ADB

Technical Assistance Consultant's Report

Project Number: TA-8876
November 2015

Enabling monetization of infrastructure assets in India

Analysis of the market and policy frameworks governing securitization in India

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Asian Development Bank

Currency equivalent

(Average for 2015)

United States dollar ($) 1.00 = Indian rupees (Rs) 64

United States dollar ($) 1.00 = 0.94 Euro (EUR)

Abbreviations

	ALM	-	Asset-liability mismatch
	ABS	-	Asset-backed security
	ADB	-	Asian Development Bank
	AUM	-	Assets under management
	BCBS	-	Basel Committee on Banking Supervision
	CAR	-	Capital adequacy ratio
	CCB	-	Capital conservation buffer
	CDO	-	Collateralized debt obligation
	CMBS	-	Commercial mortgage-backed securities
	COD	-	Commercial operations date
	CRIS	-	CRISIL Risk and Infrastructure Solutions
	CRR	-	Cash reserve ratio
	DFS	-	Department of Financial Services
	ECB	-	External commercial borrowings
	EIS	-	Excess interest spread
	FII	-	Foreign institutional investor
	FY	-	Financial year / fiscal year
	GDP	-	Gross domestic product
	IRDA	-	Insurance Regulatory and Development Authority
	MBS	-	Mortgage-backed securities
	MF	-	Mutual fund
	MNC	-	Multinational corporation
	MoF	-	Ministry of Finance, Government of India
	NBFC	-	Non-banking financial company
	NITI	-	National Institution for Transforming India
	NPA	-	Non-performing asset
	PF	-	Pension fund/Project finance
	PSB	-	Public sector bank
	PTC	-	Pass through certificate
	RMBS	-	Residential mortgage-backed security
	RBI	-	Reserve Bank of India
	SCB	-	Scheduled commercial bank
	SPV	-	Special purpose vehicle
	SEBI	-	Securities and Exchange Board of India
	US	-	United States of America

Note

(i) FY denotes the fiscal year-end, e.g., FY 2000 ends on March 31, 2000.

Executive summary

Infrastructure sector needs Rs. 30 trillion (USD 468 billion) investments between 2015-16 and 2019-20

The erstwhile Planning Commission had estimated investments of around 8.2% of GDP in infrastructure during the twelfth five year plan period of 2012-17. However, relatively weaker performance of the economy in recent years has led to a lower investment in Infrastructure. Consequently the newly formed NITI Aayog (that has replaced the Planning Commission) has estimated a 30% shortfall in the previously envisaged target. Further, investments in infrastructure during 2016-20 are now estimated to be about 7.7% of GDP, with a public-private sector split of 51:49. Even this reduced target will mean a whopping Rs 30 trillion (USD 468 billion) in debt for the sector by 2019-20.

PSBs pivotal in infrastructure funding but increasingly constrained

Between 2011-12 and 2014-15, banks have lent Rs 9.4 trillion (USD 146 billion) to infrastructure, about 14-15% of overall banking credit. The exposure of PSBs to infrastructure is even higher, around 17.6%. This, coupled with deterioration in infrastructure assets in the country, has led to an increase in both asset-liability mismatches and non-performing assets (NPAs). PSBs' stressed assets in infrastructure currently amount to Rs 2.2 trillion (USD 34 billion), which is 4.3% of total outstanding assets of PSBs.

PSBs need Rs 3 trillion to meet Basel III capital adequacy norms

Guidelines issued by the Reserve Bank of India (RBI) on Basel III norms, due to be fully implemented by April 2019, mandate higher capital adequacy requirements for banks.

Minimum capital ratios (%)	April 1, 2014	April 1, 2015	April 1, 2016	April 1, 2017	April 1, 2018	April 1, 2019
Total Tier 1 Capital	6	6.5	7	7.625	8.25	8.875
CRAR	9	9	9.625	10.25	10.875	11.5

PSBs are currently struggling to meet the Tier-1 requirement under Basel III; most of them (19 out of 26) fall in 7-9% range.

Assuming a credit growth rate of 12%, PSBs will require Rs 3 trillion (USD 47 billion) in additional capital to meet Basel III norms by 2019-20. The government has already committed Rs 700 billion (USD 11 billion), but despite this and possible equity dilution to 52% in PSBs there will still be a significant gap of Rs 1.9 trillion (USD 30 billion). So***,*** PSBs may need to explore other avenues for capitalization and a vibrant securitization market across all portfolio classes could help them bridge this gap to a certain extent.

Securitization well entrenched in India, allows lender to release capital

Against this backdrop, securitization of infrastructure assets is an attractive option. Securitization allows the lender to sell a pool of assets on which bond market securities are issued. This, especially if undertaken through the sale of pass-through securities, frees up capital and enables access to bond market participants such as insurance funds, pension funds and mutual funds.

India's securitization market has been in existence since the early 1990s and has grown on the back of repackaging of retail assets and residential mortgages (mainly in the priority sector segment); these assets currently dominate the market. Non-banking finance companies (NBFCs) and housing finance companies are the key originators of securitized transactions in India while banks are the leading investors due to the exigencies of meeting priority sector lending targets.

Market trends in securitization in the country have been determined largely by legal acts and RBI regulations. The first guidelines specific to securitization were released by the RBI in February 2006.

PSBs can securitize close to Rs 10.5 trillion (USD 164 billion) to meet requirements

Securitization will allow banks to shift assets off their balance sheets, so it can be implemented effectively to bridge PSBs' capital requirement of Rs 1.9 trillion (USD 30 billion).

Since retail is an established asset class for securitization, 30% of retail assets, amounting to Rs 3.3 trillion (USD 0.05 trillion), could be targeted (in line with the current levels of securitization by NBFCs). Among corporate assets, infrastructure is best suited due to higher recoveries vis-à-vis manufacturing and services assets. However, since there have been no project finance securitization transactions in the Indian market yet, less risky projects, particularly those that have achieved commercial operations (except thermal power generation projects), can be targeted initially for securitization. The total value of such infrastructure assets available with PSBs is an estimated Rs 7.2 trillion (USD112 billion) over the next five years. Thus, in all, Rs 10.5 trillion (USD 164 billion) worth of assets can be securitized by PSBs to reduce their capital requirements.

Regulatory authorities permit most investors to invest in securitized papers, with caps

At present, most investors are permitted to invest in securitized papers, though there is a regulatory ceiling for investments for certain investor classes such as insurance and pension funds. Analysis of regulatory framework and corpus size reveals that insurance funds are the most promising investors, due to a large corpus and the need for a high mandatory investment in infrastructure.

Current tax regime poses challenges; income from securitized papers liable for distribution tax

Among the major challenges to the growth of securitization in India is the current tax regime. Distributed income from securitized papers is currently taxed at 30% for all corporates, including insurance funds and pension funds, so the tax implication is significant for them. Mutual funds, though currently exempt from income tax, are wary of securitization due to pending tax litigation.

Another issue associated with securitization transactions is the incidence of stamp duty since the securitization transaction represents an assignment or transfer of receivables from the originator for the benefit of investors. The legal document by which this transfer is effected is regarded in law as a conveyance, that is, the instrument by which the transfer is effected; such an instrument is liable to stamp duty in many jurisdictions. However, this is not a major hurdle. In the case of infrastructure assets, stamp duty would be primarily applicable on transfer of land, which is leased, and not transferred in most transactions. Further, the quantum of the stamp duty is likely to be minimal compared to the total quantum of the securitized pool.

Potential investors make significant investments in government securities

At present, target investors such as insurance funds, mutual funds, pension and provident funds invest beyond their mandated requirements in highly liquid and safe government securities and PSU bonds. For instance, although the insurance sector on an average is required to invest only 40-50% in state and central government securities, funds currently invest up to 70% of their assets under management in these securities. This, coupled with ample supply of government securities and PSU bonds has crowded out the appetite for other instruments.

Investors will endorse securitization if existing challenges are resolved, likely off-take of Rs 2.4 trillion (USD 38 billion) by 2019-20

Initial interactions with investors indicate that despite a fair degree of ambiguity regarding participation in securitization many are keen to participate once existing issues, especially those related to taxation, are addressed. In addition:

- Insurance funds and pension funds would be key investors for 10-11 year minimum AA-rated papers.
- All investors expect a premium (50-100 bps) for infrastructure securitized papers over vanilla papers.

The estimated offtake for infra securitized papers could be about Rs 2.4 trillion (USD 38 billion) by 2019-20.

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I. Introduction

1. In June 2015, Asian Development Bank (ADB) appointed CRISIL Infrastructure Advisory to undertake a technical study aimed at establishing a viable structure and framework for the monetization of infrastructure loan assets in India.

2. India's banking sector is under pressure as banks, weighed down by bad loans and weak profitability, are reaching their exposure limits in infrastructure lending. The problem is more acute with public sector banks (PSBs); in the past year, PSBs have accumulated nearly 86% of non-performing assets (NPAs) of the banking sector as compared to their 75% asset base. Compounding the banking sector's problems are the new Basel III norms on bank capital, which will be fully implemented by 2019. Various studies have estimated that India's banking sector needs Rs 2.5-6.0 trillion (USD 40-90 billion) of capital to meet these norms. The finance ministry has estimated that PSBs would need an additional Rs 1.8 trillion (USD 28 billion) by the end of 2018-19 of which the banks themselves need to raise Rs 1.1 trillion (USD 17 billion) (the government will fund the rest).

Table 1: Estimates of capital requirement of India's banking sector by 2019-20

Source	Findings
Ernst & Young	India's banking system will require an additional Rs 4 trillion (USD 63 billion) by 2019, of which 70% will be required in the form of common equity.
ICRA	Rs 6 trillion (USD 94 billion) is required by 2019, of which 70-75% will be required by PSBs.
PWC	India's banks will have to raise Rs 6 trillion (USD 94 billion) over next 4-5 years, of which 70-75% will be raised by PSBs.
Fitch	Fitch estimates additional capital requirements of about Rs 2.5 trillion (USD 39 billion) for India's banks.
CRISIL	India's banks may have to raise Rs 2.4 (USD 38 billion) trillion to meet Basel III requirements.
Moody's	Moody's-rated PSBs in India will need to raise Rs 1.5-2.2 trillion (USD 32 billion) between 2014-15 and 2018-19. A significant part of the required capital – around Rs 0.8-0.9 trillion (USD 13 billion) – could be in the form of additional Tier 1 capital.
RBI	India's banks will require Rs 5 trillion (USD 78 billion) over the next 5 years, of which Rs 1.75 trillion (USD 27 billion) needs to be equity capital.

Source: Respective Studies

3. The problems afflicting India's banking sector also affect the country's infrastructure sector, as banks fund close to 60% of the sector's requirements. It is estimated that

the debt requirement of infrastructure sector is very high at Rs.30 trillion (USD 468 billion)

4. In this context, this study assesses the monetization of infrastructure assets to:

   I. Strengthen the capital position of PSBs so that they are well placed to fund new credit growth opportunities and meet Basel III requirements;

   II. Improve fund flow to the infrastructure sector by securitizing infrastructure assets, thus enhancing their access to institutional investors such as pension funds, insurance funds and mutual funds.

5. This report is the first deliverable under this study. This report analyzes the requirements of the infrastructure sector in India, deliberates upon the securitization market and delves into the regulatory, legal, taxation and accounting frameworks governing securitization in India. The report is structured as follows:

   I. Introduction (this section)

   II. Infrastructure financing in India

   III. Infrastructure loan portfolio of PSBs

   IV. Monetization of infrastructure assets

   V. Regulatory, legal, taxation and accounting frameworks governing securitization in India

   VI. Market assessment for securitization in India

   VII. Recommendations

II. Analysis of infrastructure financing in India

6. India needs significant investments in infrastructure. The World Economic Forum's Global Competitiveness Report 2014-15 ranks India 87th out of 140 economies in terms of infrastructure (3.58/7.00 in the global competitiveness index). By contrast, other emerging economies such as China, Brazil and Sri Lanka are ranked higher and boast of better basic infrastructure.

Table 2: Infrastructure rankings - World Economic Forum's Global Competitiveness Report 2014-15

Country	Rank
Hong Kong	1
US	12
Russia	39
China	46
Sri Lanka	75
Brazil	76
India	**87**
Pakistan	119

Source: World Economic Forum's Global Competitiveness Report 2014-15

7. The government has identified infrastructure as one of the key challenges to be tackled to promote economic growth. Union Budget 2015-16 announced investment up to Rs 700 billion (USD 11 billion) in the sector, with a focus on roads and railways. Given limited budgetary resources, the government has also committed itself to review the public-private partnership (PPP) model for infrastructure development to revitalize private investments in the sector.

A. Investment in infrastructure

8. ***Past trends***

   I. As per data by the erstwhile Planning Commission, investments in infrastructure in India over 2002-12 (Tenth and Eleventh Five Year Plans) were around Rs 32.6 trillion (USD 509 billion). The Twelfth Five Year Plan (2012-2017) was formulated in the backdrop of this remarkable performance in infrastructure. The plan projected an investment of Rs 55.75 trillion (USD 1 trillion[1]) in infrastructure during 2012-17, more than double that in the Eleventh Five Year Plan. The Twelfth Five Year Plan also encourages higher private investment in infrastructure, directly and through PPPs, raising the share of private investment in infrastructure from 37% in the Eleventh Five Year Plan to close to 50% in the Twelfth Five Year Plan.

Table 3: Comparison of infrastructure investments across Five Year Plans – Planning Commission in Rs trillion (USD trillion)

Particulars	Tenth Five Year Plan (2002-07) - Actual	Eleventh Five Year Plan (2007-12) - Actual	Twelfth Five Year Plan (2012-17) - Projected
Gross domestic product (GDP) at market prices	166.0 (2.5)	336.0 (5.3)	681.6 (10.6)
Total investment in Infrastructure	8.4 (0.1)	24.2 (0.4)	55.7 (0.9)
Total investment as a percentage of GDP	5.04%	7.21%	8.18%
Public investment	6.5 (0.1)	15.4 (0.2)	28.9 (0.5)
Private sector investment	1.9 (0.02)	8.9 (0.14)	26.8 (0.42)
Share of private sector investment in total investment	22%	37%	48%

Source: Planning Commission

II. However, due to the relatively weaker performance of the economy in recent years investment in infrastructure has taken a back seat. The newly formed NITI Aayog (that has replaced the Planning Commission) has estimated the investment will be 30% lower than earlier envisaged, with the shortfall in public and private investments at 20% and 43%, respectively. Thus, infrastructure investment under the Twelfth Five Year Plan is likely to be around Rs 39 trillion (USD 609 billion), compared with Rs 55.75 trillion (USD 1 trillion[2]) estimated previously. The

1 As quoted by Planning commission as per the prevailing exchange rate

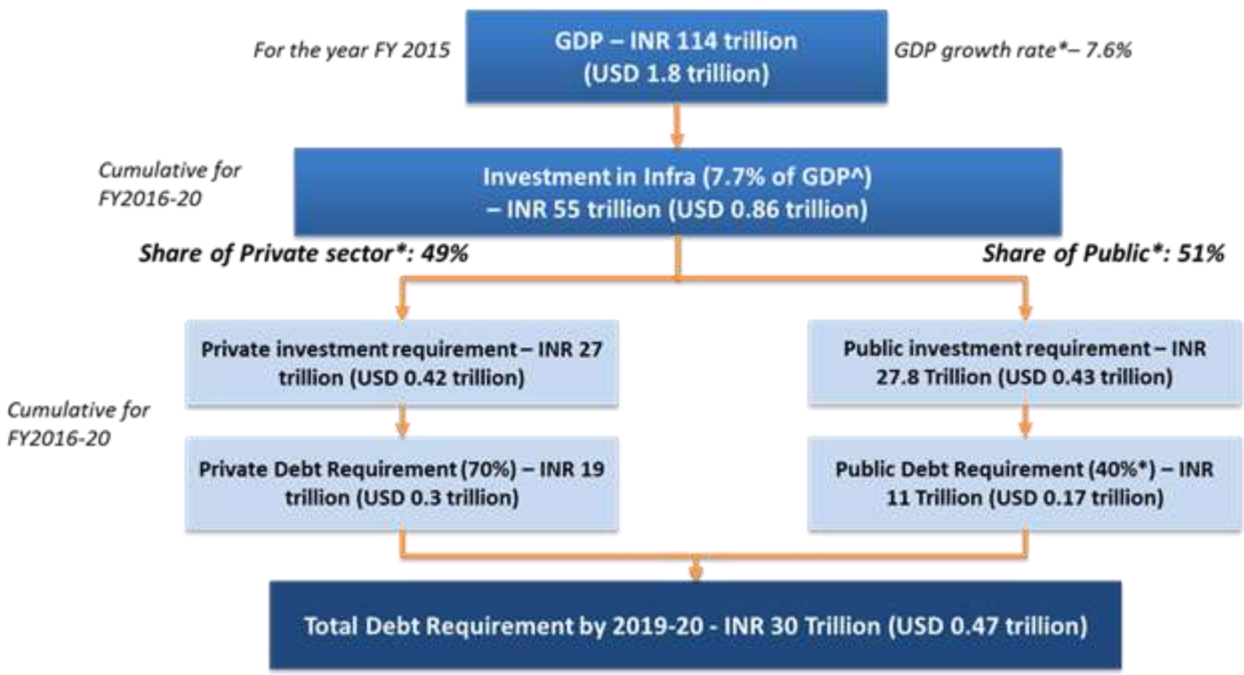
2 As quoted by Planning commission as per the prevailing exchange rate slowdown in infrastructure investments is primarily a result of the sharp decline in private sector investment in the first three years of the Plan.

III. A major cause of this decline is the stalling of projects, which has adversely affected the balance sheets of the corporate sector and PSBs and is, in turn, constraining future private investments.

9. ***Projections for infrastructure investment demand***

I. The following figure summarizes the debt requirement of the infrastructure sector over the next 5 years based on CRISIL Infrastructure Advisory estimates. Detailed assumptions for the same are provided in Annexure 1.

Table 4: Forecast for investment and debt requirement of infrastructure sector (2015-16 to 2019-20)



Source: CRISIL Infrastructure Advisory Estimate

10. ***Projections for debt supply by scheduled commercial banks & public sector banks***

I. The following table summarizes the debt supply for the infrastructure sector over the next five years by scheduled commercial banks (SCBs) and PSBs. Detailed assumptions are provided in Annexure 1.

II. Credit extended by Scheduled Commercial Banks in the decade of 2002-03 to 2012-13 had grown at a CAGR of 23%. However, this growth has been subdued significantly to 11% annually in the last 3 years (FY 2013 to FY 2015) as a result of the slowing economy. Bank credit growth dropped to an 18-year low of 9% in 2014-15. Going forward, RBI has released credit growth rate estimates of 12-14% in the short term.

III. Assuming credit growth for the banking sector[3] averages at 13% over the next 4-5 years, the gross non-food credit outstanding in 2019-20 will amount to Rs 109 trillion (USD 1.7 trillion). Of this, 15% of is expected to be diverted towards the infrastructure sector. **Hence, total incremental credit[4] to the infrastructure sector from all SCBs over the next 4 years will amount to Rs 7.5 trillion (USD 117 billion)**.

Table 5: Forecast for debt supply by all SCBs to infrastructure sector in Rs billion (USD billion)

Particulars	**Values**
Growth rate of gross non-food credit for all SCBs	13%
Gross non-food credit (outstanding in 2019-20)	109,724 (1,714)
Share of infrastructure in outstanding gross non-food credit	15%
Outstanding credit to infrastructure sector by SCBs	16,458 (257)
Incremental credit to infrastructure sector by all SCBs	7,525 (118)

Source: CRISIL Infrastructure Advisory Estimates

i. Public Sector Banks have historically contributed to over 70% of total non-food credit in the banking sector. Credit growth rate has historically been lower for PSBs. Assuming credit grows at a marginally lower rate for PSBs, at 12% over the next 4-5

[3] Includes both PSBs and private banks

[4] *Incremental amount has been calculated as the difference between the outstanding figures of 2019-20 & 2014-15*

years, total outstanding non-food credit for PSBs is likely to amount to Rs 88 trillion (USD 1.4 trillion) by 2019-20.

ii. Currently, PSBs have an exposure of over 17% towards the infrastructure sector, meaning over 17% of total credit is diverted towards this sector. In context of these infrastructure-heavy loan portfolios, many public sector banks are increasingly ceding their exposure to the infrastructure sector. Assuming this exposure is reduced gradually to an average of 16.4% over the next 4 years, gross outstanding credit towards the infrastructure sector will amount to Rs 13.4 trillion (USD 209 billion). **Thus, incremental[5] credit flowing to the sector from PSBs by 2019-20 is approximately Rs 5.4 trillion (USD 84 billion).**

Table 6: Forecast for debt supply by PSBs to infrastructure sector in Rs billion (USD billion)

Particulars	**2015-16 to 2019-20**
Growth rate of gross non-food credit for PSBs	12%
Gross non-food credit (outstanding in 2019-20)	88,422 (1,381)
Share of infrastructure in outstanding gross non-food credit	16.4%
Outstanding credit to infrastructure sector by SCBs	13,970 (218)
Incremental credit to infrastructure sector by all SCBs	5,440 (85) (72% of total incremental credit to infra by all SCBs)

Source: CRISIL Infrastructure Advisory Estimates

iii. **Thus, of the total incremental credit of Rs 7.5 trillion (USD 117 billion) extended by the banking sector to infrastructure, approximately 72%, amounting to Rs 5.4 trillion (USD 85 billion) will be contributed by PSBs alone.**

[5] *Incremental amount has been calculated as the difference between the outstanding figures of 2019-20 & 2014-15*

B. Key issues & challenges in infrastructure financing

11. Infrastructure projects are typically complex and capital intensive, and have long gestation periods. The key issues faced in infrastructure funding are:

12. **Limited sources of financing**

    I. Infrastructure projects are characterized by non-recourse or limited recourse financing. Initial financing requirements are a major part of the project cost, owing to high capital requirements. In India, the sector is over-dependent on banks, especially PSBs[6], for financing due to the absence of other sources of long-term finance.

Table 7: Financing sources for infrastructure sector in Rs billion (USD billion)

	2010-11	**2011-12**	**2012-13**	**2013-14**
SCBs [proportion of SCB funding to total infra funding]	5,234 (81) [54%]	6,300 (98) [54%]	7,297 (114) [51%]	8,398 (131) [53%]
Non-banking financial companies	3,150 (49)	4,000 (63)	5,203 (81)	5,902 (92)
Insurance funds	960 (15)	1,013 (16)	1,125 (17)	914* (14)
Mutual funds	132 (2.1)	143 (2.2)	155 (2.4)	169* (2.6)
ECBs	253 (3.9)	253 (3.9)	468 (7.3)	520* (8.1)
Total	9,729 (152)	11,709 (183)	14,248 (223)	15,903* (248)

*Source: Planning Commission; *CRISIL estimates*

13. **Sectoral exposure management**

    I. Though the Reserve Bank of India (RBI) does not mandate a sectoral exposure limit, banks tend to fix internal exposure limits (around 15% of outstanding assets) for uniform exposure across sectors and to prevent over-exposure to a single sector.

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[6] *As highlighted in Chapter III.B – Infrastructure Loan Portfolio of PSBs*

Table 8: Bank credit to infrastructure sector in Rs billion (USD billion)

	2010-11	2011-12	2012-13	2013-14	2014-15
SCBs' total credit	36,871 (576)	42,897 (670)	48,696 (760)	55,296 (864)	59,554 (930)
Credit to infrastructure	5,234 (82)	6,300 (98)	7,297 (114)	8,398 (131)	8,933 (140)
Exposure to infrastructure	14.2%	14.7%	15.0%	15.2%	15.0%

Source: RBI

II. As the table above shows, the banking system's sectoral exposure to infrastructure has already reached the limit, so further growth will be constrained.

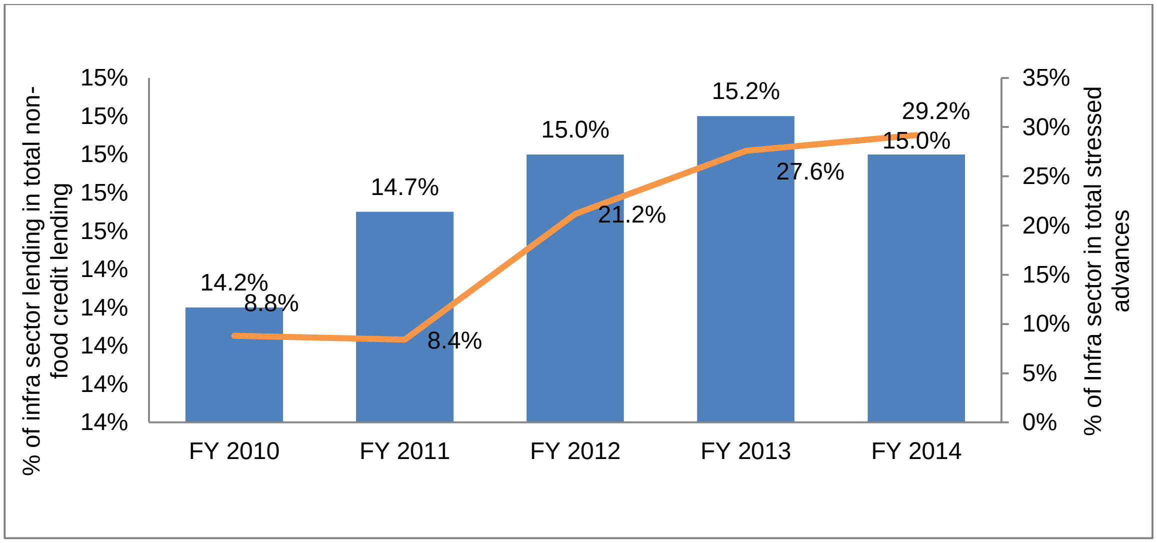
14. **Asset-liability mismatch for banks**

I. Long-term financing exposes commercial banks to the asset-liability mismatch (ALM) risk. Most of the funds with Indian banks are savings deposits and term deposits, which are essentially short term with tenures of six months to five years. These deposits are being used for long-term infrastructure lending, where tenures are typically 10 to 15 years. As per RBI data, bank deposits, especially those of PSBs, have shifted towards the shorter end of the maturity spectrum, while loans and investments have moved towards the longer term. Deposits maturing in less than a year as a percentage of total bank deposits have grown from 30% in 2002 to over 50% in 2013. This potential mismatch between deposits and loans has led to banks preferring shorter tenures while lending to infrastructure projects. By reducing exposure to the infrastructure sector, banks can reduce their asset-liability mismatch.

15. **Asset quality in infrastructure**

I. Rising NPAs in the infrastructure sector continue to be a concern for the banking system. The sector's share as a % of total stressed assets (NPAs plus restructured assets) for all SCBs has risen from 8.8% in March 2010 to 29.8% in December 2014.

Figure 1: Lending to infrastructure sector – SCBs



Source: Financial Stability Report, RBI

II. The situation has deteriorated over the last four years. As per the latest data published by RBI for 2014-15, infrastructure loans accounted for 15% of total loan advances by SCBs, and 29.8% of the overall stressed advances were stressed infrastructure assets. Amongst SCBs, PSBs have been the biggest contributor to infrastructure loans. In 2014-15, 17.6% of total loan advances by PSBs were to infrastructure, and 30.9% of the stressed loan portfolio of PSBs was contributed by infrastructure loans.

III. Time overruns in project implementation remain one of the main reasons for underachievement in infrastructure.

IV. According to the Ministry of Statistics and Program Implementation Flash Report, April 2015, of 758 central-sector infrastructure projects, each costing Rs 1.50 billion (USD 0.02 billion) and above, 323 (over 42%) are delayed and 63 have reported additional delays with respect to the date of completion reported in the previous month. Of 257 projects costing above Rs 10 billion (USD 0.15 billion), 150 have been delayed. Delays in land acquisition, municipal permission, supply of materials, award of work, etc., and operational issues slow down project implementation and hinder efficient capital expenditure.

16. Complicating funding issues further are the Basel III norms, due for full implementation by 2019. Their implications are discussed in the succeeding section.

III. Assessment of PSBs' infrastructure loan portfolio and capital adequacy

A. Sector-wise split of credit by SCBs

17. As of March 2015, gross credit outstanding for all SCBs amounted to Rs 66 trillion (USD 1.03 trillion) of which non-food credit constituted Rs 65 trillion (USD 1.015 trillion) and food credit constituted the remaining Rs 930 billion (USD 14.5 billion). Gross credit outstanding to the industries segment accounted for 44% of the total outstanding credit, estimated at Rs 26.65 trillion (USD 416 billion). Retail loans, categorized as personal loans by RBI, which include housing loans, account for 20% of non-food credit. Infrastructure is categorized as part of the industries portfolio by RBI.

18. Infrastructure loans (Rs 9.3 trillion, USD 145 billion) account for 35% of the industries portfolio. Overall, infrastructure loans are 15% of total outstanding non-food credit by SCBs. The charts below depict the segment wise composition of total outstanding credit by all SCBs in India.

Figure 2: Deployment of non-food credit - All SCBs (as on March 20, 2015) – in Rs trillion

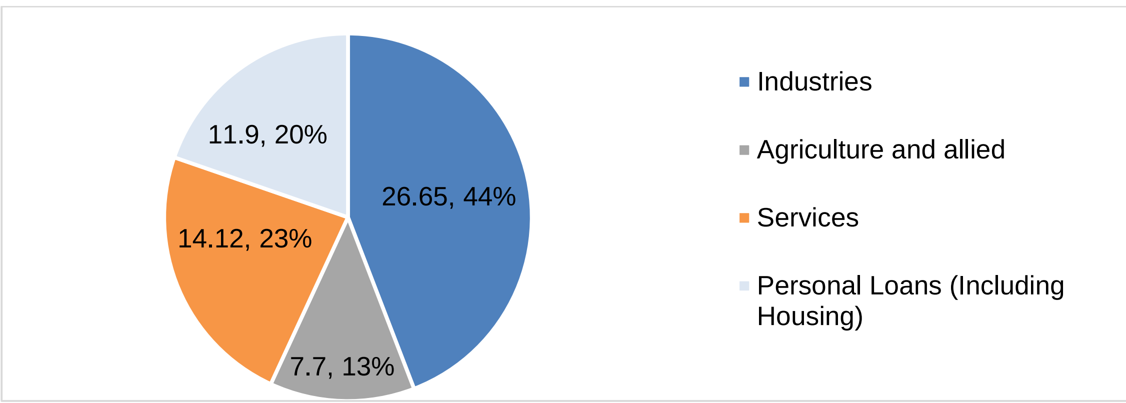
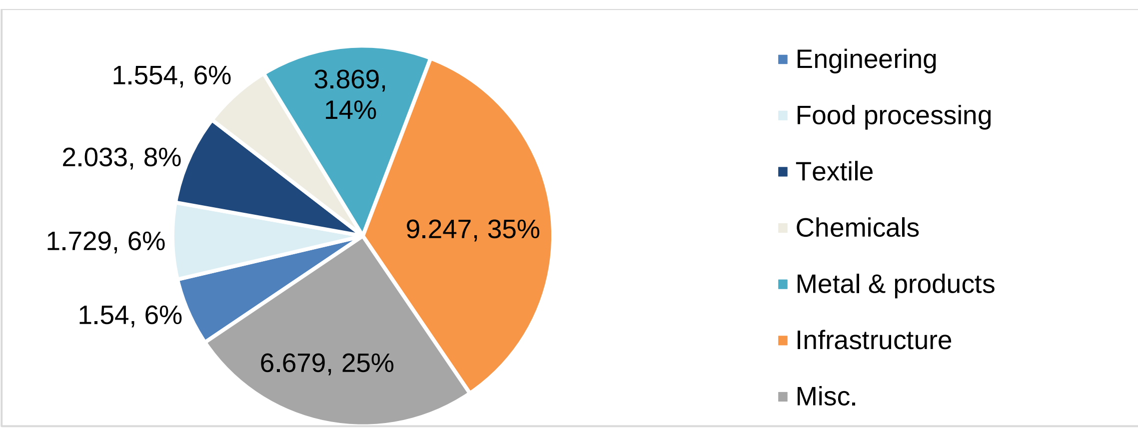


Figure 3: Industry wise deployment – All SCBs (as on March 20, 2015) – in Rs trillion

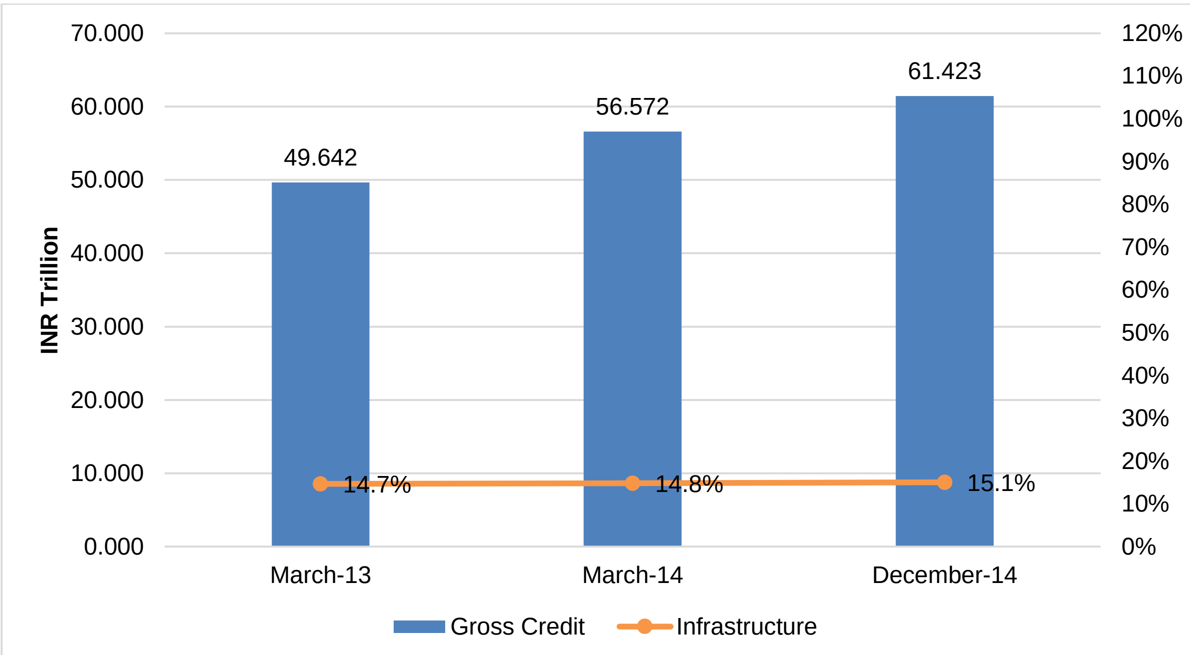


Source: RBI

B. Infrastructure loan portfolio of PSBs

19. Infrastructure forms 14-15% of the overall credit extended by SCBs over the last 3 years, the highest exposure to a single sector, after the retail bucket. Current outstanding exposure of all SCBs to the sector stands at Rs 9.3 trillion (USD 145 billion).

Figure 4: SCBs - Gross credit and infrastructure advances



Source: RBI

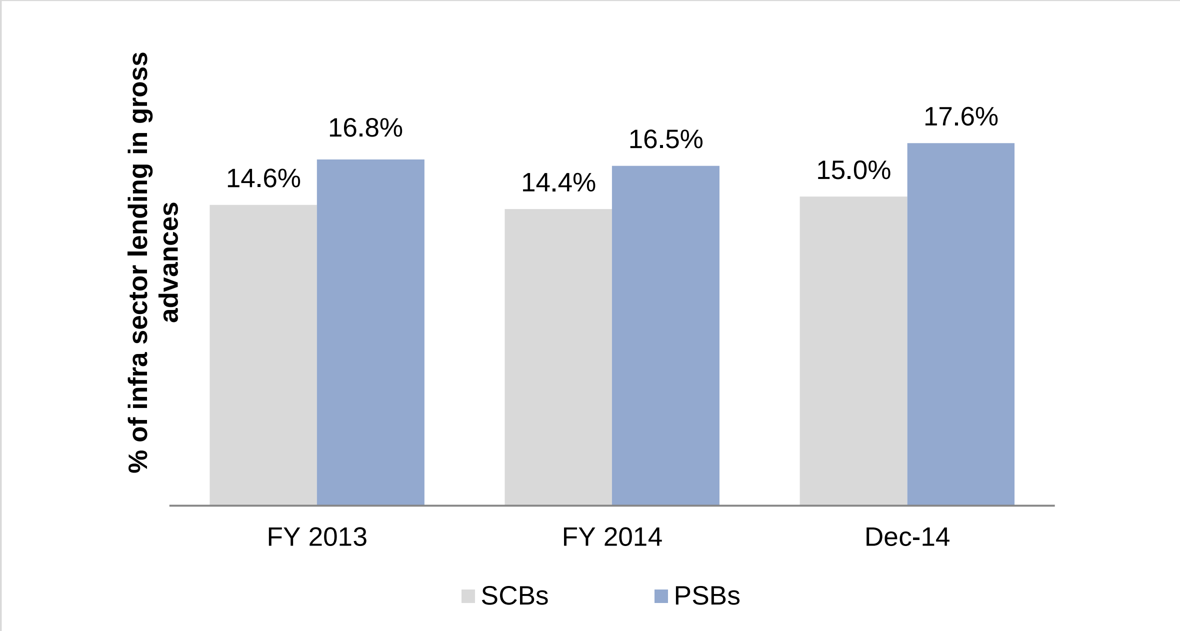
20. PSBs play a critical role in infrastructure financing; hence, PSBs have even higher exposure to infrastructure loans – 17.6%, as per RBI's Financial Stability Report released in December 2014. This would amount to an approximate Rs 8.4 trillion (USD 131 billion) Private and foreign banks have much lower share of infrastructure loans in their loan portfolio.

Table 9: Infra advances by commercial banks in India (USD billion)

As on Dec 2014	PSBs	Private banks	Foreign banks	All SCBs
Infra advance as % of gross advances	17.6%	8.4%	6.4%	15.0%
Outstanding Gross Advance to Infra	Rs 8.4 trillion (131)	Rs 0.5* trillion (8)	Rs 0.4* trillion (6)	Rs 9.3 trillion (145)

Source: RBI

Figure 5: Lending to infra sector as percentage of gross advance for SCBs and PSBs



Source: RBI

C. NPAs and restructuring of assets

21. As is evident from the table below, for PSBs, the share of gross NPAs (as a % of gross advances) has increased from 3.2% in March 2012 to 5.1% in December 2014. The share of restructured assets (as percentage of gross advances) has risen from 3.5% in March 2012 to 8.6% in December 2014. Hence, the ***share of stressed assets (gross NPAs and restructured assets combined) in gross advances has gone up from 6.7% in March 2012 to 13.7% in December 2014.***

Table 10: Public sector banks - Gross NPAs and restructured assets In Rs billion (USD billion)

	Gross advances	Gross NPA (A)	Total restructured assets (B)	Stressed assets (A+B)	As % of gross advances		
					Gross NPA (%)	***Restructured (%)***	***Stressed (%)***
Mar 2014	45,981 (718)	2,281 (35)	3,807 (59)	6,088 (95)	5.0%	8.3%	13.2%
Mar 2013	45,602 (712)	1,645 (26)	3,170 (50)	4,815 (75)	3.6%	7.0%	10.6%

Source: RBI

22. For PSBs, though the share of gross NPAs to gross advance is 5.1%, the share of infrastructure NPAs to infrastructure advances is 9.9% [Rs 1 trillion (USD 15.6 billion);

infra stressed assets amounting to Rs 2.2 trillion (USD 34 billion)]. Infrastructure NPAs alone contribute to 2.2% of gross advances of PSBs, driving up the total NPAs of PSBs It is evident that between PSBs and private banks, the problem of NPAs is graver for PSBs. The two-fold blow to infra (significant exposure[7] and high NPA) is constraining banks from lending more to infrastructure sector.

