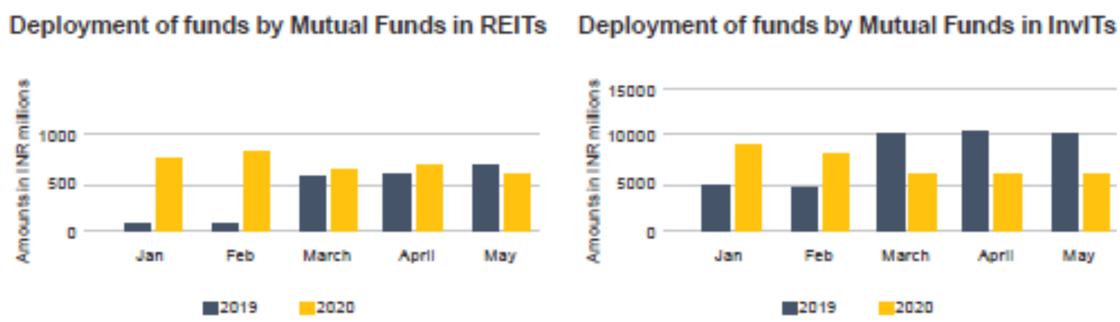
[8] Looking Back on 60 Years of REITs (nreionline.com)

[9] Kotak wealth management, Top of the pyramid report 2017.

The returns from a REIT, on the other hand, could bring some hope for such a retail investor. Indians have had a generally positive experience from the only REIT during the last one year – including this difficult phase of 2020. Agreeably, just two REITs do not make the complete story. But, it certainly provides an interesting glimpse into this real estate-based derivative.



Source: SEBI website – Deployment of funds by all mutual funds

Figure 12 Increasing mutual fund capital deployment in Indian REITs

3.3 Inherent Challenges

Dark legacy of real estate industry - Land titles, permitting, environment clearances and litigation haunt real estate industry in India. Developers and investor aiming to create a built to core portfolio for REIT listing face struggles. REIT regulations, although, restrict development portion of the portfolio at 20%, the capital markets discount share value. Litigation process is tedious and long.

Supply of premium quality real estate space is limited. Less quality portfolio for the population they support. The existing stock faces constant degradation, if not renovated. This is the key reason 'Build to core' is a key strategy.

Past performance of lister real estate companies- The corporate governance and shareholder management has not been up to global institutional standards in India.

Fly by night operators Emerging market dynamics means people will jump on the REIT success wagon. The quality and scale of asset portfolio very important. First few REITs are very crucial to set tone in the capital market. Sub-standard product- with class B or C assets and poor governance will impact overall REIT performance index and the reputation of REITs.

COVID 19 The global investment flows are disrupted. It will take time for the 'new normal' to become 'normal'. Investors will have to re-plan and re-project their investment plans. The retail and hotel perspective REIT portfolios have faced major impact on their cash flows. They will eventually recover in the post vaccine world, but their expected REIT readiness has been pushed further into the future by a couple of years.

<u>Risk of currency fluctuations</u> Always a concern when evaluation investment in emerging markets. Large diversified investors have complex hedging strategies like forward contracts and derivatives- can be expensive and uncertain, and with uncertain cash flow timing in real estate exit. Most investors investing in emerging markets like India are getting way better return than home country take the 300 bsp (on say 12-15 % return) currency fluctuation risk.

3.4 Potential Policy Changes

SEBI and the Finance ministry have recently made several key amendments during the course of this study -

- Sponsors are no longer required to maintain a 15% stake in a REIT after the three-year lock-in period.
- Mutual funds and insurance companies are now included in the classification of strategic investors. Globally REITs are owned 10-12% by insurance firms.

The current REIT regime is an achievement for developing country with mucky land title and complicated real estate industry and have 2 successful REIT listings. The policy will evolve and the REIT sector will mature over time. **It is very important that these changes are done from a long-term stability perspective and not to suit just one case and done quickly-** it should be right for the industry. So far, it has taken a long time to reach this stage. The following are the key interview takeaways on the policy change wish list -

- Reduction of current 100 shares lot size to one share in line with other equity. Encourages domestic investor.
- Private REITs to be allowed
- bank lending at REIT level to be allowed, currently at SPV level. Taking debt and/or bonds at the REIT level and passing it down to SPVs will help REITs bring down costs.
- Global institutional debt, if allowed will help Indian REITs.
- For real estate sector to grow as a whole, Regulatory regime, permitting and funding market side need to stabilize.
- The realization of a larger REIT market in India will hinge on the further benefits that markets offer to investors. With regards to capital gains tax concerns, India could consider taking cues from mature markets such as the UK (which has exempted REITs from income and gains tax.)

3.5 Parameters for Portfolio Identification

The fundamentals must play- NAV and stable cash flows for dividend distribution, growth opportunities- organic and inorganic all of these factors will drive the credibility of Indian REITs.

REIT assessment parameters according to Nareit-

- Anticipated **growth** in earnings per share;

- Anticipated total return from the stock, estimated from the **expected price change and the prevailing dividend yield**;
- Current **dividend yields** relative to other yield-oriented investments

For a REIT to be successful (and to evaluate real contender vs others)-

Evaluating future Indian REITs	1. Macro fundamentals of product type (industry map /demand - supply)
	2. Who are the top player- Volume and valuation size (map asset quality)
	3. Who could become a credible exit as a REIT (map other said parameters)

<u>Lower debt levels, Value and NOI driven Balance sheet</u>- To start off, in India context, between 20 to 25%- lower the better to give higher distribution yield and better equity value. If debt levels are high, there will be poor valuation of asset(s). Choked by debt, say 50-70% debt, the portfolio manager cannot pay interest in a fluctuating market. This cannot be the case for a successful REIT-able portfolio. That is why fund rich giants Brookfield, Blackstone and others are wrapping up portfolios which have high debt. e.g. RMZ, Prestige in large volume and partially discounted value. The institutional new owners will retrofit these assets, recapture value and list them. Best assets and 80% leverage, you cannot REIT that portfolio.

Bill Schwab quoted "*once you're a REIT the **ultimate sin is the rights offering***". If markets go down percentage leverage goes up, covenants to maturity of debt highly impacts dividend payouts. In 'a hell in a handbasket situation' the REIT cannot sell assets because the market is prizing them too low. Dilutive rights offering will severely impact existing shareholders equity.

<u>Intrinsic value of Real estate and Pipeline of additional growth which is value accretive to the REIT</u> - with solid rental growth that offer the greatest potential for long-run capital appreciation is a key ingredient in the recipe for REIT success. A potential portfolio of 10 assets, 1 million square feet each and all of the at highest rent in the market- can be REIT-able, but it is difficult to deliver growth. As rent will discount in short to medium term, assets will need upgradation investments- annual returns will drop and the REIT might be hammered in the market. The Marked to Market (MTM) rent potential is therefore, a key parameter in REIT-able portfolio analysis

<u>Credibility of sponsor</u> – every international institutional investor has to evaluate reputation risk while investing in emerging markets. SEBI has put checks on sponsors and managers in terms of net asset value and experience. The total consolidated net worth of sponsors has to be INR 1000 million, with each individual sponsor with at least 200 million INR net worth, manager with minimum INR 100 million. The sponsor and manager have to comply five years of experience in India and track record of 2 successfully completed projects. Integrity and litigation history therefore are very important. This is one of the key reasons large pension and sovereign funds take minority stake in investments. The investor has limited power and capacity to change management or to have recourse in an adverse situation in a joint venture partnership. REITs, although, have better shareholder interests built in, but while considering the portfolio pre-REIT litigation history and market reputation need to be thoroughly analyzed.

