SECURITISATION OF INFRASTRUCTURE ASSETS IN INDIA

An attempt to channelise alternative finance to the infrastructure sector

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Abstract

The need for infrastructure cannot be overemphasized, and given the long payback period of infrastructure investments, infrastructure financing becomes a key prerequisite. There is substantial dependence on government budgets for infrastructure financing; other than the budget, the burden falls on banks and financing entities.

Once infrastructure assets become revenue-generating, the project risk is over, and cashflows are by and large stabilised. At this stage, keeping infrastructure assets on the books of lenders is neither necessary not desirable. At this stage, takeout financing in some form becomes necessary, to release the lending potential of the lenders.

Project bonds, municipal bonds, InvITs, etc are some of the avenues for taking infrastructure assets to the capital markets.

The key stumbling blocks to capital market portability of infrastructure assets are non-granularity of the loans, project and non-credit risks, and lower credit ratings. Credit ratings may be enabled by mezzanine credit enhancements. The idea of partial credit guarantee, though enabled by regulations several years ago, has not found substantial buy-in.

The securitisation technique for infrastructure assets is a mix of traditional "existing asset" and "future cashflows" structure. Infrastructure securitisation needs to be backed by a sizeable mezzanine support and significant liquidity support as well.

The potential originators who may consider securitisation include banks, infrastructure finance companies, specialised financial entities such as clean energy finance entities. Potential investors are insurance companies, pension funds, and other long-term investors.

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Need for infrastructure securitisation in India

Infrastructure is the skeleton of our economy. Like every activity needs infrastructure, the flow of economic activity in the country depends on infrastructure. Infrastructure is needed in variegated spheres: from the canals that irrigate our farms, to the road and rail network ensuring mobility, to telecom infrastructure for connectivity, to civic infrastructures for housing civic services, and so on. Infrastructure as an investment has a snowball effect, benefiting all sectors of the economy. In India, infrastructure is a key driver of the country's growth and is a critical enabler helping India to become a US$ 5 trillion-dollar economy by 2025-26 and a US$ 26 trillion economy by 2047.

The Union Budget 2021-22 identified 'monetization of assets' as one of the three pillars for enhanced and sustainable infrastructure financing in the country. The Budget also introduced preparing a 'National Monetisation Pipeline' to provide a direction for such asset monetization. The National Infrastructure Pipeline (NIP) in 2019 along with the National Monetization Pipeline (NMP) in 2021 have been established for developing a comprehensive view of infrastructure development in the country and forming a robust base for infrastructure creation and development. This has paved the way for opportunities for infrastructure financing, including through foreign investment. The NIP was launched with 6,835 infrastructure projects with a projected infrastructure investment of ₹111 lakh crore from FY 2020 to FY 2025 to provide high-quality infrastructure in India. The NIP currently has 8,964 projects with a total investment of more than ₹108 lakh crore under different stages of implementation.

The Report on 'Financing India's Urban Infrastructure Needs' by the World Bank also estimated that India's cities will require an estimated capital investment of USD 840 billion in urban infrastructure and municipal services in the 15 years till 2036 (in 2020 prices), to cope up with the needs of its rapidly increasing urban population.

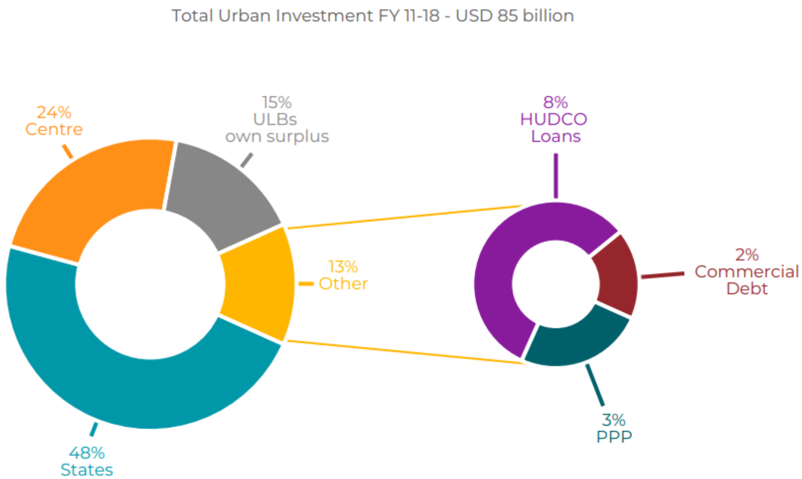


Figure 1: Total Urban Investment FY 11 – FY 18 – USD 85 billions
Source: Report on 'Financing India's urban infrastructure needs' by World Bank

As seen above, primary reliance (nearly 70%) for funding infrastructure projects has been placed on the government. This is followed by financial institutions such as banks and NBFCs. Other sources of financing, such as external commercial borrowings (ECBs), equity, FDI and insurance companies comprise a small proportion out of the total infrastructure investment.

A vision for a matured and developed infrastructure in India, as envisaged by the Government through the above initiatives, requires a huge amount of financing that cannot be met by an over-reliance on government budgets. As for bank funding, the tenor of infrastructure projects is considerably long, leading to locking of funds in infrastructure loans. Further, most banks are funded by short-term demand deposits thereby creating a maturity mismatch. Therefore, it is necessary to create a bridge between infrastructure assets and the capital markets, such that long term investors in the capital market may acquire the cash flows from infrastructural assets.

Even as per the NMP, *there has been a global consensus on the potential for tapping large institutional investors (including pension funds, sovereign wealth funds etc.) as well as retail investors towards infrastructure asset class, especially with lower risk levels (brownfield assets).* The Deepak Parekh Committee on Infrastructure Financing also took note of this lacunae by opining that the absence of efficient credit risk transfer mechanisms such as securitization, credit derivatives, credit insurance and so on have constrained the growth of infrastructure investment.

Accordingly, the gaps in infrastructure funding market may be mitigated by transferring the existing infrastructure loans from banks to capital market investors. The securitised instruments would be tranched to meet the risk-adjusted return goals of such investors with them investing in the senior-most tranches with highest ratings. The proceeds from the securitisation of such loans by originating banks may be then redeployed by banks to finance the construction of new infrastructure assets, which may again meet the same fate, thereby leading to recycling of finance by the institutional investors for banks.