As on Dec 2014	**Public sector banks**	**Private banks**	**Total SCB**
Gross NPA as % of gross advance	***5.1%***	2.3%	4.9%
Infra NPA as % of Infra advance	***9.9%***	4.9%	9.7%
Infra stressed assets* as % of total stressed assets	**30.9%**	18.2%	29.8%

Source: RBI, CRISIL Infrastructure Advisory

D. Implications of Basel III norms on capital adequacy of PSBs

23. The Basel III accord was set forth by the Basel Committee on Banking Supervision in 2010-11. RBI issued guidelines based on Basel III reforms on capital regulation on May 2, 2012 that are applicable to all scheduled commercial banks operating in India.

24. The Basel III capital regulation has been implemented from April 1, 2013 in India in phases and will be fully implemented on March 31, 2019. The minimum capital ratios[8] to be maintained under various categories are given in the table below.

Table 11: Year-on-year minimum capital ratios to be maintained for banks operating in India (prescribed by RBI)

	April 1, 2013	**April 1, 2014**	**April 1, 2015**	**April 1, 2016**	**April 1, 2017**	**April 1, 2018**	**April 1, 2019**
Common Equity Tier-1 (CET 1)	4.5	5	5.5	5.5	5.5	5.5	5.5
Capital Conservation Buffer (CCB)	-	-	-	0.6125	1.25	1.875	2.5

[7] *Though RBI does not mandate a sectoral exposure limit, banks tend to fix their internal exposure limits so that exposures are evenly spread across sectors and the risk of over-exposure to a single sector is minimized.*

[8] *Bank should compute Basel III capital ratios as follows: Common Equity Tier 1 capital ratio = Common Equity Tier 1 capital / Risk Weighted Asset (RWA); Risk Weighted Asset includes market risk weighted asset, credit risk weighted asset and operational risk weighted asset.*

CET1 + CCB	4.5	5	5.5	6.125	6.75	7.375	8
Additional Tier 1 (AT-1)	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Total Tier 1 Capital	**6**	**6.5**	**7**	**7.625**	**8.25**	**8.875**	**9.5**
Tier-2	3	2.5	2	2	2	2	2
Total Capital (CRAR)	9	9	9	9.625	10.25	10.875	11.5

Source: RBI

25. Broadly, RBI guidelines are tighter than the global Basel III recommendations. Several aspects of the Indian framework are more conservative than the Basel framework, as highlighted in the table below.

Table 12: Minimum capital ratios: Comparison of capital requirement standards

	Basel III of Basel Committee	**Basel III of RBI (as on April 1, 2019)**	**Basel II of RBI**
Common equity Tier 1 (CET 1)	4.5	5.5	3.6
Capital conservation buffer[9] (CCB)	2.5	2.5	-
CET 1 + CCB	7.0	8.0	3.6
Additional Tier 1 Capital	-	1.5	-
Tier 1 Capital (CET 1 + additional)	7.0	7.0	3.6
Tier 2 Capital	1.0	2.0	2.4
Total Capital (Tier 1 + Tier 2)	8.0	9.0	6.0
Total Capital + CCB (CRAR)	10.5	11.5	9.0
Additional countercyclical buffer[10] in the form of common equity	0-2.5	0-2.5	-

Source: RBI, Basel Committee on Banking Supervision (BCBS)

[9] *CCB is proposed to ensure that banks build up capital buffers and draw on them during times of stress; as a result, besides the minimum total capital (MTC) of 8%, banks will be required to hold a CCB of 2.5% of risk-weighted assets **in the form of common equity**.*

[10] *Countercyclical buffer is proposed to protect banks during periods of excessive aggregate credit growth; this buffer will be in effect only when there is excessive credit growth that results in risk build-up.*

26. The new Basel III guidelines have a positive impact on the banking system by raising the minimum core capital stipulation, introducing capital buffers and enhancing banks' liquidity position. However, with the increase in minimum CET 1 and CRAR, banks will be required to strengthen their common equity capital position.

Table 13: Impact of Basel III on banks' capital

Key factors	**Impact on common equity Tier 1 capital**	**Impact on additional Tier 1 capital**	**Impact on Tier 2 capital**
Increase in capital requirements	Increase	Increase	Increase
Introduction of capital buffer	Increase	Increase	Increase
Deductions made from common equity	Increase	NA	NA
Definition of common equity to exclude share premium from non-common equity capital	Increase	Decrease	NA

Source: CRISIL Infrastructure Advisory

27. Basel III recommendations are aimed at improving the overall level of high quality capital in the bank and enhancing risk coverage of capital. Under Basel III, Tier 1 capital will be the predominant form of regulatory capital. Within Tier 1, CET 1 will be predominant form of capital, hence improving the overall level of high quality capital in banks.

28. Several studies[11] have estimated capital requirements by India's banking sector under Basel III around Rs 2.5-6.0 trillion (USD 40-90 billion) by March-2019. An assessment of the total capital requirement has been made in Section III.F – Assessment of capital requirements of PSBs.

E. Capital adequacy issues of PSBs

29. PSBs are struggling to meet Tier-I requirements under Basel III norms[12]. Most banks (19 out of 26 PSBs) fall in 7-9% range (mandatory requirement in 2013-14 was 6.5%).

[11] *Refer Table 1, Section 1 - Introduction*

[12] *Please refer to Basel III section for Year wise CRAR requirements for banks which operate in India*

United Bank of India just met the mandatory criteria with 6.54% Tier 1 capital. With mandatory Tier 1 capital requirement increasing to 9.5% by 2019, PSBs will need a quantum jump in capital support to meet Tier 1 capital.

Figure 6: Split of PSBs (no.) in different Tier-1 capital ranges (as on April 2014)

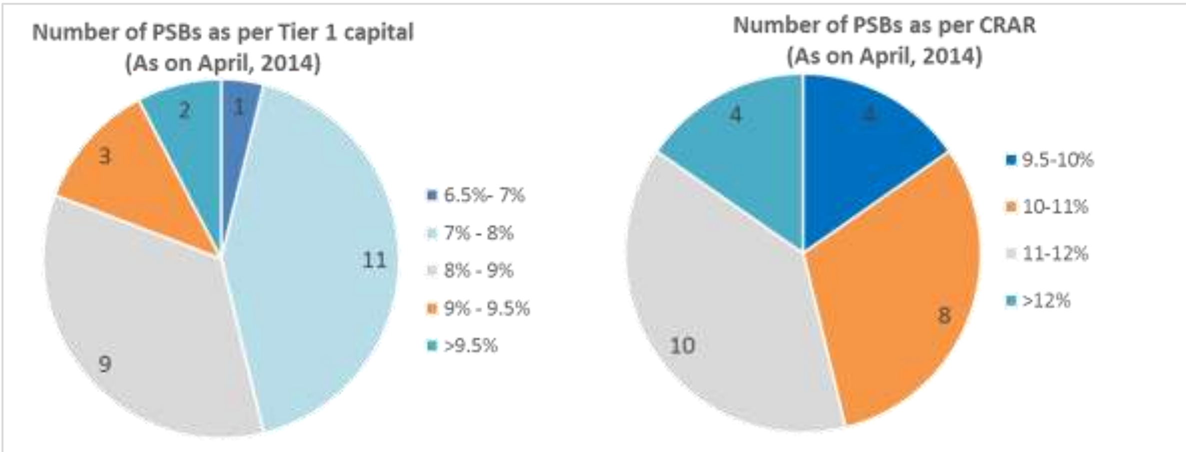


Table 14: CRAR (Total capital (Tier 1 + Tier 2) + Capital Conservation Buffer)/ Risk-weighted Assets) Indian banks

CRAR*	SCBs	PSBs	Private banks
FY 2014	13.5	**11.18**	14.22
FY 2013	14.25	**12.15**	14.75

Source: RBI

30. Banks that had the lowest CRAR in 2013-14 and just met the mandatory BASEL III CRAR requirement of 9% (Requirement in 2013-14) in that year were:

I. Allahabad Bank – 9.96

II. Bank of India – 9.97

III. Central Bank of India – 9.87

IV. United Bank of India – 9.81

Eighteen banks had CRAR in 10-12% range, hence, PSBs are fairly compliant with CRAR requirements. However, Tier 1 capital requirement is a bigger concern.

F. Assessment of capital requirements of PSBs

31. In line with RBI's credit growth forecasts of 12-14% for 2015-16, an average credit growth of 12% over the next four years, will lead to a total capital requirement of Rs 3.0 trillion (USD 47 billion) for PSBs. Assuming 14% credit growth, this requirement rises to Rs 3.9 trillion (USD 61 billion).

Table 15: Estimated capital requirement of banks (2015-16 to 2019-20)

	Scenario 1 – 12% credit growth (PSBs)	**Scenario 2 – 14% credit growth (PSBs)**
Credit growth (PSBs)	12%	14%
Basel III mandated CAR	9.7%-11.5%	
Gross credit (PSBs)	Rs 38.3 trillion (USD 156 billion)	Rs 46.4 trillion (USD 725 billion)
Total incremental capital requirement (PSBs)	Rs 3.0 trillion (USD 47 billion)	Rs 3.9 trillion (USD 61 billion)

Source: CRISIL Infrastructure Advisory Estimates

32. To provide relief to banks, Union Budget 2015-16 announced an infusion of Rs 700 billion (USD 11 billion) for PSBs in a phased manner over the next four years. Further, the Ministry of Finance has also recently conveyed its intention to reduce its equity stake in PSBs to 51% to help PSBs meet Basel III requirements. A preliminary assessment of this dilution over the next four years (at current price) suggests an equity release of almost Rs 400 billion (USD 6.25 billion). With these cushions in place, the capital requirement of PSBs reduces to Rs 1.02 trillion (USD 16 billion) for this period.

Table 16: Estimated gap in total capital requirement for PSBs

	Scenario 1 – 12% credit growth (PSBs)	**Scenario 2 – 14% credit growth (PSBs)**
Total incremental capital requirement (PSBs)	Rs 3.0 trillion (USD 47 billion)	Rs 3.9 trillion (USD 61 billion)
Govt. infusion	Rs 700 billion (USD 11 billion)	
Equity release due to dilution in govt. holding	Rs 403 billion (USD 6.3 billion)	
Gap in total capital required (PSBs)	**Rs 1.9 trillion (USD 30 billion)**	**Rs 2.8 trillion (USD 44 billion)**

Source: CRISIL Infrastructure Advisory Estimates

33. Thus, PSBs require capital of Rs 1.9 trillion (USD 30 billion) by 2019-20 to meet the stipulated Basel III norms.

G. Assessment of infrastructure portfolio for select PSBs

34. The subsequent sub-sections delves into the infrastructure portfolios of select PSBs, namely, IDBI, Central bank, United Bank of India and State Bank of India. Analysis will be done for other major PSBs, in the next module, while selecting the candidate PSB for securitization.

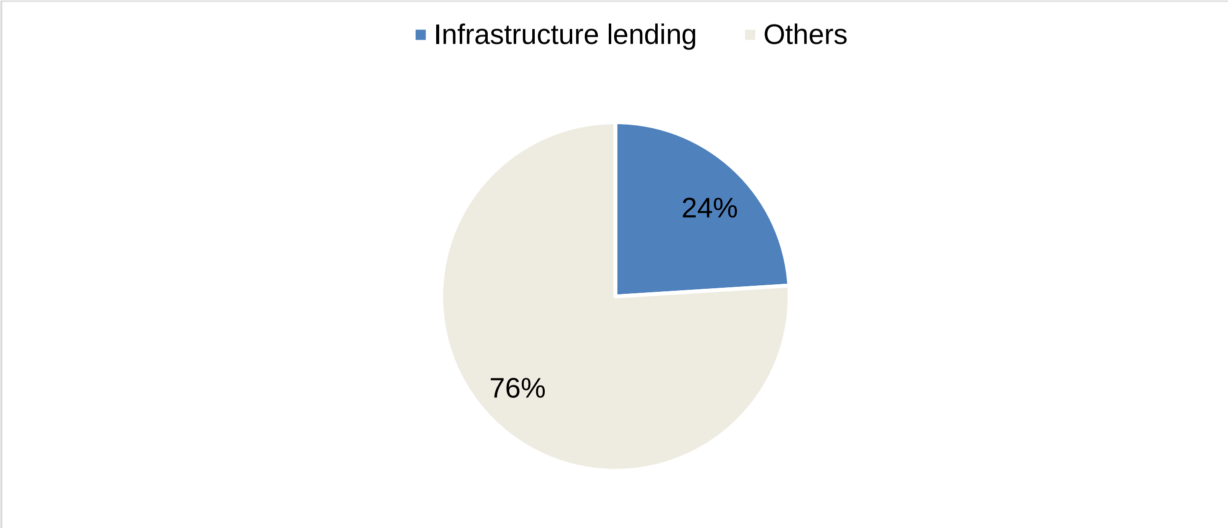
a. IDBI Bank

35. Industrial Development Bank of India (IDBI) was set up in 1964 as a Development Finance Institution (DFI). In 2004, it was transformed into a full-service commercial bank.

36. Infrastructure advances are a major part of IDBI Bank's overall advances (24% of overall advances amounting to Rs 503 billion (USD 8 billion) in 2014-15).

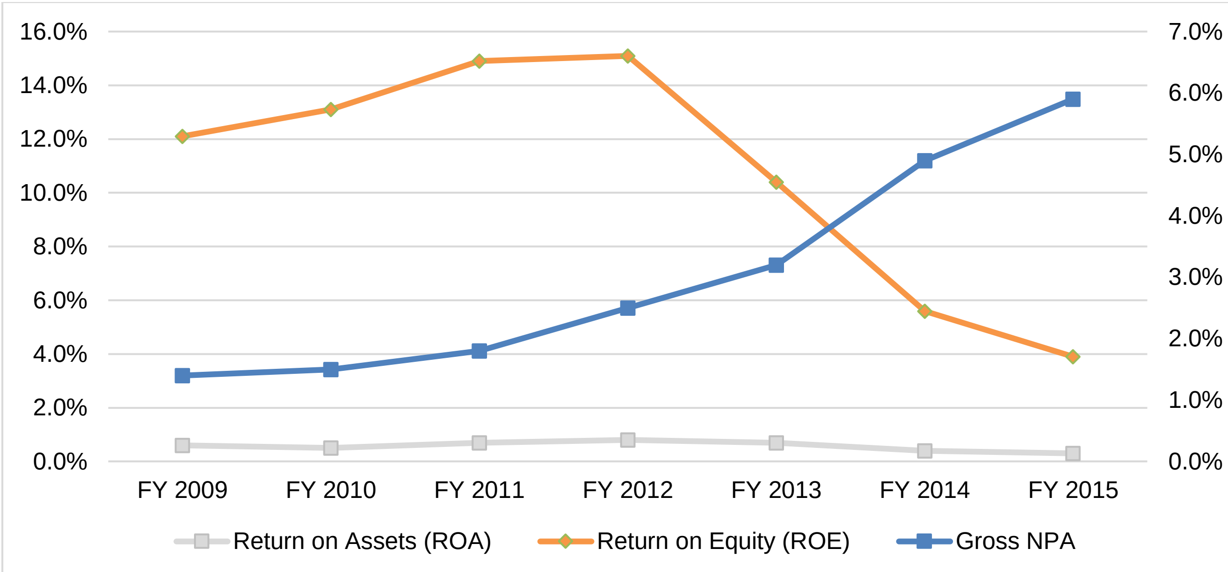
37. Increase in NPAs and a downward trend in both RoE and RoA are major causes of concern for the bank.

Figure 7: IDBI bank - Advances mix as of March 2015 (Rs billion)



Source: IDBI Investors Presentation

Figure 8: IDBI bank - Key ratios



Source: IDBI Investors Presentation

38. Though the bank's position on Basel III norms is presently satisfactory, the increase in NPA is a cause of concern. This is also evident from the high RWA at 136% in 2013-14 and 2014-15.

Table 17: Basel III compliance scenario for IDBI Bank[13]

Rs billion (USD billion)	**2013-14**	**2014-15**			**2013-14**	**2014-15**
CET 1 (A)	209.59 (3.3)	208.10 (3.3)		CET 1 % (A / RWA)	7.8%	7.3%
Additional Tier 1 (B)	0.25 (0.04)	25.31 (0.4)				
Tier 1 (C = A+B)	209.84 (3.3)	233.41 (3.6)		Tier 1 % (C / RWA)	7.8%	8.2%
Tier 2 (D)	104.80 (1.6)	102.35 (1.6)				
Total capital (F = C+D)	314.64 (4.9)	335.76 (5.2)		CRAR % (F / RWA)	11.7%	11.8%

[13] *Source: IDBI Annual Reports*

Total advances (G)	1976.86 (30.9)	2083.77 (32.6)				
Risk weighted asset (RWA)	2694.71 (42.1)	2855.42 (44.6)		RWA % (RWA / G)	136%	137%

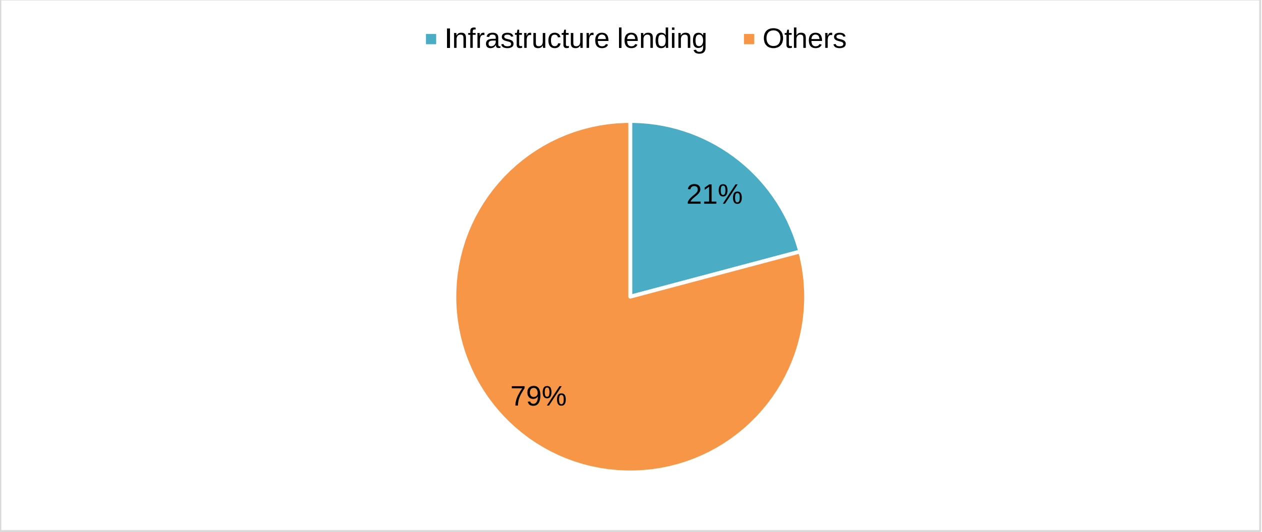
Source: IDBI Investors Presentation

b. United Bank of India

39. United Bank of India (UBI), headquartered in Kolkata, was one of the 14 banks nationalized in 1969. It has extensive coverage in the north-east region of India and is also known as “Tea Bank” as it is the largest lender to the tea industry and has an age-old association with the financing of tea gardens.

40. Infrastructure advances are a major part of overall advances (21% of overall advances amounting to Rs 144 billion (USD 2.3 billion) in 2014-15).

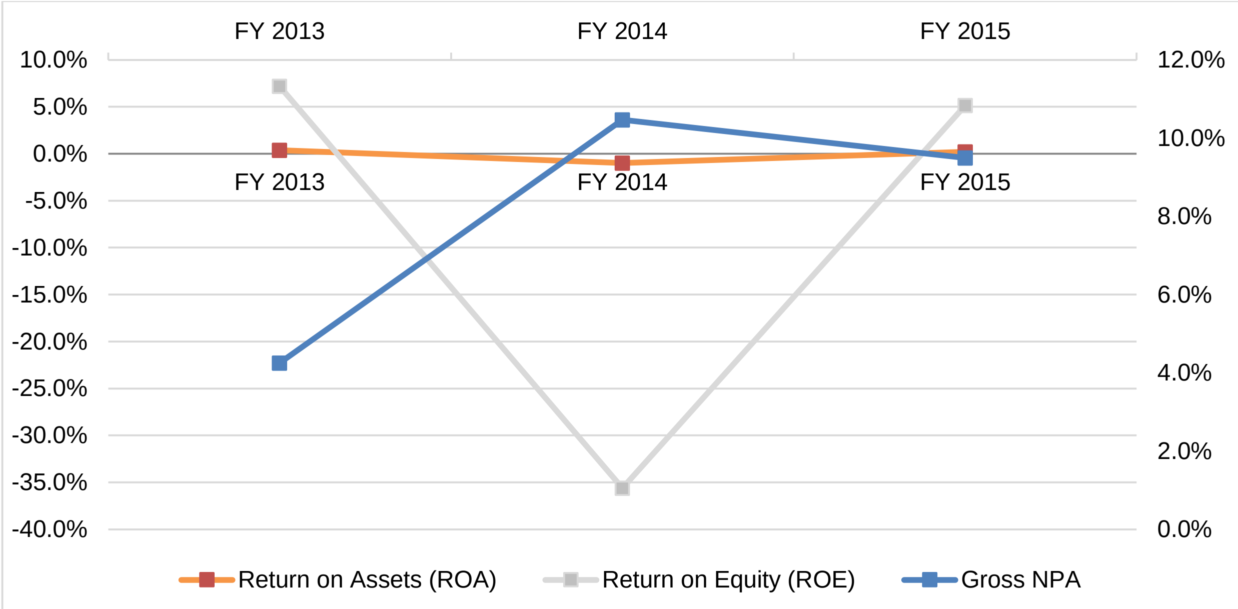
Figure 9: United Bank of India - Advances mix as of March 2015 (Rs billion)



Source: United Bank of India Financial Reports

41. High NPAs (increased from 4.3% in 2012-13 to 9.5% in 2014-15) have substantially impacted the bank’s profitability and, hence, RoE and RoA.

Figure 10: United Bank of India – Key ratios



Source: United Bank of India Financial Reports

42. The bank was at risk of becoming the first lender in India to breach minimum capital ratios (CRAR) mandated by RBI under Basel III. In February, 2014 it reported Tier 1 capital ratio of 6.1%, which was below the mandated percentage. However, by the close of that financial year (March 31, 2014), it met the Basel III norms.

43. The drastic increase in NPA (from Rs 29.6 billion (USD 0.5 billion) in 2012-13 to Rs 71.18 billion (USD 1.1 billion) in 2013-14) and net loss (net loss of Rs 12 billion (USD 0.2 billion) in 2013-14) were the key causes behind its problems in meeting minimum capital ratio norms.

Table 18: Basel III compliance scenario for United Bank of India[14]

Rs billion (USD billion)	**2013-14**	**2014-15**			**2013-14**	**2014-15**
CET 1 (A)	39.9 (0.62)	50.2 (0.78)		CET 1 % (A / RWA)	6.5%	7.5%
Additional Tier 1 (B)	0.0	0.0				
Tier 1 (C = A+B)	39.9 (0.62)	50.2 (0.78)		Tier 1 % (C / RWA)	6.5%	7.5%

[14] *Source: United Bank of India Annual Reports*

Rs billion (USD billion)	2013-14	2014-15			2013-14	2014-15
Tier 2 (D)	19.9 (0.31)	20.3 (0.32)				
Total capital (F = C+D)	59.8 (0.93)	70.6 (1.1)		CRAR % (F / RWA)	9.8%	10.6%
Total advances (G)	679.8 (10.6)	690.7 (10.8)				
Risk weighted asset (RWA)	610.1 (9.5)	668.0 (10.4)		RWA % (RWA / G)	89.7%	89.7%

Source: United Bank of India Financial Reports

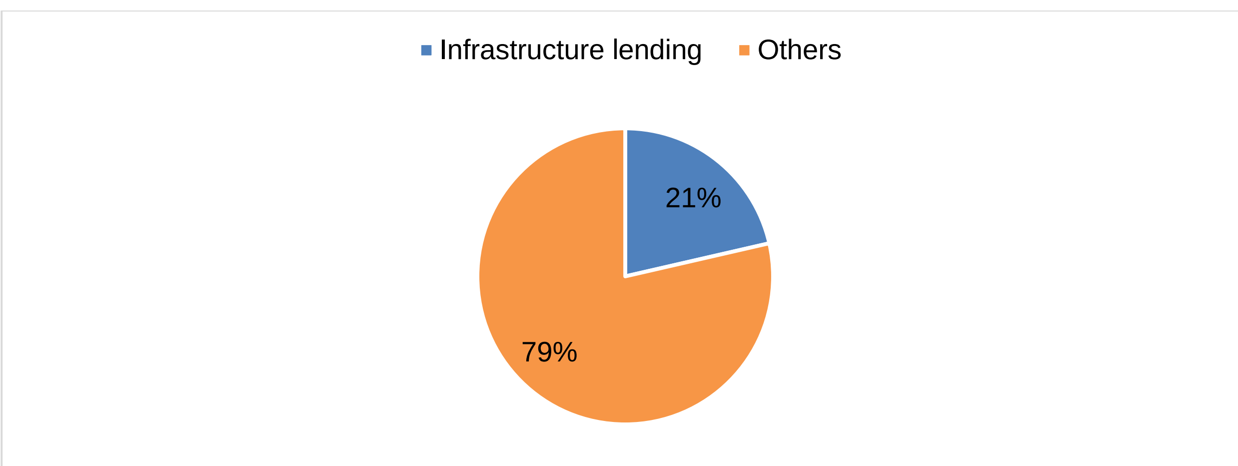
c. Central Bank of India

44. Central Bank of India has vast nationwide coverage (29 states and 6 out of 7 union territories). Headquartered in Mumbai, the bank was established in 1911 and nationalized in 1969.

45. Infrastructure advances are a major part of overall advances (21% of overall advances amounting to Rs 377.3 billion (USD 5.9 billion) in 2012-13)[15].

46. The level of NPAs increased from 4.8% in 2012-13 to 6.3% in 2013-14, which impacted profitability and, hence, RoE and RoA, particularly in 2013-14.

Figure 11: Central Bank of India - Gross advances as of March 2013



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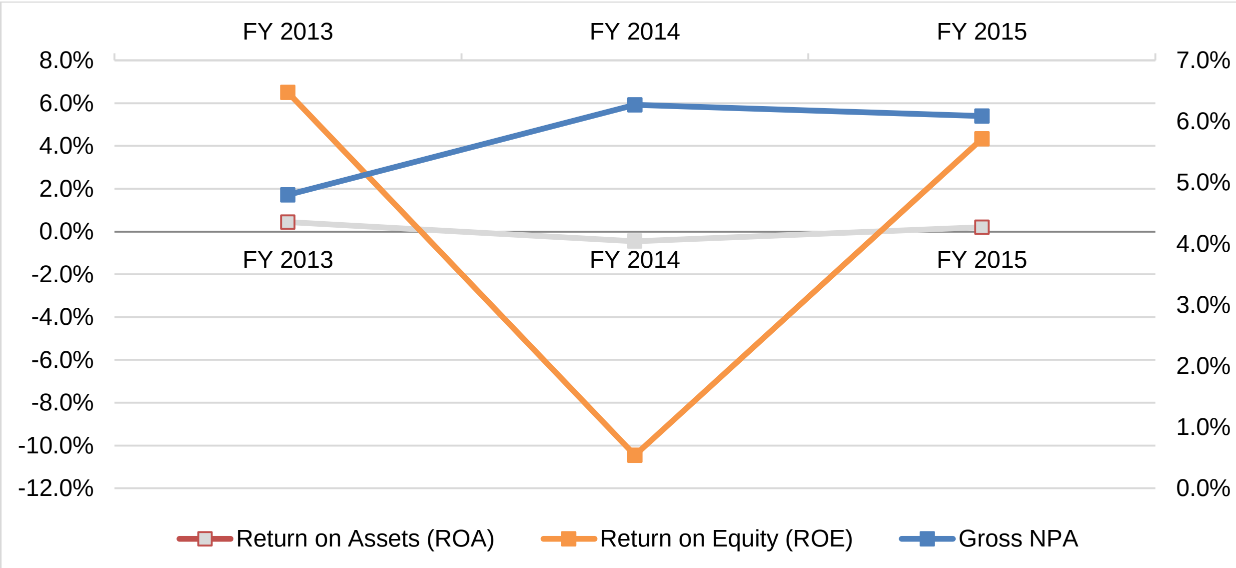
[15] *Exposure to infrastructure data for 2013-14 and 2014-15 is not available.*

Source: Central Bank of India Annual Reports

Figure 12: Central Bank of India - Key ratios



Source: Central Bank of India Annual Reports

47. Central Bank of India could just meet Basel III requirements in 2013-14 but its performance (on Basel III compliance) improved in 2014-15. The bank will have to undertake efforts to comply with the minimum capital ratios (increasing year-on-year with minimum CRAR % of 11.5% prescribed for 2018-19 – complete details on minimum Basel III requirements in Basel III section of the report).

Table 19: Basel III compliance scenario for Central Bank of India

	2013-14	2014-15
CET 1 %	6.47%	7.86%
Tier 1 %	7.37%	8.05%
CRAR %	9.87%	10.9%

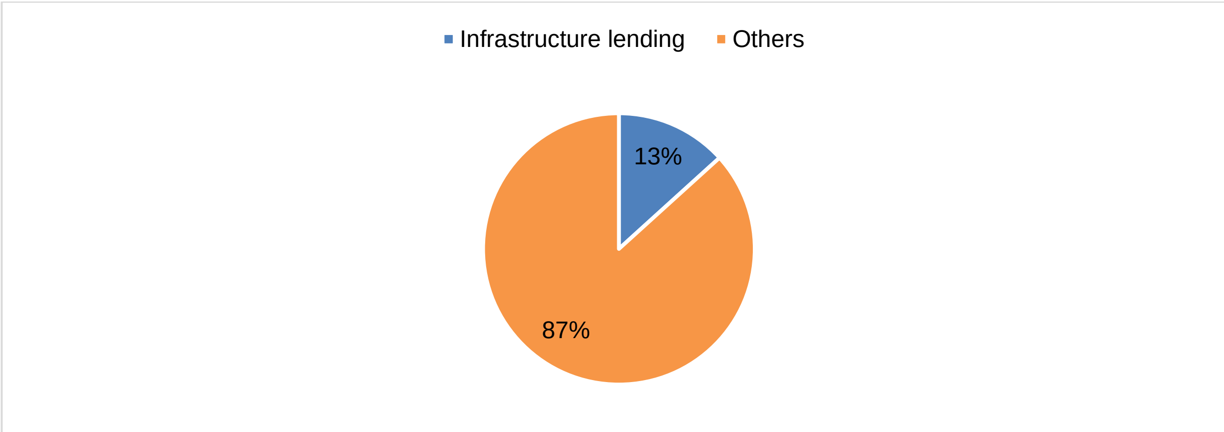
Source: Central Bank of India Annual Reports

d. State Bank of India

48. A government-owned bank headquartered in Mumbai, State Bank of India (SBI) is one of India's big four banks along with Bank of Baroda, Punjab National bank and ICICI Bank. It is the biggest provider of banking and financial services in India by assets with excellent coverage within the country and even overseas.

49. Infrastructure advances are 13% of gross advances. However, in real terms, the infrastructure portfolio is significant (Rs 1,772.53 billion (USD 28 billion) in 2014-15).

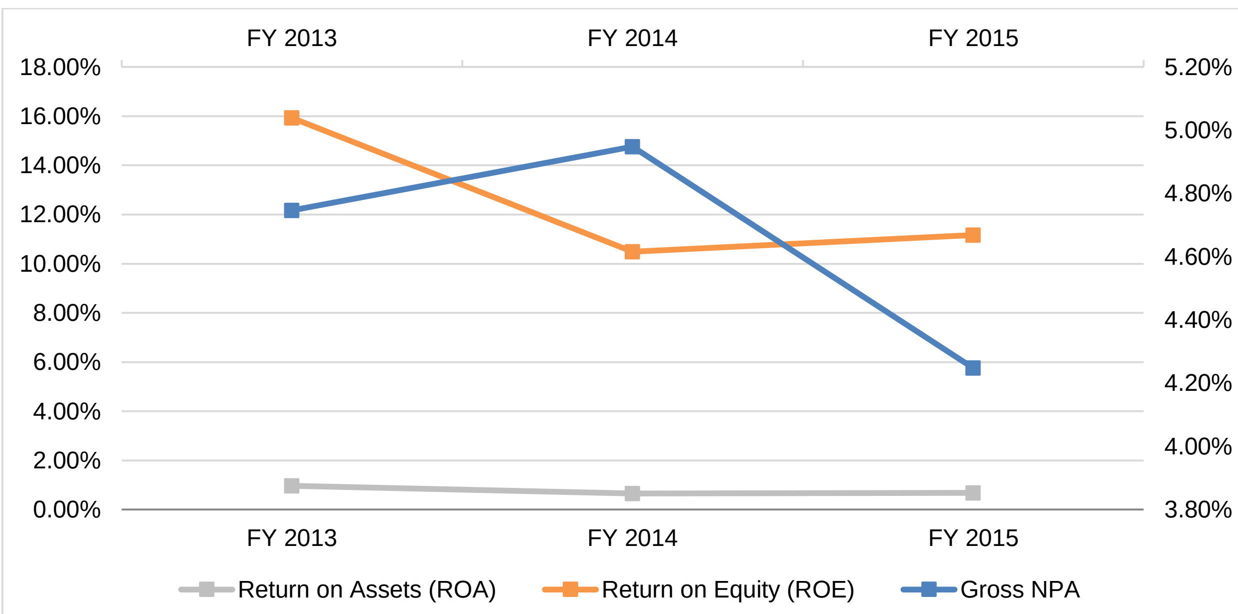
Figure 13: State Bank of India - Advances mix as of March 2015



Source: State Bank of India Annual Reports

50. Gross NPAs increased marginally in 2013-14 from a year ago, impacting both RoE and RoA. However, the bank revived and performed better in 2014-15.

Figure 14: State Bank of India - Key ratios



Source: State Bank of India Annual Reports

51. SBI has been on a downward trend since 2012-13 as far as CRAR % is concerned. However, considering that NPA and RWA have both come down, the bank can be expected to sail through RBI's minimum capital requirements.

Table 20: Basel III compliance scenario for State Bank of India

	FY 2013	FY 2014	FY 2015
CET 1 %		9.59%	9.31%
Tier 1 %	9.32%	9.72%	9.60%
CRAR %	12.51%	12.44%	12.00%
RWA %	93.2%	90.5%	91.4%

Source: State Bank of India Annual Reports

IV. Monetization of infrastructure assets

A. Government initiatives to monetize infrastructure assets

52. Monetization of the infrastructure sector is critical. Several innovative schemes and initiatives have been announced in the recent past to encourage fund flow to infrastructure. These include credit enhancement mechanisms such as the partial credit guarantee scheme by India Infrastructure Finance Company Limited (IIFCL), credit enhancement by banks, infrastructure debt funds (IDFs), take-out finance schemes, infrastructure investment trusts (InvITs) and infra bonds. A majority of these schemes are available to the borrower (developer) of infrastructure projects after commercial operations date (COD) is achieved. By contrast, lenders have very few schemes available to them for monetizing infrastructure loans. The following table summarizes the schemes[16] available at various phases to the developer and the lender.

Table 21: Funding schemes available to borrower and lender at various stages

Phases	Schemes & investor category	Type of funding	Available to
Operations Phase (post COD / short term)	Domestic banks, PCG, bonds, infra debt fund and ECB	Refinancing debt	Developer
	Take-out financing	Debt	Developer/ Lender
	Securitization	Debt	Lender
Operations Phase (medium and long term)	Domestic equity capital markets	Equity	Developer
	Securitization	Debt	Lender

Source: CRISIL Infrastructure Advisory

53. All the schemes listed above have distinct features to improve access of funding to the infrastructure sector and are expected to play a significant role in bridging the gap in infrastructure financing. While schemes such as partial credit guarantee and

[16] *An overview of these instruments and their operations is provided in the Annexure 2.*

infrastructure investment trusts are expected to gain traction in the market only gradually, initiatives such as IDFs (especially those originated by NBFCs) have already raised over Rs 120 billion (USD 1.8 billion) in the market for infrastructure assets. Moreover, various new initiatives are in the pipeline such as the National Investment & Infrastructure Fund and Bond Guarantee Fund for India. Together, these schemes aim to provide alternative ways to channel finance and boost the infrastructure sector.

54. As noted before, ***a majority of these schemes benefit infrastructure developers; for lenders, especially banks, the alternatives are very limited.*** Securitization can be an effective option for lenders to monetize their infrastructure assets, while improving the equity returns. As explained subsequently, securitization will enable banks to sell their infrastructure assets to a securitization trust or a special purpose vehicle (SPV), which, in turn, will issue securities backed by these assets. Securitization could potentially help banks to diversify their risks and alleviate large bulk risks of a single project while offering capital to finance critical needs of the infrastructure sector. It also offers an opportunity for banks to improve their capital ratios by transferring assets from their balance sheets to securitization trusts and SPVs.

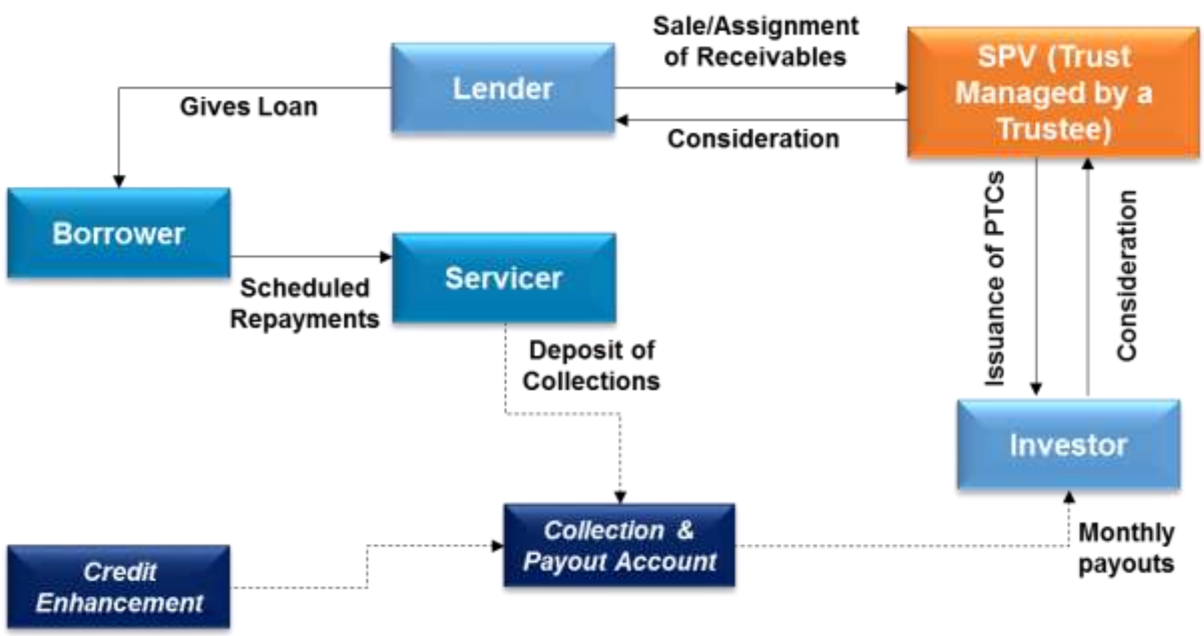
55. Securitization will also benefit from existing schemes available for infrastructure, since existing and upcoming funds are seen as potential investors and guarantors to securities issued by securitization trusts. All these solutions will complement each other and help reduce the infrastructure funding gap. While the schemes mentioned above also enable monetization of infrastructure assets, this report focuses solely on exploring the feasibility of securitization as a method of monetization.