Fortunately, the first 5 REITs in India will be all institutional. They should build credibility and take control, get into NITFY 100, stay there and then yes, in 10 years the industry will have a stable strong REIT market with mature investors with yield compression, asset maturity.

Manager Alignment of interest -India, like Singapore, has external manager. In early stages of REITs in USA, external manager model did not work out because the manager was trying to make money through fees and there was no management per say. It then became internalized in the US in 90s and stayed that way. Singapore has external manager model, so does India. The external manager for the first two REITs is allied with the sponsor group. Aligned interests in the REIT can deliver better profits and growth.

Very strong governance and compliance mechanism to ensure health and safety of investments made by outside investor. This ensures the portfolio will be traded at a higher premium to NAV than other REITs and dividends are duly payed out. It is important to remember that a REIT will generally have to go to the market every 2-3 years to raise more equity for growth/every expansion (The REIT can't keep adding debt, otherwise it will not be able to pay dividend). If performance is poor, subsequent equity cannot be raised.

Scale and diversification- SEBI mandates Minimum value of REIT assets: INR5,000 million (~U.S. $67.97 million) portfolio valuation. In square footage, for office, a portfolio should have 8 to 10 million sft from significant interest (minimum 6 million square feet). Logistic portfolio might need 30- 35 million square feet to achieve a sizable portfolio with existing low rents. Square footage of the portfolio will be a bit skewed w.r.t US (or other developed market REITs) because the portfolio needs to have more square footage aggregated in India to get to the threshold than it would need in a central London office building. Therefore, it is slightly tougher to make a REIT in India, and acts like a barrier to entry. Geographical and product diversification are good to have, not mandatory and largely depends on investment objectives and target risk return profile.

3.6 ANALYSIS BY ASSET TYPE - Quantitative and Qualitative

This study covers the following sectors in detail

- Office
- Logistics and industrial
- Retail
- Data centers

Organized Residential real estate in India follows condominium multi family model and does not have a rental income stream and hence is not a REIT-able asset class

3.6.1 OFFICE

3.6.1.1 Macro Factors

India posted its highest ever office space absorption for two consecutive years, clearly underlining a very strong occupier demand for its office buildings. Commercial Real estate in India, with exceptions of Mumbai and Delhi CBD, is predominantly technology and services space. Office segment set new absorption record in 2019. Major demand generators for Grade-A office spaces in 2019 were technology sector (46%), co-working (14%) and BFSI (10%). The vacancy numbers are in Single digit for most class A buildings in leading Metro cities.

	2016	2017	2018	2019	2017 Y-o-Y change	2018 Y-o-Y change	2019 Y-o-Y change
Net Absorption (mn sq ft)	33.5	28.7	33.2	46.5	-14.10%	15.60%	40.00%
New Completions (mn sq ft)	34.7	26.9	35.2	50.9	-22.40%	30.60%	44.70%
Vacancy	15.10%	14.00%	13.50%	13.00%			

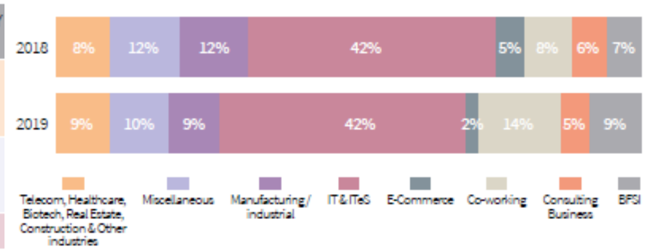


Figure 13 Office segment absorption and leasing activity 2016 to 2019 (Source Real Estate Intelligence Services (REIS), JLL Research)

With increasing clarity in regulations, significant improvements in World Bank Ease of Doing Business rankings (from 100th to 63rd in two years), strong rental performance in commercial real estate and saturation in established foreign markets, and despite the current COVID bump, the office REIT journey should only accelerate further. The yields from the office REIT on the market have remained unambiguously attractive - maintaining a discernible lead over 10-year G-sec, even though the lockdown phase.

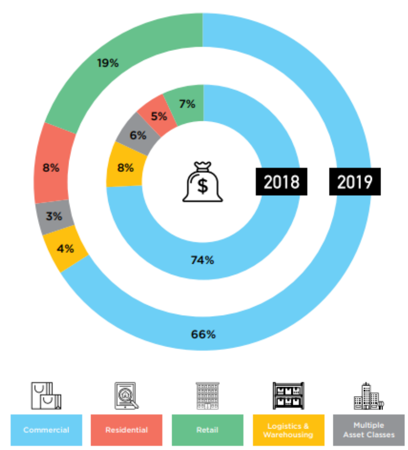
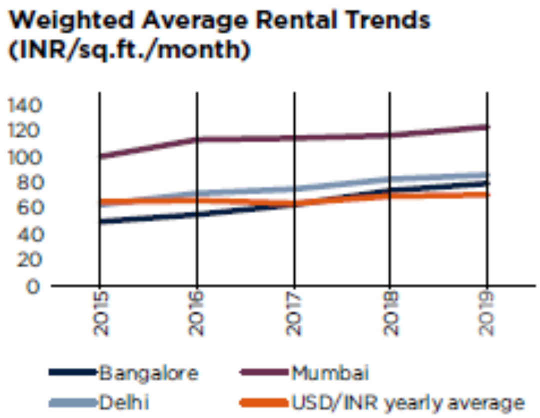


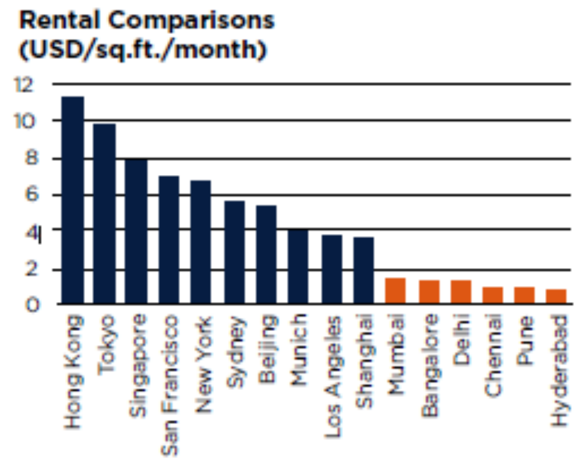
Figure 14 PE in Indian Office Real Estate (Source ANAROCK Capital Market Research)

According to leading market research by Savills, India has approx. **650 million square feet of Grade A Office space of which, 310-320 million square feet is REIT-able stock.** India's office stock would touch 1 billion sq. ft. in the next 6-8 years and in next 2 years, nearly 100 million sq. ft. is expected to be listed on Indian Stock Exchanges. Therefore, the asset class presents itself with tremendous opportunity and growth to all class of investors. *The CAGR for office absorption was about 8.4% during 2014-19. The growth in 2019 had been the biggest ever YoY growth at about 22%.*

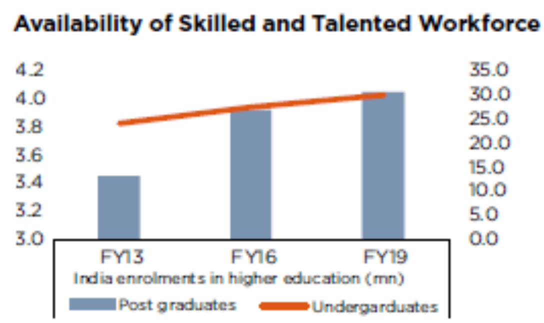
Long Term Factors Powering Office: Cost Plus Talent

Cost Advantage **–** The rent per square feet for class A real estate is a fraction of leading global markets**.** This is a huge advantage for Multi-National Companies (MNCs).