Securitisation: Clearing roadblocks for infrastructure financing

Infrastructure financing in India is presently struggling to tackle the following roadblocks, which may be cleared by securitisation:

Limited sources of funding, and overdependence on bank funding

As discussed above, apart from government sources, the infrastructure sector is heavily dependent on bank funding. Globally, a significant chunk of the demand is met by traditional long-term investors like insurance companies, pension funds, sovereign wealth funds by way of investing in project bonds. We have discussed project bonds in detail later in the Paper.

However, in India, such investors are not as active as they should be, resulting in overdependence on bank funding, as can be seen from the graph below:

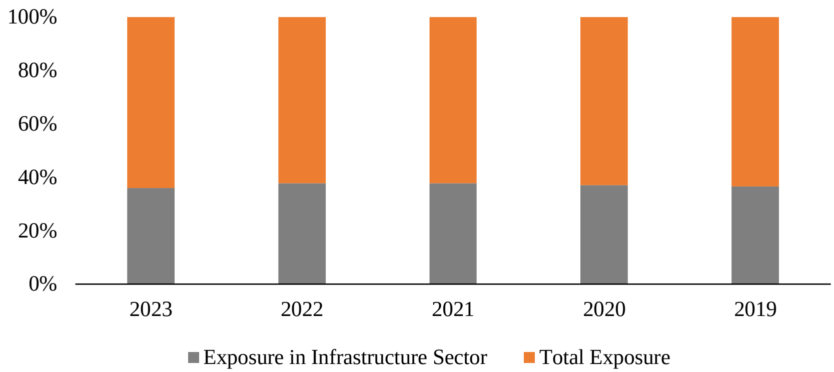


Figure 2: Deployment of credit in infrastructure sector
Source: Reserve Bank of India

Commercial Banks have played a dominant role in infrastructure financing in developing Asian economies. They have acted as the drivers of infrastructure debt financing by contributing close to 80% of infrastructure debt investments. The picture in other developed economies, such as in the infrastructure market of the United States is totally different, where corporate bonds have acted as major drivers of funding.

Albeit the overall bank domination may not be an issue, *per se*, however, it certainly has or may create the following limitations for infrastructure funding:

(a) **Pricing:** The adoption of Basel III with even stricter capital norms, in terms of provisions, capital adequacy and liquidity ratios tend to increase the pricing at which these loans are offered. Going forward, as expected loss methodology is adopted for banks, there may be additional pressure on the P/L accounts of banks too.

(b) **Concentration Limit**: In order to diversify risk exposure, banks are subject to single borrower limits, which in effect limits their capabilities of extending loans for the purposes of infrastructure projects to few large private borrowers.

Therefore, banks in India may be sceptical to create further exposure to the infrastructure sector leading to exhaustion of new lines of credit to the sector. Securitisation may enable banks to free up their balance sheets and provide the much-needed liquidity for extending new loans.

Inadequate depth in the infrastructure bonds market:

Capital market instruments are not a preferred option of raising capital for the infrastructure projects, therefore, creating a huge void for infrastructure debt in the market. Long-term investors such as insurance companies are not allowed to invest in papers which are rated lower than AA, and for infrastructure operators it is difficult to issue bonds that could match such high rating expectations of the market, owing to several risks associated with their business, the biggest being the project commencement risk.

Therefore, the inability to transfer the project commencement or operational risks associated with infrastructure assets to the capital market is one of the major reasons for the inadequate depth in the infrastructure bonds market. This may be eliminated if an intermediary could absorb such risks wholly or partially and repackage the instrument before it is offered to the investors.

An attempt was made with the introduction of the framework for partial credit enhancement for bonds in 2015. The framework allowed banks to provide a first-loss liquidity support to investment grade bonds, therefore, reducing the uncertainties attached to the cash flows from infrastructure assets. However, since the inception, there has been just a single transaction under this framework. Therefore, it is safe to say that it has not been able to solve the problem.

One of the shortcomings of the framework is that it focused on issuances by a single borrower. A single borrower issuance would mean a high degree of third-party support would be required for a desired level of credit notch-ups - which also means an increase in the overall cost of the transaction. Granularisation or diversification of projects on the other hand, might improve the reliability of the cash flows to a certain degree, and can reduce the need for external support, and this can be achieved through securitisation.

Unlike in India, USA and Europe use project bonds as an alternative source of funding infrastructure projects where the repayment of such bonds is solely through the cash flows of the project. Such project bonds are issued by a special-purpose vehicle to finance/ refinance the project. The same is discussed in detail later in this Paper.

Asset liability mismatch:

Furthermore, infrastructure assets are capital intensive and demand financing for longer tenures typically ranging between 10-15 years, on the other hand, banks are majorly funded by short term savings and medium-term fixed deposits. As a result, there is a massive asset liability mismatch associated with infrastructure financing. With the increase in the demand for infrastructure finance, this problem is likely to get severe.

These assets are a perfect match for long-term investors like pension funds and insurance companies, however, they also come with certain regulatory shortcomings and an underdeveloped infrastructure bonds market act as major roadblock.

High degree of operational risk, and limited recourse lending:

Infrastructure projects in India carry a high degree of commencement risk. The reasons for this can be attributed to delays or uncertainties in land procurement, regulatory approvals, standstill of projects etc. Considering that the securitisation structure may take into account only commenced projects with sufficient repayment history, constructions risks shall not be transferred to the investors.

Multiplicity of risks

Basis the stages of the infrastructure project, the following risks can be envisaged:

<table>
<tr><th>Risk categories</th><th>Development phase</th><th>Construction phase</th><th>Operation phase</th><th>Termination phase</th></tr>
<tr><td rowspan="6">Political and regulatory</td><td>Review of environmental standards</td><td rowspan="4">Cancellation of permits due to not meeting requirements as per law or permits</td><td rowspan="3">Change in tariffs and collections</td><td>Delay in completion and extension of contract duration</td></tr>
<tr><td rowspan="3">Increase in pre-construction cost and time due to longer time in obtaining processes</td><td>Decommission</td></tr>
<tr><td>Asset transfer</td></tr>
<tr><td colspan="2">Currency convertibility</td></tr>
<tr><td colspan="4">Change in taxation laws</td></tr>
<tr><td colspan="4">Social acceptability and collective judgment of the project</td></tr>
</table>