B. Understanding securitization in the Indian context

56. Securitization is the process of converting illiquid loans into marketable securities. The lender sells his/her right to receive future payments from the borrowers of loan to a third party and receives payment for it. Hence, the lender receives the repayment at the time of securitization. These future cash flows from the borrowers are sold to investors in the form of marketable securities.

57. Securitization in India predominantly takes the form of a trust structure wherein the underlying assets are sold to a trustee company that holds it in trust for investors. The trustee company in this case is an SPV that issues securities in the form of pass- or pay-through certificates (PTCs). The trustee is the legal owner of the underlying assets. Investors holding these certificates are entitled to a beneficial interest in the underlying assets held by the trustee, as depicted in the figure below.

Figure 15: Securitization structure in India



Source: CRISIL Infrastructure Advisory

58. Described briefly below is the role of each party involved in the securitization process.

I. **Originator –** Original lender and seller of receivables; in the Indian context, typically a bank, an NBFC or a housing finance company

II. **Seller –** One who pools the assets in order to securitize them; usually, the seller and the originator are same in India.

III. **Borrowers –** Counterparty to whom the originator makes a loan; payments (typically in the form of EMIs) made by borrowers are used for making investor payouts.

IV. **SPV (issuer) -** Typically set up as a trust in India; issues marketable securities, which the investors subscribe to and ensures the transaction is executed as per specific terms

V. **Arranger –** Investment banks responsible for structuring the securities; they liaison with other parties (such as investors, rating agencies and legal counsel) to successfully execute the transaction

VI. **Investors –** Purchasers of securities; typically banks, insurance funds, mutual funds

VII. **Rating agencies –** Analyze the risks associated with the transaction, stipulate the credit enhancement commensurate with the rating of the PTCs and monitor performance of the transaction till maturity and take appropriate rating actions

VIII. **Credit enhancement provider -** Typically provided by the originator as a facility that covers any shortfall in the pool collections in relation to the investor payouts; can also be provided by a third party for a fee

IX. **Servicer -** Collects the periodic installments due from individual borrowers and makes payouts to the investors; also follows up on delinquent borrowers, furnishes periodic information on pool performance to the rating agency (typically, the originator acts as a servicer in Indian markets)

59. There are three types of securitized instruments prevailing in the market today. Asset-backed securities (ABSs) are instruments backed by receivables from financial assets such as vehicle loans, personal loans, credit cards and other consumer loans, but excluding housing loans. Mortgage-backed securities (MBSs) are instruments backed by receivables from housing loans. Collateral debt securities (CDO) are instruments backed by various types of debt, including corporate loans or bonds.

C. Securitization structures in India

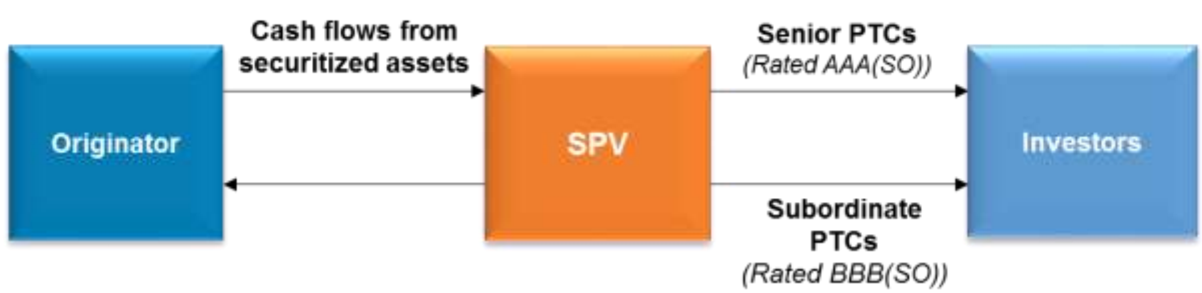
60. The structuring of cash flows gives originators flexibility to tailor instruments to meet investor requirements based on the risk appetite and tenor requirements. The two most commonly used structures in India are:

a. **Par structure** - Investor pays a consideration equal to the principal component (par value) of future cash flows. In return, the investor is entitled to receive scheduled principal repayments from the pool in addition to the contracted yield (called PTC yield) every month. Typically, the asset yield is greater than PTC yield, which results in excess cash flows every month, often referred to as excess interest spread or EIS. For example, a pool of assets with a principal amount of Rs 1 billion with a collective yield of 12% may be sold to investors at a yield of 11%. In this case, the investors are entitled to principal amount of Rs 1 billion along with a yield of 11%. The excess 1% yield from the pool of assets acts as EIS, effecting offering protection (to that extent) against any shortfalls in the cash flow of the pool of assets.

b. **Premium structure** - The investor is entitled to the entire cash flows (EMIs) from the pool every month. The investor pays a consideration greater than principal component of future cash flows. The purchase consideration is the net present value of the entire cash flows discounted at a contracted rate (PTC yield). This structure does not involve an excess interest spread. For example, in case of a pool of assets with a principal amount of Rs 1 billion with a yield of 12%, the total cash flows amount to Rs 1.12 billion. In a premium structure, investors are entitled to the entire cash flow of Rs 1.12 billion, for which the purchase consideration may be slightly higher than Rs 1 billion, say Rs 1.01 billion. Thus, the PTC yield is 10.9% (an expected yield of Rs 0.11 billion on an investment of Rs 1.01 billion)

61. Risk tranching is a form of cash flow tranching prevalent in India. It involves creation of instruments with different risk profiles. Senior pass-through certificates are accorded the first priority on cash flows and are, therefore, characterized by the highest rating and, thus, the lowest risk; subordinate pass-through certificates support payments to senior tranches and carry lower credit ratings, as shown below.

Figure 16: Risk-tranching securitization structure



Source: CRISIL Infrastructure Advisory

62. Time tranching and prepayment tranching are two other forms of tranching; however, these are not prevalent in India. Time tranching involves creation of securities with different durations.

Figure 17: Time-tranching securitization structure

Source: CRISIL Infrastructure Advisory

63. In prepayment tranching, investors have a preference for bond-like payouts. All prepayments are allocated to a separate strip called prepayments strip (Series P). Hence, the main investor (Series A) is insulated against any volatility arising out of prepayments. Volatility of cash flows to Series P is taken care of while pricing the instrument.

64. Credit enhancement is also important as it is a source of funds to protect investors if losses occur in securitized assets. Credit enhancement improves the credit quality of securitized instruments to achieve the desired credit ratings. Typically, in securitization, a combination of internal (subordinated cash flows, EIS) and external (cash collateral, corporate undertaking) sources are taken for credit enhancement.

65. Apart from the SPV route through issue of PTCs, financial institutions also sell pool of assets directly to other financial institutions without issue of PTCs. Such transactions are referred to as direct assignment transactions. Direct assignments are added the loan books of lending institutions as loans. Investors that do not lend, such as mutual funds, cannot participate in direct assignments. These transactions are preferred by banks since PTCs—by virtue of them being investments—would need to be marked to market, and loans and advances do not have this requirement. Given that these transactions help banks in meeting their PSL targets, assignees, usually the banks, provide fine pricing to the originators, primarily NBFCs which mutual funds—the other potential investor segment—are unable to match. Further, only lending institutions are permitted to partake in these direct assignment transactions, thus making them unattractive for mutual funds and insurers.

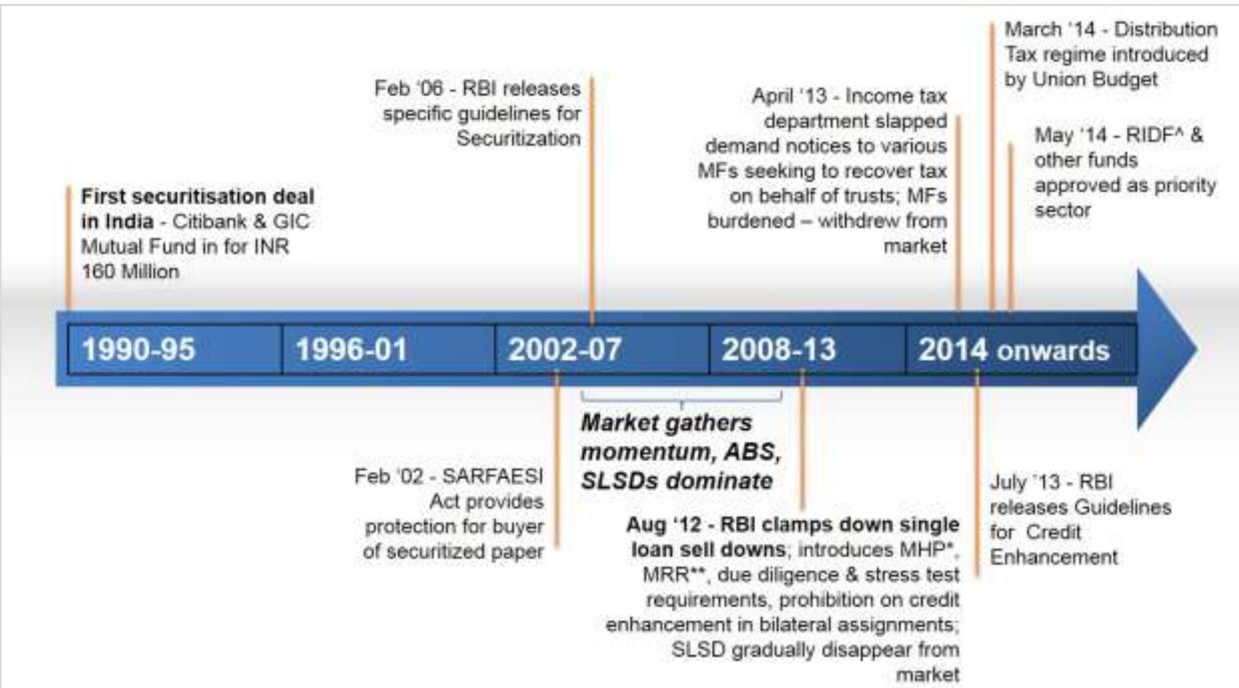
66. Further, as per current RBI regulations, such transactions cannot have credit enhancements; hence, the institution that buys the pool of assets typically adjusts the purchase price to compensate for the lack of credit enhancement.

D. India's securitization market - Key trends

67. The securitization market in India has been operational since the early 1990s. It has grown mainly due to the repackaging of retail assets and residential mortgages (mainly in the priority sector segment) that continue to dominate the current scenario. NBFCs and housing finance companies are the key originators of securitized transactions in India, while banks are the leading investors because of priority sector lending (PSL) targets.

68. Indian securitization market is primarily dominated by ABSs. Banks and NBFCs sell the retail assets on their books through securitization.

Figure 18: Key events in securitization in India



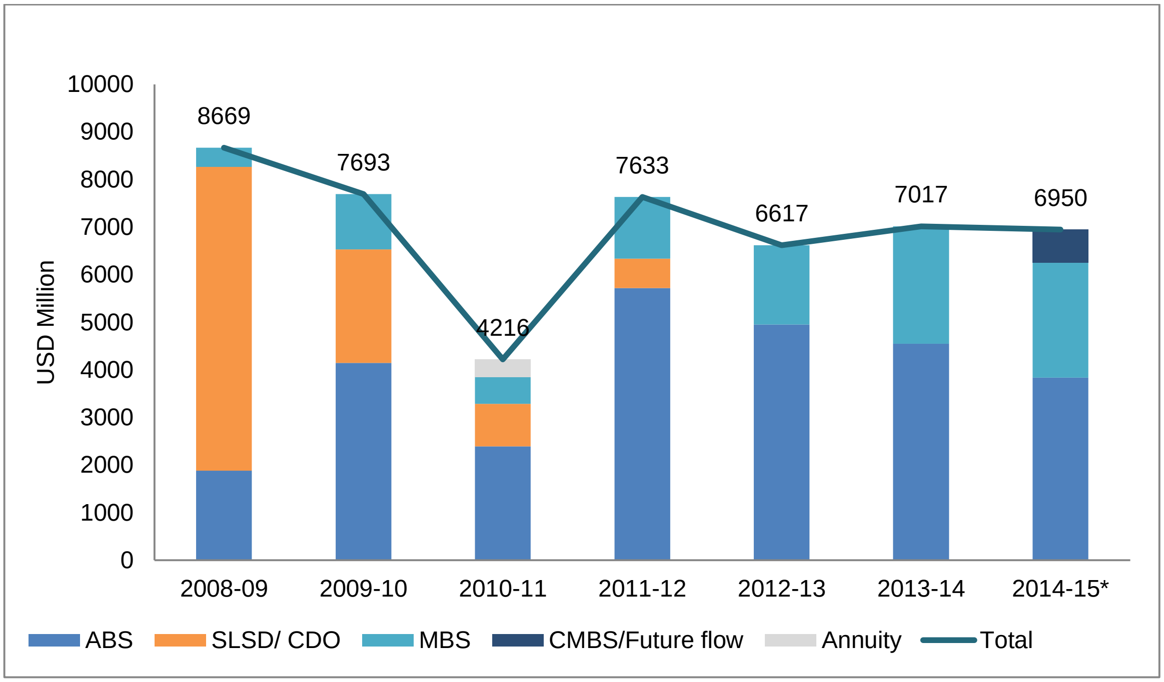
E. Key trends in the past few years

69. The securitization market in India has matured in the past decade, after the implementation of the Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002, which provided the framework for the constitution of asset reconstruction companies specializing in securitizing assets purchased from banks. Securitization of auto loans has dominated the market throughout its development, and has been supported by the emergence of residential MBSs in the 2000s.

70. But India's securitization market has seen limited diversification both among investors and originators. Originators have typically been private sector banks, foreign banks and NBFCs, with their underlying assets being mostly retail and corporate loans. PSBs have been the investors, participating in the securitization market for meeting their PSL needs.

71. The figure below depicts the trend in securitization issuances over the past few years.

Figure 19: Trend in securitization issuances



Source: CRISIL analysis

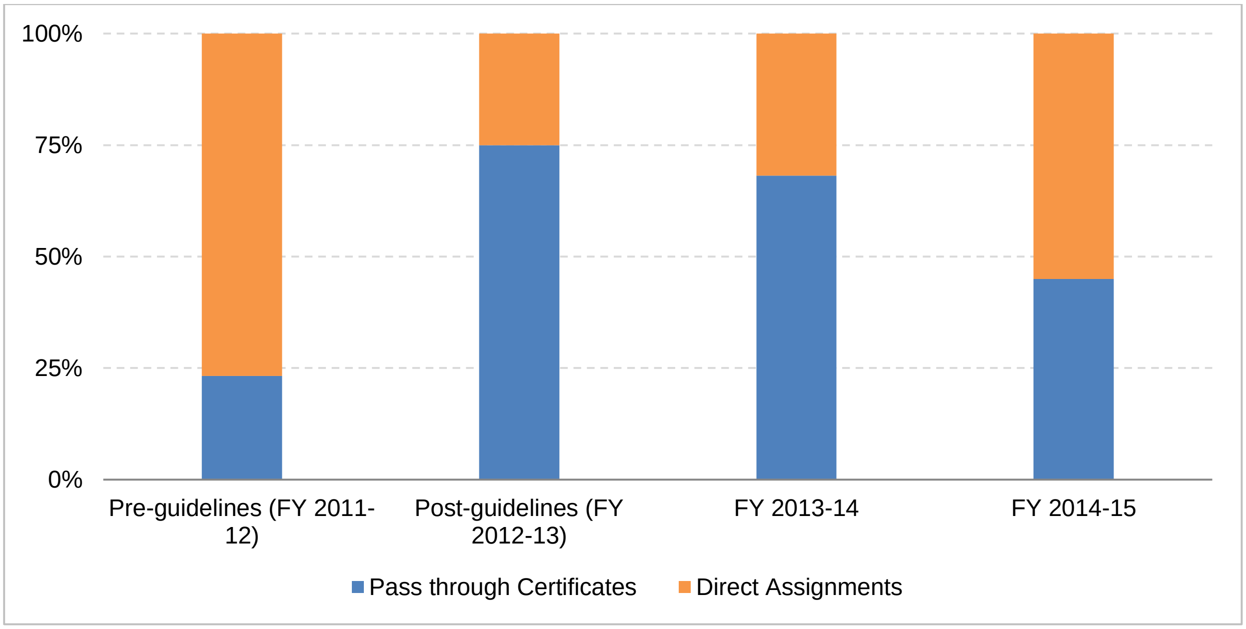
72. The market comprised mainly ABSs, MBSs, and single-loan sell-downs (SLSDs) till 2009-10. The market for SLSDs grew as corporates with surplus cash started investing in fixed maturity plans (which further invested in SLSDs) because of tax arbitrage that these funds provided but regulatory restrictions brought down the market in 2011[17]. *There had been no instances of securitization of infrastructure loan assets.*

73. In the past two years, there has been a decline in ABS and MBS volumes. Regulatory changes in treatment of rural infrastructure development fund (RIDF) investments for PSL impacted securitization volumes. Since May 2014, RBI has allowed indirect agriculture lending under the PSL target to RIDF (maintained with the National Bank

[17] *Revisions to the Guidelines on Securitisation Transactions, RBI, May 2012*

for Agriculture and Rural Development)[18]. In the current year, debt issuances have taken place under two new structures – commercial mortgage backed securities (CMBS) and future flow, which together contributed to nearly 10% of overall volumes.

Figure 20: Share of PTCs and direct assignments over the years



Source: CRISIL analysis

74. As shown in the figure above, direct assignment transactions picked up after 2012-13 (post revision in securitization guidelines on taxation). Investments in direct assignments (DA) have dual benefits: they meet PSL requirements of banks, and can also show improvement in the advances book of the investing bank. PSBs have used DA transactions to increase their overall loans and advances. Also, direct assignment transactions are considered more capital efficient for originators as they do not need to provide credit enhancement. Under the new tax regime, DA transactions also result in less tax outgo compared to securitization transactions involving PTCs.

[18] *Banks are required to lend 40% of their loans to agriculture, small industries and other economically weaker sectors. Of this, 18% should be for agriculture (13.5% as direct lending to farmers and the remaining 4.5% as indirect lending). When banks fail to meet the target, they invest an amount equal to the shortfall in RIDF, on which they earn a lower interest of about 6.5%. RBI has now allowed banks to include outstanding deposits in RIDF as part of indirect agriculture lending, which will be counted towards their overall PSL.*

F. Benefits of securitization

75. In a conventional debt instrument, the price of the bond is governed by the credit profile of the issuer, which, in turn, depends on the earning power of the business, financial risk profile and the management capability. This has certain limitations: earmarking of certain cash flows for the redemption of instrument is not possible, rating of the debt instrument and, hence, the cost of the instrument are restricted by the rating of the issuer (no cost optimization possible for issuers with low ratings) and customization (according to the needs of different investors) of the same debt issuance is not possible.

76. Securitization offers the following advantages to banks:

i. **Off-balance sheet financing**: Securitization allows the originator to create assets and generate income while simultaneously shifting the assets off its balance sheet through sale to the SPV. Thus, the income from the asset is accelerated without the asset being present on the balance sheet, *leading to reduced capital requirements and improvement in both income- and asset-related ratios*. For the originator, this frees up capital for further lending.

ii. **Alternative investor base:** Securitization extends the pool of available funding sources by bringing in a new class of investors. Through the issuance of securities, alternate sources of funding from institutional investors such as insurance funds, pension funds, provident funds, mutual funds etc. is available.

iii. **Sharing of risk:** It results in stratified securities, catering to the risk appetite of multiple investor classes, thereby deepening the financial market. For instance, mutual funds are willing to take higher risks compared to insurance funds. However, pension funds are the most conservative, which are interested in low-risk AAA rated instruments.

iv. **Better asset-liability match**: Asset-liability mismatch continues to be a problem for most financial institutions lending to the infrastructure sector in India. Securitization of assets allows the selling institution to arrange debt issues to fund assets whose payments are better matched to the cash flows on the assets. This transfers the funding-mismatch risk to entities that are more suited to bear it (such as pension funds and insurance funds having long-term liabilities), which could be matched with long-term securitized papers. Securitization allows the financial institution to further improve its asset liability maturity profile by replacing long-term assets with cash.

v. **Positively impacts return on equity (ROE):** Appropriate structuring can help increase the originator's ROE.

G. Key challenges

77. The key challenges pertaining to securitization are highlighted in the section below. However, a detailed assessment of the challenges and recommended solutions, are provided in the subsequent sections.

   i. **Taxation issues –** In Finance Act 2013 and subsequently in Union Budget 2013-14, a new taxation regime was introduced for securitization transactions by inserting Chapter XII – EA in the Income Tax Act, 1961[19]. Under this special provision, Section 115TA obliges the securitization trustee to pay 0% tax in case of investors whose income is exempt from tax (primarily MFs), 25% in case of income received by an individual, and 30% in case of income received by any other investor. Further, investors will suffer disallowance of expenses incurred in relation to the income from PTCs under Section 14A of the Act. The drawbacks of this distribution tax regime have been explained in detail in the analysis of the taxation framework in Section V.B of this report.

   ii. **Stamp duty –** Stamp duty is payable on transfer of asset rights. Implications of stamp duties on securitisation of infrastructure assets have been presented in detail in Section V.C. of this report.

   iii. **Issues of capital allocation** – As per an RBI notification[20], the residual non-investment grade (junk) tranche retained by the originator (usually as credit enhancement) has to be completely knocked off from the common equity capital. This restricts capital benefits provided by securitization transactions. However, this problem is currently being overcome by having multiple tranches – AAA, BBB and junk tranches where the originator retains BBB and junk tranches. While the junk tranche attracts complete capital knock-off from the common equity capital, the BBB tranche is subject to its usual capital treatment at a risk weight of 100%[21]. The proportion of junk tranche determines the capital benefits provided by the securitization transaction; the lower the proportion of junk tranche, the higher the capital benefit. Usually, retail securitization transactions have a junk tranche of 3-5%. It is, therefore, important that infrastructure loan securitization should lead to a lower junk tranche.

   iv. **Challenges in context of infrastructure loans being securitized in India**

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[19] *Please refer Annexure 14 for details.*

[20] *Refer Annexure 5 for details*

[21] *As elaborated in Section III.D Implications of Basel III. Further, in case of a common equity capital adequacy ratio of 8%, INR 100 million of BBB tranche requires INR 8 million capital, while INR 100 million of junk tranche requires INR 100 million capital.*

a. **Floating interest rate –** Investors generally prefer PTCs at fixed interest rates. However, since infrastructure loans have floating rates linked to bank's prime lending rate, it is a challenge to garner investor interest.

b. **Syndication of banks providing loan to infrastructure asset –** This is not essentially a challenge, but would be a caveat in infrastructure loan securitization deals. Most infrastructure loans in India are provided by a syndication of lenders/banks. Hence, in order to securitize a bank's portfolio, a no objection certificate from other banks will be required.

H. International experience of securitization for infrastructure financing

78. Globally, Infrastructure debt is financed either by project loans or project bonds. In developed economies such as those of U.S.A and Europe, a major portion of debt financing to the sector is undertaken through the issuance of project bonds. Approximately 23% of total debt funding to the infrastructure sector in 2014 was sourced through project bonds in Europe, a figure of EUR 15 billion (USD 16 billion). Although project loans are also prevalent in developed economies, these are sourced primarily by development finance institutions or in the form of direct loans by institutional investors. Commercial banks play a negligible in funding the infrastructure sector. Thus, securitisation of infrastructure assets has predominantly been witnessed for project bonds in these regions, while there is no supply for infrastructure securitized loans due to the limited role played by commercial banks.

Table 22: Sources of Infrastructure Finance Globally

	Loans (USD Billion)	Bonds (USD Billion)	Bonds as a % of Total
North America	58.62	14.54	20%
Europe	47.72	14.11	23%
Latin America	12.86	4.61	26%
Asia Pacific	56.36	3.82	4%
Middle East Africa	25.38	1.77	7%
Total	**200.94**	**38.86**	**16%**

79. In developing economies, project loans are the predominant source of infrastructure funds. However, the role played by the government in financing infrastructure sector is

also higher. With a negligible exposure of commercial banks to the infrastructure sector, there is no supply for infrastructure securitized loans.

80. Securitisation for infrastructure assets has been explored for these three cases in the following subsections through examples across three regions – USA & Europe, Australia and China.

a. Securitisation of Project Bonds – USA & Europe

81. Securitization transactions for project bonds have been undertaken for underlying assets of power, oil & gas and energy segments. A common structure for securitizing these assets has been project finance collateralized debt obligation (PF-CDO). In a PF-CDO, the originator transfers project finance loans and bonds to the CDO issuer under a true sale arrangement. As a result, the CDO issuer physically holds project finance assets, and all CDO liabilities are issued in funded form.

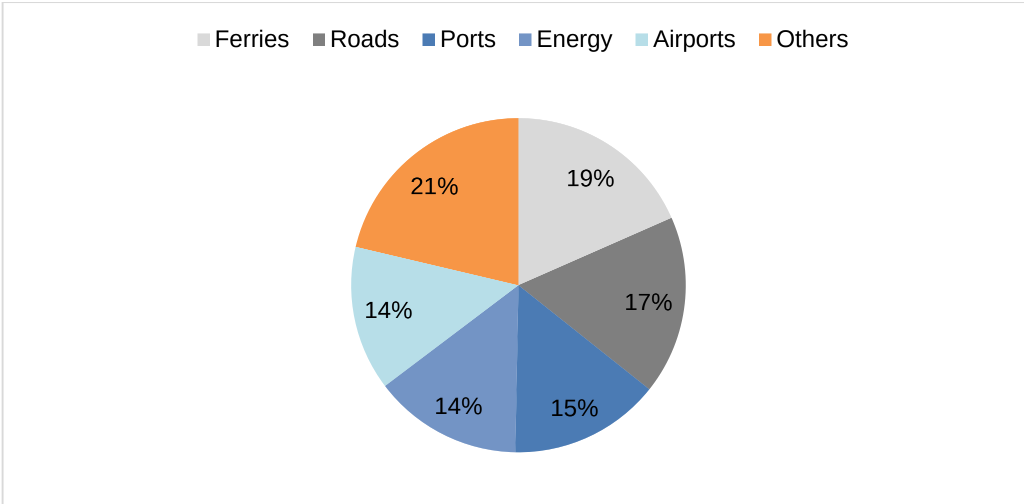
Figure 21: Structure of a typical cash PF-CDO

Source: Moody's Approach to Rating Collateralized Debt Obligations Backed by Project Finance and Infrastructure Assets (October 2013)

82. The earliest PF-CDOs were cash securitization structures in which the SPV purchased loans as collateral for the CDO note issues. Project Funding Corp. I (PFC I), sponsored by Credit Suisse First Boston (investment banking division of Credit Suisse Group, prior to 2006), was one of the earliest such cash PF-CDOs; it closed on March 5, 1998. PFC I issued about $617 million in debt and equity securities collateralized by a portfolio of about 40 loans made primarily to US infrastructure projects.

83. Lusitano Project Finance I Ltd (closed in December 2007) was based on 20 pan-European infrastructure asset exposures with an average outstanding balance of 53.9 million euros belonging to Banco Espirito Santo (BES) (Portuguese bank). The underlying loans were originated by members of the BES Group to borrowers in the project finance markets for infrastructure, energy and construction projects mainly in Portugal, UK and other European jurisdictions. The pool was static as there was no facility in the transaction for purchase of further loans.

Figure 22: Composition of securitized assets (by outstanding loan amount)



Source: Moody's

84. Geographically, UK accounted for 11 loans and 63.3% of principal outstanding, Portugal for 5 loans and 18.2% outstanding; Spain (3 loans, 14.2%) and Hungary (1 loan, 4.3%) made up the rest of the pool.

85. Even though significant losses occurred in 2007 and 2008 on structured credit products with exposures to subprime mortgages or MBSs, the entire CDO, including PF-CDO, business suffered due to falling investor confidence in the CDO structure. New issuance of PF-CDOs plummeted in 2008 as investors fled the CDO market and widening credit spreads ended the opportunity for yield arbitrage. .

86. However, it is widely believed that the CDO structuring process is time-tested and conceptually sound. Globally, project finance loans, leases, and other debt obligations are seen as attractive assets for CDOs because they have higher assumed recovery rates and shorter recovery periods than comparably rated corporate debt obligations. Moody's-rated PF-CDO transactions are a relatively structured finance asset class that invest in a range of project finance assets including, amongst others, PPP/PFI, regulated utilities, renewable energy projects, large infrastructure and power related sectors across UK, Australia, European Union (EU) and North America. Noteworthy PF-CDO structures have retained or witnessed an upgrade in their credit ratings as depicted in the table below.

Table 23: Recent Ratings Assigned to PF-CDOs (Moody's)

PF-CDO	Par amount	Rating pre-2008 crisis	Current rating
Adriana Infrastructure CLO 2008-I BV Underlying portfolio consists of 47 senior secured UK PFI/PPP loans or senior PFI/PPP bonds due 2044. None of the assets in the securitized portfolio are in construction phase.	962 million euros (USD 1.1 trillion) of Class A1 notes & 100,000 British pounds (USD 157,600) of Class A2 notes[22]	Moody's A3 (sf) (October 2008)	Moody's A3 (sf) for Class A2 notes and Moody's Aaa (sf) for Class A1 notes. (October 2013)
Bacchus 2008-2 plc PF CDO backed by a portfolio of 68 UK (68.4%) and Spanish (23.2%) project finance assets due 2038.	404 million euros (USD 467 million) of Class A Notes	Moody's Aa2 (sf) (April 2008)	Moody's Aa1 (sf) (January 2014)

Source: Moody's

b. Predominance of DFIs and Institutional Investors – Australia

87. Infrastructure investment in Australia has been around 4% of GDP over the past four decades, with the share of private investment of the total doubling from 25% in early 2000s, to over 50% in 2014.

88. Private investments in Australia are dominated by institutional investors such as insurance and pension funds, and special-purpose infrastructure funds sponsored by the government and other private sector players. While the majority form of raising debt for private investment in Australia is still in the form of loans (over 75% of total debt investment in infrastructure), as the project bond market has been in a subdued state since the 2008 global financial crisis, a majority of this debt requirement is fulfilled by institutional investors.

89. Australian commercial banks have a low credit exposure of 1-2% to the infrastructure sector. These loans are usually of a medium-term tenor and are re-financed every 3-5

[22] *The lower tranche (Class B Subordinated Notes) has not been rated. .*

years, with the re-financing risk borne by the borrower. Due to the low credit exposure of Australian commercial banks to the infrastructure sector and the elimination of the ALM issue by the disbursement of medium term credit, banks have no pressing need to securitize these loans as a separate pool[23].

90. Institutional investors (such as pension) which lend directly to infrastructure projects, such as infrastructure funds, are able to match the tenor of their assets and liabilities, as both the source of funds and the tenor of infrastructure credit is long term, no asset-backed securitization transactions are originated by these investors.

91. **These factors have led to a virtually non-existent securitisation market for infrastructure loans in Australia**.

c. Govt. spearheaded Infrastructure Financing – China

92. Infrastructure investment in China has averaged 9% of its GDP in the last decade, with an average of over 95% contributed from public expenditure.

93. Since private contribution to infrastructure investment is very low in China, **the credit exposure of Chinese commercial banks to the sector is negligible, leading to no supply of securitized infrastructure loans in the country.**

[23] For securitisation, infrastructure assets could also be combined with other corporate loans for as CDOs. The CDO market in Australia has seen lower traction post the 2008 crisis.

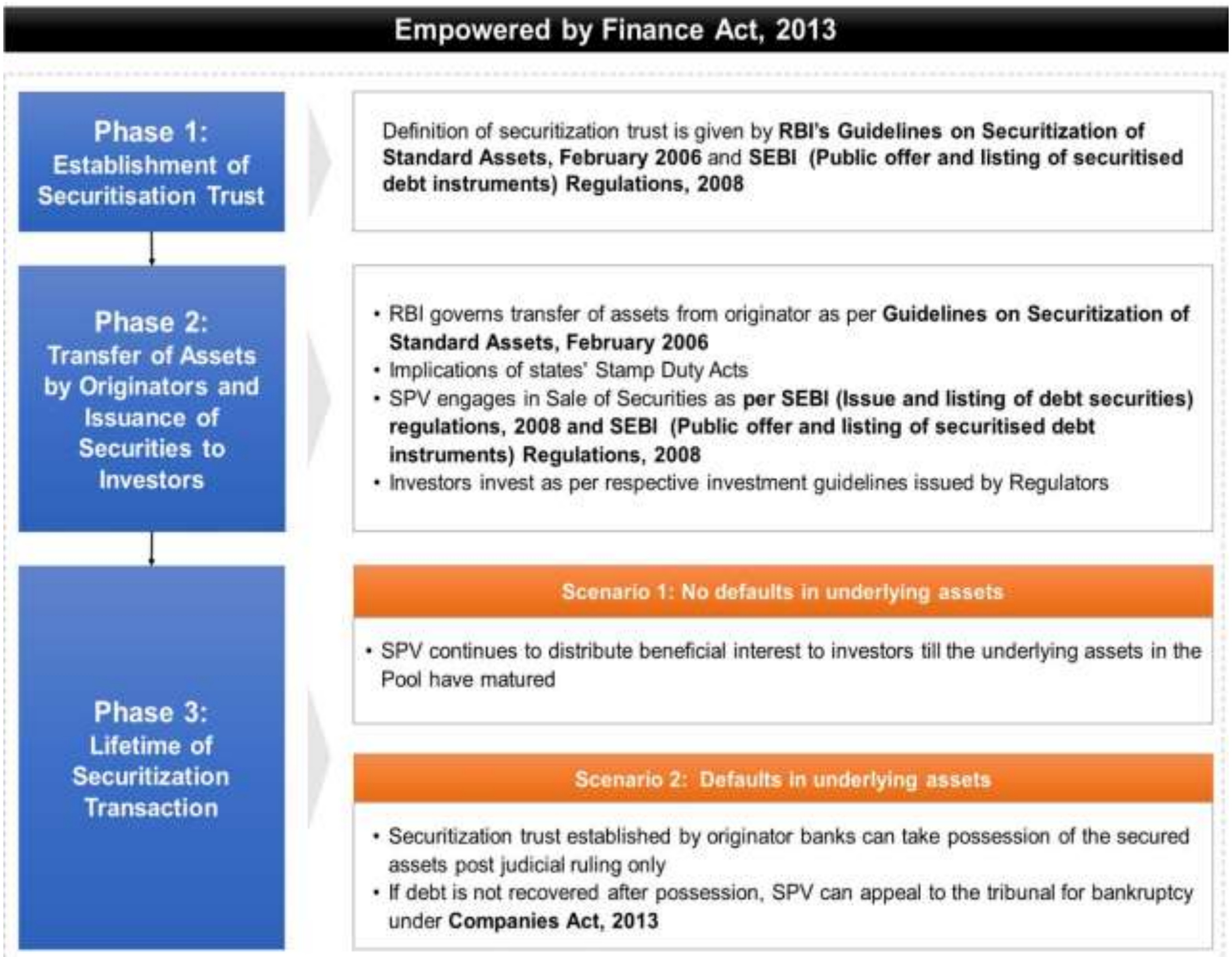
V. Regulatory, legal, taxation and accounting frameworks governing securitization

A. Legal framework

94. The legal framework governing a securitization trust and its transactions is provisioned by the Finance Act in July 2013. The provisions introduced by this act are legally binding for all securitization transactions in India.

95. A step-wise analysis of the relevant legal provisions applicable during the life-time of a securitization transaction is presented below:

Figure 23 Legal Framework for Securitization Transactions in India



a. Phase 1: Establishment of a Securitization Trust

96. As per Finance Act, 2013, a securitization trust is defined by the RBI and SEBI. RBI, governing the registration of securitization companies and the sale of assets by the originator to the company, defines securitization trusts in its Guidelines on Securitization of Standard

Assets issued in February 2006. SEBI, governing the issuance of securitized debt papers, has explained securitization trusts through its Regulation for Public Offer and Listing of Securitized Debt Instruments, 2008.

97. As per RBI, the trust is a special purpose vehicle set up during the process of securitization to which the beneficial interest in the securitized assets are sold/transferred on a without recourse basis. This SPV should be a bankruptcy remote vehicle and is required to meet a set of stipulated criteria listed in annexure 3, in order to be classified as a securitization trust.

98. As per SEBI, the "special purpose distinct entity" means a trust that acquires debt or receivables out of funds mobilized by it by issuing securitized debt instruments through one or more schemes, and includes any trust set up by the National Housing Bank under the National Housing Bank Act, 1987 (53 of 1987) or by the National Bank for Agriculture and Rural Development under the National Bank for Agriculture and Rural Development Act, 1981 (61 of 1981).

99. For acquiring securitized infrastructure assets, a trust should be formed by the originator banks, in order to meet the requirements of both the definitions. This trust can be formed in two ways, which determine how the trust can enforce the secured asset on default of the loan borrower (detailed in Phase 3):

I. As an independent entity under RBI's Securitisation Companies and Reconstruction Companies (Reserve Bank) Guidelines and Directions, 2003 and managed by independent trusteeship companies.

b. As a subsidiary of a securitization company created and registered with RBI under the SARFAESI Act for the specific purpose of securitization. Phase 2: Transfer of Assets by Originators and Issuance of Securities to Investors

i. Transfer of Assets by Originators

<u>Originator Regulations – True Sale at Law</u>

100. The transfer of assets to a securitization trust by originator banks/NBFCs is governed by RBI Guidelines on Securitization (Section A), May 2012. Detailed guidelines are covered under the section Regulatory Framework.

101. The guidelines mandate that for an originator to be able to de-recognize the transferred asset, the transfer must be accounted as a true sale at law, for which the following conditions must be met:

I. Legal isolation – assets are put beyond the reach of the transferor or their creditors, even in the event of a bankruptcy

II. Ability of the transferee to pledge or exchange the transferred assets – for securitized assets, the investors must be able to pledge or exchange the assets (as the trust cannot)

III. Surrender effective control – The transferor, its consolidated affiliates or its agents cannot effectively maintain control over the transferred assets or any rewards/risks arising out of those assets.

102. The experience of previously undertaken RMBS transactions in India reveals that this criteria can be met without substantial difficulties in most securitization transactions.

ii. Issuance of Securities to Investors

Legal Definition of Securitized Debt Instrument

103. Through the insertion of section 115TC in the Income Tax Act, the Finance Act, July 2013 authorized securitized debt instruments to be defined as per Securities and Exchange Board of India (Public Offer and Listing of Securitized Debt Instruments) Regulations, 2008, which, in turn refers to the definition provided in the Securities Contracts (Regulation) Act, 1956.

104. Securitized debt instrument as so defined has to be issued by a special purpose distinct entity to an investor and can possess any debt or receivable, including mortgage debt assigned to the SPV. Further, it should acknowledge beneficial interest of the investor in the debt or receivable.

c. Phase 3: Lifetime of the Securitisation Transaction

i. Scenario – 1: No defaults in underlying assets

105. The securitization trust continues to distribute the income to investors till the maturity of the underlying assets based on the agreements entered into by the trust and the investors.

ii. Scenario – 2: Defaults in underlying assets

106. In the event of a default by the borrower, a securitization trust registered with RBI is empowered by Section 13, SARFAESI Act, 2002, to classify the loan as a non-performing asset and to take possession of the secured assets of the borrower, including the rights to transfer/sell the asset and recover the debt.

107. If the trust is established as an independent entity, it can take possession of the security interest post judicial rulings only.

108. In case a securitization trust is not able to recover the outstanding debt obligation of the borrower through the enforcement of the underlying security, it may appeal to the National Company Law Tribunal to enforce the bankruptcy of the borrowing company under Section 272, Companies Act, 2013.