Talent Pool Advantage – The demographic powerhouse has highly skilled, educated young workforce.



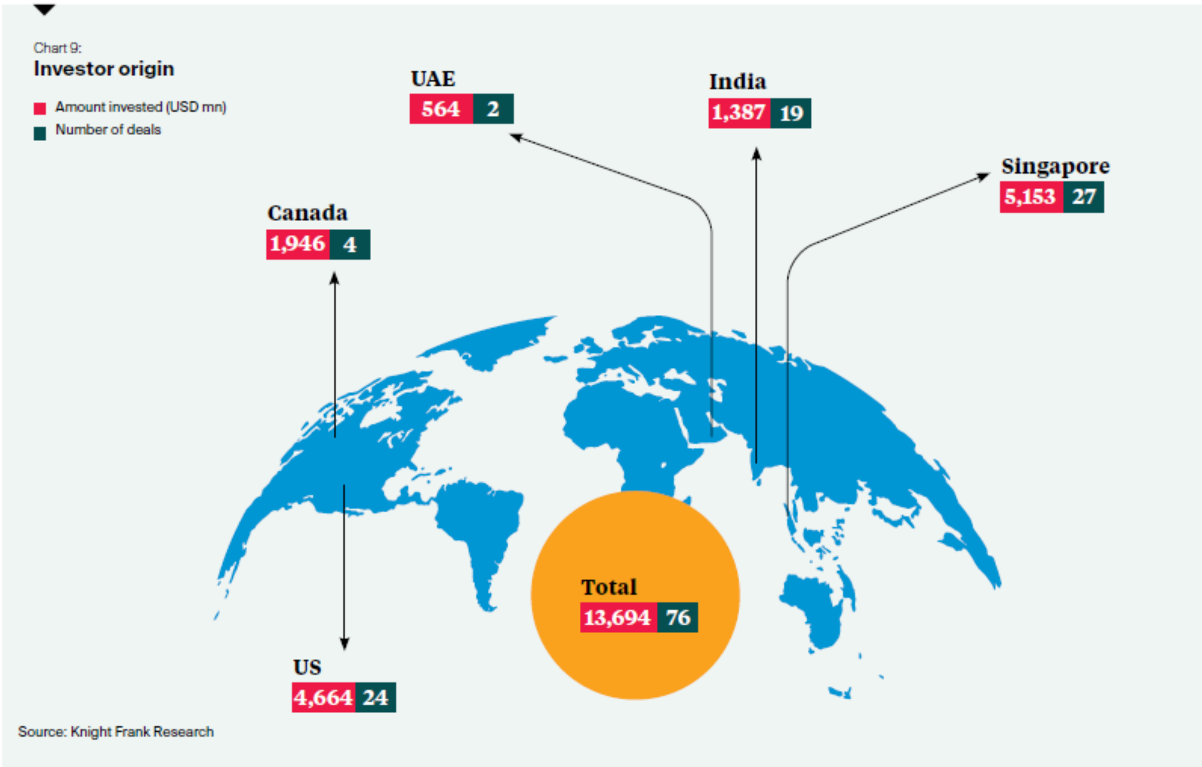
COVID 19- In 2019 the net absorption crossed 46 million square feet while in 2020 it has reached about 25.82 million square feet -a 44% dip.

Work from Home cannot function very smoothly in India for very long due to internet infrastructure issues and larger average family size in high density cities with small apartments. Technology industry is the key demand generator and cannot absorb connectivity losses for long time.

Large office developers with the ability to weather the COVID storm and liquidity issues will solidify their positions further and will take advantage of falling benchmark rates. Access to cheaper capital is expected to play a pivotal role in further consolidation of institution grade office real estate. Emergence of strong property management norms could play a key role in a V-shaped recovery post COVID pandemic.[10]

[10] Covid-19 impact on commercial real estate: Net absorption of office spaces dips 44% in 2020: JLL India, Real Estate News, ET RealEstate (indiatimes.com)

3.6.1.2 Investor Base



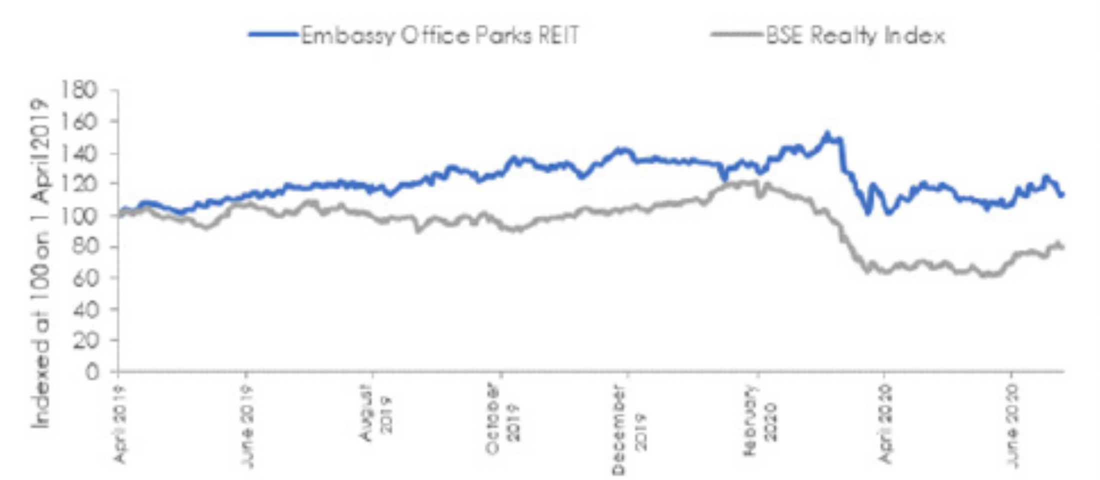
Strong investor appetite for office asset from institutions globally. 67% of Indian HNI real estate investment in office space. Blackstone, Brookfield, ADIA, GIC and many others funds have been active investors in Indian office real estate.