<table>
<tr><td rowspan="2"></td><td colspan="4">Change in regulations and legal framework</td></tr>
<tr><td colspan="4">Breach of contracts, collateral, and security</td></tr>
<tr><td rowspan="7">Macroeconomic and business</td><td>Pre-funding</td><td colspan="3">Default of counterparty and delay in cashflows</td></tr>
<tr><td colspan="2" rowspan="3">Financing and funding requirements</td><td colspan="2">Refinancing risk</td></tr>
<tr><td colspan="2">Liquidity risk</td></tr>
<tr><td colspan="2">Demand market risk</td></tr>
<tr><td colspan="4">Inflation</td></tr>
<tr><td colspan="4">Real interest rates</td></tr>
<tr><td colspan="4">Exchange rate risk</td></tr>
<tr><td rowspan="5">Technical</td><td colspan="3">Governance and management of the project</td><td rowspan="4">Termination value different from budgeted/ expected value</td></tr>
<tr><td>Project Feasibility</td><td rowspan="2">Construction delays and cost overruns</td><td rowspan="2">Qualitative deficit of the design, physical structure/ service or materials</td></tr>
<tr><td>Archaeological factors</td></tr>
<tr><td colspan="3">Technology and obsolescence</td></tr>
<tr><td colspan="4">Force Majeure</td></tr>
</table>

Figure 3: Various risks in infrastructure projects
Source: Reserve Bank of India

As explained in point (4), risks with respect to the development and construction phase would not be passed over to the investors under securitisation.

This paper aims to examine whether securitisation can be used as a means of eliminating the aforesaid problems, and provide for a sustainable solution for India's infrastructure financing needs.

Comparison with global trends in infrastructure financing

Unlike in India, where a majority of the infrastructure financing comes from government sources and banks, countries around the globe use private and institutional capital to fund infrastructure projects.

Project bonds:

Project bonds refer to a type of bond linked to a particular project where the repayment is limited to the cash flows from the project. Usually, project bonds are issued to refinance existing projects after the construction phase is completed (or majorly completed) to avoid passing the construction risk of the projects to the investors. These bonds help to shift the burden from traditional bank funding to capital markets. For the investors (such as insurance companies, bank treasuries, pension funds and asset managers), such bonds offer inflation-linked, risk-adjusted, predictable, steady returns.

The global Project Bond market was at its highest annual volume on record in 2021 with $79.8 billion issued. Global volumes increased by 55% as compared to 2020. Overall, the market grew at a 13% compound annual growth rate over the past 10 years.

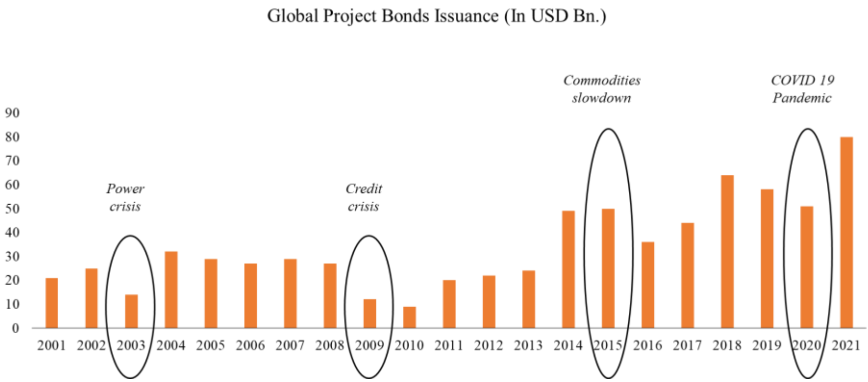
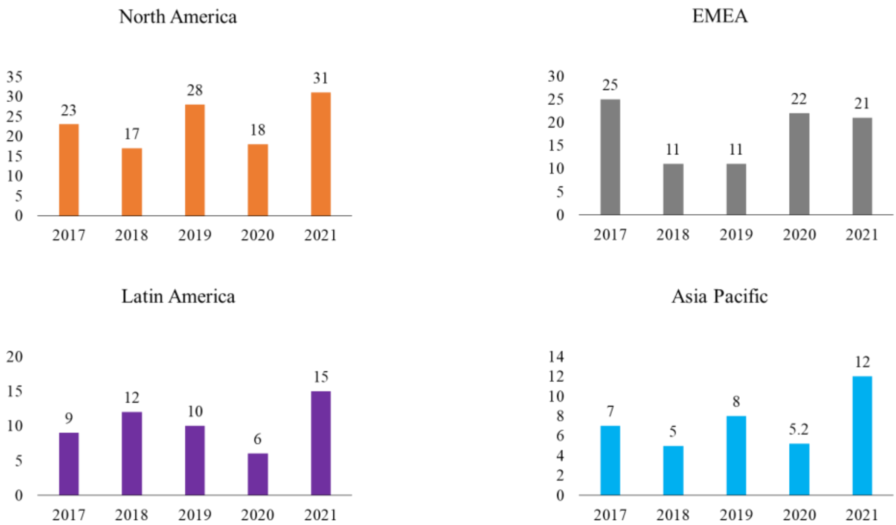


Figure 4: Global Project Bonds Issuance
Source: 'Project Bond Focus- January 2022, Crédit Agricole Corporate and Investment Bank

The USA has been a prime player in project bonds:



Rank	Country	Volume
1	United States	28.2
2	Brazil	5.0
3	India	4.9
4	Australia	4.6
5	Chile	4.0

Figure 5: Global Project Bonds by region, in USD Bn.

Source: 'Project Bond Focus- January 2022, Crédit Agricole Corporate and Investment Bank

However, in India, the concept of project bonds has not yet matured.

Revenue-linked bonds or Municipal Bonds

Municipal bonds are debt securities issued by states, cities, counties and other governmental entities to fund day-to-day obligations and to finance capital projects such as building schools, highways or sewer systems. Municipal Bonds are issued in two types:

- General Obligation Bonds whose proceeds are to be utilised for general obligations and that are not secured by any assets. Instead, they are backed by the credit standing of the government or the governmental entity and are paid out of the revenue collected by the government through taxes etc.

- Revenue-linked bonds which are backed by revenues from a specific project or source, such as highway tolls or lease fees. Municipal entities also issue such bonds on behalf of other borrowers such as non-profit colleges or hospitals or certain for-profit entities. These entities that are the actual borrowers then repay the issuer (government) who pays the interest and principal on the bonds from the revenue provided by the actual borrower-entity. From the lender's point of view, this is, of course, a riskier form of borrowing which is reliant on the vitality of a specific revenue source as opposed to the overall financial health of the municipality.

A hybrid mechanism whereby the general revenue flows of the municipal entity are used as a secondary source of backup to repay the bond in case project cash flows are insufficient.