109. The Tribunal may force compulsory winding up of the borrowing company following the inability to pay off its debts if:

  I. The company has failed pay the sum due within twenty-one days from the receipt of a demand by the creditor.

  II. If any execution issued by any court/tribunal in favour of the creditor has been returned unsatisfied.

  III. If the tribunal is convinced about the inability of the company to pay off its debts, after taking into account any contingent and prospective liabilities of the company.

d. Challenges Imposed by the Legal Framework

i. *Possible Conflicts in Pooling of Assets*

110. Securitization essentially involves pooling of assets. In case of infrastructure assets, loans are primarily negotiated on a case-to-case basis, hence, a standard set of terms and conditions may not exist. Thus, a scrutiny of the lending clauses will have to be conducted to ensure that there is no conflicts between the loan agreements in the pool that could pose challenges in issuing pass-through certificates to the investors.

ii. *Incidence of Stamp Duty*

111. Since securitization transactions involve an assignment of the underlying receivables to the investors, as well as the transfer of the underlying collaterals if any, these transactions are liable for the payment of stamp duty and document registration fees.

112. The rate of stamp duty is a state subject under the federal structure of India, varying from 3% to as high 14%.

113. Securitized loan pools with no underlying immovable assets are only liable to pay stamp duty on assignment of receivables and registration fees, whereas loan pools with underlying real-estate assets such as power projects are liable to pay stamp duty on the assignment of immovable property as well.

114. The incidence of stamp duty for securitized papers is not significant for loan pools with no underlying immovable assets, as five major states have recognized securitization as a separate financial transaction and have thus reduced the stamp duty rates to 0.1% of the book value of the loan, capped at Rs 1 lakh. For loan pools with underlying immovable assets, the value of the asset is usually not more than 10-15% of the loan value, thereby making the stamp duty incidence not a major deterrent for securitization.

B. Regulatory framework

115. An analysis of the regulatory framework for securitization in India was carried out through two perspectives – regulations applicable to originators and those applicable to potential investors. A detailed analysis is provided in Annexure 6.

116. As per RBI guidelines on securitization, originators are allowed to securitize all assets except revolving credit facilities (such as credit card loans), assets purchased from other firms, collateralized debt obligations of asset-backed securities, and loans with bullet repayment of principal and interest.

117. RBI has also mandated minimum holding period and retention requirements for securitized transactions, aimed at better underwriting standards are implemented by banks, as summarized below:

Table 24: Key Regulations for Originators

	Minimum holding period (MHP)	**Minimum retention requirements (MRR)**
Definition	Originators to hold the loans for a given period, before securitizing them.	Originators to continue to have a stake in securitized assets for the entire life of the securitization process.
Objective	To ensure project implementation risk is not passed on to investors; a minimum recovery performance is demonstrated.	To ensure proper due-diligence, and better under-writing standards.
Regulation for Infrastructure Loans	One year	10% of the book value of the loan is to be retained (subject to a maximum of 20%)

Source: RBI

118. While the existing regulatory framework does not prohibit any investor class from investing in securitized papers, institutional investors such as insurance funds and pension funds are **subject to a maximum limit of 10% and 5% respectively** on investments in securitized papers. However, there is no cap on investments in securitized papers by mutual funds, banks, and alternative investment funds.

119. Moreover, it is incumbent on life insurance funds to invest at least 15% (cumulatively) in the housing and infrastructure sectors. Likewise, infrastructure-specific funds such as IDF-MFs, and alternative investment funds Category-1 (sub category – infrastructure funds) have to invest 90% and 75% of their assets respectively in the infrastructure sector.

Table 25: Summary of Key Regulations for Investors

Investor	**Key regulations for lending to the infrastructure sector**	**Key regulations for securitization**
Banks	No specific regulations.	Banks can invest only securitized papers that have satisfied MHP and MRR requirements.
Insurance funds	*Life insurers* – Minimum 15% of total funds to be invested in housing and infrastructure. *General insurers* - Minimum 10% of total funds to be invested in infrastructure alone. Higher sector exposure cap to encourage investment.	*Life insurers* – Capped at 10% of AUM, for ABS and MBS. *General insurers* – Capped at 5% of AUM, for ABS only.
Mutual funds	No specific regulations. Infrastructure debt funds (IDFs) should invest at least 90% of total funds in infrastructure.	No cap on investment in securitized papers.
Pension funds – EPS, NPS	No specific regulations.	Capped at 5% of ABS and MBS.
Alternative investment funds	No specific regulations.	Category I – Only infrastructure funds permitted to invest in securitized papers. Category II & III – No specific regulations.

120. Based on our analysis, the regulatory framework does not create any major impediments to investments in securitized papers of the infrastructure sector.

C. Taxation framework

121. The taxation framework currently applicable for securitization was also analyzed from the perspective of originators, securitization trusts and investors to understand the tax implications on various parties involved in a securitization transaction. [24]

122. A detailed comparison[25] of the tax implications of investing in securitized papers vis-à-vis various other securities revealed that in securitized papers, just like in mutual funds, a distribution tax (at the statutory tax rate) is applicable to income distributed by trusts to investors.

123. Provisions for this distribution tax were inserted by the Finance Act, July 2013. As per Clause 30 of the Finance Act, a new Chapter XII-EA consisting of new sections 115TA, 115TB and 115TC was added in the Income Tax Act with regard to tax on distributed income by securitization trusts.

124. The distribution tax is deducted by the securitization trust prior to the distribution of income, and no deduction in expenses is permitted against this income, leading to a higher tax implication and lower net yield for investments in securitized papers, as evidenced in the example below:

Table 26: Comparison of tax implications on various investors

Investors	**Case 1 – Tax on Interest (Bonds, G-secs)**	**Case 2 – Tax on Distributed Income (Securitized Papers)**
Investment Assumptions	Investment – Rs 100 Mn Yield – 8.5%	Investment – Rs 100 Mn Yield – 10%
Life Insurers	At effective tax rate (1-2%) – Rs 0.085 Mn Net yield – *8.4%*	At statutory tax rate (30%) – Rs 3 Mn Net yield – *7%*
Pension Funds	No tax on interest from securities –Nil Net yield – *8.5%*	At statutory tax rate (30%) – Rs 3 Mn Net yield – *7%*

[24] For detailed analysis, refer Annexure 10.

[25] Refer Annexure – 9.

Mutual Funds (Tax-exempt entities)	No tax on interest from securities –Nil Net yield – *8.5%*	No tax since MFs are tax exempt, no tax Net yield – *10%*
Banks/Corporates	At effective tax rate (4-5%*) – Rs 0.34 Mn Net yield – *8.2%*	At statutory tax rate (30%) – Rs 3 Mn Net yield – *7%*

125. The resulting lower yield of securitized assets due to high taxation has reduced investor participation in securitization significantly, and resolving these issues is critical for the growth of the securitization market.

D. Accounting framework

a. Accounting Principles for Securitization Transactions – Baseline Rules

126. In accounting for transactions in securitization, two baseline rules are set by the accounting standards:

    I. Conditions under which consolidation of financial statements of the special purpose entity (SPE) or trust which holds the assets and the originator is required.

    II. Sale of assets for accounting purposes, leading to de-recognition of the asset from the balance sheet of the originator

127. A diagrammatic representation of the accounting process for securitization, as mandated by Accounting Standards (AS) 21 & 30, is shown below[26]:

[26] For details, refer Annexure – 11.

Figure 24 Accounting Process for Securitization

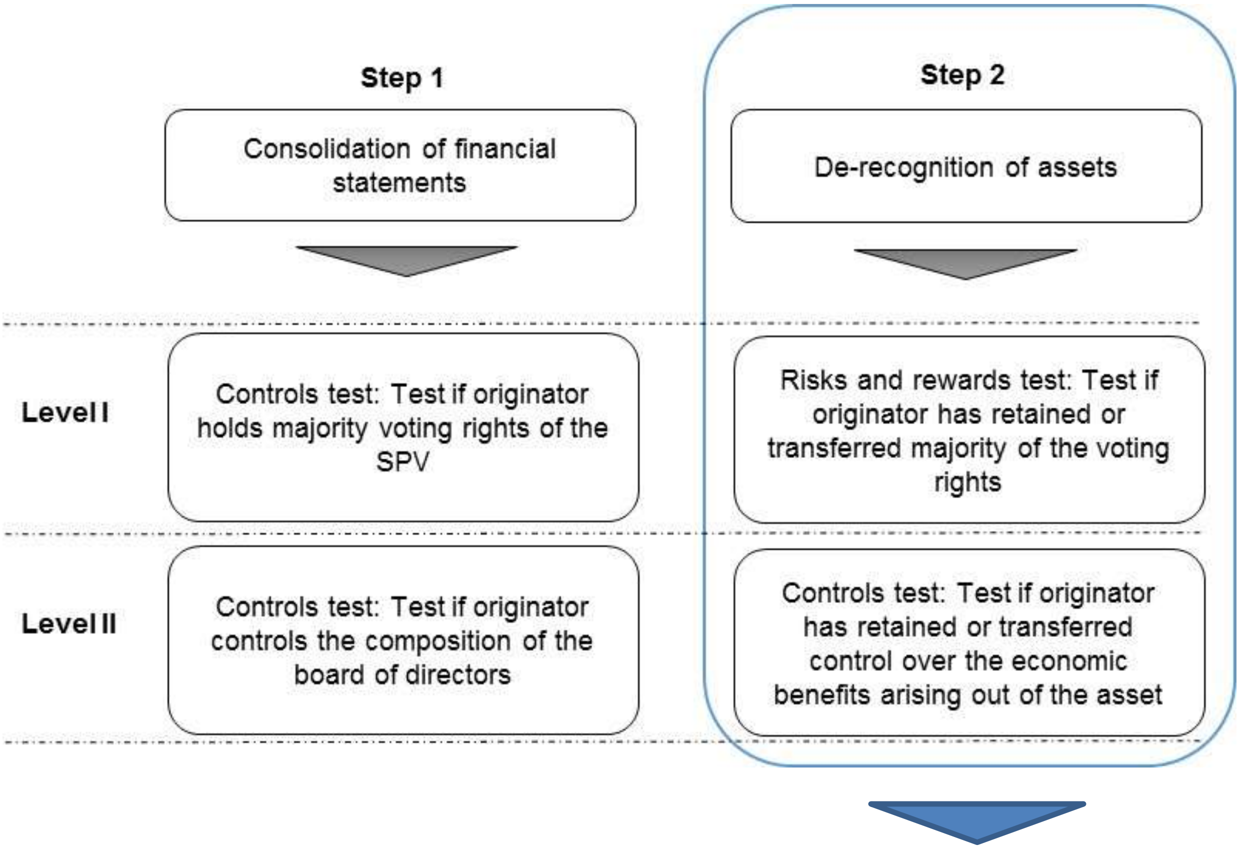
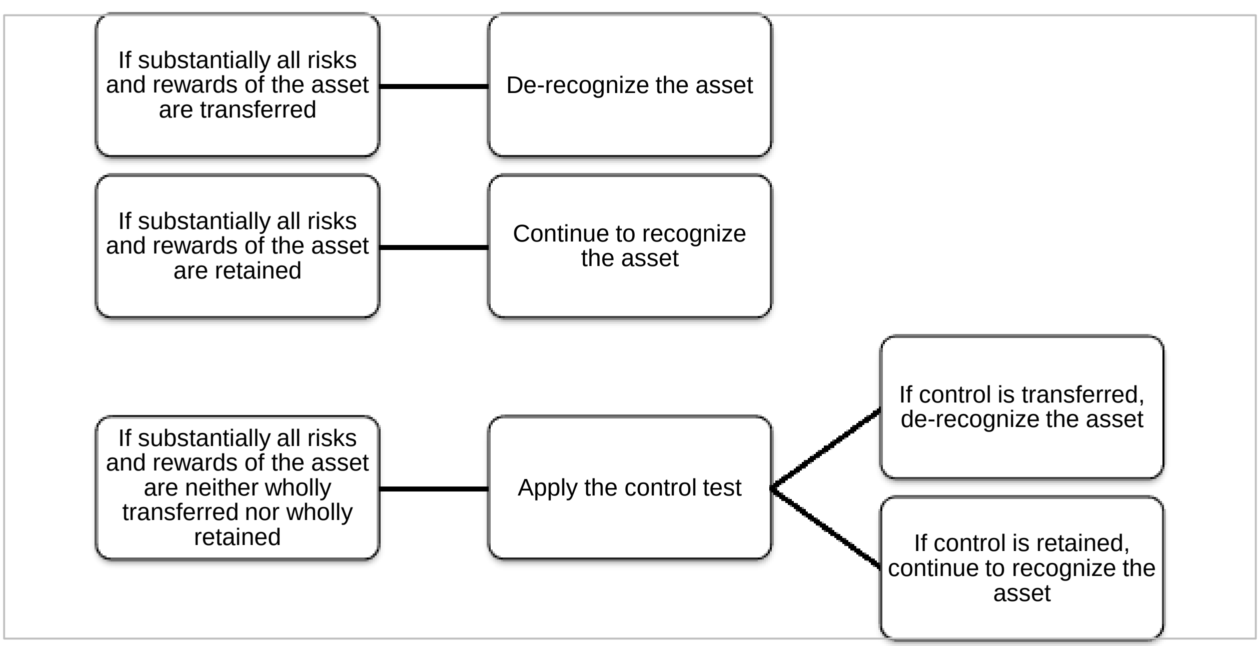


Figure 25 De-recognition Process



b. Accounting for Profit/Loss on Securitization Transaction

128. The profit or loss incurred in the securitization transaction must be accounted for in the profit and loss statement of the originator. RBI guidelines on securitization dictate that the profit received from a securitization transaction cannot be recognized wholly in the year of the transaction, but should be amortized on the basis of a prescribed formula, as given in Annexure – 11.

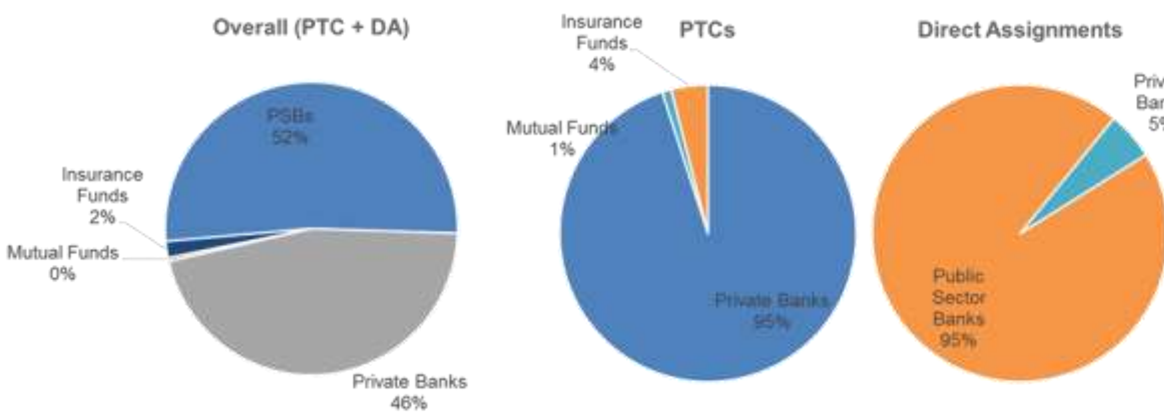
VI. Market assessment

A. As-is assessment of the securitization market

a. Key investors of securitized papers in India

129. Banks are currently the biggest investors in securitized papers. As mentioned in section 5 of this report, banks primarily invest in securitized papers to meet their priority sector lending targets. The category of banks investing in direct assignments and PTCs, however, varies immensely. When combined, PSBs, private and foreign banks contribute to 98% of total investments in the securitization market. Individually, it is seen that PSBs dominate the direct assignment transactions (95% share), while private and foreign banks dominate PTC transactions (95% share). Private Banks invest only in 5% of direct assignment transactions.

Table 27: Investors of securitized papers in India



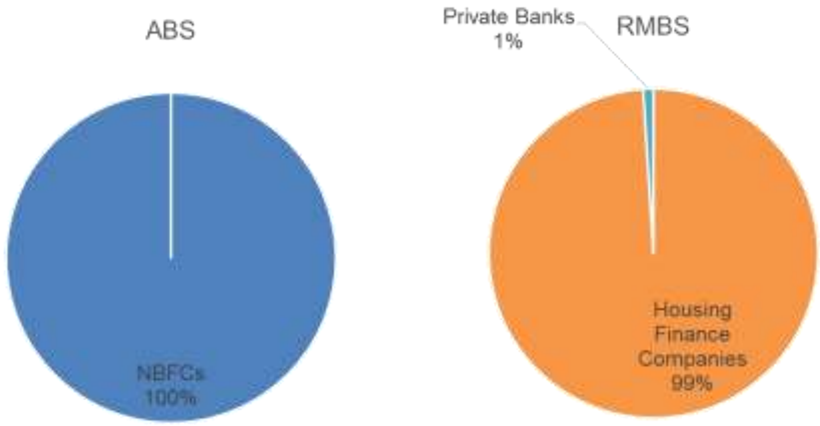
Source: CRISIL Infrastructure Advisory

130. The evident differences in investment preferences of PSBs and private banks can be explained by the varying features of direct assignments and PTC transactions. Direct assignment allows the invested assets to be added to the asset book of banks, which translates into growth in the asset books. By contrast, the PTC route permits invested assets to be showcased as investments, which means no growth in the asset books. However, recent guidelines have made direct assignment transactions less attractive by not allowing any credit enhancement, which explains private banks' preference for the PTC route. Further, insurance companies, mutual funds and pension funds can only participate in PTC based securitisation transactions.

b. Key originators of securitized papers in India

131. Currently, NBFCs originate 100% of ABS transactions, while housing finance companies dominate the RMBS transactions (with negligible participation -- less than 1% -- from private banks).

Figure 26: Current originators of securitized transactions



Source: Market Interactions

Assessment of public sector banks as originators

132. Currently, public sector banks do not originate securitized transactions. However, our interactions have revealed that PSBs endorse the concept of securitization as it can provide them the following benefits:

- Can be used to treat asset-liability mismatch – most PSBs have realized that infrastructure loans, being long tenure assets, do not match with short-term deposits (liability)
- Can free up capital that could be used to lend further loans
- Can solve the capitalization problem to a certain extent
- Impact ROE positively if structured appropriately

133. However, some banks have certain reservations including :

- Not interested in securitizing post COD loans
- Share of NPA would increase further if good assets get securitized

Assessment of NBFCs as originators

134. NBFCs dominate the originator segment in retail securitized transactions. Currently, NBFCs such as SREI transport Finance, and Mahindra Transport Finance securitize 20-30% of their outstanding portfolio.

Assessment of housing finance companies as originators

135. Housing finance companies dominate origination of RMBS transactions. Large housing finance companies such as HDFC and LIC housing currently securitize up to 10% of their outstanding portfolio.

c. Assessment of arrangers

136. Most securitized transactions happening in the Indian market currently are in the retail segment (commercial vehicle loans, residential mortgage-backed loans, etc.) to meet priority sector lending (PSL) requirements; NBFCs are the originators and banks (PSBs, private banks, etc.) the investors. In the current market scenario, the internal teams (of banks / NBFCs) execute the transactions themselves. Many banks have an in-house investment banking arm that is engaged by their PSL team (called the debt-capital market/treasury department/investment banking/arranging arm of the bank) on a need basis.

137. Earlier, when mutual funds were actively investing in securitized instruments (before 2011), arrangers played an important role. They have structuring capabilities but due to lack of market appetite and non-existence of infrastructure loan-backed securitized instruments, they do not have the experience. However, their structuring capabilities can play an important role in securitization transactions when the market improves. Arrangers are of the view that there is limited market appetite for such complex securitized paper.

B. Market potential for infrastructure securitization

a. Assessment of potential supply of securitized papers

138. There is good potential for securitization in the Indian market because of the gaping requirement of capital by the banking sector in view of the guidelines mandated by the upcoming Basel III accord, as mentioned in Section III. D – Implications of Basel III norms on PSBs.

139. In this context, securitization can play a role in allowing banks to meet their capital requirements. Due to its benefits of off-balance sheet financing, which allows banks to free up capital, securitization can free up a portion of the total capital requirement.

140. To free up the a part of the capital gap of Rs 1.9 trillion (USD 30 billion) estimated in Section III.F – Assessment of capital requirements of PSBs, , securitization could be a tool for PSBs

141. . As per CRISIL estimates, PSBs' outstanding asset book is estimated at Rs 88 trillion (USD 1.4 trillion) by 2019-20. The retail and micro, small industry asset portfolio comprises, on average, 29% of PSBs' total loan portfolio. Thus, PSBs are likely to have nearly Rs 26 trillion (USD 406 billion) worth of outstanding retail and micro, small industry assets by 2019-20. Given their history of securitization in the Indian market, these assets are ideal for securitization. However, retail assets are best suited to relieve banks suffering severely from asset-liability mismatches due to excessive exposure to long-term funding. Hence, it may not be optimal for banks to securitize a major portion of their retail assets. Currently, NBFCs engaged in securitization typically securitize up to 20% of their loan books. Hence, if PSBs were to mirror this trend and securitize 20-30% of their retail assets, retail securitization could total Rs 3.3 trillion (USD 52 billion) over the next four years.

142. The remaining potential of Rs 23.5 trillion (USD 368 billion) can be achieved by PSBs assets in the non-retail, corporate sector. Within this sector, the infrastructure sector boasts of the highest recoveries and is, hence, amenable to securitization. Due to low recovery rates, it is difficult to securitize the rest of the corporate portfolio. As mentioned before, India's securitization market is currently at a nascent stage and focused on PSL and the retail sector; infrastructure assets currently do not picture in the market. Hence, over the medium term, relatively safer assets such as infrastructure assets of projects that have achieved COD are expected to fully constitute the securitized pool. These projects are likely to be less risky as they will only have operations risk and not construction risk.

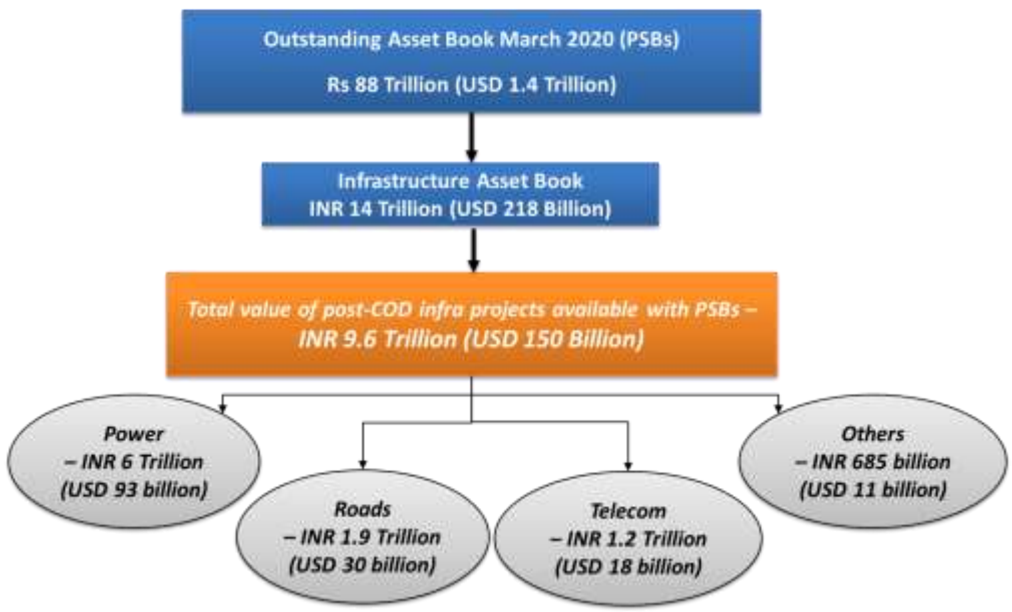
143. To estimate the total value of post-COD projects thus available for securitization, the total incremental credit to the infrastructure sector by PSBs has been estimated for the next 10 years and amounts to Rs 5.4 trillion (USD 85 billion) till 2019-20 (as stated in Section III). Further, an analysis of over 400 infrastructure projects covering all infrastructure sub-sectors revealed that the average construction period for infrastructure projects is four

years. Assuming that the initial securitized portfolio will be dominated by the roads sector, the construction period has been estimated to be 3 years. A probability analysis of the delays in achieving COD revealed the following:

I. Projects completed without delay – 44%
II. Delay of 1 year – 12%
III. Delay of 2 years – 8%
IV. Delay of 3 or more years – 36%

144. Based on these probabilities, the total value of COD projects over the next four years is an estimated Rs 9.6 trillion (USD 150 billion). Hence, a significant portion (close to 40%) of the potential for non-retail securitization can be met through the securitization of post-COD infrastructure assets. Of these assets, as per estimates, about 62%, amounting to Rs 6 trillion (USD 93 billion), belong to the power sector and 19%, amounting to Rs 1.9 trillion (USD 30 billion), belong to the roads and highways sector. Telecom sector contributes to about 12% of post-COD assets, while the remaining 7% consists of assets from ports, aviation and other infrastructure sub-sectors.

Figure 27: Infrastructure Assets available with PSBs for securitisation



Source: CRISIL Infrastructure Advisory Estimates

145. Combined with the potential offered by PSBs' retail asset securitization, the realizable potential for securitization works out to Rs 10.5 trillion (USD 164 billion) by 2019-20.

Table 28: Potential for securitization estimates (based on Scenario 1)

Parameter	Estimate
Total Potential for securitization	Rs 26.8 trillion (USD 418 billion)
Maximum potential for securitization of retail assets	Rs 3.3 trillion (USD 51 billion)
Maximum potential for securitization of non-retail assets	Rs 23.5 trillion (USD 367 billion)
Potential for infrastructure securitization - **Total value of post-COD infra projects available with PSBs** excluding coal based power generation plants	**Rs 7.2 trillion (USD 112 billion)**
Realizable potential for securitization (Retail + Infrastructure)	**Rs 10.5 trillion (USD 164 billion)**

Source: CRISIL Infrastructure Advisory Estimates

146. *However, this potential can be realized only if the existing challenges in the securitization market are resolved.* Even if all the challenges cannot not be addressed immediately, it is recommended that they are addressed, wherever possible, to unlock the potential partially.

147. Further, thermal power based infrastructure assets have witnessed lower recoveries in the recent past, and thus, may not be amenable to securitisation. Of the total bucket of Rs 9.7 trillion (USD 152 billion) post-COD projects available with PSBs, approximately 26%, amounting to Rs 2.5 trillion (USD 40 billion), accounts for coal based power generation assets. **Hence, realistically, only the remaining assets worth Rs 7.2 trillion (USD 112 billion) may actually be securitized.**

b. Assessment of potential demand for securitized papers

148. Investors in securitization include insurance funds, mutual funds, pension funds, structured/hedge funds and private equity funds. As per our interactions, most investors have shown sufficient interest in investing in securitized papers; at the same time, they have emphasized that since infrastructure asset loans have never been securitized in the Indian market before the first few transactions should only have less-riskier, post-commercial operations date (COD) infrastructure projects added to the securitized asset pool.

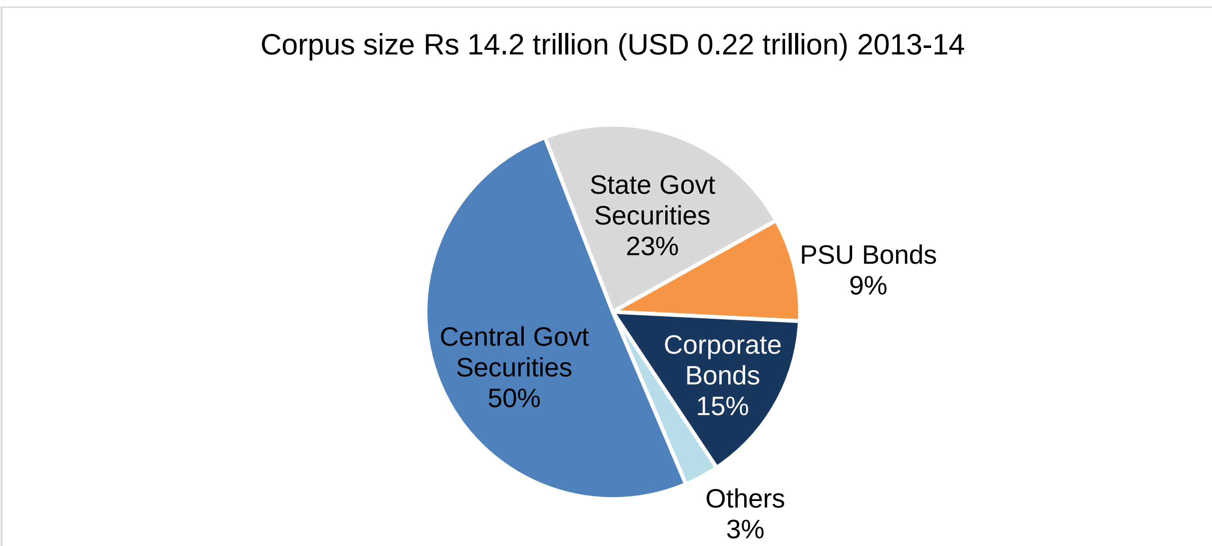
149. A brief analysis of the various investor classes is presented below.

I. ***Insurance funds***

150. There are 52 insurance companies in India, of which 24 are in life insurance and 28 in non-life. Among life insurers, Life Insurance Corporation (LIC) is the sole public sector company. In non-life/general insurance, there are six public sector insurers, including two specialized insurers, Agriculture Insurance Company Ltd for Crop Insurance, and Export Credit Guarantee Corporation of India for Credit Insurance.

151. The total accumulated assets under management of the insurance sector have increased at a compounded annual growth rate (CAGR) of 15% between 2003-04 and 2013-14, with the life insurance segment contributing the majority (over 90% incrementally). The total corpus of funds available with the sector as on March 31, 2014 was Rs 14.2 trillion (USD 222 billion). However, as the insurance sector is essentially risk-averse from an investment perspective, a significant proportion of its AUM has historically been invested in central and state government securities. Although regulations mandate a minimum limit of 50% and 40% for investments in central and state government securities for life and non-life insurance segments respectively, they currently invest up to 70% of their assets under management in these highly liquid and safe instruments at a relatively lower pre-tax yield of 8.25% - 8.7%.

Figure 28: Investment pattern of insurance funds (2013-14)



Source: IRDA Annual Report

152. Within the insurance industry, life insurers companies are ideal investors for infrastructure securitized papers since they hold significant long term corpus of funds, currently amounting to Rs 12.8 trillion (USD 200 billion) . This segment can be targeted as a potential investor in securitized papers if the current taxation structure on such transactions is made more amenable to insurers (the current tax regime for insurers is highlighted in detail in section V.B). Our interactions with key players revealed that public sector insurance funds are less

incentivized to participate in riskier options (infrastructure loans being considered riskier than housing loans) while private sector insurance funds have a relatively more audacious approach in terms of investments.

153. Life insurers' expectations from infrastructure-backed securitized papers include:

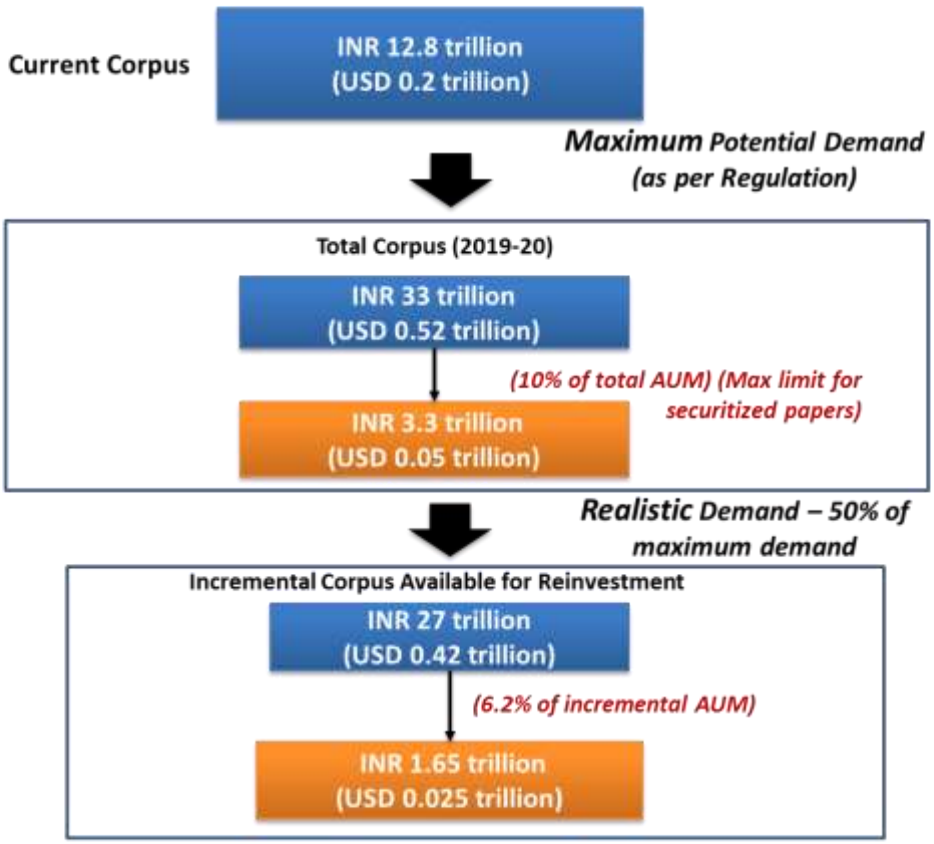
- Securitized pool should consist of post-COD infra loans of PSU banks
- Expected returns on these papers should be 50-75 basis points higher than similar rated non-structured papers
- Minimum AA rated with 10-11 year tenure
- Credit guarantee, which is crucial for meeting credit rating requirements pertaining to investment guidelines for this segment
- Appropriate hedging for stamp duty and floating interest rate issue associated with infra loans

154. As highlighted earlier, although general insurance players, with shorter policy tenures, may not be seen as suitable investors for securitized papers of the infrastructure sector, life insurance players can contribute significantly. As highlighted in regulations listed in Annexure 7(a) life insurance companies have to invest minimum 15% (cumulatively) of total funds in the housing & infrastructure sector, which includes asset-backed securities of these sectors. Of this 15%, LIC, the largest life insurer in India, currently invests 3% in securitized assets of the housing sector; the rest is invested in loans to state governments for housing, bonds/debentures of the national housing board, other housing companies, infrastructure PSUs, corporates and long-term bonds of the infrastructure sector. Infrastructure debt investments account for 5.1% of LIC's total investments.

155. Securitized papers of the infrastructure sector can be another investment avenue for life insurance companies apart from long-term bonds and corporate securities, which currently constitute 2-3% of the total investment bucket. It is also pertinent to note that insurers are not permitted to invest in securities rated below AA and a majority of infrastructure papers are rated BBB or below. Securitized papers of the infrastructure sector are thus attractive to insurers to fulfill their mandatory investment requirements in the infrastructure sector. The life insurance corpus will be an estimated Rs 33 trillion (USD 516 billion) by 2019-20, growing at an industry estimated CAGR of 17% annually. In line with the regulatory requirement, if the maximum limit of 10% for investments in securitized papers is fully diverted towards infrastructure securitized papers, the sector could invest in Rs 3.3 trillion (USD 51 billion) worth of infrastructure backed securities by 2019-20. This may be seen as the maximum off-take for such papers by the life insurance segment.

156. However, realistically, life insurance funds may invest in other securitized papers, such as those of the retail and housing sectors as well. Assuming only 50% of the maximum demand is materialized by 2019-20, **life insurers can potentially invest in Rs 1.65 trillion of infrastructure securitized papers**. This figure amounts to 6.2% of the incremental corpus of the traditional life insurance industry, as depicted in the figure below.

Figure 29: Demand for Infrastructure Securitized Papers - Life Insurance (traditional Funds)



Source: CRISIL Infrastructure Advisory Estimates

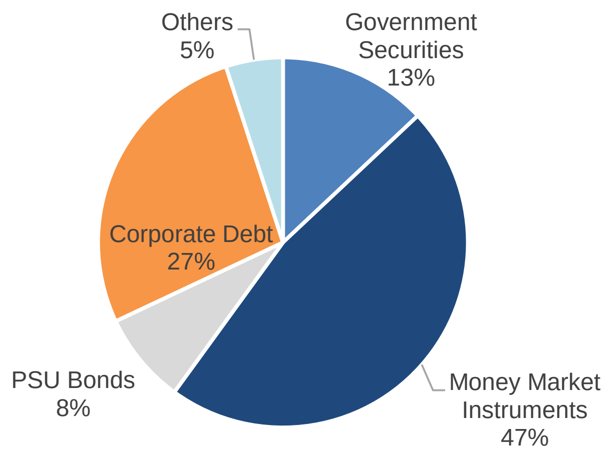
b. Mutual funds

157. The mutual funds investor base in India is amongst the fastest growing in the world. Assets under management for the mutual funds industry recorded a CAGR of 12.05% over FY07–15, amounting to Rs 11.7 trillion (USD 183 billion) in June 2015. With close to a total of 44 fund houses in the country, the top five companies account almost 80 per cent of the sector's assets under management.

158. Though mutual funds invest in a variety of instruments depending upon the type of scheme, approximately 70% of total assets under management, Rs 8.1 trillion (USD 127 billion) fall

under debt oriented schemes. The split-up of investments within various debt schemes as on June 2015 is provided below.

Figure 30: Asset class-wise classification of AUM of debt-oriented MFs



Source: SEBI

159. As seen in the figure, mutual funds invest significantly in corporate debt and were also investors of securitized papers until April 2013 when income tax authorities slapped demand notices on them seeking to recover tax on behalf of securitization trusts in respect of PTCs issued. Although Finance Bill 2013 addressed the issue by introducing a new distribution tax structure at the trust level, past litigations persist in court. As a result, mutual funds remain wary of securitized papers.

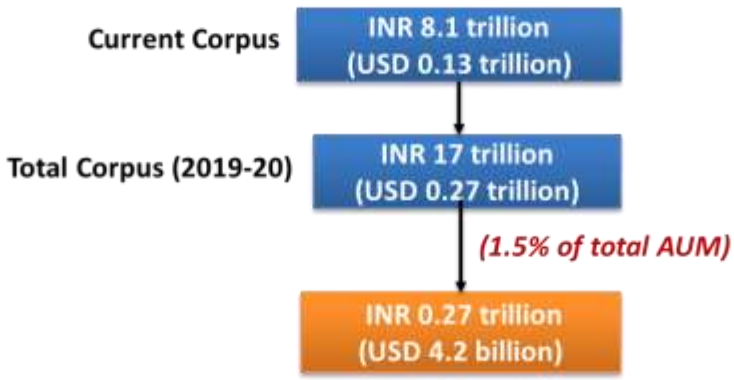
160. Our interaction with premier mutual fund houses revealed that it is critical to resolve pending tax cases to boost the industry's participation in securitized transactions. Other expectations that mutual funds have regarding securitized papers include:

- Post-COD infra loans of PSU banks should constitute the securitized pool
- More papers of 2-3 years tenure, minimum A-rated PTCs
- Returns 50-75 basis points higher than prevalent market rates of 12-13%
- Resolution of issues such as stamp duty and floating interest rates for infrastructure loans to attract mutual funds.

161. Before 2013, debt mutual funds invested 3-4% of their assets under management in securitized papers, of which a majority were either asset backed securities or single loan sell-downs. In 2014, that figure had fallen to 0.02%. Over the next few years, the mutual funds industry's total AUM under debt oriented schemes is expected to grow at 17% CAGR, which will translate into a total debt corpus of Rs 17 trillion (USD 266 billion) in 2019-20 for the industry. **If securitized investments are revived to their earlier levels, and 1.5% of**

total outstanding AUM (3% of incremental AUM) is invested in infrastructure securitized papers, the total demand from mutual funds for such papers would be an estimated Rs 270 billion (USD 4.2 billion) . This estimate is conservative since infrastructure securitized papers are of limited attractiveness to mutual funds, especially open ended schemes since they are relatively less liquid and are bound to have a long tenure.

Figure 31: Demand for Infrastructure Securitized Papers – Mutual Funds (Debt Schemes)



Source: CRISIL Infrastructure Advisory Estimates

I. ***Pension/Provident funds***

162. The current retirement funds in India comprise the Employees' Provident Fund Organization (EPFO), the National Pension System (NPS), private pension funds and the public provident fund. Among them, EPFO has the largest share (over 45% in 2013). The total corpus under EPFO has grown at 16% CAGR historically in the last decade, and is currently Rs 5.8 trillion (USD 90 billion).