3.6.1.3 OFFICE REIT PORTFOLIOS IN INDIA

The successful listings of Embassy Office Parks and Mindspace Business Parks are major steps in the right direction. The combined market capitalization of these two REITs is USD 6.3 billion (~20.8% of listed real estate market capitalization of the country). Both these REITs were backed by Blackstone. Low debt levels (sub 25%), high MTM potential and low manager fee was a highlight for both these REITs. India's second REIT, Mindspace Business Parks REIT's IPO was 13x oversubscribed. Its implied caprate compressed to 6.6%, close to Embassy REIT's implied caprate. The arbitrage is justifiable, as per JLL research, as REITs provide liquidity, governance and transparency which are much needed in India. At 14% ROI, Indian REITS outperform BSE realty index. The market cap for Embassy office parks grew 35% in the first 9 months of listing (April – Dec 2019). In June 2020, Blackstone monetized part of its investment in the Embassy REIT for about INR23 billion (USD310 million).[11]

[11] www.bseindia.com/xml-data/corp_ling/AttachHis/3881df65-25b3-4ab0-9602-23a83f777400.pdf

Embassy Office Parks REITs - A Snapshot		Mindspace Business Parker REIT	
Portfolio Size	33 million sq ft	Portfolio Size	29.5 mn sft
Occupancy	92.8%	Occupancy	92%
No of Properties	7	No of Properties	5
Geographical Spread	Bengaluru, Mumbai, NCR & Pune	Geographical Spread	Mumbai, Hyderabad & Chennai
Weighted Average Lease Expiry	7.2 years	Weighted Average Lease Expiry	5.8 years



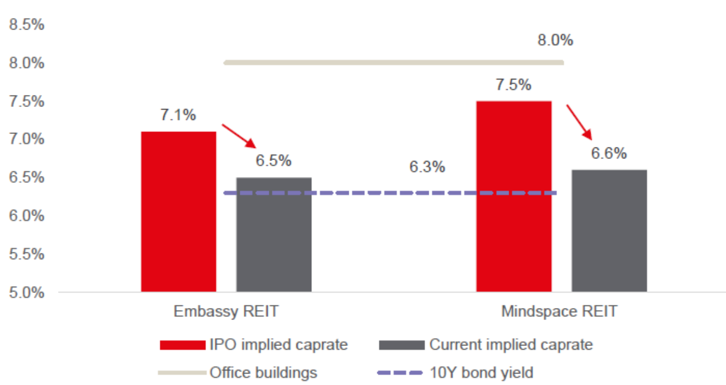


Figure 15 Indian REITs trading at premium VS Underlying Assets (Source JLL Asia Pacific capital markets research)

3.6.1.4 Potential office REIT portfolios

Top 7 cities have approximately 550 million square feet grade A office supply, with 310-320 million square feet REIT-able valued at approximately USD 33 billion. Bengaluru has more than 80 million square feet REIT worthy assets followed by National capital region with around 50 million square feet. Mumbai, Hyderabad, Chennai and Pune have around 30 to 35 million square feet REIT worth asset stock each. In terms of market valuation of this asset stock, Bengaluru has USD 9.4 billion; Mumbai and Delhi NCR with USD 6.5 billion each.

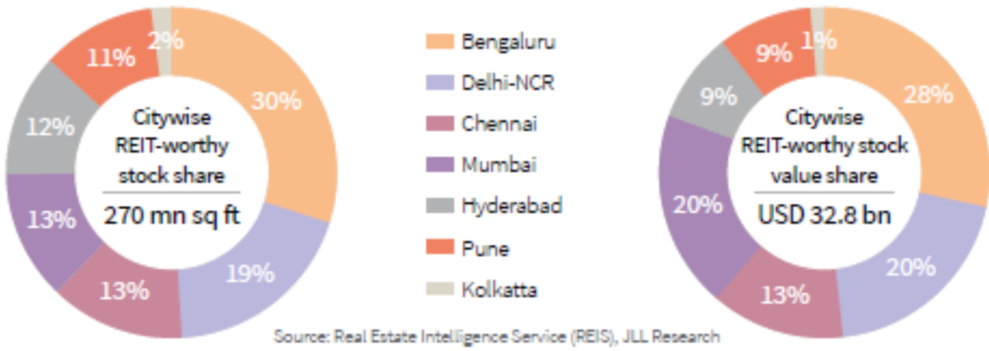


Figure 16 India office REIT-worthy asset stock (Source JLL research)

Brookfield has already filed documents with SEBI, a USD 600 million (around Rs 4,440 crore) initial public offering for its REIT with total assets of 14 million square feet, of which 10 million square feet is completed.12 (Mumbai, Gurugram, Noida and Kolkata and includes key properties like Kensington SEZ and Hiranandani Gardens, Powai.) The proposed REIT is expected to be listed by March 2021.

DLF has also announced 38 Million square feet of rental yielding assets (33.8 msf operational and 4 msf under construction) of DLF Cyber City Developers Ltd (DCCDL), a joint venture between DLF and Singapore's sovereign wealth fund GIC, to be listed as a REIT in early 2022.[13]

With other major owners such as Brookfield and DLF eyeing REITs in the near term, India is better positioned than ever before and there is considerable incentive for making the REIT proposition even more attractive.

Blackstone, has sponsored the first (and only) two REITs, still has its Nucleus portfolio (9 million square feet, in key markets), Indiabulls portfolio, a partnership with Salarpuria and Panchshil.

2020 saw two major deals, USD 2 Billion each, Blackstone deal with Prestige Estates (21 million square feet including office, malls and hotels[14]) and Brookfield deal with RMZ (12.5 million sq ft of commercial assets)[15] might be the opportunity for these global giants to co-invest with quality platform providers pre-IPO. These could potentially be Blackstone's third REIT and Brookfield's second REIT.

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[12] Brookfield REIT IPO: Brookfield REIT plans $600 million IPO, Real Estate News, ET RealEstate (indiatimes.com)
[13] Company will be REIT ready by March 2022: AK Tyagi, whole time director, DLF, Real Estate News, ET RealEstate (indiatimes.com)
[14] Prestige group to sell commercial projects to Blackstone for Rs 9,160 crore, Real Estate News, ET RealEstate (indiatimes.com)
[15] RMZ sells 12.5 million sq ft real estate assets to Brookfield for $2 billion, Real Estate News, ET RealEstate (indiatimes.com)

RMZ, after the Brookfield deal, still has a sizable and quality portfolio in the key southern markets on India. The group has reduced its debt levels and has the potential to become the 5th REIT. RMZ plans to grow the portfolio to 85 million square feet in the next six years from the current 67 million square feet.(assets worth USD 10 billion including developed and under development).[16]

Tata Realty, the real estate development arm of Tata Group is planning to expand and list its commercial portfolio to over 20 million square feet from current ready and fully leased 6.2 million sq. ft. through new developments and acquisitions. Apart from office spaces, the portfolio to be listed as a REIT may also include some data center assets. This REIT however will take 4 to 5 years to be listed as ~30% of their target portfolio is completed.[17]

[16] RMZ sells 12.5 million sq ft real estate assets to Brookfield for $2 billion, Real Estate News, ET RealEstate (indiatimes.com)
[17] Tata Realty plans to list 20-million-sq-ft commercial assets portfolio as REIT, Real Estate News, ET RealEstate (indiatimes.com)

3.6.2 LOGISTICS AND INDUSTRIAL

3.6.2.1 Macro Factors

LOGISTICS Over 110 million square feet. Grade A warehousing stock available in the country; top 8 cities have 77 million square feet of both Grade A & B warehousing supply. Key emerging trends include de-centralization, urban multi-level warehousing, rise of automation, high demand for Grade A properties & business consolidation increase. Emerging tier 2 & 3 hubs include Ludhiana, Ambala, Lucknow, Siliguri, Guwahati, Bhubaneshwar, Vishakhapatnam, Vijaywada, Coimbatore, Kochi, Nagpur, Indore, Jaipur & Dholera. Nearly USD 7 billion worth platforms created for warehousing since 2015; investors upbeat on warehousing growth in India, working closely with developers to identify & invest.