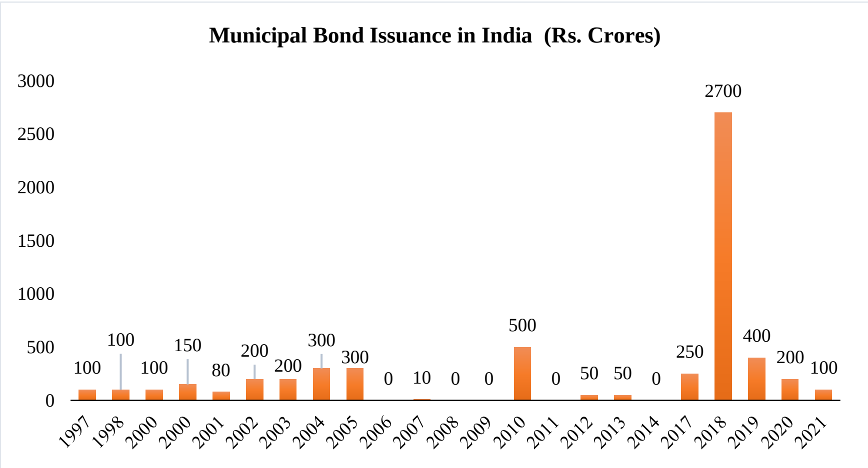


Figure 6: Global Project Bonds by region, in USD Bn.

Source: RBI Report on Alternative Sources of Financing for Municipal Corporations

While India may be said to be the land of munis and rishis; however, when it comes to what the capital markets know as munis, namely, municipal bonds, India lags substantially behind other bond issuing jurisdictions. Municipal Bonds market is still at the nascent stage, thereby requiring a robust regulatory framework and other regulations to be in place for its effective functioning. Issued by municipal authorities and government entities to meet their day-to-day operational needs, munis in the Indian market context are generally seen as a favourable investment to make. The Union Budget was expected to bring about favorable outcomes for munis thereby having an effect of promoting the further development of the market and simultaneously ensuring its due regulation. In the recent period, there has been a resurgence of municipal bond issuances in India, with nine MCs raising around ₹3,840 crore during 2017-21.

As per RBI, municipal corporations in India are required by law to maintain a balanced/surplus budget and hence, they have not been able to tap capital markets sufficiently to supplement their revenues. They have remained dependent on State and Central government transfers. Municipal laws in India allow municipal corporations to borrow, but with the permission of the respective State government. These borrowings are, however, constrained by several conditions imposed on the types of instruments, prescribed limits and maximum loan repayment period Municipal laws of only two States explicitly allow borrowing through bond issuances. Additionally, the lack of a secondary market for municipal bonds has been a critical constraint in attracting a more extensive investor base for these securities.

InvITs and their success

Infrastructure Investment Trusts ('InvITs') are pooled investment vehicles similar to REITs which were introduced to make investment in infrastructure assets accessible to private and retail investors. InvITs invest in long-term infrastructure projects such as roads, gas pipelines, transmission lines, renewable assets, etc. It is a relatively new asset class in the country but has made a place for itself in the financial sector. Currently as per the data available on SEBI website, there are already 20 InvITs in the country. The concept took some time to gain momentum in India with the first InvIt to get registered in April 2017.

Before InvITs, investors could gain exposure to the infrastructure sector either through investment in equity of infrastructure companies or through mutual funds investing in the infrastructure sector. Considering the capital-intensive nature of the infrastructure sector and a scarce amount of options available to infrastructure developers to raise funds, InvITs have seemed to be a noteworthy alternative financing option.

The concept of InvITs was introduced with the intent to:

(a) provide wider and long-term refinance for existing infrastructure projects.
(b) free up of current developer capital for reinvestment into new infrastructure projects.

(c) refinance/takeout of existing high-cost debt with long-term low-cost capital and help banks free up/reduce loan exposure, and thereby create bank headroom for new funding requirement.

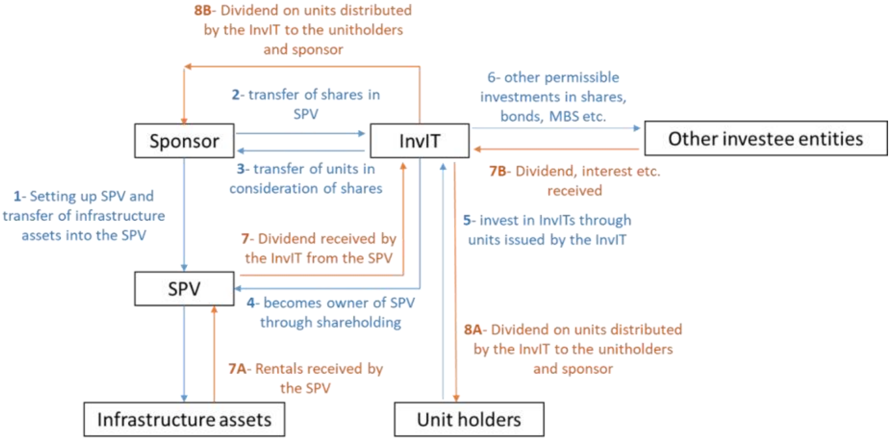


Figure 7: InvIT structure

Under an InvIT, infrastructure asset owners and developers transfer infrastructure assets to SPVs through holdco or otherwise to a trust which issues units to investors. The money raised from such investors upfront is used for the creation of greenfield assets and/ or repayment of debt which enables lenders to free up capital for investing/ lending to new projects. The investor receives a share from the net cash flows (after deducting expenses, fees etc.) from such assets, for instance, toll money etc. on their units

Investors in InvITs usually get the following benefits:

(a) InvIT units are listed thereby providing easy entry and exit in the infrastructure
(b) The minimum subscription amount for InvITs is Rs.10,000 – Rs.15,000 from an earlier minimum requirement of Rs. 1,00,000, which allows participation by retail investors which is otherwise unaffordable for them
(c) The underlying assets are infrastructure assets that would generate stable returns from their operations such as toll fee etc.
(d) Developers eliminate concentration risk as multiple investors own a fractional ownership in the assets.