163. EPFO's investment corpus was managed by RBI till 1995; thereafter, State Bank of India solely managed EPFO corpus from 1995 to 2008. To introduce competition in fund management and have better return on Investment, EPFO appointed multiple portfolio managers in 2008. Currently, four portfolio managers manage the funds independently for the EPFO in accordance with the investment pattern specified by the Ministry of Labour & Employment and the guidelines issued by the Central Board of Trustees, EPFO from time to time. The following table gives the details of the allocation of funds and the yield generated in 2013-14 by these portfolio managers.

Table 29: Potential for securitization estimates (based on Scenario 1)

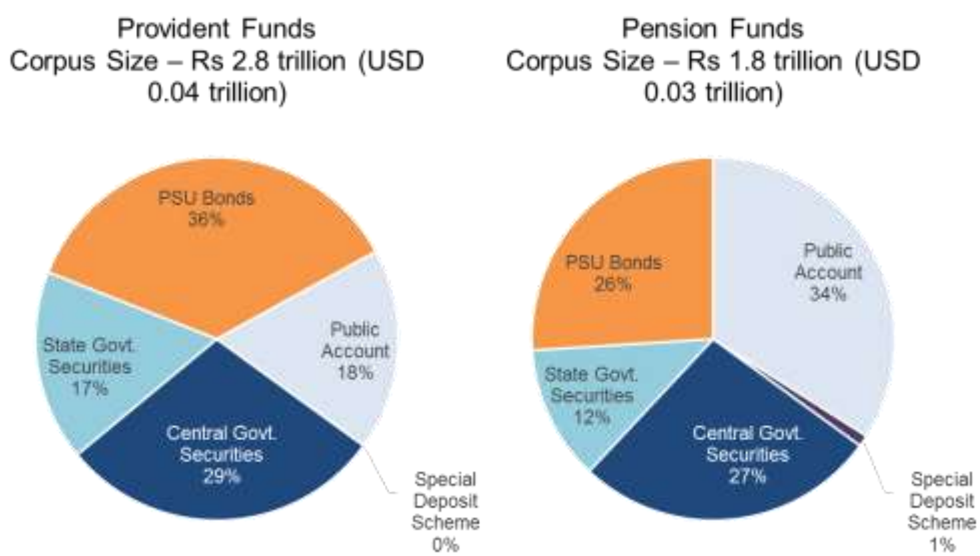
Fund manager	Fund allocation (%)	Benchmark/Yield (%) (2013-14)

State Bank of India	35%	8.82%/9.25%
ICICI Securities Primary Dealership Ltd	25%	8.82%/9.19%
HSBC Asset Management Ltd	20%	8.82%/9.22%
Reliance Capital Asset Management Ltd	20%	8.82%/9.24%

Source: EPFO Annual Reports

164. As of 2014, EPFO's assets under management are primarily invested (currently 44% of total investments) in government and government guaranteed securities; another 31% is invested in public sector financial institutions and their bonds; the remaining 24% is invested in the public account and special deposit scheme with RBI and other banks. Hence, current investment patterns directly reflect the mandated requirements as listed in Annexure 6(d), translating into risk-averse investments for EPFO's sizeable corpus.

Figure 32: Investment pattern of pension and provident funds (EPFO) (2013-14)

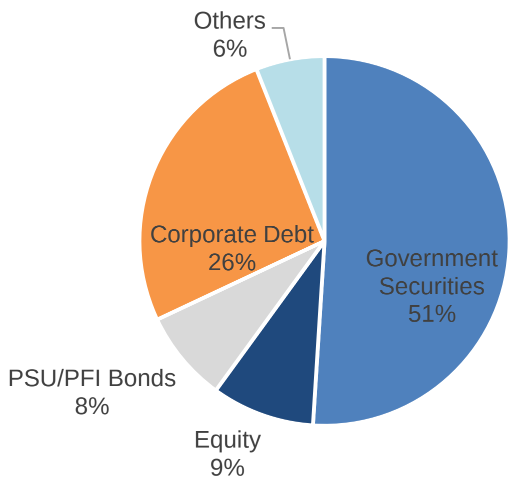


Source: EPFO/PFRDA; Public Account includes RBI/Banks

165. The NPS is a defined-contribution-based pension system launched by the Government of India/PFRDA with effect from January 1, 2004. The total corpus size under NPS is estimated to be around Rs 481 billion (USD 7.5 billion) currently. The Central government/Central autonomous entities account for 50% of the total assets, and the state government/ state autonomous entities for 42%; the remaining 8% is contributed by subscribers enrolled through their corporate employers and individual subscribers from the unorganized sector.

166. Since April 1, 2008, the pension contributions of those covered by the NPS are being invested by eight professional pension fund managers in line with investment guidelines applicable to non-government provident funds set by PFRDA. Although investment guidelines issued by PFRDA, listed in Annexure 7(c), are fairly liberal, allowing for investment in debt securities, only 26% of current assets are invested in private corporate debt. The majority (51%) is invested in government securities, in line with the risk-averse nature of India's pension/provident industry as a whole.

Figure 33: Asset class-wise classification of AUM of NPS schemes



Source: PFRDA Annual Reports

167. Like EPFO & NPS, other pension funds also invest predominantly in safe and risk-free instruments, especially government securities.

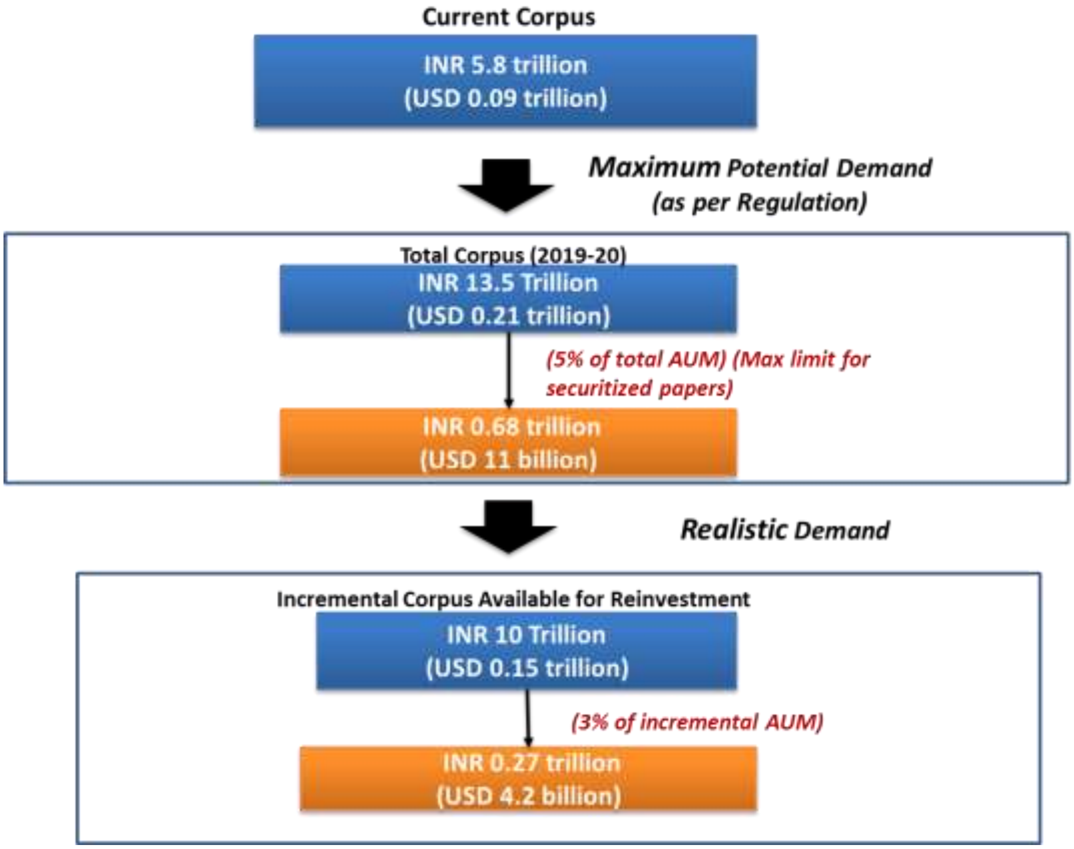
168. Our interactions with pension funds revealed that, like the insurance industry, pension funds also need tax-related reforms to comfortably invest in securitized papers. Further, with a history of predominant investments in safe and easy-to-understand instruments, they require securitized papers to offer returns that are 50-75 basis points higher than similar rated non-structured papers. Even then, it is likely that pension funds will limit their investments to AAA-rated papers with a tenure of 10-11 years.

169. As mentioned in Annexure 7(c), up to 5% of EPFO's corpus can be invested in asset backed securities, units of real estate, or infrastructure investment trusts. Similarly, 5% of assets under management of NPS can be invested in securitized assets under asset class C. As per industry reports, the total corpus size of the pension system in India is expected to grow at 15% CAGR annually over the next 10 years; it will be an estimated Rs 13.5 trillion (USD 210 billion) by 2019-20. **Assuming these funds divert their maximum limit of 5% in infrastructure securitized papers, the maximum demand for such papers from the**

pension and provident industry amounts to Rs 680 billion (USD 11 billion) by 2019-20.

170. However, realistically, since PFs don't have any experience of investments in the securitisation market, investments are expected to rise gradually, **assuming a 3% of incremental AUM investment in infra securitized papers, the realistic demand estimated from this sector is estimated at Rs 270 billion (USD 4.2 billion).**

Figure 34: Demand for Infrastructure Securitized Papers – Pension Funds

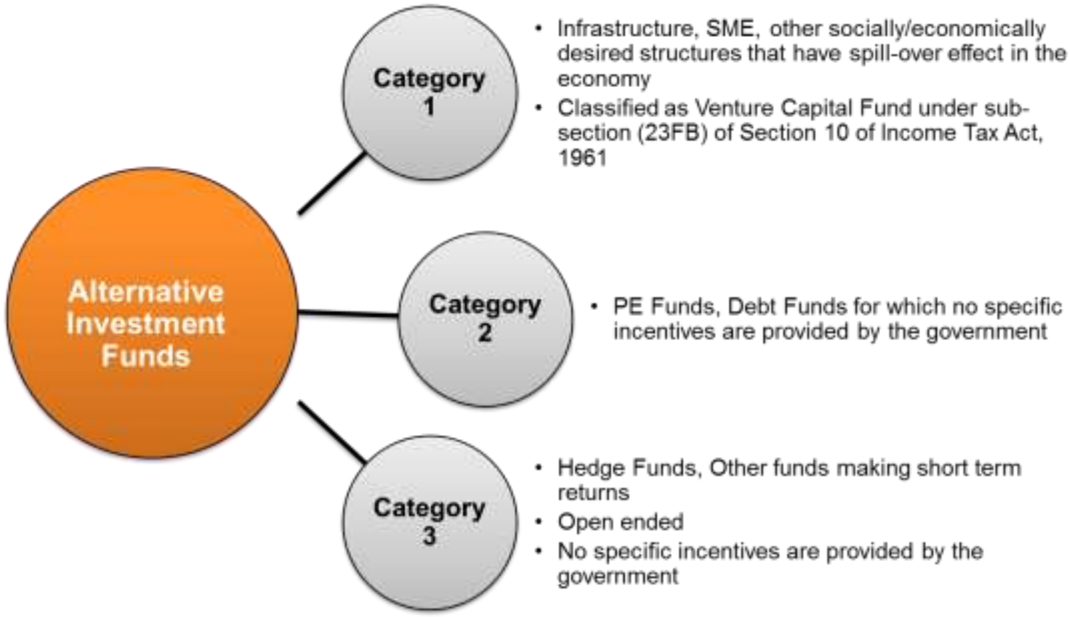


Source: CRISIL Infrastructure Advisory Estimates

I. Alternative Investment Funds (AIFs)

171. An AIF is a fund established or incorporated in India for the purpose of pooling capital from Indian and foreign investors for investing as per a pre-decided policy. It is capable of channeling funds from FIIs, government and private domestic investors, and is defined under 3 categories by SEBI. The investment guidelines for AIFs are provided in Annexure 6(e).

Figure 35: Alternative investment funds



Source: SEBI

172. The upcoming **National Infrastructure Investment fund**, announced by the Government in the Union Budget for 2015-16 for enhancing infrastructure financing could also be a potential investor in securitized papers of infrastructure, given its development objective. This fund is envisaged to have a Govt. contribution of up to Rs 200 billion (USD 3.1 billion) annually. Going forward, this fund is expected to form a vital part of the government's stated plans to increase public spending in infrastructure.

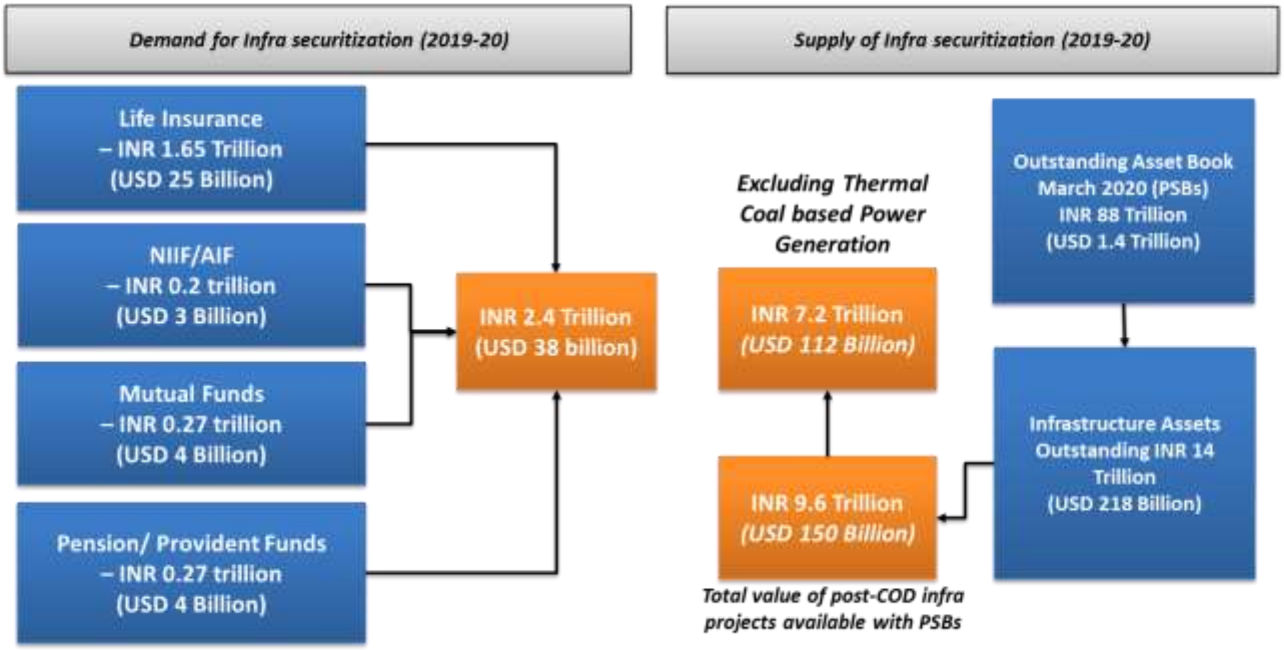
173. Speculatively, applying a multiple of 2.5x leverage for Govt. contribution in the NIIF, the outstanding corpus for this fund could amount to approximately Rs 2 trillion (USD 31.3 billion) by 2019-20. **Even if 10% of this amount is invested in infrastructure securitized papers, the demand for such instruments would amount to Rs 200 billion (USD 3.1 billion) by 2019-20.**

c. Summary of potential supply and demand for securitized papers of the infrastructure sector

174. Supply – As estimated in Section 4, the supply of assets available for infrastructure securitization will be around Rs 9.6 trillion (USD 150 billion) by 2019-20. Of this demand, since the thermal power sector has witnessed lower recoveries in the past, realistically, only Rs 7.2 trillion (USD 112 billion) worth of infrastructure assets are available for securitization.

175. Demand – As established in the preceding section, the cumulative demand for such papers will be around Rs 2.4 trillion (USD 38 billion) by 2019-20.

Table 30: Summary of Potential Demand and Supply of Infra Securitized papers (2019-20)



Source: CRISIL Infrastructure Advisory Estimates

VII. Recommendations

A. Resolution of taxation issues

176. The tax on distributed income from the securitization trust remains a hindrance for investors such as insurers and pension fund managers. Unresolved litigations on mutual funds have also steered them away from the market. ***Hence, it is critical to resolve pending litigations against these mutual funds to ensure their return to the market as an important investor class.***

177. The current tax regime for securitization trusts vitiates the long prevailing principle underlying Indian tax policy under which non-corporate entities such as trusts have been subjected to only a single point economic taxation of their income. Since the trust receives income flows from the underlying asset and uses that income to service the instruments issued by it, it does not earn any income nor does it make any profits and should, thus, not be liable to pay tax. However, the incidence of a distribution tax on the income distributed by the trusts has resulted in complexities and fear of double taxation amongst investors. This uncertainty is a major stumbling block in the development of securitization.

178. The ideal method of taxation to boost the securitization market would be to grant complete pass-through status to the securitization trust. ***A pass-through status allows the fund to pass on the tax liability to the end-investor, thus directly taxing the investor and not the fund***. This would ensure that there is no double taxation and tax is collected from investors as per the rates applicable to them. Such a pass-through has been granted to Category-1 alternative investments funds in India.

179. Another mechanism that could be deployed to align investor interests is allow investors to claim the tax cut prior to distribution by the trust based on their effective tax rate, similar to the TDS mechanism.

B. Promoting securitization through regulations

180. As seen in Section VI.B.(b), large investors such as insurance funds and pension funds invest heavily in government and government supported securities, in excess of the minimum limits mandated by prevalent regulations.

Table 31: Investments in government securities

Investor class	Share of G-secs (state and Central) in total investment	Minimum required as per regulations
Insurance funds	Over 70%	30-50%

Investor class	Share of G-secs (state and Central) in total investment	Minimum required as per regulations
Pension / Provident fund	61% (*includes government guaranteed securities)*	45%
Mutual funds	22%	No minimum requirement

Source: CRISIL Infrastructure Analysis

181. This, coupled with the risk-averse nature of fund managers holding onto large corpuses, has resulted in limited appetite for complex securities that are likely to offer higher returns while also enabling the development of the corporate bond market in India. A typical insurance policy[27] offers 5-7% returns, while the annual inflation rate[28] itself is 7.3%, thus real returns[29] provided by such policies are negative.

182. ***It is recommended that caps be provided via regulations for investments in government and government supported securities so that investors are encouraged to diversify their investments and boost the corporate bond market.***

[27] *Returns of Life Insurance Endowment Policy in the last 20 years*

[28] *Compounded annual CPI rate for last 20 years*

[29] *Adjusted for Inflation*

VIII. Annexures

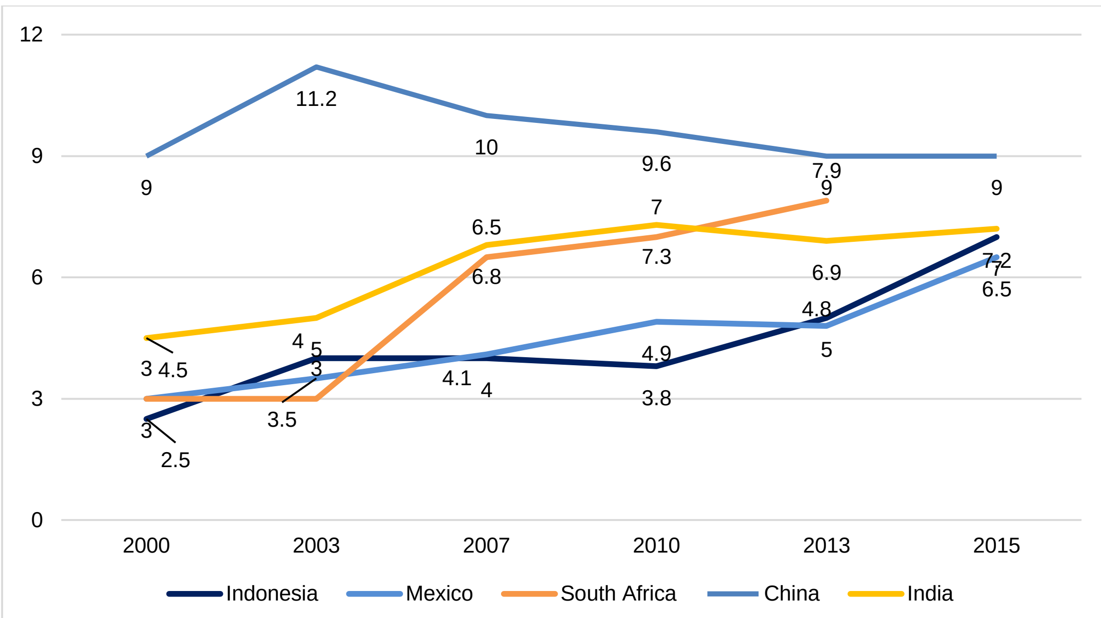
A. Annexure – 1: Assumptions for infrastructure investment forecasts

183. ***<u>Projections for infrastructure investment demand in the future</u>***

I. As mentioned in Section II-A, it is probable that the overall investment in infrastructure for the Twelfth Five Year Plan will fall short of the Planning Commission estimates of ~9% of GDP by 2016-17.

II. Considering the positive steps taken by the new government, we have assumed that the investments in infrastructure will grow in steps to average around 8.01% of GDP in the 10 years between 2015-16 and 2024-25. This estimate is in line with the trends observed in other emerging economies such as Indonesia, South Africa, China and Mexico. As seen in the following figure, forecasted investments for developing countries are in the range of 7-8% in the short term.

Figure 36: Investment in infrastructure (% of GDP) for emerging economies



Source: Various

III. In emerging economies such as South Africa and Indonesia, private sector contribution to the infrastructure sector has escalated from 20-30% in the previous decade to over 50% currently. Private investment in infrastructure in South Africa is currently over 60%, while Indonesia is poised to witness a 70% share of private investments in 2015.

IV. A similar trend has been witnessed in developed countries such as Canada, Australia, USA and Britain, where public sector investment in infrastructure has gradually declined. Also, the role of governments in infrastructure provision has generally shifted in the recent decades, with governments reducing their role in economic management that was previously conducted through their ownership of infrastructure. Currently, private infrastructure investment in the USA is five times the total non-defense government investment, while in the UK, it contributes to over 80% of the total infrastructure investments.

V. Hence, it is expected that a similar trend of rising private sector investments in infrastructure will be observed in the Indian economy. Originally, the Twelfth Five Year Plan had envisaged a private sector share of 48% in total infrastructure investments. Given the increasing focus of the new government to involve the private sector in infrastructure investments combined with a revamp of PPP models, it is envisaged that private sector contribution will grow to 50% by 2017-18 from 37% in the Eleventh Five Year Plan period, further growing to a maximum of 55% by 2024-25.

VI. The remaining share in infrastructure investments has been assumed to be undertaken by public sector undertakings. Total debt requirements of this sector have been estimated by removing the extent of budgetary support in the form of grants. Budgetary support has declined over the past 5 years from 6.7% of GDP in 2008-09 to 5.0% in 2013-14. Out of the total budgetary support, close to 50% is allocated to the infrastructure sector. The share has significantly increased to 64% in the planned outlays for the Union Budget 2015-16. With the increased focus of the government on the infrastructure sector, this share is expected to further increase to 66% by 2017-18, post which, it is expected to gradually decline to its earlier average of 54% over the next 10 years.

VII. Considering the long-term nature of these investments, it is estimated that they will be funded by long-term debt – assumed at current levels of 70%[30] of overall investments.

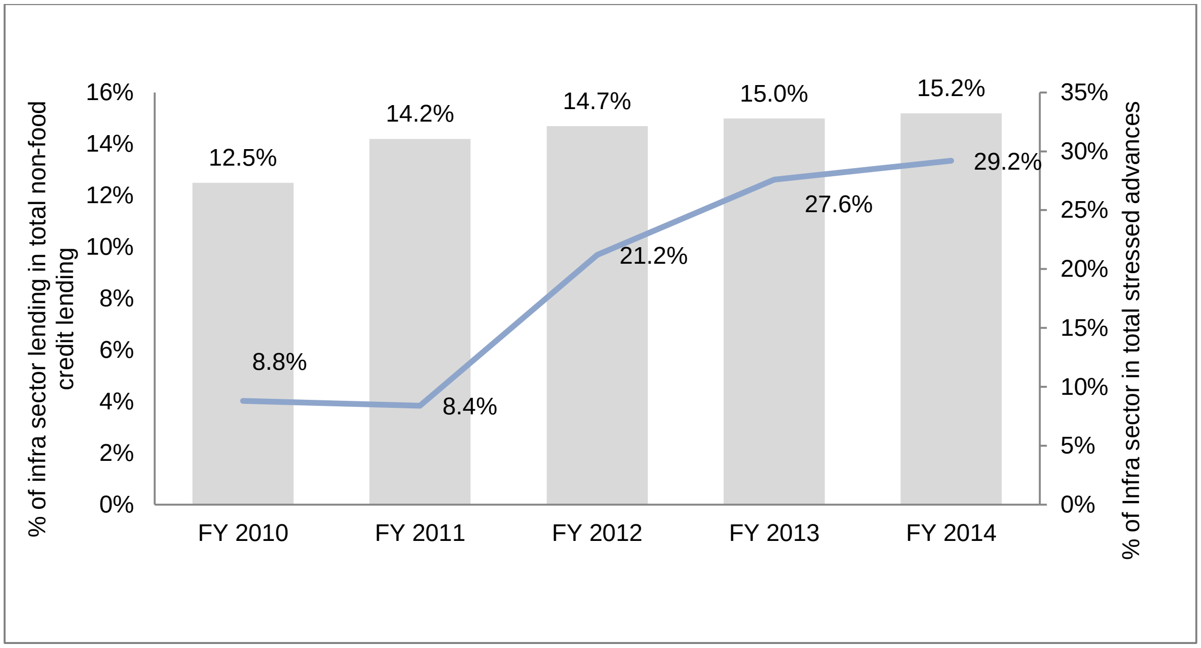
184. ***<u>Projections for debt supply by banks</u>***

I. Historically, financing the infrastructure sector has been the stronghold of commercial banks. Infrastructure contributes to almost 15% of the total non-food credit extended by the banking sector in India. Though in value terms, the amount of lending to infrastructure has seen a two-fold increase since FY 2010 (USD 63

[30] *Arrived at after Prowess analysis of outstanding liabilities of entities in the infrastructure sector*

billion in FY 2010 to USD 140 billion in FY 2014), in percentage terms the lending to infrastructure has remained stagnant. Also, rise in NPAs[31] has exerted tremendous pressure on the banking sector's overall profitability.

Figure 37: Lending to infrastructure sector – SCBs



Source: Financial Stability Report, RBI

II. Further, the growth rate of bank credit has also slowed down significantly in the recent past, falling to an 18-year low of 12.60% in 2014-15. Going forward, industry experts and bankers have pegged this credit growth rate at 14-16% in 2015-16, on account of expected pick-up in infrastructure activity, higher working capital needs and growth in the retail segment.

III. In context of this scenario, debt supply by banks has been estimated assuming a credit growth rate of 15% till 2019-20. With a 15% exposure towards the infrastructure sector, **debt supply by banks will amount to merely Rs 6,627 billion till 2019-20.**

185. ***Projection for debt supply by PSBs***

I. PSBs constitute over 75% of the total credit in the banking system. However, going forward, PSBs are expected to report credit growth rates of 8-12% annually over the next 4-5 years in context of the rising NPAs and reduced profitability.

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[31] *An asset is considered as "non-performing" if interest on installments of principal remains 90 days overdue.*

II. Currently, PSBs are over-exposed to the infrastructure sector, with 17% of total outstanding credit tied up in infrastructure projects. It is expected that PSBs will gradually reduce their exposure to the industry standard of 15-16% for each sector. Based on these assumptions, **PSBs are expected to provide close to Rs 4,813 billion to the infrastructure sector till 2019-20**. This translates to approximately 72% of the total funds expected from the banking sector to infrastructure.

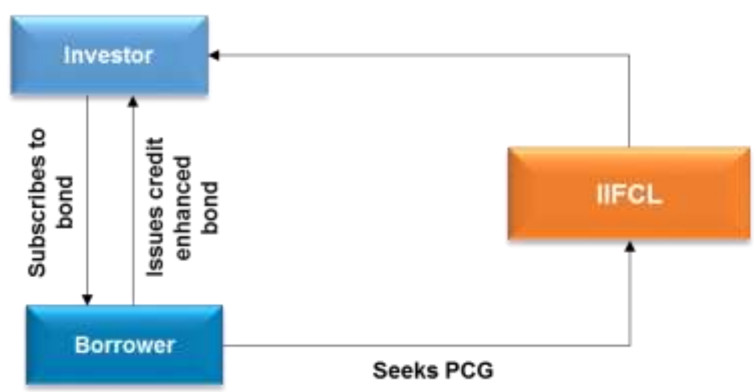
B. Annexure – 2: Existing schemes for infrastructure financing

a. Partial credit guarantee (PCG) scheme – India Infrastructure Finance Company Limited (IIFCL)

186. Under the PCG scheme, IIFCL, supported by ADB, provides partial credit guarantees to enhance the ratings of project bond issuances by developers, to enable channelization of long-term funds from the bond market towards the infrastructure sector. By virtue of the AAA credit rating that IIFCL enjoys, the rating of the bonds can be enhanced to a maximum of AA+ (as it is a partial credit guarantee) – a refinancing mechanism. Only commissioned projects operating for at least 6 months post COD are eligible under this scheme, through bond issuances to refinance existing debt. The features of the PCG scheme include the following:

I. First loss guarantee
II. Irrevocable and unconditional guarantee
III. Rolling cover with guarantee quantum usable at any time over the bond tenure
IV. No automatic reset
V. Automatic repayment of utilized guarantee from subsequent guarantee

Figure 38: IIFCL PCG structure



187. The scheme, launched in 2012, did not witness substantial traction in the first 1-2 years of operations. GMR Jadcherla Expressways and L&T Vadodara Bharuch Tollway each cancelled plans to sell bonds in 2013 due to mismatches in price expectations between issuers and investors, as well as changing market conditions. However, the scheme has recently received market interest from various Indian infrastructure developers that are turning to the local bond market to cut funding costs.

188. For instance, the private sector wind-power firm ReNew Power Ventures plans to issue a 10-year bond worth Rs 4 billion with a yield of 10.25% through its wholly owned subsidiary Renew Wind Energy (Jath), guaranteed by IIFCL. The credit enhancement covers 35% of the obligations. On a standalone basis, the subsidiary has a local rating of BBB-; however, with the partial guarantee, the ratings of the bonds have been upgraded to AA.

189. Various other deals are in the pipeline for the PCG scheme.

b. Infrastructure debt funds (IDFs)

190. IDFs essentially act as a vehicle for refinancing existing debt (or as a takeout financing scheme) of infrastructure projects that have attained commercial operations, thereby creating headroom for banks to lend to fresh infrastructure projects and allowing developers to refinance such projects at a relatively lower cost.

191. IDFs can be set up either as a trust, i.e., as a mutual fund, or as a company, i.e., as an NBFC.

Table 32: Key features of IDFs

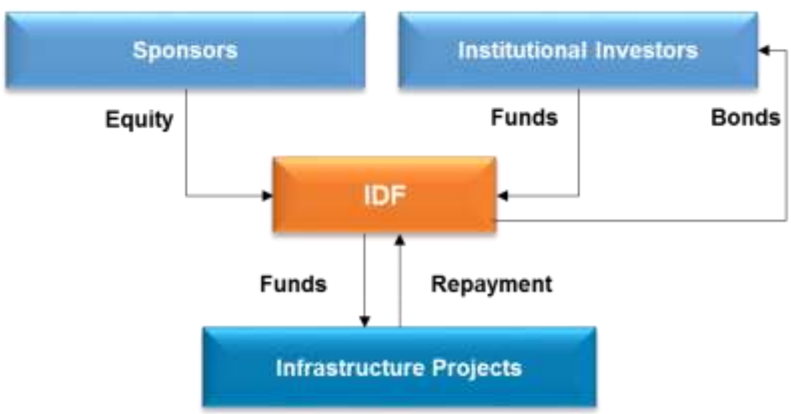
Parameter	**NBFC**	**Mutual fund**
Structure	Funded with equity and debt, raise money through bonds	Issue periodic capital calls and return capital at maturity
Capital	Equity contribution – 30-49%; rest debt	100% equity financed through the issuance of rupee-denominated units
Capital requirements	Capital to risk-weighted assets ratio of 15%; infrastructure assets risk weight 50% (lesser than banks)	No leverage, so no capital requirements
Eligible assets	• PPPs with tripartite agreements and at least 1 year of operations • PPPs/non-PPPs without a project authority, in sectors where there is no project authority	• Infrastructure at any lifecycle stage • 90% infrastructure debt instruments • 10% money market instruments and infrastructure equity and subordinated debt

Parameter	NBFC	Mutual fund
Minimum credit rating of investments	Domestic BBB–	30% limit on unrated or rated below domestic BBB– (50% with approval of the asset management company's trustees and board)
Regulator	Reserve Bank of India	Securities and Exchange Board of India
Sponsors	Banks and infrastructure finance companies	Mutual funds or companies in the infrastructure finance sector
Maximum loan takeout	85% of the project cost under the concession agreement	No limit

Source: ADB, RBI

192. IDF-NBFCs commenced operations in 2013, and target to take over loans for projects created through the PPP route under a tripartite agreement between the IDF, concessionaire and project authority.

Figure 39: IDF structure



Source: ADB, RBI

193. IDF-NBFCs are required to maintain a CAR of 15%, and hence, can leverage themselves several times the equity base. Further, the income generated by IDFs is tax-free, thus providing cost savings.

194. Two IDF-NBFCs are operational:

I. India Infradebt Ltd. formed by ICICI Bank, Bank of Baroda, Citicorp Finance (India) Ltd. and Life Insurance Corporation of India. The entity has undertaken its first sanction to Himalayan Expressway Limited.

II. L&T Infra Debt Fund formed by L&T Infra Finance and other companies in the L&T group

195. While India Infradebt has raised Rs 300 crore in the market, L&T Infra Debt has raised Rs 850 crore. Further, L&T Infra Debt approved debt assistance of Rs 176 in 2013-14.

196. A critical challenge that has prevented IDFs from gaining momentum is that banks today are not willing to sell off their existing assets that have been commissioned, since these are usually performing assets with a lower perceived risk. Typically, guarantees from concessioning authorities do not cover cost overruns. Under the tripartite agreement for IDFs, banks would transfer to NBFCs only guaranteed exposure, which would significantly increase their proportional losses in the event of a default. The tripartite agreement also stipulates compulsory buyout by the authority in the event of default by the concessionaire.

197. In order to expand the scope of projects that can be financed under the IDF-NBFC route, RBI, through its circular dated April 2015, has permitted funding of projects in the PPP segment without a tripartite agreement as well as to the non-PPP segment, as long as they have completed 1 year of operations. Thus, IDFs are expected to gain traction in the market in the coming years.

198. Three IDFs have been set up through the mutual fund route by IL&FS (~Rs 1,380 crore AUM), IIFCL (~Rs 300 crore AUM) and SREI. The investment guidelines of these IDFs mention that at least 90% of the AUM should be invested in infrastructure companies or infrastructure projects/SPVs or bank loans in terms of completed and revenue generating projects or public finance institutions or infrastructure finance companies.

199. Today, while mutual funds are technically allowed to invest till investment grade (BBB), there are hardly any investments below AA. Therefore, the appetite of these funds for investment in the infrastructure sector is questionable.

c. Credit enhancement by banks

200. On May 20, 2014, RBI issued a draft circular allowing banks to provide partial credit enhancements to bonds issued for funding infrastructure projects by companies/SPVs. This draft circular is open for public comments. Brief particulars of the scheme are as follow:

I. Mechanism of providing credit enhancement to the bonds issued by infrastructure projects/SPVs is to separate the debt of the project company into senior and subordinate tranches

II. Banks will provide subordinate debt either in the form of a loan or a contingent facility.

III. Partial credit enhancement shall be limited to the extent of improving the credit rating of bonds by maximum of 2 notches or 20% of the entire bond issue, whichever is lower.

201. RBI has invited comments from market stakeholders. Our internal understanding, supplemented by external interactions, is that the scheme in the current form will find it difficult to get much traction due to the following reasons:

I. Most infrastructure projects are rated below A. The credit enhancement restrictions imposed in this scheme currently would not be enough to credit enhance the bond issuance to AA.

II. In light of the recent initiatives to make long-term financing more attractive – both on liabilities side (through issuance of long term bonds) and assets side (flexibility in structuring), it remains to be seen if banks would cater to credit enhancement which has not been a traditional focus.

III. A prohibitory capital requirement and risk weight has been imposed.

202. There is undoubtedly intent by the government and the regulators to develop the bond market, especially for the infrastructure sector. However, the viability of the afore-mentioned schemes is yet to be established.

d. Take-out finance scheme – IIFCL

203. Under IIFCL's take-out finance scheme, banks lend to infrastructure projects, but sell a fixed percentage of that loan to IIFCL after a certain period. This enables banks to reduce their asset-liability mismatch and exposure to the infrastructure sector, in turn, enabling banks to lend more to the sector.

204. As per the scheme, which came into effect in April 2010, IIFCL will take over up to full amount of an individual bank's loan or 50% of the residual project cost on to its own books. The loan can be repaid over 15 years. Projects that have a residual debt tenor of at least 6 years or are yet to achieve financial closure are eligible for the scheme. The project developer, IIFCL and the lender will enter into a tripartite agreement, which would include the rate of interest on the take-out amount. IIFCL can take over the loan after 1 year from the commencement of operations.

205. The initial take-out scheme, however, did not find many takers in the market. Banks had expressed concerns regarding the interest rate and the pricing mechanism of the scheme. As a result, key changes in the scheme were made in 2011, wherein IIFCL introduced a

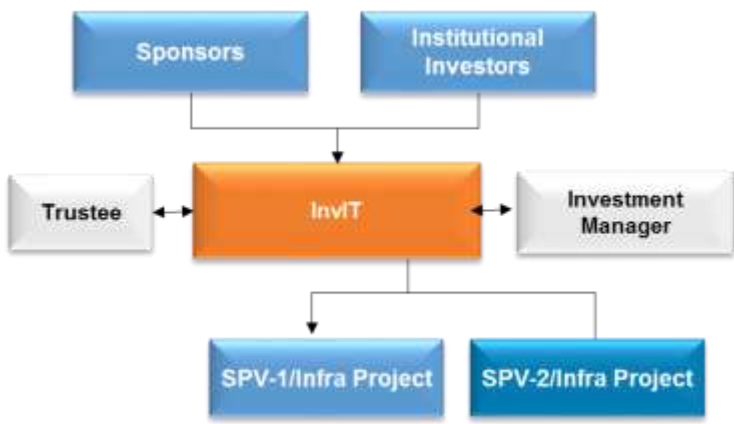
risk-based transparent and non-discretionary pricing mechanism for pricing of the taken-out loans linked to IIFCL's base rate and risk premium. Under the modified scheme, the pricing mechanism of the take-out finance is solely based on the credit rating of the infrastructure project and is disclosed upfront. Further, the interest rate, linked to the benchmark lending rate of IIFCL, is in the range of 9.90% to 11.15%, which is at a significant discount to market lending rates.

206. IIFCL has till end-March 2014 sanctioned about Rs 6,384 crore (32 projects) and disbursed Rs 3,819 crore under the take-out finance scheme.

e. Infrastructure Investment Trusts (InvITs)

207. The Securities and Exchange Board of India (SEBI) issued final regulations for InvITs in September 2014. InvITs can invest in infrastructure funds either directly or through an SPV. They have been proposed on similar lines to real estate investment trusts (REIT).