Government has given this sector infrastructure status; hence these portfolios can become InVITs or REITs. Government has reduced total approvals for setting up warehouses from 33 in 2015 to 15 in 2019; warehouse construction time reduced from 6 months to 3.5 months during this period. Rise in e-commerce, 3PL and supply chain sector have been major drivers, COVID has further accelerated the trend. As India urbanizes, cold storage facilities demand has drastically increased.

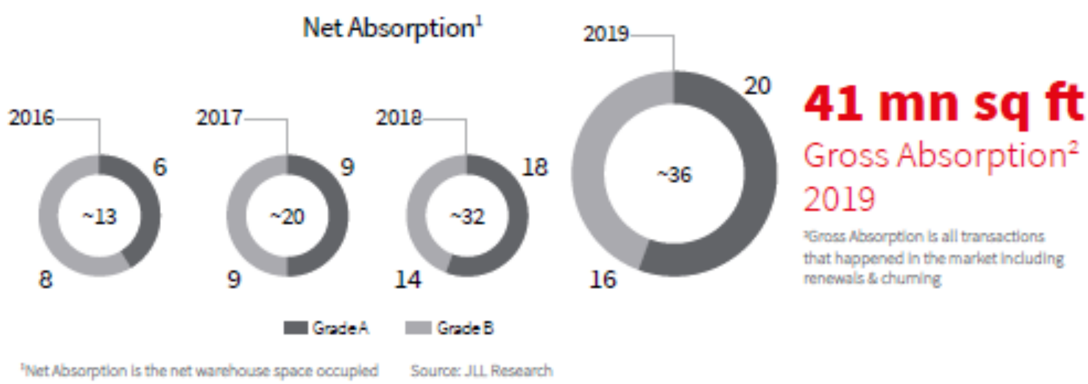


Figure 17 Warehouse absobtion2016-2019 (Source JLL Research)

INDUSTRIAL – There is not a lot of organized industrial asset as a product- where the developer can build and lease assets for the manufactures for long term. Each manufactured more or less has its own facility (and own land underneath it). It is not like China, where there are 100 acres to 500 acres industrial parks in which Government brings in the infrastructure dedicated to one particular industry- technology(hardware), textile, furniture, automobile etc. Developers build facilities that are leased. Indian industrial is a land valuation game, people extract value and walk away. There is not long-term lease contract or continual income stream. However, Indian government is trying to position India as a major manufacturing hub in the Asia Pacific region. The next decade is crucial for industrial real estate in India.

3.6.2.2 Investor Base and Potential REIT portfolios

USD 7 billion worth platforms have been created for the warehousing sector since 2015. Over USD 2 billion in PE investments have been infused in the Industrial and Logistics sector between 2017 and Q1 2020.

Platform Level Deals

Nearly USD 7 Bn worth platforms created for warehousing since 2015

Investor	Developer Partner	Value (USD Mn)
National Investment Infrastructure Fund (NIIF)	DP World	3,000
Allianz	ESR	1,000
CPPIB	Indospace	800
GLP	Indospace	700
Ascendas	Firstspace	600
CDPQ	LOGOS India	400
Warburg Pincus	Embassy	250
Xander - Partners Group	-	250
Blackstone	Hiranandani	100

Source: Compiled by ANAROCK Research

Investors are upbeat on the growth of warehousing in India and are working closely with developer partners to identify and invest in the sector.

Logistics REIT may happen sometime in the future, not industrial. Also, the scale of player doing both industrial and logistics do not have enough scale to have interest yet. At the current logistics rents (at INR 15-16/ square feet), the developer does not recover land and construction costs in medium term. The rents have to cross INR 25 / square feet number across the portfolio, to make relevant returns to become a REIT. The next 5 years there will be a private equity play in logistics unlit the market reached that rent threshold. Today they are pumping in capital to create matured assets they can bring to the REIT when they can exit- this will not happen very quickly.

Owing to lower rents per square feet, the asset valuation is low. The area and/ or volume threshold of portfolio has to be very large to make a sizable REIT valuation.

In the US, Plymouth Industrial REIT, the smallest US industrial REIT currently owns and manages 141 buildings containing over twenty-three million square feet. First Industrial Realty Trust, a mid-sized industrial REIT, has almost 64 million square feet in 445 buildings. ESR- Korea entity, Listed as a REIT in DEC 2020 with (7.4 million square feet) with 10 assets.

Indospace, Embassy Logistics, ESR, LOGOS India and Hiranandani are the key REIT-able portfolios in this space.

Indospace the largest Industrial and logistics platform in India currently has 37 million square feet of assets and has the potential to become the first logistics REIT in India within the 3-year timeframe.

3.6.3 RETAIL

3.6.3.1 Macro Factors

India is 4th largest retail industry in the world. India's large consumption base led to exponential growth in retail industry in the past decades. India is Rank 2 in Global Retail Development Index (GRDI) in 2019. The industry is largely unorganized and fragmented. The share of Organized Retail increasing from 9% to 18%.

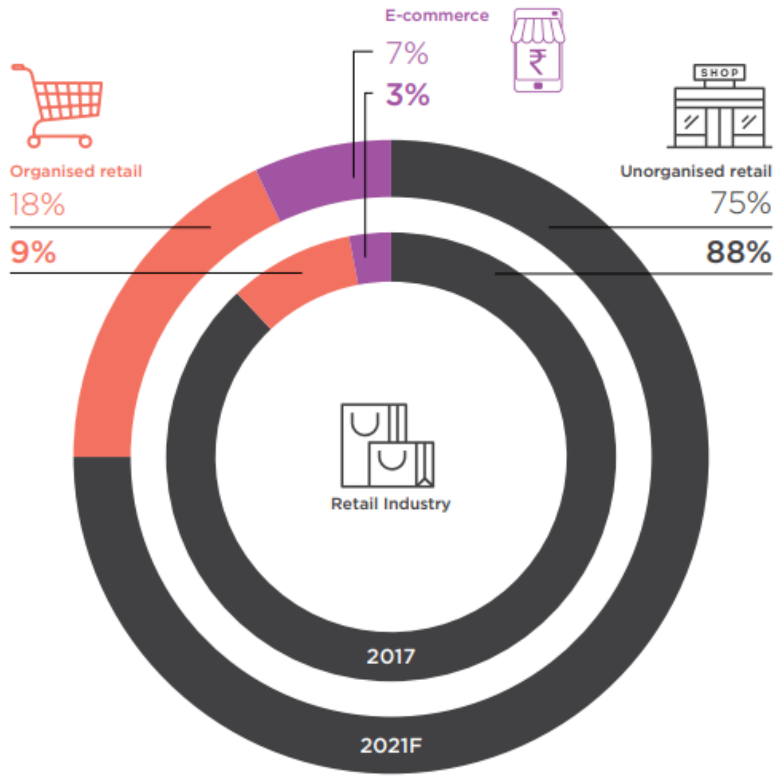


Figure 18 Indian Retail snapshot (Source- Investindia.gov.in)

Malls in India are as much an Experiential/Social space as well as retail centers. According to Anarock research, **43 million square feet of Grade A mall spaces** sized more than 0.2 million square feet., excluding stand-alone anchors, have been added across the top 7 cities of India in the last decade. These malls, with an overall **occupancy of more than 85%,** can potentially provide a major retail REIT opportunity.