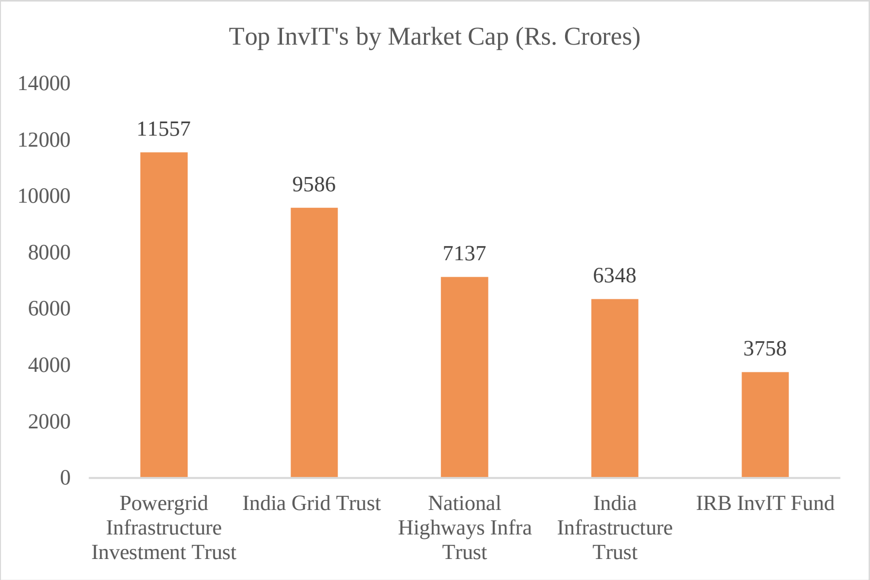


Figure 8: Top InvITs by market cap
Source: Bombay Stock Exchange

Since the introduction of InvIT regulations, the bulk of the InvIT's have been sponsored by private sector infrastructure developers. Recently, public sector asset owners such as Powergrid and NHAI have initiated adoption of the instrument. InvITs have been a major driver in India's push for infrastructure across the country with a total equity of Rs. 550 Billion in FY 2021 and Rs. 220 Billion in FY 2022 raised through these instruments.

According to data compiled by Prime Database.com, a total of Rs 1,166 crore was mobilised by real estate investment trusts (REITs) and infrastructure investment trusts (InvITs) together in 2022-23. In comparison, Rs 13,841 crore was raised in 2021-22 through these avenues. Before that, Rs 33,515 crore was mobilized in 2020-21. Besides, Rs 2,306 crore was collected in 2019-20, Rs 8,847 crore in 2018-19 and Rs 7,283 crore in 2017-18.

While REITs/ InvITs have raised capital of over US$4 billion in India, a funding requirement of over US$1.4 trillion by 2025 is estimated by the National Infrastructure Pipeline announced by the Government of India, and even InvITs may fall short of meeting such demand.

When comparing to securitisation, InvITs invest in physical properties, securitization would be financing project loans/ construction finance making investors in securitization as infrastructure debt owners. InvITs derive returns from revenue from infrastructure assets such as toll charges etc. while securitization shall fetch returns though repayment of principal and interest from underlying borrowers.

Risks, spreads, underlying market size and investor motivation would differ significantly across these two types of modes of infrastructure financing.

Basis	**InvITs**	**Securitisation**
Business activity	Investment in completed infrastructure projects *(at least 80% of its total assets)* capable of generating income. The remainder of assets up to a limit of 20% can be invested in under-construction infrastructure projects and approved equity, debt, and Money Market instruments.	Investment in direct construction finance/ project loans extended by lenders to developers
Risk	Exposure to infrastructure sector, including construction risk	Additional exposure to credit risk

Securitisation versus project finance

Project finance typically takes exposure in the cashflows of the project, starting from the project development phase to the operational phase. Therefore, project lenders are exposed to project risks too. Mostly, project finance is done through SPVs, dedicated for the project. Securitisation of infrastructure revenues comes when cashflows have been stabilised.

How would securitisation work in the infrastructure financing space?

As per the BIS Working Paper on ‘Understanding the challenges for infrastructure finance’, Greater securitisation activity for infrastructure loans seems also desirable, as this can help banks to diversify their risks and alleviate large bulk risks of a single project, which are so difficult to quantify. New financial instruments which allow the separation of liquidity risks and long-term credit risks would help to improve the attractive of long-term financing.

Securitisation can make infrastructure more accessible to a broader group of investors and thereby, diversifying the unsurmountable amount risks of infrastructure projects across multiple groups of investors. Further, the vast resources of the capital market, particularly institutional investors, are currently hardly tapped by infrastructure projects. Diversification of risks would help relieve the burden off the shoulders of the banking sector as well as the public sector.

Thus, it can be said securitization as a means can help in recycling of the illiquid funds lent to the projects in the infrastructure sector by offering two kinds of opportunities (i) securitise loans extended to infrastructure projects and (ii) securitize receivables accruing or to be accrued to an infrastructure project. Securitisation may help mobilisaing the much-needed institutional capital to infrastructure financing and help banks (which already have significant exposure in the infrastructure space) free up their balance sheets.

Advantages

Furthermore, securitisation also offers some advantages to infrastructure financing by:

Infrastructure sector and Developers

(a) Reducing cost of funding the infrastructure projects. With a certain degree of risk retention by the originator and the external support providers (like impact investors, development investors, etc), it is possible to issue highly rated papers which can be offered to long term investors.

(b) Improving availability of funds to the sector by recycling the locked up funds of banks and FIs due to regulatory provisions.

(c) Exposures in multiple projects/ assets can be bundled together, thereby, diversifying the risk

Investors

(a) Expands investor base by issuing marketable securities. In particular, non-traditional align their investment needs to the infrastructure cash flows.

(b) Offering greater liquidity to investors. Securities are obviously more liquid than loans.

(c) Better pricing of the investments relative to the risk of the underlying collateral; In case of loans, the pricing is opaque. Securities, by their very nature, are better priced.

(d) Assisting in diversification of investor portfolios: Potential securitisation structures rely on pooling of cashflows from different projects, thereby enabling investors to diversify.

(e) Shifting the focus to the evaluation of credit risk rather than overall project risk. Infrastructure securitisation either takes off once the project has already stabilised its cashflows, or the project-related risks are taken by other specialised agencies.
(f) From an investor's perspective, investing in infrastructure securitisation may be better than an exposure on the bonds issued by an infra company, since, the former is credit enhanced.