Figure 40: InvIT structure



208. Highlights of the proposed framework:

I. The sponsor/s will be responsible for setting up the InvIT and appointing a trustee. The number of sponsors is limited to 3. The sponsors should have a net worth of at least Rs 100 crore and are required to hold minimum required percentage of total investments of InvIT.

II. The trustee, registered with SEBI, shall hold the InvIT's assets in the name of InvIT for the benefit of all holders.

III. The investment manager, responsible for making the investment decisions, should have a total net worth of Rs 10 crore and minimum 5 years' experience in fund management.

IV. InvITs can invest in PPP projects that have received all requisite approvals or non-PPP projects that have either achieved COD or achieved completion of at least 50% construction as certified by an independent engineer.

V. However, the cumulative projects size for all investments should be greater than or equal to Rs 500 crore, while the initial offer size of InvIT has to be at least Rs 250 crore.

VI. Listing is mandatory for InvITs, and while listing, the collective holding of sponsors of an InvIT has to be at least 25% for at least 3 years.

209. Globally, investment trusts for the infrastructure sector exist in countries such as Hong Kong and Singapore. However, the lack of tax incentives is seen as a key reason behind their limited popularity. As a result, the Union Budget 2015-16 rationalized capital gain tax regime for InvITs and REITs. The budget proposed a specific taxation regime for providing the way the income in the hands of such trusts is to be taxed and the taxability of the income distributed by these business trusts.

210. When traded on a recognized stock exchange, listed units of a trust would attract same levy of securities transaction tax, and would be given the same tax benefits in respect of taxability of capital gains as equity shares of a company; i.e., long-term capital gains would be exempt and short-term capital gains would be taxable at the rate of 15%. Further, there will be no taxation of interest income earned by the trust.

f. Infrastructure bonds (RBI)

211. Guidelines for issuing infrastructure bonds, with a minimum maturity of 7 years, were announced for banks by RBI, to raise resources for lending to the infrastructure and affordable housing sector in July 2014. As per the guidelines, the bonds are unsecured, redeemable and rank pari-passu with other unsecured liabilities of the banks.

212. Though banks have been allowed to raise bonds for the infrastructure sector since RBI's release of guidelines on 'Issue of Long-term Bonds by Banks' in 2004, the issuance of long-term bonds for infrastructure has not picked up at all, largely due to application of reserve requirements. The current guidelines on infrastructure bonds, however, exempt infrastructure bonds from SLR and CRR requirements, and also from PSL requirements. This is seen as a major benefit for banks. Previously, if banks raised funds by issuing bonds, a large part of the funding would get immobilized in the form of SLR and CRR requirements, and a still larger part would have to be invested in weaker or low-yielding credit because of PSL requirements. Therefore, banks have to earn a substantially higher net interest margin, i.e., the difference between their lending rate and the cost of borrowing, to break even and meet the cost of overheads. With the reserve requirements as well as PSL requirements

waived off, the proceeds of the bonds can be directly invested in infrastructure or affordable housing.

213. Infrastructure bonds have gained significant traction in the market, especially in the case of large private sector banks. Axis Bank, ICICI Bank and Kotak Mahindra Bank have collectively raised over Rs 8,000 crore for the infrastructure sector through these long-term bonds.

C. Annexure – 3: Criteria to be met by Securitisation SPV – RBI Guidelines on Securitisation of Standard Assets

214. SPV is a special purpose vehicle set up during the process of securitisation to which the beneficial interest in the securitized assets are sold / transferred on a without recourse basis. The SPV may be a partnership firm, a trust or a company. Any reference to SPV in these guidelines would also refer to the trust settled or declared by the SPV as a part of the process of securitisation.

215. The SPV should meet the following criteria to enable the originator to treat the assets transferred by it to the SPV as a true sale and apply the prudential guidelines on capital adequacy and other aspects with regard to the securitisation exposures assumed by it.

- Any transaction between the originator and the SPV should be strictly on arm's length basis. Further, it should be ensured that any transaction with the SPV should not intentionally provide for absorbing any future losses.
- The SPV and the trustee should not resemble in name or imply any connection or relationship with the originator of the assets in its title or name.
- The SPV should be entirely independent of the originator. The originator should not have any ownership, proprietary or beneficial interest in the SPV. The originator should not hold any share capital in the SPV.
- The originator shall have only one representative, without veto power, on the board of the SPV provided the board has at least four members and independent directors are in majority.
- The originator shall not exercise control, directly or indirectly, over the SPV and the trustees, and shall not settle the trust deed.
- The SPV should be bankruptcy remote and non-discretionary.
- The trust deed should lay down, in detail, the functions to be performed by the trustee, their rights and obligations as well as the rights and obligations of the investors in relation to the securitised assets. The Trust Deed should not provide for any discretion to the trustee as to the manner of disposal and management or application of the trust property. In order to protect their interests, investors should be empowered in the trust deed to change the trustee at any point of time.
- The trustee should only perform trusteeship functions in relation to the SPV and should not undertake any other business with the SPV.

- The originator shall not support the losses of the SPV except under the facilities explicitly permitted under these guidelines and shall also not be liable to meet the recurring expenses of the SPV.

- The securities issued by the SPV shall compulsorily be rated by a rating agency registered with SEBI and such rating at any time shall not be more than 6 months old. The credit rating should be publicly available. For the purpose of rating and subsequent updation, the SPV should supply the necessary information to the rating agency in a timely manner. Commonality and conflict of interest, if any, between the SPV and the rating agency should also be disclosed.

- The SPV should inform the investors in the securities issued by it that these securities are not insured and that they do not represent deposit liabilities of the originator, servicer or trustees.

- A copy of the trust deed and the accounts and statement of affairs of the SPV should be made available to the RBI, if required to do so

D. Annexure – 4: 5:25 Flexible structuring scheme

a. Overview of the 5:25 Scheme

216. RBI's 5:25 scheme allows banks to extend long-term loans of 20-25 years to match the cash flow of infrastructure projects, while refinancing them every 5 or 7 years. Until now, banks were typically not lending beyond 10-12 years. As a result, cash flows of infrastructure firms were stretched as they tried to meet shorter repayment schedules. With this scheme, cash flows will tend to better match the repayment schedules and enhance the viability of long-term infrastructure projects.

217. Under this scheme, the bank offering the Initial Debt Facility may sanction the loan for a medium term, of about 5 to 7 years. This Debt Facility will cover the initial construction period at least up to commencement of commercial operations (CoD) and revenue ramp up. The repayment(s) at the end of this period, equaling in present value the remaining residual payments corresponding to the Original Amortization Schedule, could be structured as a bullet repayment, with the intent specified up front that it will be refinanced.

218. That repayment may be taken up either by the same lender, a set of new lenders, combination of both or through the issuance of corporate bonds. This refinancing may repeat till the end of the amortization schedule. Further, banks may determine the pricing of the loans at each stage of sanction of the Initial Debt Facility or Refinancing Debt Facility as per the risk perceived by them at each phase of the loan.

b. Applicability

219. Term loans to projects in the infrastructure sector and core industries (viz., coal, crude oil, natural gas, petroleum refinery products, fertilizers, steel (Alloy + Non Alloy), cement and electricity) are eligible for this scheme.

220. New projects or projects which have achieved CoD are eligible under the scheme. Loans already extended, however, should be 'standard' in the books of the existing banks, and should have not been restructured in the past. Further, they should be taken over for more than 50 percent of the outstanding loan by value from the existing lender.

c. Benefits

221. The 5:25 scheme impacts both lenders and borrowers of the infrastructure sector. Key benefits offered by this scheme are listed subsequently.

222. Relief from restructuring for lenders – Through this scheme, banks can set forth fresh loan amortization schedules for existing projects without such exercise being treated as restructuring. This is a significant advantage for banks, as restructured assets are classified as bad debt, requiring higher provisioning.

223. Long-term lending without adverse ALM issues – As the project loan would be refinanced at the end of every 5 years and banks would be allowed to consider the bullet repayment at the end of every 5 years as a part of their ALM, the banks would be able to extend finance to long gestation infrastructure projects and core industries without getting adversely impacted by ALM issues.

224. Improved exposure management for lenders – The scheme allows Banks to take up or shed their exposures at different stages of the life cycle of the project depending on bank's single/group borrower or sectoral exposure limits.

225. Possibility of revival for restructured assets and NPAs - The flexible financing scheme is also applicable to infrastructure and core industries projects which have been restructured or classified as NPAs, hence, enhancing the prospects of their revival. However, this will be considered as 'restructuring' and these accounts would continue to remain classified as NPAs.

226. For the borrower, the spread out repayment schedule would lead to enhancement of the credit profile. An improved credit profile can in turn allow the borrower to access the bond market for funds.

227. The 5:25 scheme has indeed provided some relief to lenders and borrowers alike, although, its overall impact to the banking system is yet to be tested. So far, SBI pipeline for debt restructuring under 5:25 scheme is expected to be around Rs 65 billion. Other PSBs have also participated in the scheme, Punjab National Bank having restructured loans worth Rs 26 billion, while Union Bank and Bank of Baroda having restructured loans worth Rs 64 billion Rs 40-50 billion respectively. However, a large majority of the companies that are seeking refinancing under the scheme are from the steel and power sectors.

E. Annexure – 5: Notification on Basel III by RBI

228. Risk-weighted securitization exposures

I. Banks shall calculate the risk weighted amount of an on-balance sheet securitization exposure by multiplying the principal amount (after deduction of specific provisions) of the exposures by the applicable risk weight.

II. The risk-weighted asset amount of a securitization exposure is computed by multiplying the amount of the exposure by the appropriate risk weight determined in accordance with issue specific rating assigned to those exposures by the chosen external credit rating agencies as indicated in the following tables:

Table 10: Securitization exposures – Risk weight mapping to long-term ratings

Domestic rating agencies	AAA	AA	A	BBB	BB	B or below or unrated
Risk weight for banks other than originators (%)	20	30	50	100	350	Deduction
Risk weight for originators (%)	20	30	50	100	Deduction	

III. Under the Basel II requirements, there should be transfer of a significant credit risk associated with the securitized exposures to the third parties for recognition of risk transfer. In view of this, the total exposure of banks to the loans securitized in the following forms should not exceed 20% of the total securitized instruments issued:

- Investments in equity / subordinate / senior tranches of securities issued by the SPV including through underwriting commitments
- Credit enhancements including cash and other forms of collaterals including over-collateralization, but excluding the credit enhancing interest only strip
- Liquidity support

IV. If a bank exceeds the above limit, the excess amount would be risk weighted at 1111 per cent[32]. Credit exposure on account of interest rate swaps/ currency swaps entered into with the SPV will be excluded from the limit of 20 per cent as this would not be within the control of the bank.

[32] As per Basel III, the maximum risk weight for securitization exposures, consistent with minimum 8 per cent capital requirement, is 1250 per cent. Since in India minimum capital requirement is 9 per cent, the risk weight has been capped at 1111 per cent (100/9) so as to ensure that capital charge does not exceed the exposure value.

F. Annexure – 6: Detailed analysis of regulatory framework

229. An overview of the regulations studied under this exercise is provided in the table below:

Table 33: Regulatory framework overview

Participant	Regulatory Authority	Regulations/Guidelines
Originators		
Banks/NBFCs	Reserve Bank of India (RBI)	Guidelines on Securitization Transactions – Section A on May 7, 2012, pursuant to paragraph 107 of the Monetary Policy Statement 2012 – 13
Investors		
Banks	Reserve Bank of India (RBI)	Master Circular - Cash Reserve Ratio (CRR) and Statutory Liquidity Ratio (SLR), 2014
Insurance Funds	Insurance Regulatory Development Authority (IRDA)	Insurance Regulatory and Development (Investment) (Fifth Amendment) Regulations, 2013 (Part III – Section 4)
Mutual Funds	Securities and Exchange Board of India (SEBI)	SEBI (Mutual Funds) Regulation, 1996
Pension Funds	**Private Pension Funds -** Insurance Regulatory Development Authority (IRDA) **Employee Provident Fund –** Employee Provident Fund Organization (EPFO) **National Pension System** - Pension Funds Regulatory and	**Private Pension Funds -** Insurance Regulatory and Development (Investment) (Fifth Amendment) Regulations, 2013 (Part III – Section 4) **Employee Provident Fund** - Ministry of Labour & Employment **National Pension System** - Pension Funds Regulatory and Development Authority (PFRDA)

Participant	Regulatory Authority	Regulations/Guidelines
	Development Authority (PFRDA)	
Alternative Investment Funds (VC funds, PE funds, Infrastructure Funds, etc.)	Securities and Exchange Board of India (SEBI)	SEBI (Alternative Investment Funds) Regulation, 2012
Infrastructure Debt Funds	**IDF (NBFC)** – Reserve Bank of India (RBI) **IDF (MF)** – Securities and Exchange Board of India (SEBI)	**IDF (NBFC)** – Infrastructure Debt Fund-Non-Banking Financial Companies (Reserve Bank) Directions, 2011 **IDF (MF)** – SEBI (Mutual Funds) Regulation, 1996

Originator Regulations

230. The highlights of the regulations are provided below[33]:

a. The following instruments are not permitted to be securitized by any originator:

   i. Revolving credit facilities (e.g. Credit card loans)

   ii. Assets purchased from other firms

   iii. Resecuritization (e.g. Collateralized debt obligations of asset-backed securities)

   iv. Loans with bullet repayment of principle and interest

b. In order to protect the interest of the investors of securitized assets, RBI has mandated that all assets need to be held for a stipulated period of time, known as the Minimum Holding Period (MHP), depending on the tenor and repayment frequency of the loan. This ensures that the project implementation risk is not passed on to the investors and better underwriting standards are in place once minimum recovery performance is demonstrated by the asset.

[33] For detailed regulation, please refer https://www.rbi.org.in/scripts/NotificationUser.aspx?Mode=0&Id=7184

Table 34: Minimum holding period guidelines

Minimum Holding Period				
	Minimum number of instalments to be paid before securitization			
	Repayment frequency - Weekly	**Repayment frequency - Fortnightly**	**Repayment frequency - Monthly**	**Repayment frequency - Quarterly**
Loans with original maturity up to 2 years	Twelve	Six	Three	Two
Loans with original maturity of more than 2 years and up to 5 years	Eighteen	Nine	Six	Three
Loans with original maturity of more than 5 years	-	-	Twelve	Four

c. Since infrastructure loans are long-term loans, having a maturity period of greater than five years, RBI guidelines mandate that originators need to hold the loans for at least *one year* before securitizing these assets.

d. RBI has also designed the Minimum Retention Requirement (MRR) to ensure that originating banks carry out proper due diligence of the loans to be securitized by mandating that all originators hold a continuing stake in the performance of securitized assets. This stake is maintained by holding a portion of the securities issued by the SPE.

e. These retention requirements are set on the basis of the tenor of the loan. Infrastructure loans fall under the greater than 24 months maturity, and the amount to be invested in the securities and the type of security depend on the presence of credit enhancement or credit tranching in the securitized assets. In essence, an originator is mandated to retain 10% of the book value of any infrastructure loan, by investing in securities of the SPE.

Table 35: Minimum retention requirements for infrastructure loans

Loan Feature	Portion of SPE Securities to be held by the Originator
No credit tranching; No credit enhancement	10% of the book value of the loan

Loan Feature	Portion of SPE Securities to be held by the Originator
Credit enhancement only	If the credit enhancement provided is less than 10% of the book value of the loan, the difference needs to be invested in the SPE
Credit tranching only	5% of the book value of the loan to be invested in equity tranche and the balance (i.e., 10% - investment in equity tranche) to be invested in other tranches on a pari-passu basis
Credit enhancement and credit tranching	If credit enhancement equal to or greater than 10% of the book value of the loan - No further investment needed. If enhancement is greater than 5%, but less than 10% - the balance in securities on the SPE on a pari-passu basis. If enhancement is less than 5%, then investment in equity tranche to the extent of the difference (i.e., 5% - Credit enhancement value) and remaining up to 10% of the book value in other tranches of the SPE

Source: RBI

f. However, originators are not permitted to invest more than 20% of the book value of loans securitized in the SPE. If the exposure of the bank exceeds 20%, the investment will have the maximum risk weight allotted as per Basel III norms. This exposure limit includes any credit enhancements or liquidity supports provided by the originator.

g. The implication of an originator not meeting these guidelines, particularly the Minimum Holding Period and Minimum Retention Requirements are two-fold:

   i. The securitized assets will be treated as if they were not securitized and originators will have to hold adequate capital against these assets, based on risk weights assigned by RBI.

   ii. These assets cannot be invested in by other banks or NBFCs, as only those assets for which appropriate disclosures have been made, are permitted investments for banks and NBFCs.

Investor Regulations

a. Banks

231. Scheduled commercial banks in India are expected to satisfy the Cash Reserve Ratio (CRR) and Statutory Liquidity Ratio (SLR) requirements set by RBI.

232. The CRR regulation requires all SCBs to hold 4% of their Net Demand and Term Liabilities in cash with the RBI.

233. The SLR regulation requires all SCBs to hold 21.5% of their Net Demand and Term Liabilities in instruments approved by RBI, and is satisfied largely through government securities holdings.

234. For investment in securitized assets, no specific regulations for banks are present currently. RBI mandates that banks can only invest in securitized assets of other originators which have satisfied the MRR and MHP requirements.

b. Insurance Funds

235. To encourage investments in the infrastructure sector, IRDA has incorporated three clauses[34]:

   I. Life insurers are mandated to invest at least 15% of the total funds in the housing and infrastructure sector combined. Asset-backed securities with underlying housing/infrastructure assets are permitted instruments in this category, subject to a cap of 10% of the investment assets.

   II. General insurers are mandated to invest at least 10% of the total fund in the infrastructure sector alone. Asset-backed securities with underlying housing/infrastructure assets are permitted instruments in this category, subject to a cap of 5% of the investment assets.

   III. The cap on the exposure an insurance fund can have to a single company in the sector has been increased from 10% (for all sectors) to 20% of the total funds under management.

c. Mutual Funds

236. While SEBI has provided a list of approved investments in which a mutual fund can invest, limits for each investment instrument are not regulated by SEBI – all mutual funds are permitted to decide their investment proportion based on the fund objective.

[34]For detailed guidelines and individual instrument limits, refer Annexure – 7.

237. Asset-backed securities and mortgage-backed securities are approved as investment instruments by SEBI[35].

238. Mutual funds that take the form of *Infrastructure Debt Funds,* are mandated to invest at least 90% of their total funds in the infrastructure sector, via debt or securitized instruments.

d. Pension Funds

239. For private fund houses, IRDA mandates that minimum 40% of the fund corpus needs to be invested in Government Securities, of which at least 20% should be invested in Central Government Securities alone. The balance can be invested in approved investments as specified by the regulation, subject to the exposure norms.

240. The Employee Pension Scheme is mandated to invest all proceeds from the government into the public account of the Government of India. For the balance contribution from the employers and the employees, the scheme can invest based on the investment pattern outlined by the Ministry of Labour and Employment.

Table 36: Ministry of Labour & Employment, Investment Regulations, 2013

No.	Instrument	Percentage of Funds
1.	Central Govt. Securities Securities guaranteed by the Central Government or State Government Units of dedicated mutual funds investing in Government securities only [36]	Minimum 45% Maximum 50%
2.	a) Debt Securities with maturities of not less than three years tenure issued by corporate bodies, banks and public financial institutions; Provided that at least 75% of the investment in this category is made in instruments having an investment grade rating from at least one credit rating agency. b) Term deposit receipts of minimum one-year duration issued by SCBs Provided that the scheduled commercial bank must meet conditions of: (i) Continuous profitability for the preceding three years (ii) Maintaining a minimum Capital to Risk Weighted Assets Ratio of 9%	Minimum 35% Maximum 45%

[35] For detailed list of instruments and other guidelines, refer Annexure – 8.

[36] Maximum 5% of the fund can be invested in such mutual funds

No.	Instrument	Percentage of Funds
	(iii) Having net NPAs of not more than 2% of the net advances (iv) Having a minimum net worth of not less than Rs. 200 crore c) Rupee bonds having an outstanding maturity of at least three years issued by International Bank for Reconstruction and Development, International Finance Corporation and the Asian Development Bank	
3.	Money market instruments, including units of money market mutual funds	Maximum 5%
4.	Equity and equity related instruments Including exchange traded derivatives/index funds	Minimum 5% Maximum 15%
5.	Asset – backed securities, units of Real Estate/Infrastructure Investment Trusts	Maximum 5%

241. Turnover ratio (the value of securities traded in the year / average value of the portfolio at the beginning of the year and the end of the year) should not exceed 2.

242. The EPS was not permitted to invest in securitized products and other derivative instruments, till April 2015. Currently, post the implementation of the new investment pattern, the EPS can invest up to 5% of the investment funds in asset backed securities.

243. For the National Pension System, PFRDA allows investments in securitized debt instruments of up to 5% of the total fund, under Asset Class C (Fixed Income Instruments)[37].

e. Alternative Investment Funds

244. Under category – I funds, only infrastructure funds are permitted to invest in listed securitized instruments, and no limits for the same have been specified by the regulation. Other funds in this category, i.e., venture capital funds, SME funds and social venture funds are not permitted to invest in securitized instruments[38].

245. For category – II and category III funds, no specific regulation exists that bars these funds from investing in securitized assets. However, category – II funds are only permitted to

[37] For detailed guidelines, refer Annexure – 9.

[38] For detailed guidelines, refer Annexure – 13.

invest in the securities of companies that are unlisted, while no such regulation exists for category – III funds.

G. Annexure – 7: Regulatory framework highlights – Insurance funds, mutual funds and pension funds

a. IRDA (Investment) (Fifth Amendment) Regulations, 2013

Table 37: Comparative summary of investment guidelines

No.	Type of Investment	Percentage of Funds for Life Insurers	Percentage of Funds for General Insurers	Percentage of Funds for ULIPs[39]
1.	Central Govt. Securities	Minimum 25%	Minimum 20%	Minimum 25%
2.	Central Govt., State Govt., and other approved securities	Minimum 50% (including [1])	Minimum 30% (including [1])	-
3.	Approved Investments	Maximum 50%	Maximum 70%	Minimum 75%[40]
4.	Other Investments	Maximum 15%	Maximum 25%	Maximum 25%
5.	Investments in Housing	Minimum 15%	Minimum 5%	-
6.	Investments in Infrastructure		Minimum 10%	-

246. Regulation 4 – Approved Investments

i. approved securities;

ii. debentures secured by a first charge on any immoveable property plant or equipment of any company which has paid interest in full

iii. debentures secured by a first charge on any immovable property, plant or equipment of any company where either the book value or the market value, whichever is less, of such property,

[39] Proposed Regulations, under the IRDA (Investment) (Sixth Amendment) Regulations, 2015

[40] Current Regulation, under the IRDA (Investment) (Fifth Amendment) Regulations, 2013

plant or equipment is more than three times the value in the case of life insurers and more than twice the value in the case of General insurers, of such debentures

iv. first debentures secured by a floating charge on all its assets of any company which has paid dividends on its ordinary shares
v. preference shares of any company which has paid dividends on its ordinary shares or preference shares of any company on which dividends have been paid
vi. Equity Shares of any **listed** companies forming part of CNX 200 or BSE200
vii. shares of any company on which dividends are paid
viii. immovable property situated in India where the insurer is carrying on insurance business, provided that the property is free of all encumbrances;
ix. loans on policies of life insurance within their surrender values issued by him or by an insurer whose business he has acquired and in respect of which business he has assumed liability;
x. Fixed Deposits with banks included for the time being in the Second Schedule to the Reserve Bank of India Act, 1934 (2 of 1934)
xi. Life Interest
xii. Such other investments as the Authority may, by notification in the Official Gazette, declare to be Approved Investments.

247. In addition the following investments shall be **deemed** as **approved investments**

i. All rated debentures (including bonds) and other rated & secured debt instruments as per Note appended to Regulations 4 to 9. Equity shares, preference shares and debt instruments issued by All India Financial Institutions recognized as such by Reserve Bank of India – investments shall be made in terms of investment policy guidelines, benchmarks and exposure norms, limits approved by the Board of Directors of the insurer.
ii. Bonds or debentures issued by companies, rated not less than AA or its equivalent and A1 or equivalent ratings for short term bonds, debentures, certificate of deposits and commercial papers by a credit rating agency, registered under SEBI (Credit Rating Agencies) Regulations 1999 would be considered as 'Approved Investments'.
iii. Subject to norms and limits approved by the Board of Directors of the insurers deposits [including fixed deposits as per Regulation 3 (a) (10)] with banks (e.g. in current account, call deposits, notice deposits, certificate of deposits etc.) included for the time being in the Second Schedule to Reserve Bank of India Act, 1934 (2 of 1934) and deposits with primary dealers duly recognized by Reserve Bank of India as such.
iv. Collateralized Borrowing & Lending Obligations (CBLO) created by the Clearing Corporation of India Ltd and recognized by the Reserve Bank of India and exposure to Gilt, G Sec and liquid mutual fund forming part of Approved Investments as per Mutual Fund Guidelines issued under these regulations and money market instrument / investment.

a. Asset Backed Securities with underlying Housing loans or having infrastructure assets as underlying as defined under 'infrastructure facility' in Regulation 2 (h) as amended from time to time.
b. Commercial papers issued by All India Financial Institution recognized as such by Reserve Bank of India having a credit rating of A1 by a credit rating agency registered under SEBI (Credit Rating Agencies) Regulations 1999

v. Money Market instruments as defined in Regulation 2(j) of this Regulation, subject to provisions of approved investments

248. Regulation 5 – Life Insurance Business

"**5.** Without prejudice to any provisions of this Regulation, every insurer carrying on the business of Life Insurance, shall invest and at all times keep invested his Investment Assets as defined in Regulation 4 (a) (other than funds relating to Pension & General Annuity and Group Business and unit reserves of all categories of Unit Linked Business) in the following manner:

No	**Type of Investment**	**Percentage to funds as under Regulation 4(a)**
(i)	Central Government Securities	Not less than 25%
(ii)	Central Government Securities, State Government Securities or Other Approved Securities	Not less than 50% (incl (i) above)
(iii)	Approved Investments as specified in Regulation 3 (a), (b) and Other Investments as specified in Section 27A (2) and Schedule I to these Regulations, (all taken together) subject to Exposure / Prudential Norms as specified in Regulation 10:	Not exceeding 50%
(iv)	Other Investments as specified in Section 27A (2), subject to Exposure / Prudential Norms as specified in Regulation 10:	Not exceeding 15%

No	Type of Investment	Percentage to funds as under Regulation 4(a)
(v)	Investment in housing and infrastructure by way of subscription or purchase of: **A. Investment in Housing** a. Bonds / debentures of HUDCO and National Housing Bank b. Bonds / debentures of Housing Finance Companies either duly accredited by National Housing Banks, for house building activities, or duly guaranteed by Government or carrying current rating of not less than 'AA' by a credit rating agency registered under SEBI (Credit Rating Agencies) Regulations, 1999 c. Asset Backed Securities with underlying housing loans, satisfying the norms specified in the guidelines issued under these regulations from time to time. **B. Investment in Infrastructure** (Explanation: Subscription or purchase of Bonds / Debentures, Equity and Asset Backed Securities with underlying infrastructure assets would qualify for the purpose of this requirement. 'Infrastructure facility' shall have the meaning as given in Regulation 2 (h) as amended from time to time **Note:** Investments made under category (i) and (ii) above may be considered as investment in housing and infrastructure, provided the respective government issues such a security specifically to meet the needs of any of the sectors specified as 'infrastructure facility'	Total Investment in housing and infrastructure (i.e.,) investment in categories (i), (ii), (iii) and (iv) above taken together shall not be less than 15% of the fund under Regulation 4(a)

249. Regulation 8 – General Insurance Business

General Insurance Business – without prejudice section 27(2) of the Act, every General insurer (including Health insurer) shall invest and at all times keep invested his investment assets in the manner set out below:

No	Type of Investment	Percentage of Investment Assets
(i)	Central Government Securities	Not less than 20%
(ii)	Central Government Securities, State Government Securities or Other Approved Securities	Not less than 30% (incl (i) above)
(iii)	Approved Investments as specified in Regulation 3 (a), (b) and Other Investments as specified in Section 27A (2) and Schedule II to these Regulations, (all taken together) subject to Exposure / Prudential Norms as specified in Regulation 10:	Not exceeding 70%
(iv)	Other investments as specified in Section 27A (2), subject to Exposure / Prudential Norms as specified in Regulation 10:	Not more than 15%
(v)	Housing and loans to State Government for Housing and Fire Fighting equipment, by way of subscription or purchase of: **A. Investments in Housing** a. Bonds / Debentures issued by HUDCO, National Housing Bank b. Bonds / debentures of Housing Finance Companies either duly accredited by National Housing Banks, for house building activities, or duly guaranteed by Government or carrying current rating of not less than 'AA' by a credit rating agency registered under SEBI (Credit Rating Agencies) Regulations, 1999 c. Asset Backed Securities with underlying Housing loans, satisfying the norms specified in the Guidelines issued under these regulations from time to time. **B. Investment in Infrastructure**	Total Investment in housing (i.e.,) investment in categories (i), (ii), (iii) and (iv) above taken together shall not be less than 5% of the Investment Assets.

No	Type of Investment	Percentage of Investment Assets
	(Explanation: Subscription or purchase of Bonds/ Debentures, Equity and Asset Backed Securities with underlying infrastructure assets would qualify for the purpose of this requirement. 'Infrastructure facility' shall have the meaning as given in Regulation 2 (h) as amended from time to time. **Note:** Investments made under category (i) and (ii) above may be considered as investment in housing or infrastructure, as the case may be, provided the respective government issues such a security specifically to meet the needs of any of the sectors specified as 'infrastructure facility'	Total Investment in Infrastructure (i.e.,) investment in categories (i), (ii), (iii) and (iv) above taken together shall not be less than 10% of the Investment Assets.

250. Exposure Norms

The maximum exposure limit for a single 'investee' company (equity, debt and other investments taken together) from all investment assets under point (A.1.a, A.1.b, A.1.c all taken together), (A.2), (A.3) and (A.4) mentioned above, shall not exceed the **lower** of the following;

(i) an amount of 10% of investment assets as under Regulation 2 (i) (1), Regulation 2 (i) (2) excluding fair value change of investment assets under Regulation 4 (a), 4 (b) and Regulation 2 (i)(2(i))

(ii) an **aggregate** of amount calculated under point (a) **and** (b) of the following table

Type of Investment (1)	Limit for '**Investee**' Company (2)	Limit for the entire **Group** of the Investee Company (3)	Limit for **Industry Sector** to which Investee Company belongs (4)
a. Investment in (i) 'Equity', (ii) Preference Shares, (iii) Convertible Debentures	10% ***** of Outstanding Equity Shares (Face Value) and Preference Shares and Convertible Debentures **[Preference shares and Convertible Debentures will be considered in denominator only when investment is made in Preference shares or convertible debentures respectively]** **or** 10% of the amount under point A.1.(a) or A.1.(b) or A.1.(c) [segregated fund] above considered separately in the case of Life insurers / amount under A.2 or A.3 or A.4 in the case of General Insurer / Re-insurer / Health insurer	Not more than 15% of the amount under point A.1.(a) or A.1.(b) or A.1.(c) or A.2 or A.3 or A.4 Exposure to Investments made in companies belonging to Promoter Group shall be made as per Point 7 under notes to Regulation 10	Investment by the insurer in any industrial sector should not exceed 15% of the amount under point A.1.(a) or A.1.(b) or A.1.(c) or A.2 or A.3 or A.4 **Note:** Industrial Sector shall be classified in the lines of National Industrial Classification (All Economic Activities) - 2008 [**NIC**] for all sectors, **except infrastructure sector.** Exposure shall be calculated at **Division** level from A to R. For **Financial and Insurance Activities** sector exposure shall be at **Section level.** Exposure to 'infrastructure' investments are subject to Note: 1, 2, 3 and 4 mentioned below

Type of Investment (1)	Limit for '**Investee**' Company (2)	Limit for the entire **Group** of the Investee Company (3)	Limit for **Industry Sector** to which Investee Company belongs (4)
	whichever is lower		
b. Investment in Debt / Loans and any other permitted Investments as per Act / Regulation other than item 'a' above.	10% ***** of the Paid-up Share capital, Free reserves (excluding revaluation reserve) and Debentures / Bonds of the 'Investee' company **or** 10% of the amount under point A.1.(a) or A.1.(b) or A.1.(c) [segregated fund] above considered separately in the case of Life insurers / amount under A.2 or A.3 or A.4 in the case of General Insurer / Re-insurer / Health insurer **whichever is lower**.		

***** In the case of insurers having investment assets within the meaning of Regulation 2 (i) (1) and Regulation 2 (i) (2) of the under mentioned size, the (*) marked limit in the above table for investment in equity, preference shares, convertible debentures, debt, loans or any other permitted investment under the Regulations, shall stand substituted as under:

Investment assets	Limit for 'investee' company	
	Equity	**Debt**
Rs 250000 Crores or more	15% of outstanding equity shares (face value) and Preference Shares and Convertible Debentures	15% of paid up share capital, free reserves (excluding revaluation reserve) & debentures / bonds
Rs. 50000 Crores but less than Rs. 250000 Crores	12% of outstanding equity shares (face value) and Preference Shares and Convertible Debentures	12% of paid up share capital, free reserves (excluding revaluation reserve) & debentures / bonds
Less than Rs. 50000 Crores	10% of outstanding equity shares (face value) and Preference Shares and Convertible Debentures	10% of paid up share capital, free reserves (excluding revaluation reserve) & debentures / bonds

251. Infrastructure Sector Exposure Norms

i. Industry sector norms shall not apply for investments made in 'Infrastructure facility' sector as defined under Regulation 2(h) of this regulation as amended from time to time. NIC classification shall not apply to investments made in 'Infrastructure facility'.

ii. Investments in Infrastructure Debt Fund (IDF), backed by Central Government as approved by the Authority, on a case to case basis shall be reckoned for investments in Infrastructure.

iii. Exposure to a public limited 'Infrastructure investee company' will be 20% of outstanding equity shares (face value) and Preference Shares and Convertible Debentures in case of equity (or) 20% of equity plus free reserves (excluding revaluation reserve) plus debentures / bonds taken together, in the case of debt (or) amount under Regulation 10 (B) (i), whichever is lower. The 20% mentioned above, can be further increased by an additional 5%, in case of debt instruments alone, with the prior approval of Board of Directors. The outstanding tenure of debt instruments, beyond the exposure prescribed in the above table, in an infrastructure Investee Company, should not be less than 5 years at the time of investment. In case of Equity investment, dividend track record as per these regulations, in the case of primary issuance of a wholly owned subsidiary of a Corporate / PSU shall apply to the holding company. However all investments made in an 'infrastructure investee company' shall be subject to group / promoter group exposure norms.

iv. An insurer can, at the time of investing, subject to group / promoter group exposure norms, invest a maximum of 20% of the project cost (as decided by a competent body) of an Public Limited Special Purpose Vehicle (SPV) engaged in infrastructure sector (or) amount under Regulation 10 (B) (i), whichever is lower, as a part of Approved Investments provided:

v. such investment is in Debt

vi. the parent company guarantees the entire debt extended and the interest payment of SPV

vii. the principal or interest, if in default and if not paid within 90 days of the due date, such debt shall be classified under other investments.

viii. the latest instrument of the parent company (ies) has (have) rating of not less than AA

ix. such guarantee of the parent company (ies) should not exceed 20% of net worth of parent company (ies) including the existing guarantees, if any, given

x. the net worth of the parent company (ies), if unlisted, shall not be less than Rs. 500 crores or where the parent company (ies) is listed on stock exchanges having nationwide terminals, the net worth shall not be less than Rs. 250 Crores

xi. Investment Committee should continuously evaluate the risk of such investments and take necessary corrective actions where the parent company (ies) is floating more than one SPV.

xii. Investment in securitized assets [Mortgaged Backed Securities (MBS) / Asset Backed Securities (ABS) / Security Receipts (SR) **both** under approved and other investment category shall not exceed 10% of Investment Assets in case of Life companies and 5% of Investment Asset in the case of General companies. Approved Investment in MBS / ABS with underlying Housing or Infrastructure Assets shall not exceed 10% of investment assets in the case of life companies and not more than 5% of investment assets in the case of General companies. Any MBS / ABS with underlying housing or infrastructure assets, if downgraded below AAA or equivalent, shall be reclassified as Other Investments.

xiii. Investment in immovable property, covered under Regulation 3 (a) (8) shall not exceed, at the time of investment, 5% of (a) Investment Assets in the case of general insurer and (b) 5% of Investment Assets of funds relating to life funds, pension, annuity and group funds in the case of life insurer.

xiv. Subject to exposure limits mentioned in the table above, an insurer shall not have investments of more than 5% in aggregate of its investment assets in all companies belonging to the promoters' group. Investment made in all companies belonging to the promoters' group shall not be made by way of private placement or in unlisted instruments (equity, debt, certificate of deposits and fixed deposits held in a Scheduled Commercial Bank), except for companies formed by Insurers under Note 12 to Regulation 10.

i. The exposure limit for financial and insurance activities (as per Section K of NIC classification – 2008, as amended from time to time) shall stand at 25% of investment assets for all insurers. Investment in Housing Financing Companies and Infrastructure Financing Companies (except investment in Bonds / debentures of HUDCO, NHB and investment in Debt, Equity in dedicated infrastructure financing entities) shall form part of exposure to financial and insurance activities (as per Section K of NIC classification – 2008).

ii. Where an investment is in partly paid-up shares, the uncalled liability on such shares shall be added to the amount invested for the purpose of computing exposure norms.

iii. Notwithstanding anything contained in Regulation 10 (B) where new shares are issued to the existing shareholders by a company the existing shares of which are covered by Regulation 3 (6) or Regulation 3 (7) and the insurer is already a shareholder, the insurer may subscribe to such new shares, **provided** that the proportion of new shares subscribed by him does not exceed the proportion which the paid-up amount on the shares held by him immediately before such subscription bears to the total paid-up capital of the company at the time of such subscription.

iv. Investment in fixed deposit and certificate of deposit of a Scheduled Bank would not be deemed as exposure to financial and insurance activities (as per Section K of NIC classification - 2008). No investment in deposits including FDs and CDs in financial institutions falling under Promoter Group shall be made. Investment in FDs shall not exceed 3% of respective fund size [Life Fund, Pension & General Annuity Fund and Unit linked fund(s)] in the case of Life Insurers and 10% of Investment Assets as per Regulation 2 (i) (2) in the case of General Insurer, Health Insurer.

v. An insurer shall not out of the controlled fund / assets invest or keep invested in the shares or debentures of any one company more than the exposure prescribed in Regulation 10 above, **provided** that nothing in this regulation shall apply to any investment made with the previous consent of the Board of the Authority by an insurer, being a company with a view to forming a subsidiary company carrying on insurance / re-insurance business.

b. SEBI (Mutual Funds) (Amendment) Regulations

(For detailed regulations, visit www.sebi.gov.in)

Chapter VI: Investment Objectives and Valuation Policies

43. (1) Subject to other provisions of these regulations, a mutual fund may invest moneys collected under any of its schemes only in—

a) securities;

b) money market instruments;

c) privately placed debentures;

d) securitized debt instruments, which are either asset backed or mortgage backed securities; 106[***]

e) gold or gold related instruments107[; or]

f) real estate assets as defined in clause (a) of regulation 49A 109[;or]

g) infrastructure debt instrument and assets as specified in clause (1) of regulation 49L.

(2) Any investment made under sub-regulation (1) shall be in accordance with the investment objective of the relevant mutual fund scheme.

(3) Moneys collected under any money market scheme of a mutual fund shall be invested only in money market instruments.

(4) Moneys collected under any gold exchange traded fund scheme shall be invested only in gold or gold related instruments, in accordance with sub-regulation (5) of regulation 44.