COVID -19 is likely to act as a catalyst for the growth of organized retail and e-commerce. Even with a doubling of the share of E-commerce, there will be massive demand for Retail real estate in the form of shopping centers of various types. This will be supported by rapidly expanding **urbanization** and the growth of the **Urban Middle Class** India's grossly **undersupplied in terms of Mall Space**; ***1/240th of the US!***

Per 1000 people U.S. has almost 25000 square feet of retail real estate, China has 5000 and India almost 100 square feet.

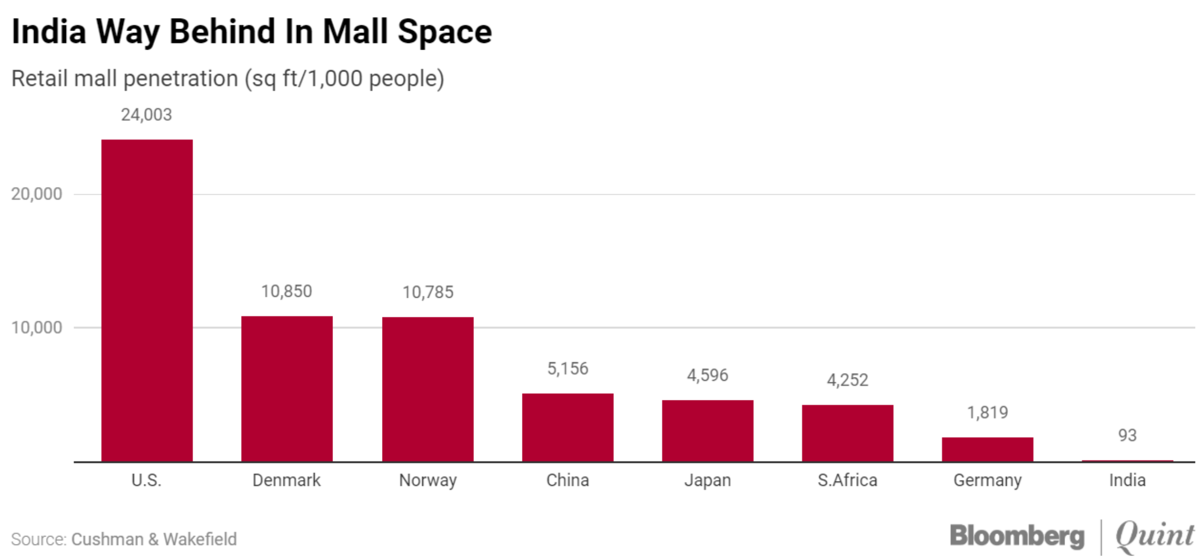


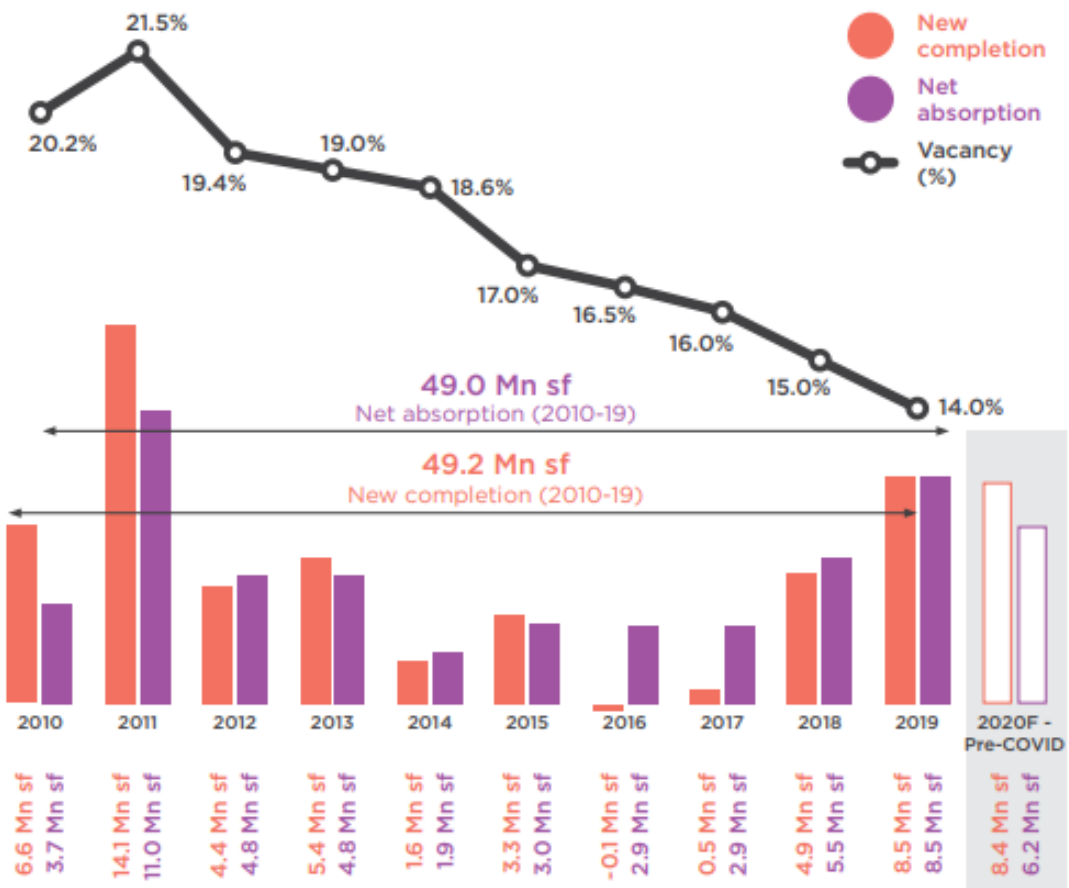
Figure 19 India Mall Space compared to key countries

Key growth drivers in Indian Retail and organized retail Real estate

- 95% of India's retail sales come through offline channels. The share of online sales as a percentage of retail sales in 2019 were 16% in United States and 19.5% in China.
- As per World Bank data, the per capita income is rising rapidly and has more than doubled in the last 10 years.
- Growing consumption USD 6 Tn consumption expenditure by 2030 India to be the 3rd largest consumer market in the world after USA & China.
- Transition from joint to nuclear families -74% nuclear households by 2025 from 70% in 2016 Nuclear families' household expenditure is 30% more than joint families.
- Rapid urbanization Urban residents- increased from 30.9% in 2010 to 34.9% in 2020 40.1% of Indians will be urban residents by 2030.
- Expansion of the middle & high-income segment
- Young population Median age of 31 by 2030; remains one of the youngest nations in the world 90 Mn new households headed by millennials by 2030.