Financial institutions

(a) Allow a bank take-out financing.
(b) Allowing a bank or projects to achieve greater leverage if securitization is structured as a true sale and assets removed from the balance sheet.
(c) Allowing better asset management by lenders especially those with assets of short-term maturity.
(d) Sharing of risk by intermediaries/credit enhancing institutions involved in the process of securitization
(e) Allows transferring the risk from the books of the lenders to the capital markets - after the former retains some degree of risk associated with the assets
(f) Better asset liability management - As discussed above, asset liability mismatch is one of the key deterrents for investment in infrastructure sector, securitization of infrastructure loans can significantly help in better asset liability management for financial institutions as it allows the originator to transfer the funding mismatch risk to entities that are more immune to bear the risk which would eventually be matched with long term securitized commercial paper. the tenor of the papers on one hand will match the tenor of the underlying loans, and on the other hand match the investors' ask for long term paper.
(g) Reduce banks' exposure in infrastructure assets - thereby freeing up capital, management concentration risk etc.

Potential structure

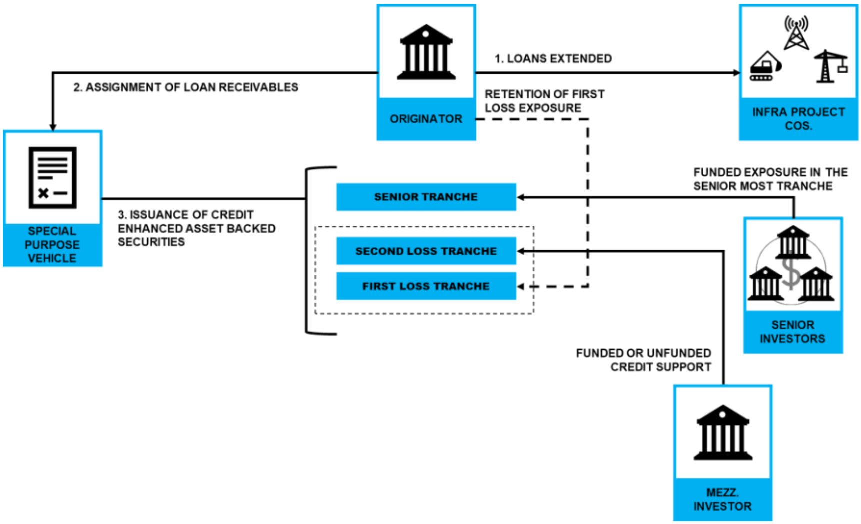


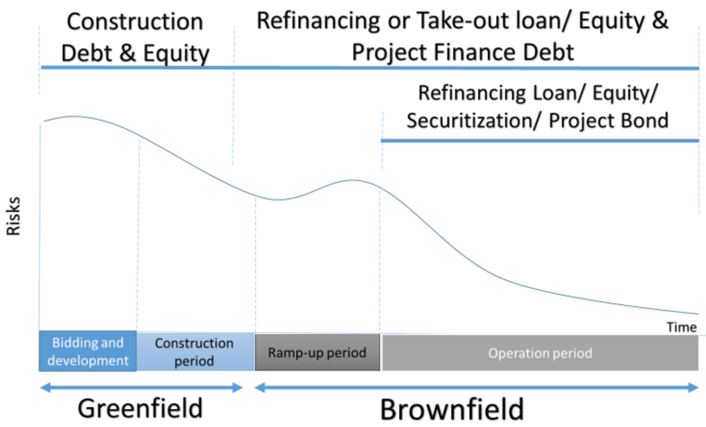
Figure 9: Potential structure

Here, the originator, that is the lending institution transfers infrastructure loans extended to contractors and developers, to an SPV. The SPV issues pass-through certificates ('PTCs') to investors where the senior tranche with the highest rating shall be taken up by the institutional investors, considering their risk-averseness and regulatory requirements. The junior-most tranche shall be taken by the originator.

Nature of Underlying Pool of Loans

From the perspective of prudence, considering that infrastructure loans demonstrate less risk during the later part of their tenure, the pool of underlying assets must consist of high-quality assets which have commenced commercial operations to some extent and have shown a minimum repayment history of 6 months to 1 year to make infrastructure projects less risky to investors.

Institutional investors would be hesitant to bear the construction risk inherent in infrastructure projects. Therefore, the assets befitting for securitisation will be those which have commenced commercial operations, and have had some repayment history. Based on the diversification of the pool and overall quality, a rating for senior tranches may be obtained.



Source: Presentation on 'Enabling Monetization of Infrastructure Assets' by Asian Development Bank

As per the above lifecycle of infrastructure financing, it can be seen that securitisation is an ideal option once the operation period commences.

Only Loans for Revenue-generating assets may be securitised

Further, infrastructure assets can be broadly classified into revenue-generating and non-revenue generating assets. The former has a revenue-generating capacity and produce regular streams of income through charges, fees etc. to adequately provide regular returns to investors. Examples are road sector projects, power assets, etc. Since investors in securitisation seek stable predictable cash flows, the project must have demonstrated some stability in the cashflows.

Future Flow Securitization Opportunities in Infrastructure Sector

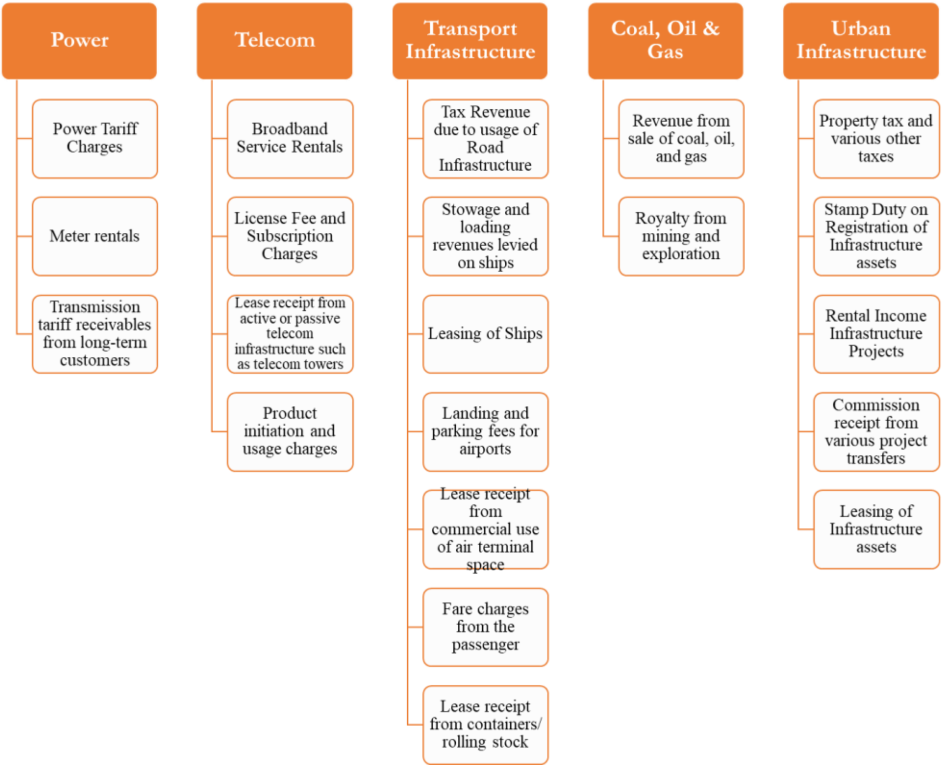


Figure 10: Future flow securitisation opportunities in infrastructure sector
Source: Securitization and Credit Enhancement for Catalyzing Infrastructure Financing