(5) Moneys collected under a real estate mutual fund scheme shall be invested in accordance with regulation 49E.

Chapter VI (B): Infrastructure Debt Fund Schemes

Definitions.

49L. For the purposes of this Chapter, unless the context otherwise requires-

(1) "Infrastructure debt fund scheme" means a mutual fund scheme that invests primarily (minimum 90% of scheme assets) in the debt securities or securitized debt instrument of infrastructure companies or infrastructure capital companies or infrastructure projects or special purpose vehicles which are created for the purpose of facilitating or promoting investment in infrastructure, and other permissible assets in accordance with these regulations or bank loans in respect of completed and revenue generating projects of infrastructure companies or projects or special purpose vehicles.

(2) "Infrastructure" includes the sectors as specified by guidelines issued by the Board or as notified by Ministry of Finance, from time to time.

(3) 'Strategic Investor' means;

i. an Infrastructure Finance Company registered with Reserve bank of India as Non Banking Financial Company;

ii. a Scheduled Commercial Bank;

iii. International Multilateral Financial Institution;

iv. Systemically Important Non Banking Financial Companies registered with Reserve Bank of India;

v. Foreign Institutional Investors registered with the Board, subject to their applicable investment limits, which are long term investors in terms of the norms specified by SEBI.

Permissible investments 49P.

1) Every infrastructure debt fund scheme shall invest at least ninety percent of the net assets of the scheme in the debt securities or securitized debt instruments of infrastructure companies or projects or special purpose vehicles which are created for the purpose of facilitating or promoting investment in infrastructure or bank loans in respect of completed and revenue generating projects of infrastructure companies or special purpose vehicle Provided that the funds received on account of re-payment of principal, whether by way of pre-payment or otherwise, with respect to the underlying assets of the scheme, shall be invested as specified in this sub-regulation: Provided further that if the investments specified in this sub-regulation are not available, such funds may be invested in bonds of Public Financial Institutions and Infrastructure Finance Companies.

2) Subject to sub-regulation (1), every infrastructure debt fund scheme may invest the balance amount in equity shares, convertibles including mezzanine financing instruments of companies engaged in infrastructure, infrastructure development projects, whether listed on a recognized stock exchange in India or not; or money market instruments and bank deposits.

3) The investment restrictions shall be applicable on the life-cycle of the infrastructure debt fund scheme and shall be reckoned with reference to the total amount raised by the infrastructure debt fund scheme.

4) No mutual fund shall, under all its infrastructure debt fund schemes, invest more than thirty per cent of its net assets in the debt securities or assets of any single infrastructure company or project or special purpose vehicles which are created for the purpose of facilitating or promoting investment in infrastructure or bank loans in respect of completed and revenue generating projects of any single infrastructure company or project or special purpose vehicle.

5) An infrastructure debt scheme shall not invest more than 30% of the net assets of the scheme in debt instruments or assets of any single infrastructure company or project or special purpose vehicles which are created for the purpose of facilitating or promoting

The overall investments by an infrastructure debt fund scheme in debt instruments or assets of infrastructure companies or projects or special purpose vehicles, which are created for the purpose of facilitating or promoting investment in infrastructure or bank loans in respect of completed and revenue generating projects of infrastructure companies or projects or special purpose vehicles, which are rated below investment grade or are unrated, shall not exceed 30% of the net assets of the scheme:

Provided that the overall investment limit may increase up to 50% of the net assets of the scheme with the prior approval of the trustees and the board of the asset management company

6) No infrastructure debt fund scheme shall invest in –

i. Any unlisted security of the sponsor or its associate or group company;

ii. Any listed security issued by way of preferential allotment by the sponsor or its associate or group company;

iii. Any listed security of the sponsor or its associate or group company or bank loan in respect of completed and revenue generating projects of infrastructure companies or special purpose vehicles of the sponsor or its associate or group companies, in excess of twenty five per cent of the net assets of the scheme, subject to approval of trustees and full disclosures to investors for investments made within the aforesaid limits; or

iv. any asset or securities owned by the sponsor or asset management company or their associates in excess of 30% of the net assets of the scheme, provided that-

a) such investment is in assets or securities not below investment grade;

b) the sponsor or its associates retains atleast 30% of the assets or securities, in which investment is made by the scheme, till the assets or securities are held in the scheme portfolio; and

c. approval for such investment is granted by the trustees and full disclosures are made to the investors regarding such investment

c. PFRDA Regulations for NPS Schemes, 2015

Table 38: National pension system models

Model	Description	Investment Choices
All citizens model	All citizens of India, between the ages of 18 – 60 years, including non-residents are eligible for this model.	Two approaches to investment: • **Active choice** - Individual Funds (Asset Class E, Asset Class C, and Asset Class G) Subscriber will have the option to actively decide as to how his/her NPS pension wealth is to be invested, in the following three asset classes: *Asset Class E - Investments in predominantly equity market instruments.* *Asset Class C - investments in fixed income instruments other than Government*

		securities. *Asset Class G - investments in Government securities.* • **Auto choice –** Lifecycle fund The fraction of funds invested across the three asset classes will be determined by a pre-defined portfolio.
Government Sector Model	For employees of central government, state government, central & state autonomous bodies	Funds managed by Pension Fund Managers decided by PFRDA. Currently, each of the PFMs will invest the funds based on the investment guidelines set by PFRDA.
Corporate Model	For employees of private and public limited companies, co-operative bodies, partnership firms and public sector firms	Corporates have the flexibility to provide investment scheme preference (Pension Funds - PFs and Investment choice) either at subscriber level or at the corporate level centrally for all its underlying subscribers. For asset allocation, either the corporate or the subscriber can choose between an Active Choice and an Auto Choice, similar to the all citizens model.

Table 39: Investment guidelines for the all-citizens model

Asset Class	Instrument
G	**Government Securities and Related Investments** a) Central Govt. Securities b) Securities guaranteed by the Central Government or State Government (subject to maximum 10% of the total portfolio of the government securities) c) Units of dedicated mutual funds investing in Government securities only (subject to maximum 5% of the total portfolio of the government securities)
C	**Debt Instruments and Related Investments** a) Listed debt Securities issued by corporate bodies, banks and public financial institutions b) Basel III Tier-1 bonds issued by scheduled commercial banks under RBI guidelines (subject to maximum of 2% of the total fund and an exposure limit of 20% for each bank)

Asset Class	Instrument
	c) Term deposit receipts of more than one year maturity issued by SCBs d) Rupee bonds of at least three years maturity issued by International Bank for Reconstruction and Development, International Finance Corporation and the Asian Development Bank e) Units of debt mutual funds regulated by SEBI f) Listed debt securities with a minimum rating of AA and equivalent, of companies engaged in the business of development or operation and maintenance of infrastructure, or development, construction or finance of low cost housing g) Securities issued by Indian Railways and its subsidiaries **Miscellaneous Investments (up to 5% of the fund)** a) Mortgage backed securities b) Units of Real Estate Investment Trusts c) Asset backed securities d) Units of Infrastructure Investment Trusts These instruments are mandated to have a minimum rating of AA and equivalent from at least two rating agencies
E	**Equities and Related Investments** a) Equity shares of corporate bodies listed on Bombay Stock Exchange (BSE) or National Stock Exchange (NSE), having: i. Market capitalization of not less than Rs. 5000 crore ii. Derivatives with underlying shares being traded on either BSE/NSE b) Unit of mutual funds regulated by SEBI, which have minimum 65% of their investment in equity shares of corporate bodies listed on BSE/NSE c) Exchange Traded Funds (ETF) that replicate the portfolio of either BSE Sensex Index or NSE Nifty 50 Index d) ETFs issued by SEBI specifically for disinvestment of shareholding of Government of India in corporates e) Exchange traded derivatives with the sole purpose of hedging (subject to maximum of 5%)
E/C/G	**Money Market Instruments (not exceeding a limit of 5% of the scheme corpus on temperate basis only)** a) Money market instruments – commercial papers and certificates of deposits

Asset Class	Instrument
	b) Units of money market mutual funds regulated by SEBI Term Deposit receipts of up to one year duration issued by SCBs

Table 40: Investment guidelines for the government sector and the corporate model

No.	Instrument	Percentage of Funds
1.	**Government Securities and Related Investments** a) Central Govt. Securities b) Securities guaranteed by the Central Government or State Government (subject to maximum 10% of the total portfolio of the government securities) c) Units of dedicated mutual funds investing in Government securities only (subject to maximum 5% of the total portfolio of the government securities)	Maximum 50%
2.	**Debt Instruments and Related Investments** a) Listed debt Securities issued by corporate bodies, banks and public financial institutions b) Basel Tier-1 bonds issued by scheduled commercial banks under RBI guidelines (subject to maximum of 2% of the total fund) c) Term deposit receipts issued by SCBs d) Rupee bonds issued by International Bank for Reconstruction and Development, International Finance Corporation and the Asian Development Bank e) Units of debt mutual funds regulated by SEBI f) Listed debt securities with a minimum rating of AA and equivalent, of companies engaged in the business of development or operation and maintenance of infrastructure, or development, construction or finance of low cost housing g) Securities issued by Indian Railways and its subsidiaries	Maximum 45%
3.	**Short-term Debt Instruments and Related Investments** a) Money market instruments – commercial papers and certificates of deposits b) Units of money market mutual funds regulated by SEBI	Maximum 5%

No.	Instrument	Percentage of Funds
	c) Term Deposit receipts of up to one year duration issued by SCBs	
4.	**Equities and Related Investments** a) Equity shares of corporate bodies listed on Bombay Stock Exchange (BSE) or National Stock Exchange (NSE) b) Unit of mutual funds regulated by SEBI, which have minimum 65% of their investment in equity shares of corporate bodies listed on BSE/NSE c) Exchange Traded Funds (ETF) that replicate the portfolio of either BSE Sensex Index or NSE Nifty 50 Index d) ETFs issued by SEBI specifically for disinvestment of shareholding of Government of India in corporates e) Exchange traded derivatives with the sole purpose of hedging (subject to maximum of 5%)	Maximum 15%
5.	**Asset Backed, Trust Structured and Miscellaneous Investments** a) Mortgage backed securities b) Units of Real Estate Investment Trusts c) Asset backed securities d) Units of Infrastructure Investment Trusts These instruments are mandated to have a minimum rating of AA and equivalent from at least two rating agencies.	Maximum 5%

H. Annexure – 8: Regulatory framework for alternative investment funds and FIIs

a. SEBI (Alternative Investment Funds) Regulation, 2012

Table 41: AIFs classification

Fund	**Category I Funds**	**Category II Funds**	**Category III Funds**
Description	Have positive effects on the economy	Funds that do not fall under Category I, and do not take any leverage	Funds permitted to leverage, and use complex trading and investment mechanisms
Examples	VC Funds SME Funds Social Venture Funds Infrastructure Funds	PE Funds Debt Funds	Hedge Funds

1. Category – I Funds:

    a. At least two-thirds of the corpus shall be invested in unlisted equity shares or equity linked instruments of a venture capital undertaking or in companies listed or proposed to be listed on a SME exchange or SME segment of an exchange;

    b. Not more than one-third of the corpus to be invested in:

        i. subscription to initial public offer of a venture capital undertaking whose shares are proposed to be listed;

        ii. debt or debt instrument of a venture capital undertaking in which the fund has already made an investment by way of equity or contribution towards partnership interest;

        iii. preferential allotment, including through qualified institutional placement, of equity shares or equity linked instruments of a listed company subject to lock in period of one year;

        iv. the equity shares or equity linked instruments of a financially weak company or a sick industrial company whose shares are listed.

        v. special purpose vehicles which are created by the fund for the purpose of facilitating or promoting investment in accordance with these regulations.

2. Category – I: SME Funds (Additional Regulations)

a. At least seventy five percent of the corpus shall be invested in unlisted securities or partnership interest of venture capital undertakings or investee companies which are SMEs or in companies listed or proposed to be listed on SME exchange or SME segment of exchange.

3. Category – I: Social Venture Funds (Additional Regulations)

   a. At least seventy five percent of the corpus shall be invested in unlisted securities or partnership interest of social ventures.

4. Category – I: Infrastructure Funds (Additional Regulations)

   a. at least seventy five percent of the corpus shall be invested in unlisted securities or units or partnership interest of venture capital undertaking or investee companies or special purpose vehicles, which are engaged in or formed for the purpose of operating, developing or holding infrastructure projects;

   b. such funds may also invest in listed securitized debt instruments or listed debt securities of investee companies or special purpose vehicles, which are engaged in or formed for the purpose of operating, developing or holding infrastructure projects.

5. Category II Funds

   a. Category II Alternative Investment Funds shall invest primarily in unlisted investee companies or in units of other Alternative Investment Funds as may be specified in the placement memorandum;

   b. Fund of Category II Alternative Investment Funds may invest in units of Category I or Category II Alternative Investment Funds.

6. Category III Funds

   a. Category III Alternative Investment Funds may invest in securities of listed or unlisted investee companies or derivatives or complex or structured products;

   b. Fund of Category II Alternative Investment Funds may invest in units of Category I or Category II Alternative Investment Funds

b. FII Investment Guidelines

List of Approved Instruments:

1. Securities in the primary and secondary markets including shares, debentures and warrants of companies, listed or to be listed on a recognized stock exchange in India;

2. Units of schemes floated by domestic mutual funds, whether listed on a recognized stock exchange or not;

3. Units of schemes floated by a collective investment scheme;

4. Derivatives traded on a recognized stock exchange;

5. Treasury bills and dated government securities;

6. Commercial papers issued by an Indian company;

7. Rupee denominated credit enhanced bonds;

8. Security receipts issued by asset reconstruction companies;

9. Perpetual debt instruments and debt capital instruments, as specified by the Reserve Bank of India from time to time;

10. Listed and unlisted non-convertible debentures/bonds issued by an Indian company in the infrastructure sector, where ‘infrastructure’ is defined in terms of the extant External Commercial Borrowings (ECB) guidelines;

11. Non-convertible debentures or bonds issued by Non-Banking Financial Companies categorized as ‘Infrastructure Finance Companies’(IFCs) by the Reserve Bank of India;

12. Rupee denominated bonds or units issued by infrastructure debt funds;

13. Indian depository receipts; and

14. Such other instruments specified by the Board from time to time.

I. Annexure – 9: Overview of Tax Regime for Investment Holdings in India

252. Taxation on investment holdings in India are governed by the Income Tax Act, 1961 set by the Institute of Chartered Accountants (ICAI), and subjected to two regimes – tax on income from investments and tax on gains from sale of investments.

253. Tax on income from investments is applicable during the holding period of the investment, and is of two types, depending on the nature of the instrument:

<table>
<tr><th>Tax</th><th>Instruments</th><th>Tax Incidence Point</th></tr>
<tr><td>Tax on Interest Income</td><td>Instruments with yearly payouts of interest, such as Government Securities, Bonds, etc.</td><td>Taxed at the hands of the investors, on the net income of the investor (post deductions in expenses)</td></tr>
<tr><td>Tax on Distributed Income</td><td>Securitized papers, Income from debt mutual fund units</td><td rowspan="2">Tax deducted at the source of income, tax-free in the hand of the investors (deductions in expenses is not permitted for this income)</td></tr>
<tr><td>Tax on Distributed Profits</td><td>Dividends from equity holdings, equity-oriented mutual fund units</td></tr>
</table>

254. Tax on gains from sale of investments arise on the transfer of instruments held as capital assets, and is classified into two types:

I. Short Term Gains Tax – Tax incident on instruments held for a period of 36 months[41] prior to the transfer.

II. Long Term Gains Tax – Tax incident on instruments held for a period of more than 36 months prior to the transfer.

255. A detailed framework of the taxes applicable to an investor for each investment option is presented below:

[41] 12 months for equity shares, units of equity-oriented mutual funds, debentures, Government Securities, zero-coupon bonds, units of UTI.

Table 42 Tax Implications for Investment Options

Investor class ***( )-Section of ITA,1961***		**G-Secs**	**Bonds**	**Debt funds**	**Securitized papers**	**Equity**
Domestic banks & corporates	**Institutional level**	Tax on interest *(193, 56)* No tax **deducted at source** from interest income from G-secs Interest to be included in total income in P&L under income from other sources – tax paid accordingly Tax on capital gains *(112,48)* Short term (less than 12 months) – taxed at statutory slab Long term (greater than 12 months) – taxed at 20% with indexation	Tax on interest *(193, 56)* No tax **deducted at source** from interest income from bonds, debentures Interest to be included in total income in P&L under income from other sources – tax paid accordingly Tax on capital gains *(112,48)* Short term (less than 12 months if listed, unlisted 36 months) – taxed at statutory slab Long term (greater than 12 months if listed, 36 months if unlisted) – taxed at 10% without indexation or	Income mutual funds - Tax on distributed income *(115R, 10 (35))* for income MFs As per Section 115R, distribution tax levied on unit holders of debt mutual funds on the income distributed by mutual funds is: • 25% for individuals and HUFs, plus surcharge and educational cess • **30% for corporates, plus surcharge and educational cess**	Tax on distributed income *(115TA, 10(35A))* As per Section 115TA, the distribution tax levied on investors in the securitization trust on the income distributed by the trust is: • 25% for individuals and HUFs, plus surcharge and educational cess • **30% for corporates, plus surcharge and educational cess** **Income from securitization trust not to be**	Tax on distributed income *(115R, 115O)* • As per Section 115R, unit holders of equity oriented are tax exempt on the income distributed by mutual funds. • For the declaration/distribution/payment of profits on equity shares, a dividend distribution tax of 15% is applicable. Tax on capital gains *(111A, 10(38))* Short term (less than 36 months) – taxed 15% Long term (greater than 36 months) – tax exempt

Investor class *( )-Section of ITA,1961*		G-Secs	Bonds	Debt funds	Securitized papers	Equity
			20% with indexation	**Income from MF to not be included in total income in P&L (***10, 35)* <u>Growth-oriented MFs - Tax on capital gains *(112, 48)* for</u> Short term (less than 36 months) – taxed at statutory slab Long term (greater than 36 months) – taxed at 20% with indexation	**included in total income in P&L (***10, 35A)*	
Life insurance funds (traditional funds) including LIC	**Institutional level**	<u>Tax on interest *(193, 56)*</u> No tax **deducted at source** from interest income from G-secs Interest to be included in total income in P&L under income from other	<u>Tax on interest *(193, 56)*</u> No tax **deducted at source** from interest income from bonds, debentures Interest to be included in total income in P&L under income from other	<u>Income mutual funds - Tax on distributed income *(115R, 10 (35))* for income MFs</u> As per Section 115R, distribution tax levied on unit holders of debt mutual funds on the income	<u>Tax on distributed income *(115TA, 10(23DA))*</u> As per Section 115TA, distribution tax levied on investors in the securitization trust on the income	<u>Tax on distributed income*(115R, 194)*</u> • As per Section 115R, unit holders of equity oriented are tax exempt on the income distributed by mutual funds. • For holdings of equity shares, LIC is exempted from paying the dividend distribution tax. <u>Tax on capital gains</u> *(111A, 10(38))* Short term (less than 36 months) – taxed 15%

Investor class ***( )-Section of ITA,1961***		**G-Secs**	**Bonds**	**Debt funds**	**Securitized papers**	**Equity**
		sources – tax paid accordingly Tax on capital gains *(112,48)* Short term (less than 12 months) – taxed at statutory slab Long term (greater than 12 months) – taxed at 20% with indexation	sources – tax paid accordingly Tax on capital gains *(112,48)* Short term (less than 12 months if listed, unlisted 36 months) – taxed at statutory slab Long term (greater than 12 months if listed, 36 months if unlisted) – taxed at 10% without indexation or 20% with indexation	distributed by mutual funds is: • 25% for individuals and HUFs, plus surcharge and educational cess • **30% for corporates, plus surcharge and educational cess** **Income from MF to not be included in total income in P&L (***10, 35)* Growth oriented MFs - Tax on Capital Gains *(112, 48)* for Short term (less than 36 months) – taxed at statutory slab Long terms (greater than	distributed by the trust is: • 25% for individuals and HUFs, plus surcharge and educational cess • **30% for corporates, plus surcharge and educational cess** **Income from securitization trust not to be included in total income in P&L (***10, 35A)*	Long term (greater than 36 months) – tax exempt

<table>
<tr><th colspan="2">Investor class
( )-Section of ITA,1961</th><th>G-Secs</th><th>Bonds</th><th>Debt funds</th><th>Securitized papers</th><th>Equity</th></tr>
<tr><td></td><td></td><td></td><td></td><td>36 months) – taxed at 20% with indexation</td><td></td><td></td></tr>
<tr><td></td><td>**Unit holder level**</td><td colspan="5">EEE Status *(Section 88)* – investment can be deducted from taxable income, no tax on returns & no tax on income from the investment at the time of withdrawal.</td></tr>
<tr><td rowspan="2">**EPFO (recognized Provident fund) & NPS**</td><td>**Institutional level**</td><td colspan="2">**EPFO –** *Section 10(25)* -- any income **received by the trustees** on behalf of a recognized provident fund (EPFO) can be deducted from total income.

NPS – Section 10(44) -- income of NPS (National Pension (system) Trust) is exempt from tax even **if it is on behalf of NPS**

Other provident funds – (*193, 10(25))* -- No tax deducted at source, interest & capital gains are also not to be included in total income of provident fund**.**</td><td>Tax is deducted at source.</td><td>Tax is deducted at source.</td><td>**EPFO –** Section 10(25) -- any income **received by the trustees** on behalf of a recognized provident fund (EPFO), can be deducted from total income.

NPS – Section 10(44) -- income of NPS (National Pension (system) Trust) is exempt from tax even **if it is on behalf of NPS**

Other provident funds – (193, 10(25)) -- No tax deducted at source, interest & capital gains are also not to be included in total income of provident fund</td></tr>
<tr><td>**Unit holder level**</td><td colspan="5">EEE Status *(Section 88*) – investment can be deducted from taxable income, no tax on returns & no tax on income from the investment at the time of withdrawal.</td></tr>
<tr><td rowspan="2">**Mutual funds**</td><td>**Institutional level**</td><td colspan="2">Any income of a registered mutual fund is not to be included in total income for taxation (*10(25))*</td><td>No investment</td><td>No distribution tax since MFs are tax exempt. *(115TA)*</td><td>Any income of a registered mutual fund is not to be included in total income for taxation *(10(25))*</td></tr>
<tr><td>**Unit holder level**</td><td colspan="5">Tax on distributed income *(115R)*

As per Section 115R, distribution tax levied on unit holders of debt mutual funds on the income distributed by mutual funds is:

• **25% for individuals and HUFs, plus surcharge and educational cess**</td></tr>
</table>

<table>
<tr><th colspan="2">Investor class
( )-Section of ITA,1961</th><th>G-Secs</th><th>Bonds</th><th>Debt funds</th><th>Securitized papers</th><th>Equity</th></tr>
<tr><td></td><td></td><td colspan="5">• 30% for corporates, plus surcharge and educational cess
Tax on capital gains *(112, 48)*
Short term (less than 36 months) – taxed at statutory slab
Long term (greater than 36 months) – taxed at 20% with indexation</td></tr>
<tr><td rowspan="3">**AIF**</td><td>**Category 1 (infra) (close ended)**</td><td colspan="5" rowspan="2">As per section *115UB*, any income of category I & II AIF funds is tax exempt at the fund level, and is passed through to the unit holders, where it is subsequently taxed according to individual tax slabs.</td></tr>
<tr><td>**Category 2 (close ended)**</td></tr>
<tr><td>**Category 3**</td><td colspan="5">Income for category III AIFs, depends on the legal status of the entity:
• For funds established as a trust, income is pass-through at the trust level, and taxed at unit holder level, on the individual tax slabs prescribed by the government.
• For funds established as companies or LLPs, a corporate tax rate of 30% is applicable.</td></tr>
<tr><td>**Foreign institutional investors**</td><td>**Institutional level**</td><td>Tax on distributed income:
As per Section 194LD, interest on G-secs is taxable at source at 5%.
Tax on redemption/sale of units: (Section 115AD)
• If units are held for a period of</td><td>Tax on distributed income:
As per Section 194LD, interest on rupee denominated bonds of Indian companies is taxable at source at 5%.
Tax on redemption/sale</td><td>Tax on distributed income:
As per section 10(35), income from units of a mutual fund held by an FII is tax-exempt.
In case of the infrastructure debt fund, foreign investors are</td><td></td><td>Tax on distributed income (115AD)
•
• FIIs are exempt from the levy of tax on distribution of profits for holdings in equity shares.
Tax on redemption/sale of units:
• As per Section 115A, short-term capital gains by way of sale of equity shares or equity oriented mutual funds units is taxed at 15%.</td></tr>
</table>

Investor class ***( )-Section of ITA,1961***		**G-Secs**	**Bonds**	**Debt funds**	**Securitized papers**	**Equity**
		less than 3 years, a short-term capital gains tax is applicable, which is 30% • If units are held for greater than 3 years, a long-term capital gains tax of 10% is applicable.	of units: (Section 115AD) • If units are held for a period of less than 3 years, a short-term capital gains tax is applicable, which is equivalent to the individual tax bracket. • If units are held for greater than 3 years, a long-term capital gains tax of 10% is applicable.	taxed at an additional rate of 5%. Tax on redemption/sale of units: (Section 115AD) • If units are held for a period of less than 3 years, a short-term capital gains tax is applicable, which is equivalent to the individual tax bracket. • If units are held for greater than 3 years, a long-term capital gains tax of 20% (with indexation) on listed securities, and 10% on unlisted securities (without		• As per section 10(38), long-term capital gains by way of sale of equity shares or equity oriented mutual fund units is exempt from tax.

Investor class *( )-Section of ITA,1961*		**G-Secs**	**Bonds**	**Debt funds**	**Securitized papers**	**Equity**
				indexation) is applicable.		

J. Annexure – 10: Tax implications on parties involved in a securitization transaction

Overview of Tax Provisions Relevant for Securitization

Until recently, there existed no specific provisions under the Income Tax Act, 1961 (ITA) to address the peculiarities of securitization transactions. This had created ambiguity regarding tax implications of a securitization transaction in respect of such transactions. However, in the Finance Act of July 2013 and subsequently in the Union Budget 2013-14, a new taxation regime was introduced for securitization transactions by inserting Chapter XII – EA in the Income Tax Act, 1961. This chapter addresses provisions relating to tax on distributed income by securitization trusts.

a. Originator

256. For the originator, the gain or loss is treated as a business gain/loss by the tax authorities and hence is chargeable to tax as "profits and gains of business[42]", in the year the transaction takes place.

b. Securitization Trust

257. As mentioned earlier, Clause 30 of the Finance Act, July 2013 inserted a new Chapter XII-EA consisting of new sections 115TA, 115TB and 115TC in the Income Tax Act with regard to special provisions relating to tax on distributed income by securitization trusts. As per section 115TA, any distributed income to an investor by a securitization trust shall be liable to the levy of additional income-tax on the distributed income, at the rate of

    a. 25% in case of income received by an individual

    b. 30% in case of income received by any other assesse

    c. No additional income-tax shall be levied, if the distributed income is paid to any person who is exempt under the Act.

258. In all, the distribution tax regime provisions applicable to securitization trusts are similar to those applicable to mutual funds.

c. Investors

259. Income distributed for securitized assets is taxed by the application of the distribution tax at the trust level. The amount of distribution tax applied depends on whether the holder of the PTC is an individual, a company or a tax exempt entity.

[42] *The term "business" has been defined to include any trade, commerce or manufacture, or any adventure or concern in the nature of trade, commerce or manufacture as per Sec. 2(13) of the ITA.*

260. In the case of *insurance funds* and *pension funds*, while the holder of the funds are trusts, these funds are managed by AMCs which take the form of companies. Hence, distributed income to these class of investors are taxed at the prevalent rate of 30% (applicable to tax liable entities)[43].

261. *Mutual funds* take the form of a trust and are a tax-exempt entity. Thus, no distribution tax is applied for income transferred to mutual funds by the securitization trust. However, individual investors holding units of these mutual funds are taxed on the income obtained from securitized assets, based on the tax slabs prescribed by the authority.

262. Under the existing provisions, only domestic funds registered under the erstwhile SEBI (Venture Capital Funds) Regulations, 1996 ('VCF Regulations') and venture capital funds, set-up either as a trust or a company and registered as a sub-category of Category I AIF were allowed to pass-through income from investments in venture capital undertakings.

263. In the Budget 2015, Chapter XII FA was inserted in the Income Tax Act, 1961 through which Alternative Investment Funds in Category I and II were granted the pass-through status by the Ministry of Finance, for all kinds of investment income of the fund. Thus, for these funds, income from securitization transactions will be taxed at the individual investor level, and not at the fund level.

264. For Category III AIFs, the tax on income from securitized assets will depend on the form of the fund – for funds that take the form of a trust, no distribution tax would be applicable while for fund that take the form of a company or L.L.P. will be taxed at 30%.

K. Annexure – 11: Detailed analysis of accounting framework for securitization

265. Accounting frameworks in India are set out by the Institute of Chartered Accountants of India (ICAI) and adopted by the Central Government through the Companies Act (1956) and the Companies Act (2013).

266. Presently, companies in India follow the Accounting Standards (AS) set out by the ICAI, based on Indian GAAP (Generally Accepted Accounting Principles). The Ministry of Corporate Affairs (MCA), through a notification on February 2015, has issued the Companies (Indian Accounting Standards) Rules, 2015 which lays down a roadmap for companies other than insurance companies, banks and NBFCs for the implementation of the Indian Accounting Standards (IND AS) converged with the International Financial Reporting Standards (IFRS). However, banks, NBFCs and insurance companies that are subsidiaries, joint ventures or associates of a parent company covered by the notification,

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[43] For detailed explanation of the legal structure of insurance and pension funds, please refer Annexure – 15.

will have to report IND AS adjusted numbers for the parent company to prepare an IND AS compliant consolidated account.

Table 43: Road map for implementation of IND AS

<table>
<tr><th></th><th>Phase I</th><th>Phase II</th><th>Voluntary Adoption</th></tr>
<tr><td>Year of Adoption</td><td>FY 2016 – 17</td><td>FY 2017 – 18</td><td>FY 2015 – 16 onwards</td></tr>
<tr><td colspan="4">Covered Companies</td></tr>
<tr><td>1) Listed companies</td><td>All companies with net worth greater than Rs 500 crore</td><td>All companies listed or in the process of being listed</td><td rowspan="3">All companies can voluntarily adopt IND AS</td></tr>
<tr><td>2) Unlisted companies</td><td>All companies with net worth greater than Rs 500 crore</td><td>All companies with net worth greater than Rs 250 crore</td></tr>
<tr><td>3) Group companies</td><td colspan="2">Holding, subsidiary, joint venture or associate companies of above companies</td></tr>
</table>

267. In accounting for transactions in securitization, two baseline rules are set by the accounting standards:

I. Conditions under which consolidation of financial statements of the Special Purpose Entity (SPE) or trust which holds the assets and the originator is required.

II. Sale of assets for accounting purposes, leading to de-recognition of the asset from the balance sheet of the originator.

268. The standard AS-30 set by ICAI for securitization transactions, was issued in 2007 and came into force in 2011. Prior to AS 30, there were no clear guidelines on how securitization transactions were to be accounted for, except for a Guidance Note issued by ICAI in 2003. Post 2016, securitization accounting guidelines of IND AS – 39, converged with IFRS IAS – 39 will be applied based on the roadmap laid out by MCA.

Table 44: Comparison of accounting standards for securitization

	ICAI Guidance Note	AS - 30	IND AS - 39
Implementation	2003 – 2011	2011 onwards	2016 onwards, based on the roadmap laid by MCA
Principle	Surrender of control approach, similar to FASB ASC – 860	No continuing involvement of the originator, similar to IFRS IAS - 39	No continuing involvement of the originator, similar to IFRS IAS - 39
Procedure			
Consolidation	Based on the principle of control of majority voting rights.	Based on the principle of control of majority voting rights.	Based on the principle of control of majority voting rights, and the **principle of variable rights**.
De-recognition	An asset is derecognized only if a true sale at law[44] occurs and the originator loses control over the asset.	An asset is derecognized if substantial risks and reward associated with the asset are transferred by the originator and the originator has no control over the asset.	An asset is derecognized if substantial risks and reward associated with the asset are transferred by the originator and the originator has no control over the asset

a. Accounting Standards (AS)

<u>Consolidation of Financial Statements</u>

269. The Accounting Standards for consolidation are laid out in AS – 21 and dictate that if an entity (i.e., the parent) holds more than half of the voting shares of an enterprise, or controls

[44] Refer Annexure – 11.

the composition of the board of directors or the governing body, it controls the enterprise (i.e., the subsidiary). Such a parent firm must consolidate the financial statements of all its subsidiaries with that of the parent.

270. Thus, for a firm to achieve de-recognition of securitized assets and realize the true benefits of securitization, it is imperative that the trust to whom these assets are sold to be independent of the control the firm.

<u>De-recognition of Securitized Assets</u>

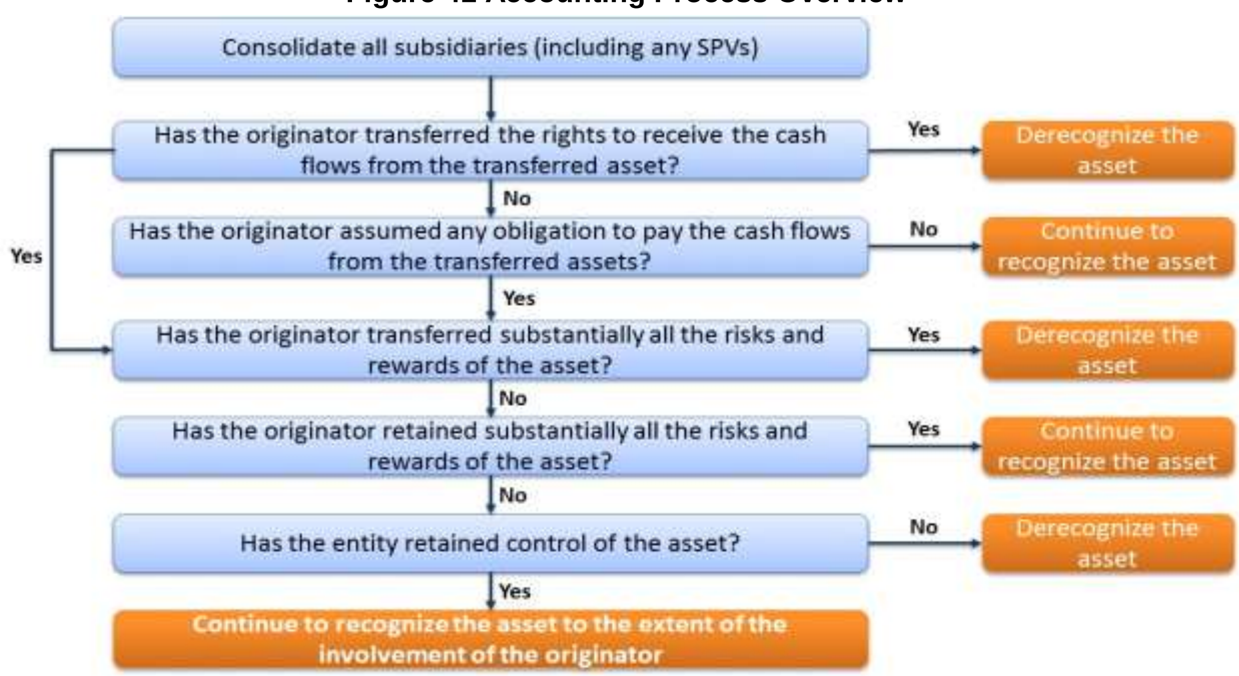
271. For the de-recognition of assets, the principles are applied to an asset or a group of assets, entirely, except when:

   I. The part of the asset monetized comprises of specifically identifiable cash flows, such as the interest or the principle.

   II. The part of the asset monetized comprises of a full proportionate share of the cash flows.

272. For a firm to derecognize an securitized asset, a transfer of the asset should take place, following which it must evaluate the extent to which it retains the risks and rewards of ownership of the asset, based on the comparison of the exposure of the firm to the variability in the returns and the timings of the returns of the asset, pre and post-securitization.

Figure 41 Accounting Process Overview



Accounting for the Servicing of Asset

273. In a securitization transaction it is common to have a servicing contract under which the servicer (which in India is generally the originator) undertakes to service the securitized assets over the term of the securitization transaction in lieu of a fee. In such a case, the originator must recognize a servicing asset/liability arising out of the servicing contract. If the fee received more than adequately compensates the originator for the servicing, a servicing asset should be recognized up front. If not, a servicing liability is assumed by the originator up front. However, AS – 30 does not provide detailed guidelines on the valuation of the servicing assets/liability in the subsequent financial periods.

Accounting for Profit/Loss on Securitization Transaction

274. Once the de-recognition criteria are met in a transfer of assets, the profit or loss incurred in the transaction must be accounted for in the profit and loss statement of the originator.

275. However, RBI guidelines issued on the 'Transfer of Assets through Securitization and Direct Assignment of Cash Flows', dictate that the profit received from a securitization transaction by a scheduled commercial bank (SCB) or an NBFC, is to be held in the accounting head – 'Cash Profit on Loan Transfer Transactions Pending Recognition', to be maintained on an individual transaction basis. The amortization of this cash profit every year will be done on the basis of a prescribed formula:

Profit to be Amortized = Max {L, [(X(Y/Z))],[(X/n)]}*

Where

X = amount of unamortized cash profit lying in the account 'Cash Profit on Loan Transfer Transactions Pending Recognition' at the beginning of the year

Y = amount of principal amortized during the year

Z = amount of unamortized principal at the beginning of the year

L = Loss(marked to market losses incurred on the portfolio + specific provisions, if any, made against the exposures to the particular securitization transaction + direct write-off) excluding loss incurred on credit enhancing interest only strip

n = residual maturity of the securitization transaction

276. Banks should also hold capital against securitization exposures in terms of the guidelines of RBI without taking into account balance in "*Cash Profit on Loan Transfer Transactions Pending Recognition* Account".

277. For securitization transactions wherein a part of the asset is retained by the originating bank, such as the I/O strip or the Principle strip, an on-balance sheet asset is created for the same. However, banks are mandated not to recognize unrealized gains or losses from such transactions in the Profit and Loss account and instead should be held under an accounting head 'Unrealized Gain on Loan Transfer Transactions'. Thus, for such assets, gain or loss can only be accounted on an actual basis, not accrual basis.

b. Indian Accounting Standards (IND AS)

<u>Consolidation of Financial Statements</u>

278. IND AS – 27 dictates that if an SPE is a subsidiary of the originator, or if the originator holds a variable interest in the SPE, then the consolidation of the financial statements all such entities must be done by the originator.

279. In variable interest, the originator may not be the majority holder of the voting rights in the SPE, but may materially control the activities of the SPE in order to obtain economic benefits from the same.

<u>De-recognition of Securitized Assets</u>

Identical to AS – 30

c. Accounting Standards for Investors

280. Since securitization transaction are capital market transactions, no specific accounting guidelines exist for investors holding securitized assets.

d. AS – 30

Recognition and Derecognition

Initial Recognition

14. An entity should recognize a financial asset or a financial liability on its balance sheet when, and only when, the entity becomes a party to the contractual provisions of the instrument. (See paragraphs 38-42 with respect to regular way purchases of financial assets.)

Derecognition of a Financial Asset

15. Before evaluating whether, and to what extent, derecognition is appropriate under paragraphs 16-22, an entity determines whether those paragraphs should be applied to a part of a financial asset (or a part of a group of similar financial assets) or a financial asset (or a group of similar financial assets) in its entirety, as follows.

(a) Paragraphs 16-22 are applied to a part of a financial asset (or a part of a group of similar financial assets) if, and only if, the part being considered for derecognition meets one of the following three conditions.

(i) The part comprises only specifically identified cash flows from a financial asset (or a group of similar financial assets). For example, when an entity enters into an interest rate strip whereby the counterparty obtains the right to the interest cash flows, but not the principal cash flows from a debt instrument, paragraphs 16-22 are applied to the interest cash flows.