Retail real estate:
Demand-supply dynamics

Nationwide lockdown is expected to significantly impact the demand-supply dynamics; retailers may go on a wait & watch mode



2020 revised estimate

New completion		Net absorption	
Base case	Downside case	Base case	Downside case
5.9 Mn sf ↓30%	4.2 Mn sf ↓50%	4.3 Mn sf ↓30%	3.1 Mn sf ↓50%

Note: Data for Top 7 cities only; Data includes only Grade A malls sized more than 2 lakh sf, excludes standalone anchors.
Base case estimates assume the pandemic to settle down in one quarter and adequate stimulus provided to the industry.
Downside case estimates assume that the pandemic extends more than a quarter with negligible or no stimulus for the industry.
Source: ANAROCK Research

Figure 20 Retail Real Estate Projections

3.6.3.2 Investor Base and Potential REIT portfolios

Company Name	Product Type	Product Class (Class A/B/C/D)	Additional Product Class	Product Type Diversification (Yes/ No)	Geographies	Geographical Diversification (Yes/ No)	Portfolio size: Footprint	Backed by/ key investor	Developer Partner	Expansion and acquisitions
Virtuous Retail	Retail	A	NA	No	Chennai, Bengaluru, Chandigarh, Surat, Amritsar, Nagpur		13 msf	APG 77%, Xanders 23%	Tata Realty	3 upcoming projects
Pheonix Mills	Retail	A	Hotels, commercial office	Yes	Mumbai, Ahmedabad, Amritsar, Chandigarh, Indore, Pune and Bhubaneswar	Yes	7 msf operational retail, 1.33 msf commercial, 2 Hotels (558 keys)	GIC, CPP, Lake shore		5.8 msf pipeline retail
InOrbit	Retail	A	NA	No	Mumbai, Pune, Hydrabad, Banagaluru and Vardoda	Yes	3.21 msf		K Raheja	
Nexus Malls	Retail	A	NA	No	Mumbai, Ahmedabad, Amritsar, Chandigarh, Indore, Pune and Bhubaneswar	Yes	5.3 msf	Blackstone		Blackstone has other retail assets being added through prestige deal
Lulu's	Retail	A	Hotel and convention center	Yes	Kochi In pipeline- Trivandrum, Lucknow, Visakhapatnam and Hyderabad	In pipeline	6.2 Million (1 mall, kochi)	LULU international group + Abu Dhabi's royal family	Lulu Group	Large malls in key markets in pipeline

3.6.4 DATA CENTERS

3.6.4.1 Macro Factors

"Data is the new Oil"

India, the demographic powerhouse, is a haven for data demand and hence for data centers.

The data center industry is at an inflection point of growth. With a population of over 1.32 billion, India is the #9 globally-ranked country on Cloudscene based on data center density. The nation has 29 internet users per 100 citizens, while its connectivity ecosystem is made up of 122 colocation data centers, 348 cloud service providers, and 8 network fabrics.

Data Center & Telecommunications Economy- The total GDP of India is over US $2.1 trillion and with a contribution of 9.5% from the digital economy, India's data center industry is thriving. Besides India's data centers, the digital economy includes 21.87 million fixed line telephone subscriptions and 1.18 billion mobile telephone subscriptions.

Data Center Markets - India contains several data center clusters throughout the country providing plenty of colocation opportunities. The primary colocation data center markets in India are: Mumbai, Bangalore, Chennai, New Delhi and Hyderabad. The Anarock-Mace report argues that these hyperscale data centers will span over 16+ million square feet. with at least 1,400+ MW of IT power capacity.

India has several important intercontinental submarine cables connecting it to Asia, Africa and Europe. There are 118 Indian data centers, the majority of these colocation facilities are located in and around Mumbai. Large carrier neutral Indian data centers feature rich ecosystems and state of the art equipment, ensuring maximum uptime and connectivity to over 408 service providers. Mumbai and Chennai are landing stations for submarine cables

The capacity is highly concentrated between top 12 players- operating 97% of real estate space and 95% of total IT power capacity of the nation's data centers. $3.4 Million capital deployed in developing more data centers.

Reasons / factors of growth

India holds immense potential to become a data center hub in APAC owing to the availability of high bandwidth speed, lower power tariffs and presence of hyper scalers. Additionally, availability of state-of-art infrastructure are likely to fuel the growth of India's data center market. Lower labor cost lowers cost of construction pushing returns higher.

According to the Anarock report, Mumbai and Chennai will together witness 60% of total future capacity, with NCR and Hyderabad contributing another 33%.

One of the world's largest Data center and colocation providers, **Equinox** has announced expansion into India through the acquisition of India operations of GPX Global Systems. In 2019, the US-headquartered **Digital Realty** partnered with Indian conglomerate Adani group to develop and operate data centers and data center parks. Similarly, many investors are looking to enter this asset class. Amazon Web services is set to launch its second cloud data center in Hyderabad.[18]

As reported by Fortune India[19] companies like Yotta Infrastructure, NTT-Netmagic, STT GDC India, Sify Data Centres, CtrlS, etc. are building hyperscale data centers and data center parks in India, and the new few years will see the entry of newer players like Adani Group, Colt DCS, Singapore-based Ascendas-Singbridge Group, etc. [20]

The propellers of high demand can be bucketed into two categories- Data explosion and data localization.

Data Explosion

- Low data tariff (India $0.26/GB, Global Average- $8.5/GB, US $12/GB)
- From 0.3 GB/user/month in 2014 data consumption by Indian users has reached 10 GB/user/month[21] in 2018 and is expected to grow to 25 GB/ user/ month[22]. The current data center capacity per million users is <1 MW in India, 8MW in U.S. and 21 MW in Europe
- High demographic base
- Social media consumption powerhouse and Smartphone at low prices the increased use of data consumption and internet bandwidth in the **country is primarily driven by expanding the reach of social media and increased use of smart devices**. Indians are largest audiences of social media platforms Facebook & WhatsApp, 2nd largest of Instagram & LinkedIn and 3rd largest of Twitter.[23]
- Fast technology adoption push - To minimize operations expenditure and reduce the risk of maintenance and to avoid huge upfront investments many private organizations are moving from captive data centers to colocation/cloud service providers. The services offered mainly include cloud hosting, server hosting and VPS hosting. IT & ITeS, Telecom & BFSI are the largest occupiers of colocation facilities. With more and more Indian companies expected to embark on their digital transformation journeys, McKinsey has identified India as the second fastest-growing digital economy and projected that IT and communications sector will double in size by 2025 to contribute $ 355-435 billion to the GDP.