Types of originators

The major originators of Indian securitization transactions are banks and financial intermediaries. Their primary motives for originating transactions include capital relief, profit stripping, and liquidity.

(a) **Banks:** Gleaning from the data provided in the initial part of the paper, it can be seen that Banks in India have been the primary resource for infrastructure project borrowers with contributions of about 50% of the total infrastructure debt. So from a permissibility point of view banks it can be said that banks are considered as permissible lenders for infrastructure loan assets.

Currently, the exposure of banks in the infrastructure sector, as discussed above is around 36-37%. However there certainly exists exposure caps uptill which banks can provide credit for these infrastructure projects. As per Para 2.1.1.2 of Master Circular on Exposure Norms Banks are subject to exposure limits viz.

Single Borrower: 20% of the eligible capital base of the bank

Groups of Connected Counterparties: 25% of the eligible capital base

Here, eligible capital base shall mean Tier I capital.

Though these limits are specifically tailored for the infrastructure projects, however, there is a financing gap (as discussed in the initial part of the paper) which may not be fulfilled with the existing supply. Securitization can be a great tool for banks for the purposes of transferring their exposures to capital market investors, the latter being entities not subject to such restrictions. Banks may, thereby, clean their balance sheet. This will eventually help banks in getting more room for further exposure to the infrastructure sector.

(b) IFCs: Infrastructure Finance Companies by definition are non-deposit-taking NBFCs which qualify a certain set of conditions, one of them being a minimum of 75% of the total assets deployed in "infrastructure loans". While this pre-qualification ensures significant investment in the infrastructure, there are issues that are being faced by such entities. These issues stem from the ALM profile of these IFCs, which has been characterized by sizable cumulative negative mismatches in up to one-year buckets. While over the years, there have been solutions implemented by NBFCs ranging from replacing short term borrowings with long term funds, however, it is believed that this may not be a long-term solution. As a result, the appetite of IFCs for further lending remains delimited by their refinancing facility. Thus, models like securitization can act unlock their long-term illiquid assets, and transform them into capital market securities.

(c) Other NBFCs, including renewal energy financiers, funding infrastructure assets

The discussion above relating to IFCs applies equally to a variety of other NBFCs providing funding for the infrastructure space. There are companies, for example, clean energy financiers, focused on renewable energy or transition financing. There are other entities which take exposure in solar or wind energy assets. These entities may also use securitisation as their financing option.

If the assets in question qualify as green assets, the resulting securitised assets will get the tag of "green securitisation" or "green ABS". A detailed work on green securitisation has been done by Payal Agarwal.

Types of investors

As discussed earlier, banks face a significant asset-liability mismatch in terms of their infrastructure sector exposures, considering that their funding majorly comes from short-term and demand deposits from the public. Therefore, mobilisation of funds from institutional investors in the infrastructure finance space can certainly be a game changer as the long-term nature of infrastructure projects would match the long-term liabilities of institutional investors, such as pension funds, insurance companies and wealth funds.

These institutional investor sectors have significant assets under management that may be exploited by the infrastructure sector.

Industry sector	**AUM (in Rs. Crores)**
Insurance	54,36,727.39
NPS	8,98,954
EPF	11,00,953.66

The most apparent question that arises here is, even though infrastructure assets are appealing to them, there does not seem to be much appetite of these investors to invest in the sector. This is mainly because these investors are risk averse and their investment objectives as well as their regulatory environment do not permit investment in high-risk instruments rated below "AA".

In order to answer this question, one needs to assess their regulatory position vis-a-vis the permissibility and exposure norms thereof.

(a) Pension funds and provident funds

Type of Scheme	Private NPS Schemes	Schemes other than private NPS	Employee Provident Fund Organisation (EPFO)	Non-government provident funds, superannuation funds and gratuity funds
Limits	Investment in 'Asset-backed securities regulated by SEBI' shall be allowed up to 5% of the scheme size (including investment in InvITs, REITs and CMBS or RMBS, AIFs, AT1 Bonds).	Investment in 'Asset-backed securities regulated by SEBI' shall be allowed up to 5% of the scheme size (including investment in InvITs, REITs and CMBS or RMBS).	Investment in 'Asset-backed securities regulated by SEBI' shall be allowed up to 5% of the fund size (including investment in InvITs, REITs and CMBS or RMBS)	Investment in 'Asset-backed securities regulated by SEBI' shall be allowed up to 5% of the fund size (including investment in InvITs, REITs and CMBS or RMBS).
Rating requirement	Minimum AA rating or equivalent Due Diligence shall be done before investing All risks associated therein shall be considered and documented.	Minimum AA rating or equivalent Investment exposure in a single industry shall not be more than 15%	Minimum AA rating or equivalent ABS shall be listed The trust should adopt and implement prudent guidelines to prevent concentration of investment in any one entity/ group/ sector Due diligence to be ensured to assess associated risks.	Minimum AA rating or equivalent ABS shall be listed The trust should adopt and implement prudent guidelines to prevent concentration of investment in any one entity/ group/ sector Due diligence to be ensured to assess associated risks.

(b) Insurance companies:

The IRDA, through its Insurance Regulatory and Development Authority of India (Investment) Regulations, 2016 ('Investment Regulations') read with 'Investments - Master Circular' has laid down the permissible investments for insurance companies. Investments permitted to be undertaken by insurers are divided into different categories, including 'Approved investments' or 'Other Investments' categories. Investments meeting certain conditions (as discussed below) are allowed under 'Approved Investments' while other such investments shall be considered as 'Other Investments'. Other investments have lower permissible investment limits than Approved Investments.