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[18] AWS to Launch Second Cloud Data Center Region in India (datacenterknowledge.com)
[19] Is India about to witness a data centre boom? (fortuneindia.com)
[20] Top 10 best datacenter service providers in India in 2020 (dailyhostnews.com)
[21] TRAI
[22] Ericsson mobility report 2020
[23] statista.com

- **Demonetization and Rise in e-commerce** accelerated this trend further.[24]
- **5G expected in 2021** Once 5G is rolled out, it will enable new applications requiring low latency and high reliability. Data centers will, thus, have to be upgraded as per the new technology and, hence, their expansion is more likely to be concentrated across cities. **The 5G technology**, which is likely to be launched in 2021, will push the adoption of IoT-enabled products in the Indian market. The market for big data and IoT is still in the nascent stage of growth. However, it has huge potential to be the strongest driver for data center investments in the Indian market.[25]
- **COVID-19** led lockdown has accelerated the usage of data resulting in increased demand for bandwidth as well as storage capacities. The government, private sector and individuals including a large student base started using digital means to operate their business or profession.

Data localization norms by the government a major demand driver to create data centers within the country. The Government of India initiatives such as Digital India and emphasis on self-reliance and data protection through data localization is expected to increase the volume of data in the country, which will result in an increased demand for the data center and cloud services. In addition, the government is increasingly reliant on data centers for the Government-to-Citizen (G2C) delivery platforms, such as the National e-Governance Plan (NeGP), e-visa, and National CSR Data portal to name a few.

The government is planning to roll out a data center policy enabling the private sector to establish data center parks in the country. Many state governments such as Maharashtra, Telangana and Tamil Nadu are already offering incentive schemes for setting up data center parks in their states.

A recent report by Crisil, similarly, had pointed out that India's data consumption has seen a sharp 38% rise year-on-year for FY21 on account of Covid-19. Crisil expected the industry to log a rapid 25-30% CAGR to $4.5-5 billion by FY25. Growth drivers include an exponential surge in data being generated and growing need for local data storage in line with the government's thrust on data localisation.[26]

[24] Is India about to witness a data centre boom? (fortuneindia.com)
[25] Growth of data center market in India amid Covid19-led lockdown (indiatimes.com)
[26] Why India is building massive data centres - Times of India (indiatimes.com)

Expected growth numbers

As per Anarock report, the preview of Data Center Landscape in India –

Total Real Estate and Data center capacity	7.4 Mn square feet; 575 MW IT Power
Upcoming supply over next 2-4 years	8.1 mn square feet; 1100 MW IT Power
Number of Data Centers (Hyperscale or colocation)	131
Hyperscale Data centers	11% by count 34% by IT Power Capacity
~75% of Data Centers certified as	Tier 3 or 3^{+}

3.6.4.2 Investor Base and Potential REIT portfolios

A times of India [27]report expects demand for data center space requirement **to increase by around 15-18 million square feet across the major cities in the next 2-3 years.** The Covid-19 pandemic has created a shift towards the adaptation of cloud services that are more secure and scalable. According to **NASSCOM, cloud spending in India is estimated to grow at a CAGR of 30% to reach the $7.1 billion in 2022**.

As a result, the investment in the industry has also gone up. As per the Anarock-Mace report, in 2020, the Indian data center industry attracted close to $977 million in private equity and strategic investments since 2008, of which nearly 40%, or approximately $396 million were infused between January-September 2020 period alone.

The Anarock-Mace report points out that these data centers have the potential of becoming one of the most preferred forms of alternative real estate assets, with the focus shifting to large hyperscale developments. “Data centers as alternative real estate assets providing yield income to large infrastructure investors, and the creation of large platforms between operators, on one

[27] Growth of data center market in India amid Covid19-led lockdown (indiatimes.com)

hand, and investors/developers on the other. Approximately, $9.5 billion of capital is in various stages of being announced, committed or waiting to be committed into Indian data centers," the report said.

Private equity investors are looking at entity level investments with the objective of listing the company on public markets in 5-6 years. In comparison, infrastructure investors could evaluate the option of listing the underlying assets as a REIT, creating perpetual yield income. One of the primary advantages of a data center is that leases have extremely long tenures, typically a minimum of 10 years and going up to 30 years.

In Q3 2020 Carlyle , invested USD 235 million in Airtel and Equinix invested USD 161 Million in GPX India.

3.7 Conclusion

REITs in the U.S. democratized commercial real estate and contributed to transparency and accessibility. REITs have earned a permanent role in portfolios.

Securities and Exchange Board of India seems to have adopted an all-inclusive approach in developing these robust regulations to align them not only in synch with international standards but also on the basis of the business requirements of industry players. If Indian REITs ensures transparent, regulated, professional management of real estate with low cost ratio's, global investor with sizable balance sheets will include more of this diversified asset class in their portfolios. Like the other REIT markets, the trajectory of Indian REITs will unfold over number of years.

India's improving ease of doing business ranking, rising domestic demand, with a humungous middle-class population, streamlined indirect taxation system and globally competitive corporate tax rate help strengthen the investment opportunity argument. Global institutional funds, in want of lucrative investment returns, have invested in large capital volumes to get growth exposure to emerging markets. India has tremendous growth potential in commercial real estate owing to a demand pull fueled by a large, talented young population. Large funds prefer to pick equity positions, private or public, in this growth environment. [28]

The impetus for Indian portfolios to convert into REITs include-

- Built in Exit- capitalization for lender, investor and equity holder
- Solution to capital stress in the financial markets and provide liquidity for the developer
- Corporate governance standards interests institutional capital. Information, regulation and quality of management hedges global franchise risk, not just Indian real estate

[28] sovereign funds: HNIs, sovereign funds latch onto REITs in yields chase, Real Estate News, ET RealEstate (indiatimes.com)

investment risk. REITs also provide institutional investors a better option to exercise control over management, if things go south than in private equity real estate.

- Generational change.
- REIT environment focuses largely on core assets, providing stable income yield and reduce the cost expense of the investor.

The key question every player has to answer

- Who wants to get rid of their assets in a public forum and why?
- Who wants to buy assets in the public forum and why?
- What is the relative difference in the public and private market evaluation? What is the discount rate or Premium of being a REIT?
- What is the risk return appetite of the party?

In India, currently there are limited opportunities to assemble a portfolio. There is a dearth of institutional grade real estate and what is considered institutional great today probably won't be in five years as the standard go up. So, developing cutting edge real estate in the form of **build -to-core** has gained a lot of traction in recent years. The lower cost of construction , sustainable demand and government push makes assembling of the desired portfolio a key and high, double digit return proposition for investors. Developers who managed to keep their assets well managed and updated could capture long dated income naturally and exited as successful REITs.

With young working population and rising middle class provides a built-in demand, India has a promising growth story and access to global capital. Office has been the asset class in focus over past 5 years and will continue to dominate the REIT pipeline in India. Investors are increasingly looking to income stability, operation criticality and occupation density as key arbiters to asset-level risk. Post COVID, the strongest increase in investment activity is likely to be observed in warehousing and data centers segments, followed by commercial office space and residential segment. COVID will change the nature of investing. Investors are likely to adapt themselves in the altered world order - Distressed asset purchases, structured finance products, loan book purchases and large opportunistic deals are likely to become more prevalent.[29]

Continuous policy reforms in the Real Estate sector have taken India to the 34th position in the Global Real Estate Transparency Index (GRETI) 2020. REITs in India have pushed the much-needed institutionalization of Indian real estate. Coupled with the successful listing of REITs, is expected to contribute to the growing confidence of global funds and encourage them to invest in India.

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