Insurance companies are permitted to invest in Asset-Backed Securities (ABS) / Pass-Through Certificates (PTCs) with underlying Housing and/ or Infrastructure assets subject to the below conditions:

(a) Total Investment in housing and infrastructure taken together shall not be less than 15% of the fund.
(b) Investment in ABS / PTC with underlying Housing and/ or Infrastructure assets shall at 'all times' not exceed 10% of respective fund(s) in the case of Life Insurers and not more than 5% of Investment Assets in the case of General Insurers.
(c) The ABS / PTC must be rated not less than AAA or equivalent. If the ABS / PTC / SR with underlying Housing and / or Infrastructure assets are downgraded below AAA such investment shall be automatically be re-classified as "Other Investments".
(d) In case the cash-flows from such instrument are not received on due dates, the investment in such assets shall be automatically be re-classified as "Other Investments" from such date.
(e) The Insurer, as a part of risk management, shall split the investment in ABS, PTCs and SRs over different issuers and tenures.

(c) Sovereign wealth funds - these will be offshore funds - check the regulatory permissibility

Sovereign wealth funds (SWF) are investment funds owned by governments or their agencies incorporated mainly for the purposes of managing surplus funds of a country. In the recent years, India has seen increased participation from such investment funds ranging from Abu Dhabi Investment Authority (ADIA), Singaporean Sovereign Wealth Fund, GIC etc.

In order to participate as an Investor, SWF have to be registered as a Category I Foreign Portfolio Investor ('FPI') under the SEBI (Foreign Portfolio Investment) Regulations 2019 ('FPI Regulations'). A registered FPI can have a diverse portfolio with permissible investments in listed securities, units of Mutuals funds, Collective investment schemes, Real Estate Investment Trusts (REIT) or Infrastructure Investment Trusts. Despite the permissibility to invest in the security receipts India has not seen attraction of SWF in the market for security receipts. The table below shows that the portfolio of SWFs is largely populated by investment in equity stakes.

Thus, although SWFs are investing in the infrastructure market of India still their exposure in security receipts is something which needs further attention from the regulators given that their investment risks are aligned to long term investment.

(d) Infrastructure Investment Trusts

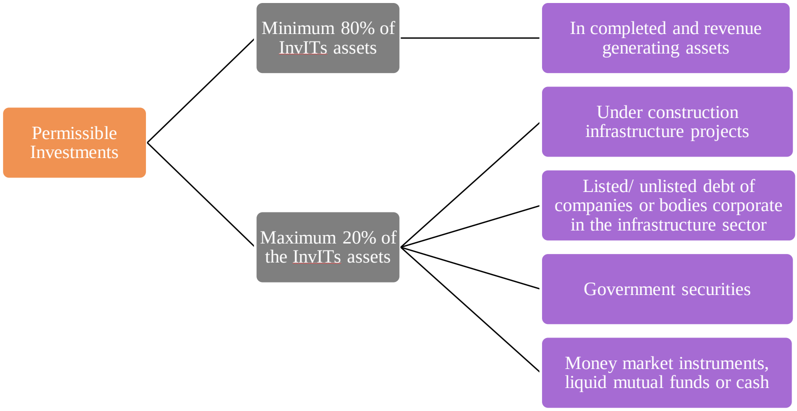


Figure 11: Permissible investments for InvITs

Currently, InvITs are not allowed to invest in PTCs. However, considering their expertise in the infrastructure sector, regulators may consider allowing a part of their funds to be invested in infrastructure securitisation.

(e) Mutual Funds:

Investment of mutual fund schemes in debt instruments having structured obligations/ credit enhancements cannot exceed 10% of the debt portfolio of the mutual funds scheme, and the group exposure in such instruments cannot exceed 5% of the debt portfolio of the schemes. However, such limits in listed SDIs as defined in SEBI (Public Offer and Listing of Securitised Debt Instruments) Regulations 2008 are not subject to the said restrictions.

Types of credit enhancement

Infrastructure loans have a higher risk in the early years of construction and lower risk in their operational years, which is directly inverse to corporate loans where the risks increase with tenure. Further, the average rating of infrastructure assets in India is “BBB, and therefore, credit enhancement shall be required to increase the credit rating of PTCs to attract investors. Further, as seen above, the regulatory environment of most institutional investors do not allow an investment in PTCs with a credit rating below AA.

Typically, securitisation structures are supported by the following kinds of credit enhancement:

Internal CE

(a) Tranching
(b) Excess Interest Spread

External CE

(a) Cash/ Credit Collateral
(b) Subordination - mezzanine support from impact investors such as USAID, IFC, ADB etc., first loss support from the originator etc.
(c) Third party guarantee - Where the commercial entities do not hvae the requisite credit ratings to guarantee securitisation transactions, a third party or the government could step in as a guarantor.

Liquidity support

External liquidity support in form of line of credit, upto a few months’ servicing, may be organised, to ensure there is no disruption of investor servicing due to transient issues, such as litigation or hold up of cashflows for operational reasons.

Conclusion

Enabling consistent flow of funds into infrastructure is a necessity and not a choice. Securitisation is an important means of capital market connection with productive asset markets. Hence, India has to try and adapt the institutional and regulatory structure so as to be an enabler. Experience is, if there is an asset that can give stable cashflows, there always exists a set of investors willing to acquire the asset. Hence, removing the creases on the way is the need of the hour.

For queries/ comments, please reach out to:

Aanchal Kaur Nagpal
Manager
aanchal@vinodkothari.com

Financial Services Division: finserv@vinodkothari.com

Vinod Kothari Consultants P. Ltd.

Kolkata	Mumbai
1006-1009, Krishna Building, 224, AJC Bose Road, Kolkata – 700 017 Telephone: 033- 2281 3742/ 4001 0157 Email: info@vinodkothari.com	403-406, 175 Shreyas Chambers, D.N. Road, Fort, Mumbai – 400 001 Telephone: 022 2261 4021/ 022 6237 0959 Email: bombay@vinodkothari.com

New Delhi	Bengaluru
Nukleus, 501 & 501A, 5th Floor, Salcon Rasvilas, District Centre, Saket, New Delhi, Delhi 110017 Telephone: 011-4131 5340 Email: delhi@vinodkothari.com	4, Union Street, Infantry Rd, Shivaji Nagar, Bengaluru, Karnataka 560001 Telephone: 022 2261 4021/ 022 6237 0959 Email: info@vinodkothari.com

www.vinodkothari.com