(ii) The part comprises only a fully proportionate (pro rata) share of the cash flows from a financial asset (or a group of similar financial assets). For example, when an entity enters into an arrangement whereby the counterparty obtains the rights to a 90 per cent share of all cash flows of a debt instrument, paragraphs 16-22 are applied to 90 per cent of those cash flows. If there is more than one counterparty, each counterparty is not required to have a proportionate share of the cash flows provided that the transferring entity has a fully proportionate share.

(iii) The part comprises only a fully proportionate (pro rata) share of specifically identified cash flows from a financial asset (or a group of similar financial assets). For example, when an entity enters into an arrangement whereby the counterparty obtains the rights to a 90 per cent share of interest cash flows from a financial asset, paragraphs 16- 22 are applied to 90 per cent of those interest cash flows. If there is more than one counterparty, each counterparty is not required to have a proportionate share of the specifically identified cash flows provided that the transferring entity has a fully proportionate share.

(b) In all other cases, paragraphs 16-22 are applied to the financial asset in its entirety (or to the group of similar financial assets in their entirety). For example, when an entity transfers (i) the rights to the first or the last 90 per cent of cash collections from a financial asset (or a group of financial assets), or (ii) the rights to 90 per cent of the cash flows from a group of receivables, but provides a guarantee to compensate the buyer for any credit losses up to 8 per cent of the principal amount of the receivables, paragraphs 16-22 are applied to the financial asset (or a group of similar financial assets) in its entirety.

In paragraphs 16-26, the term ‘financial asset’ refers to either a part of a financial asset (or a part of a group of similar financial assets) as identified in (a) above or, otherwise, a financial asset (or a group of similar financial assets) in its entirety.

16. An entity should derecognize a financial asset when, and only when:

(a) the contractual rights to the cash flows from the financial asset expire; or

(b) it transfers the financial asset as set out in paragraphs 17 and 18 and the transfer qualifies for derecognition in accordance with paragraph 19. (See paragraphs 38-42 for regular way sales of financial assets.)

17. An entity transfers a financial asset if, and only if, it either:

(a) transfers the contractual rights to receive the cash flows of the financial asset;

or

(b) retains the contractual rights to receive the cash flows of the financial asset, but assumes a contractual obligation to pay the cash flows to one or more recipients in an arrangement that meets the conditions in paragraph 18.

18. When an entity retains the contractual rights to receive the cash flows of a financial asset (the 'original asset'), but assumes a contractual obligation to pay those cash flows to one or more entities (the 'eventual recipients'), the entity treats the transaction as a transfer of a financial asset if, and only if, all of the following three conditions are met.

(a) The entity has no obligation to pay amounts to the eventual recipients unless it collects equivalent amounts from the original asset. Short-term advances by the entity to the eventual recipients with the right of full recovery of the amount lent plus accrued interest at market rates do not violate this condition.

(b) The entity is prohibited by the terms of the transfer contract from selling or pledging the original asset other than as security to the eventual recipients for the obligation to pay them cash flows.

(c) The entity has an obligation to remit any cash flows it collects on behalf of the eventual recipients without material delay. In addition, the entity is not entitled to reinvest such cash flows, except for investments in cash or cash equivalents (as defined in AS 3, Cash Flow Statements) during the short settlement period from the collection date to the date of required remittance to the eventual recipients, and interest earned on such investments is passed to the eventual recipients.

19. When an entity transfers a financial asset (see paragraph 17), it should evaluate the extent to which it retains the risks and rewards of ownership of the financial asset. In this case:

(a) If the entity transfers substantially all the risks and rewards of ownership of the financial asset, the entity should derecognize the financial asset and recognize separately as assets or liabilities any rights and obligations created or retained in the transfer.

(b) If the entity retains substantially all the risks and rewards of ownership of the financial asset, the entity should continue to recognize the financial asset.

(c) If the entity neither transfers nor retains substantially all the risks and rewards of ownership of the financial asset, the entity should determine whether it has retained control of the financial asset. In this case:

(i) If the entity has not retained control, it should derecognize the financial asset and recognize separately as assets or liabilities any rights and obligations created or retained in the transfer.

(ii) If the entity has retained control, it should continue to recognize the financial asset to the extent of its continuing involvement in the financial asset (see paragraph 30).

20. The transfer of risks and rewards (see paragraph 19) is evaluated by comparing the entity's exposure, before and after the transfer, with the variability in the amounts and timing of the net cash flows of the transferred asset. An entity has retained substantially all the risks and rewards of ownership of a financial asset if its exposure to the variability in the present value of the future net cash flows from the financial asset does not change

significantly as a result of the transfer (e.g., because the entity has sold a financial asset subject to an agreement to buy it back at a fixed price or the sale price plus a lender's return). An entity has transferred substantially all the risks and rewards of ownership of a financial asset if its exposure to such variability is no longer significant in relation to the total variability in the present value of the future net cash flows associated with the financial asset (e.g., because the entity has sold a financial asset subject only to an option to buy it back at its fair value at the time of repurchase or has transferred a fully proportionate share of the cash flows from a larger financial asset in an arrangement, such as a loan sub-participation, that meets the conditions in paragraph 18).

21. Often it will be obvious whether the entity has transferred or retained substantially all risks and rewards of ownership and there will be no need to perform any computations. In other cases, it will be necessary to compute and compare the entity's exposure to the variability in the present value of the future net cash flows before and after the transfer. The computation and comparison is made using as the discount rate an appropriate current market interest rate. All reasonably possible variability in net cash flows is considered, with greater weight being given to those outcomes that are more likely to occur.

22. Whether the entity has retained control (see paragraph 19(c)) of the transferred asset depends on the transferee's ability to sell the asset. If the transferee has the practical ability to sell the asset in its entirety to an unrelated party and is able to exercise that ability unilaterally and without needing to impose additional restrictions on the transfer, the entity has not retained control. In all other cases, the entity has retained control.

23. In consolidated financial statements, paragraphs 15-22 and Appendix A paragraphs A57-A75 are applied at a consolidated level. Hence, an entity first consolidates all subsidiaries in accordance with AS 21 and then applies paragraphs 15-22 and Appendix A paragraphs A57-A75 to the resulting group.

Transfers that Qualify for Derecognition (see paragraph 19(a) and (c)(i))

24. If an entity transfers a financial asset in a transfer that qualifies for derecognition in its entirety and retains the right to service the financial asset for a fee, it should recognize either a servicing asset or a servicing liability for that servicing contract. If the fee to be received is not expected to compensate the entity adequately for performing the servicing, a servicing liability for the servicing obligation should be recognized at its fair value. If the fee to be received is expected to be more than adequate compensation for the servicing, a servicing asset should be recognized for the servicing right at an amount determined on the basis of an allocation of the carrying amount of the larger financial asset in accordance with paragraph

25. If, as a result of a transfer, a financial asset is derecognized in its entirety but the transfer results in the entity obtaining a new financial asset or assuming a new financial liability, or a servicing liability, the entity should recognize the new financial asset, financial liability or servicing liability at fair value.

26. On derecognition of a financial asset in its entirety, the difference between:

(a) The carrying amount and

(b) The sum of

(i) The consideration received (including any new asset obtained less any new liability assumed) and

(ii) Any cumulative gain or loss that had been recognized directly in an equity account, say, Investment Revaluation Reserve Account (see paragraph 61(b)) should be recognized in the statement of profit and loss.

27. If the transferred asset is part of a larger financial asset (e.g., when an entity transfers interest cash flows that are part of a debt instrument, see paragraph 15(a)) and the part transferred qualifies for derecognition in its entirety, the previous carrying amount of the larger financial asset should be allocated between the part that continues to be recognized and the part that is derecognized, based on the relative fair values of those parts on the date of the transfer. For this purpose, a retained servicing asset should be treated as a part that continues to be recognized. The difference between:

(a) The carrying amount allocated to the part derecognized and

(b) The sum of (i) the consideration received for the part derecognized (including any new asset obtained less any new liability assumed) and (ii) any cumulative gain or loss allocated to it that had been recognized directly in the equity account (see paragraph 61(b)) should be recognized in the statement of profit and loss. A cumulative gain or loss that had been recognized in the equity account is allocated between the part that continues to be recognized and the part that is derecognized, based on the relative fair values of those parts.

28. When an entity allocates the previous carrying amount of a larger financial asset between the part that continues to be recognized and the part that is derecognized, the fair value of the part that continues to be recognized needs to be determined. When the entity has a history of selling parts similar to the part that continues to be recognized or other market transactions exist for such parts, recent prices of actual transactions provide the best estimate of its fair value. When there are no price quotes or recent market transactions to support the fair value of the part that continues to be recognized, the best estimate of the fair value is the difference between the fair value of the larger financial asset as a whole and the consideration received from the transferee for the part that is derecognized.

Transfers that Do Not Qualify for Derecognition (see paragraph 19(b))

29. If a transfer does not result in derecognition because the entity has retained substantially all the risks and rewards of ownership of the transferred asset, the entity should continue to recognize the transferred asset in its entirety and should recognize a financial liability for the consideration received. In subsequent periods, the entity should recognize any income on the transferred asset and any expense incurred on the financial liability.

Continuing Involvement in Transferred Assets (see paragraph 19(c)(ii))

30. If an entity neither transfers nor retains substantially all the risks and rewards of ownership of a transferred asset, but retains control of the transferred asset, the entity continues to recognize the transferred asset to the extent of its continuing involvement. The extent of the entity's continuing involvement in the transferred asset is the extent to which it is exposed to changes in the value of the transferred asset. For example:

(a) when the entity's continuing involvement takes the form of guaranteeing the transferred asset, the extent of the entity's continuing involvement is the lower of (i) the carrying amount of the asset and (ii) the maximum amount of the consideration received that the entity could be required to repay ('the guarantee amount').

(b) When the entity's continuing involvement takes the form of a written or purchased option (or both) on the transferred asset, the extent of the entity's continuing involvement is the amount of the transferred asset that the entity may repurchase. However, in case of a written put option on an asset that is measured at fair value, the extent of the entity's continuing involvement is limited to the lower of the fair value of the transferred asset and the option exercise price (see paragraph A71).

(c) when the entity's continuing involvement takes the form of a cash-settled option or similar provision on the transferred asset, the extent of the entity's continuing involvement is measured in the same way as that which results from non-cash settled options as set out in (b) above.

31. When an entity continues to recognize an asset to the extent of its continuing involvement, the entity also recognizes an associated liability. Despite the other measurement requirements in this Standard, the transferred asset and the associated liability are measured on a basis that reflects the rights and obligations that the entity has retained. The associated liability is measured in such a way that the net carrying amount of the transferred asset and the associated liability is:

(a) The amortized cost of the rights and obligations retained by the entity, if the transferred asset is measured at amortized cost; or

(b) Equal to the fair value of the rights and obligations retained by the entity when measured on a stand-alone basis, if the transferred asset is measured at fair value.

32. The entity should continue to recognize any income arising on the transferred asset to the extent of its continuing involvement and should recognize any expense incurred on the associated liability.

33. For the purpose of subsequent measurement, recognized changes in the fair value of the transferred asset and the associated liability are accounted for consistently with each other in accordance with paragraph 61, and should not be offset.

34. If an entity's continuing involvement is in only a part of a financial asset (e.g., when an entity retains an option to repurchase part of a transferred asset, or retains a residual interest that does not result in the retention of substantially all the risks and rewards of ownership and the entity retains control), the entity allocates the previous carrying amount of the financial asset between the part it continues to recognize under continuing

involvement, and the part it no longer recognizes on the basis of the relative fair values of those parts on the date of the transfer. For this purpose, the requirements of paragraph 28 apply. The difference between:

(a) the carrying amount allocated to the part that is no longer recognized; and

(b) the sum of:

(i) the consideration received for the part no longer recognized and

(ii) any cumulative gain or loss allocated to it that had been recognized directly in the appropriate equity account (see paragraph 61(b)) should be recognized in the statement of profit and loss. A cumulative gain or loss that had been recognized in the equity account is allocated between the part that continues to be recognized and the part that is no longer recognized on the basis of the relative fair values of those parts.

35. If the transferred asset is measured at amortized cost, the option in this Standard to designate a financial liability as at fair value through profit or loss is not applicable to the associated liability.

All Transfers

36. If a transferred asset continues to be recognized, the asset and the associated liability should not be offset. Similarly, the entity should not offset any income arising from the transferred asset with any expense incurred on the associated liability (see AS 31, Financial Instruments: Presentation, paragraph 72).

37. If a transferor provides non-cash collateral (such as debt or equity instruments) to the transferee, the accounting for the collateral by the transferor and the transferee depends on whether the transferee has the right to sell or repledge the collateral and on whether the transferor has defaulted. The transferor and transferee should account for the collateral as follows:

(a) If the transferee has the right by contract or custom to sell or repledge the collateral, then the transferor should reclassify that asset in its balance sheet (e.g., as a loaned asset, pledged equity instruments or repurchase receivable) separately from other assets.

(b) If the transferee sells collateral pledged to it, it should recognize the proceeds from the sale and a liability measured at fair value for its obligation to return the collateral.

(c) If the transferor defaults under the terms of the contract and is no longer entitled to redeem the collateral, it should derecognize the collateral, and them transferee should recognize the collateral as its asset initially measured at fair value or, if it has already sold the collateral, derecognize its obligation to return the collateral.

L. Annexure – 12: Pension funds structure

a. Employees' Provident Fund (EPF) and Employee Pension Scheme (EPS)

1. The Employee Provident Fund and Employee Pension Scheme are regulated by the Ministry of Labour and Employment, Government of India and administered by the Employee Provident Fund Organization (EPFO).

2. The EPFO fund corpus is managed by five fund managers, and follow the investment guidelines prescribed by the Ministry of Labour and Employment. While EPFO's legal form is that of a trust, these fund managers take the form of a company.

3. The fund managers of EPFO are:

    a. SBI

    b. ICICI Securities

    c. Reliance Capital

    d. HSBC AMC

    e. UTI AMC

4. These fund managers are selected usually for a three-year term period, post bidding by various AMCs on the fund management fees to be charged to EPFO.

b. National Pension System

1. The National Pension System is administered and regulated by the Pension Funds Regulatory and Development Authority.

2. Similar to the EPS, the NPS corpus is also managed by fund managers who take the legal form of a company. These fund managers depend on the business model of the NPS.

3. For the all-citizens and corporate model, investors can choose from eight fund managers, of which SBI Pension Funds Pvt. Ltd. is the default fund manager.

    a. HDFC Pension Management Co. Ltd.

    b. ICICI Prudential Pension Fund Management Co. Ltd.

    c. Kotak Mahindra Pension Fund Ltd.

    d. LIC Pension Fund Ltd.

    e. Reliance Capital Pension Fund Ltd.

    f. **SBI Pension Funds Pvt. Ltd (Default)**

g. UTI Retirement Solutions Ltd

h. Pension Fund (PF) to be incorporated by Birla Sunlife Insurance Co. Ltd

4. For the government sector model, the funds are managed by three fund managers, namely:

   a. SBI Pension Funds Pvt. Ltd.

   b. LIC Pension Fund Ltd.

   c. UTI Retirement Solutions Ltd

c. National Investment and Infrastructure Fund (NIIF)

1. The National Investment and Infrastructure Fund (NIIF) is an initiative proposed by the Ministry of Finance, Government of India, in the Budget – 2015, to encourage investment in infrastructure in the country.

2. The proposed fund is expected to have an initial corpus of Rs 20,000 crore, of which 49% would be contributed by the government, and the balance funds coming from cash-rich state-run entities, including the pension and provident funds, and National Small Savings funds.

3. The NIIF is to be set up in the form of a trust, under any category of Alternative Investment Funds (AIF) of the SEBI Regulations. If set up under Category I or II, the fund would take status of a pass-through entity for tax purposes. If set up under Category III, income received by the fund would be taxable at the trust level, and the income transferred to unit holders will be tax exempt.

4. The fund can raise debt and invest in:

   a. Equity of financial institutions involved in the business of infrastructure financing.

   b. Equity or debt directly to commercially viable projects (both greenfield and brownfield), including stalled projects.

   c. In funds investing mainly in the infrastructure sector

M. Annexure – 13: Basel III risk weights

Asset	Risk Weight
Investments in Government securities	0%
Claims on foreign sovereigns	0 – 100%, depending on credit rating
Claims on public sector entities	20 – 100%, depending on credit rating
Claims on commercial banks: 1) For investment in equity shares of banks wherein less than 10% of the outstanding shares are held by the investing bank 2) For investment in equity shares of banks wherein less than 10% of the outstanding shares are held by the investing bank	 125% 250%
Investment in bank bonds	20%
Claims on foreign banks	20 – 50%, depending on credit rating
Claims on corporates	20 – 100%, depending on credit rating
Individual housing loans	50 – 75%, depending on the book value
Commercial real estate loans	100%
Claims on VC funds, which are considered high risk exposures	150%
Treatment of Securitization Exposures	
Credit enhancements with first loss positions	1111%
Exposure of B+ and below rating, Unrated exposures	1111%
Securitization exposure which do not meet the RBI guidelines on securitization	1111%

Table 45: Risk weights for securitization exposures

Rating	AAA	AA	A	BBB	BB	B and below or unrated
Risk Weight for non-originator banks	20%	30%	50%	100%	350%	1111%
Risk Weight for originator banks	20%	30%	50%	100%	1111%	1111%

Table 46: Risk weights for commercial real estate securitization exposures

Rating	AAA	AA	A	BBB	BB	B and below or unrated
Risk Weight for non-originator banks	100%	100%	100%	150%	400%	1111%
Risk Weight for originator banks	100%	100%	100%	150%	1111%	1111%

N. Annexure – 14: Chapter XII - EA

281. After Chapter XII-E of the Income-tax Act, the following Chapter shall be inserted with effect from the 1st day of June, 2013, namely:—

CHAPTER XII-EA

Special provisions relating to tax on distributed income by securitization trusts

282. *115TA. Tax on distributed income to investors.*—(1) Notwithstanding anything contained in any other provisions of the Act, any amount of income distributed by the securitization trust to its investors shall be chargeable to tax and such securitization trust shall be liable to pay additional income-tax on such distributed income at the rate of—

   I. twenty-five per cent. on income distributed to any person being an individual or a Hindu undivided family ;

   II. thirty per cent. on income distributed to any other person :

283. Provided that nothing contained in this sub-section shall apply in respect of any income distributed by the securitization trust to any person in whose case income, irrespective of its nature and source, is not chargeable to tax under the Act.

284. The person responsible for making payment of the income distributed by the securitization trust shall be liable to pay tax to the credit of the Central Government within fourteen days from the date of distribution or payment of such income, whichever is earlier.

285. The person responsible for making payment of the income distributed by the securitization trust shall, on or before the 15th day of September in each year, furnish to the prescribed income-tax authority, a statement in the prescribed form and verified in the prescribed manner, giving the details of the amount of income distributed to investors during the previous year, the tax paid thereon and such other relevant details, as may be prescribed.

286. No deduction under any other provisions of this Act shall be allowed to the securitization trust in respect of the income which has been charged to tax under sub-section (1).

287. *115TB.* Interest *payable for non-payment of tax.*—Where the person responsible for making payment of the income distributed by the securitization trust and the securitization trust fails to pay the whole or any part of the tax referred to in sub-section (1) of section 115TA, within the time allowed under sub-section (2) of that section, he or it shall be liable to pay simple interest at the rate of one per cent. every month or part thereof on the amount of such tax for the period beginning on the date immediately after the last date on which such tax was payable and ending with the date on which the tax is actually paid.

288. *115TC. Securitization trust to be assessee in default.*—If any person responsible for making payment of the income distributed by the securitization trust and the securitization trust does not pay tax, as referred to in sub-section (1) of section 115TA, then, he or it shall be deemed to be an assessee in default in respect of the amount of tax payable by him or it and all the provisions of this Act for the collection and recovery of income-tax shall apply.

289. *Explanation*.—For the purposes of this Chapter,—

I. "investor" means a person who is holder of any securitized debt instrument or securities issued by the securitization trust ;

II. "securities" means debt securities issued by a Special Purpose Vehicle as referred to in the guidelines on securitization of standard assets issued by the Reserve Bank of India ;

III. "securitized debt instrument" shall have the same meaning as assigned to it in clause(s) of sub-regulation (1) of regulation 2 of the Securities and Exchange Board of India (Public Offer and Listing of Securitized Debt Instruments) Regulations, 2008, made under the Securities and Exchange Board of India Act, 1992 (15 of 1992), and the Securities Contracts (Regulation) Act, 1956 (42 of 1956) ;

IV. "securitization trust" means a trust, being a—

290. "special purpose distinct entity" as defined in clause (u) of sub-regulation (1) of regulation 2 of the Securities and Exchange Board of India (Public Offer and Listing of Securitized Debt Instruments) Regulations, 2008, made under the Securities and Exchange Board of India Act, 1992 (15 of 1992), and the Securities Contracts (Regulation) Act, 1956 (42 of 1956), and regulated under the said regulations; or

291. "special purpose vehicle" as defined in, and regulated by, the guidelines on securitization of standard assets issued by the Reserve Bank of India,

292. which fulfills such conditions, as may be prescribed.'

O. Annexure – 13: Stakeholder Consultations

Sr. no.	Category	Company	Name	Designation
1.	MoF	Department of Economic Affairs	• Ms. Sharmila Chavaly,	• JS, Infrastructure Finance
2.	MoF	Department of Financial Services	• Ms. Anna Roy	• JS
3.	Regulator	Reserve Bank of India	• Mr. Sudharsan Sen • Ms. Anupam Sonal	• Chief General Manager • General Manager
4.	Arranger	Yes Bank - Debt Capital Markets	• P. Rakesh • Purav Shah	• MD Co-Head Debt Capital Markets • Associate Director, Debt Capital Markets
5.	Arranger	I-Sec PD	• Shameek Ray	• Head – Debt Capital Markets
6.	Arranger	Kotak - Debt Market Arrangers	• Manoj Gupta	• Exec. VP – Corporate and Structured Products
7.	Investor – Life Insurance Fund	Life Insurance Corporation of India	• P.H.Kutumbe	• CIO
8.	Investor – Life Insurance Fund	SBI Life Insurance Corporation of India	• Nirmal D Gandhi	• AVP Investment
9.	Investor – Life Insurance Fund	HDFC Standard Life Insurance Co. Ltd.	• Badrish Kulhali	• Sr. Fund Manager - Fixed Income
10.	Investor – Pension Fund	SBI Pension Funds	• Brajraj Krishna	• CIO
11.	Investor – Pension Fund	EPFO	• K.K.Jalan, IAS	• Central PF Commissioner

12.	Investor – Mutual Funds	Franklin Templeton MF	• Kunal Agarwal	• Co-Head – Credit Fixed Income
13.	Investor – Mutual Funds	UTI Asset Management Company Limited	• Amandeep Chopra	• President, Head - Fixed Income
14.	Investor – Insurance Fund	HDFC Asset Management Company	• Mr. Shobit Mehrotra	• Senior Fund Manager and Head of Credit
15.	Investor – Bank	ICICI Bank – Retail Structured Finance	• Saikrishnan S. • Seema Iyer	• Deputy General Manager – Retail Structured Finance • Senior Relationship Manager
16.	Investor – Bank	Standard Chartered	• Hitesh Girish	• Director
17.	Investor – Private Equity Firm	Kotak Private Equity	• Anirban Sen	• Principal
18.	Originator – Public Sector Bank	IDBI	• N.S. Venkatesh	• ED & CFO
19.	Originator – Public Sector Bank	Union Bank	• K.N.Regunathan	• GM, Treasury
20.	Originator – Public Sector Bank	Punjab National Bank	• Ved Mathur	• GM, Recovery
21.	Originator – Public Sector Bank	Syndicate Bank	• Uday Shankar Majumder	• GM, Treasury
22.	Originator – Public Sector Bank	Bank of Baroda	• Jhurmarvala Dipesh N.	• GM, Treasury
23.	Originator – Public Sector Bank	Andhra Bank	• A. Raier	• CGM, Treasury

24.	Rating Agency	India Ratings and Research	• Sandeep Singh	• Director – Structured Ratings
25.	Rating Agency	ICRA	• Karthik Srinivasan	• Senior Vice President

Summary of Interactions

1. Department of Economic Affairs, Ministry of Finance

Date: 21 September 2015

Stakeholders met: Ms. Sharmila Chavaly – JS, Infrastructure Finance

Key discussion Points:

1) Securitization would definitely help banks in overcoming the capitalization issues of public sector banks, while helping in Asset-liability mismatch
2) However, both the public sector banks and the investors need to be incentivized to develop the securitized market.
3) Public sector banks need to be encouraged to improve its capital efficiency and increase ROE. Ms. Chavaly would help identifying the right banks to do the pilot transaction under this program
4) Currently, the government securities overcrowd the market for all potential investors (pension, insurance funds)
5) Pension Funds could be the potential investors who could be tapped to invest in the securitized papers.
6) While securitization could be a potential tool to address the capitalization issue and increase the fund flow to infrastructure sector, it must be examined if it competes with Infrastructure Debt Fund for the same type of assets.
7) Ms. Chavaly has also acknowledged the current issues in securitization market (listed below) and assured assistance in resolving the same.
    a. Taxation of Securitisation Trust results in lower yield for insurance and pension funds.. The pending court cases on the income tax obligations for transactions executed prior to 2009, has kept mutual funds away from securitization market since 2011.
    b. The high stamp duty on the transfer of property rights /title in most of the states affects the viability of securitization transactions. Ms. Chavaly informed that few states will rationalize the stamp duty which could resolve the problem.
8) Ms. Chavaly has requested the team to send the following information:

a. Regulatory restrictions for investments in securitized papers , if any, for all types of investors

b. The impact of securitization of infrastructure loans on the Infrastructure debt fund scheme

c. The average tenure of fixed deposits of public sector banks

2. Department of Financial Services, Ministry of Finance

Date: 22nd September 2015

Stakeholders met: Ms. Anna Roy – JS, DFS

Key discussion Points:

1) Securisation could be a tool to help increase the flow of funds to infrastructure sector while releasing the capital of public sector banks

2) However, the practical issues needs to be resolved to make this successful

3) Ms. Roy was supportive of the idea and requested the team to go ahead with the execution of the technical assistance (TA), proposed by ADB under the guidance of MoF.

4) MoF would provide the required support to execute the TA.

3. Reserve Bank of India

Date: 23rd September 2015

Stakeholders met: Mr. Sudharsan Sen, Chief General Manager

Ms. Anupam Sonal, General Manager

Key discussion Points:

1) RBI acknowledged that securitization could help overcoming the asset liability mismatch and capitalization issues of public sector banks.

2) The team also discussed the fact that the public sector banks didn't participate actively in originating securitization transactions even before 2009, when securitization market was very active.

3) Infrastructure assets could be targeted for securitsation given the high recovery and ALM mismatch of banks

4) It was also acknowledged that the public sector banks need to be dis-incentivized to have a large infrastructure portfolio, as banks are not meant to provide long term funding.

    a. RBI said that it may look at increasing risk weights for infrastructure assets to dis-incentivize banks to hold infrastructure assets

5) RBI offered to provide required support for the assignment

    a. The team said that a pilot transaction would be done to test the scheme / market

b. The team will be constantly in touch to get the recommendations of RBI on the structure and other inputs for the transaction

c. The team would also send the report once it is finalized by ADB

d. RBI may provide the collective data on PSBs (not individual data of PSBs), if requested by the team.

4. Yes Bank

Date: 21 July 2015

Stakeholders met: Mr. P. Rakesh, Managing Director, Co-Head Debt Capital Markets,

Mr, Purav Shah, Associate Director, Debt Capital Markets

Key discussion Points:

1) The regulatory and taxation issues have a way-around.

2) Finding investors is the key issue

   a. Mutual funds have been the biggest investors in the securitisation market

   b. The finance bill 2013 resolved the taxation related issues for future (by levying distribution tax at the trust level) but did not take a stand on past cases imposed on MF- AMCs by the Income Tax dept.

   c. Significant capital of AMCs is parked with courts until the decision comes on the past cases.

   d. The penalties levied on MFs are for investment in securitized assets till 2008.

   e. Though there is clarity after Finance Bill 2013 on the taxation, the MF is vary of investing mainly due to two reasons:

   f. IT deptt. Might open up cases between 2008-13

   g. MFs have very less money as lot of money is parked with the courts

   h. MFs might not be interested in Infra loan assets which would be at 12-13% interest rate

   i. The current regulations allow insurance companies to invest only in highest rated 'AAA' or 'AA' credit-rated debt paper. Of this, a minimum of 75 per cent of debt instruments should have 'AAA' rating

   j. Pension funds might not invest as they are very conservative and demand loan returns of AA+

   k. Structured funds – expect very high yield (min. IRR of 16-18%)

   l. Infrastructure debt fund also hasn't found much traction in the market.

3) To get such high rating (AAA, AA+), the credit enhancement that the PSU bank would need is significant which make it unviable for bank to securitise asset.

4) Regarding Floating interest rate for infra loans - Can be tackled by swap rate mechanism

5) The lower tranche is typically 2-3% and overall credit enhancement goes up to 8%

5. ICICI Securities Primary Dealership Limited.

Date: 31 July 2015

Stakeholders met: Mr. Shameek Ray, Head – Debt Capital Markets

Key discussion Points:

1) Skeptical about the concept due to the following –

   a. Banks would not be willing to sell good loans. They are already competing when it comes to refinancing performing infrastructure loans.

   b. A single infrastructure loan has multiple lenders. Practically, it may not be possible to securitize the share of cash flows pertaining to a single bank.

   c. The fear of miss-selling is predominant within the banking sector. Since the concept of securitization is not well understood in the market, investors may be worried about being sold a bad asset.

   d. Infrastructure sector as a whole is in a bad state, investors will not invest in the coal and power sectors and lenders are not willing to sell off road assets. Though the solar power sector is doing well, it is mostly dominated by players who have failed in the other sectors, thus reducing the sector's credibility.

   e. Infrastructure loans have interest re-set features along with 1-year put/call options. It is difficult to securitize such loans.

   f. Infra bonds are the preferred mechanism amongst private sector banks.

   g. Pension funds desire safe and stable investments. May also be skeptical about Investing in AAA rated tranches, since it is part of a securitized transaction.

6. Kotak Mahindra Bank

Date: 3rd August 2015

Stakeholders met: Mr. Manoj Gupta, Exec. VP – Corporate and Structured Products.

Key discussion Points:

1) Kotak hasn't undertaken any securitization transactions in the last 4-5 years. This is largely due to unfavorable investor sentiment.

2) Taxation continues to be the primary hindrance for securitization; key concern areas being the following –

   a. The distribution tax is on the gross income. Net income of investing entities is only a small fraction of the gross income. Thus, if an investor in securitisation has to pay tax on gross incomes, not only is the tax offensive, it is also outright inequitable, as it fails to take into consideration the leverage of entities. At the same time, a tax based on gross income ignores the profits or losses of the investor, and becomes particularly inequitable in case of losses.

   b. For investors such as banks, insurance companies etc. the gross income from the investment would be taxed at a flat rate of, effectively, 28% / 34% at the trust level.

   c. Further, Expense Disallowance under 14A leads to higher tax incidence.

3) Ideally, there should be no tax incidence on the SPV. There is no real world existence of SPVs – SPVs exist legally but not substantively. The money that is collected and distributed in the name of the SPV is merely passed on to the investors.

4) In context of securitization of project finance loans –

   a. It will be difficult to securitize Project finance loans since they differ greatly from standard corporate loans; infra loans are subject to floating interest rates, longer tenures and uncertain cash flows.

   b. However, in context of multiple lenders, securitizing only a share of cash flows (pertaining to a single lender) should not be an issue theoretically.

5) Further, if a premium is provided over the floating interest rate, investors will be interested. There is some appetite amongst long term investors, given there is proper credit enhancement in the structure.

6) Overall, issues related to the securitization structure can be easily tackled if the regulatory and taxation issues are resolved

7. Life Insurance Corporation of India

Date: 21 September 2015

Stakeholders met: Mr. P.H. Kutumbe – CIO

Key discussion Points:

1) High taxation in securitized instruments is a big deterrent

2) Infra assets are not performing well -

   a. LIC does not find suitable bonds/ papers in infra sector with AA rating or above.

   b. Hence, to satisfy minimum lending to infra sector, LIC has a lending portfolio of about Rs.600 billion and has an NPA of about 5%

3) LIC is open to investments in securitized papers of infra assets, if the underlying assets are good (post-COD, with high credit quality) with sufficient credit enhancement; however, taxation issue needs to be solved.

8. SBI Life Insurance Co. Ltd.

Date: 28 July 2015

Stakeholders met: Mr. Nirmal Gandhi, AVP Investments

Key discussion Points:

4) On taxation
    a. Distribution tax levied on insurance companies is 30%; else the effective tax for insurance funds is 12-13% + cess + surcharge
    b. Unlike TDS, distribution tax (just like dividend distribution tax) cannot be claimed.
5) SBI life do not buy a product below AA rating. It also depends on the originator.
6) As per their investment regulations, they have to invest:
    a. Min. 50% in govt. securities – this actually goes even higher to 60-65%
    b. 10% in equity investments
    c. 5% is kept as cash
    d. Remaining 20% is invested in bonds.
        i. There are many options such as LIC, HDFC, Power Corporation of India etc.
        ii. 15% of this is to be compulsorily invested in infrastructure. This investment is typically done in HDFC or any of the Housing Finance companies.
7) On infra loan securitised paper:
    a. It would be a risky paper as infra loans are riskier than say housing loans
    b. They would be interested in AAA rated with 50-75 basis points higher yield than say an HDFC plain vanilla bond.
8) If floating interest rate is linked to either SBI or ICICI base rate, then it is fine. Floating interest rate has to be hedged by higher yield.

9. HDFC Standard Life Insurance Co Ltd.

Date: 3rd August 2015

Stakeholders met: Mr. Badrish Kulhali, Fund Manager (Fixed Income)

Key discussion Points:

1) Taxation is the biggest hurdle to securitization.
    a. Effective tax rate for the insurance sector (post all deductions) is only about 1-2%. Hence, deducting tax at source with the tax rate of 14% (for the insurance sector) reduces viability for the sector.
    b. International ways of taxing securitization may be explored.
    c. The structure of 'Alternative Investment Funds (AIF)' proposed by SEBI is a preferable structure.
        i. AIFs are basically funds established or incorporated in India for the purpose of pooling in capital from Indian investors

    ii. A pass-through status allows the fund to pass on the tax liability to the end-investor.

2) Other issues –
    a. Fundamentally, mutual funds and insurance companies do not have an appetite for credit risk. Hence, they are not keen to invest in lower rated papers.
    b. Secondly, the risk & reward structure is asymmetric. In case returns fall below those offered to policyholders, the shareholders are required to make good the loss, whereas any upside directly goes to the policyholders. Hence, shareholders do not have an incentive to take up credit risk.
3) On Securitization of Infrastructure Assets –
    a. A CDO structure with time tranching will work with a pool of assets
    b. Sectors to be targeted – roads, renewable energy. Insurance sector wants to invest in the renewable energy segment, however, the project size is a constraint in that sector. Hence, with a pool of assets, this structure may be attractive.
    c. The tenure of securities should not be very long. 8-11 years is the optimum, wherein the first 2-3 years can be taken by mutual funds, and the rest by Insurance companies.
    d. PSBs will be accepted as originators as long as the promoters (of infra projects) have a strong credit profile.
    e. Issues – Floating rates may not work.
        i. However, if the rates are 100-150 basis points higher than market lending rates, investors will be attracted.
        ii. RMBS often feature floating rates, and are able to find investors since investors are willing to take a call on the future trends of the rates.
        iii. The securitization trust may also keep a base rate that stays constant throughout the term of the securities. (say 7-8%, 50-100 bps above that can wary, as long as investors are guaranteed the minimum)

10. SBI Pension Funds

Date: 23rd September 2015

Stakeholders met: Mr. Brajraj Krishna – Chief Investment Officer

Key discussion Points:

1) SBI pension fund is one of the three pension funds which manages the defined contribution of government employees who joined after 2004
2) The fund strives to increase yield as there is significant competition between the three funds managing the assets
3) The fund currently has a corpus of Rs 370 billion, but is growing at a healthy rate. By 2020, the fund would manage a corpus size of about Rs 1 trillion

4) The fund predominantly invests about 50-60% in PSU and corporate bonds rated above AA. 10% of corpus is invested in G-Secs
5) The fund currently generates a net yield of more than 10%
6) The fund finds the long term nature of infra assets to be ideal for its investment strategy ; however , it finds the credit quality of infra assets to be relatively weak for its investment strategy
7) The fund is open to investments in securitized assets rated AAA or above, provided its internal credit evaluation team is satisfied with the credit quality and the issues affecting the net yield such as taxation and high stamp duty, are solved
8) Road assets and power transmission assets could be ideal for securitization. The structure should be simple for the better understanding of the risks.

11. Employee Provident Fund Organization (EPFO)

Date: 21 September 2015

Stakeholders met: Mr. KK Jalan, IAS – Central PF Commissioner.

Key discussion Points:

1) EPFO has invested in Government Securities and PSU Bonds till date. Private sector corporate bonds contribute very less to the portfolio
2) 100% of investments are in AAA rated papers
3) EPFO primarily relies on external ratings and does not have internal credit evaluation team as on date
4) The net yield of EPFO is around 8.75% currently
5) The fund mainly looks for safe investments. Risk of securitised papers have to be evaluated so as to make investments
6) EPFO would like to increase yields if safe avenues with low risk are available.
7) The current regulations limit the investments in securitized papers to up to 5 percent of the corpus.; however regulations don't pose any limitations in investments in securitized papers currently

Date: 21 September 2015

Stakeholders met: Mr. Sanjeev Kumar – Financial Advisor

Key discussion Points:

1) EPFO invests in safe long term assets to hedge against inflation and forex fluctuations
2) Apart from Government securities, housing is one of the key asset classes, which provides stable returns in the long term in India
3) EPFO would also look at equity investments (mainly exchange traded funds), to increase yields

4) In case of securitized papers, EPFO could look only If all the assets in the pool have low risk.

    a. Mr. Kumar is of the view that the diversity of pool does not reduce the risk.

5) EPFO may look at securitized papers with low risk such as NHAI annuity projects. The expected yield of such securitized paper is at least around 100 basis points higher than normal PSUs

12. Franklin Templeton MF

Date: 27 July 2015

Stakeholders met: Mr. Kunal Agrawal, Co-Head – Credit Fixed Income

Key discussion Points:

1) Mutual funds expectation as an investor class

    a. Mutual funds would be interested in shorter maturity (3-5 years') time horizon product with a yield expectation of 10.5% - 11.5% p.a.

    b. It has to be minimum of "A" category product.

    c. For a Capital market investor like mutual fund, rating and hence, credit guarantee does not matter so much.

2) To get investor class of Insurance, Pension and EPFO segments, credit guarantee would be crucial. A 15 years paper with 9.5% - 10% yield should be good for this segment of investors.

3) On taxation

    a. The cases pending in the courts need to be resolved as soon as possible to revamp mutual funds interest. In addition, there has to be assurance that no action would be taken for transactions done between 2008 and 2013.

    b. There is no ambiguity on distribution tax after the Finance Bill 2013.

    c. However, in July 2014, in one of the notifications RBI said that for SPV as defined by RBI, the distribution tax regulation would apply. Further to this, no definition of SPV is released by RBI.

    d. Hence, clearing all these ambiguities by the government (RBI and Income Tax) will enable to securitisation instruments to get enough traction in the market

4) PSBs as originators is more comforting for an investor as compared to NBFC being the originator

5) Fixed vs floating interest rate

    a. Investors would definitely prefer fixed or SBI base rates

    b. In the last 2 years, there have been few transactions with 3-5 years' time horizon products linked to SBI base rate

    c. If the product is 15 years type of long maturity, floating rate will be tough

6) For infra loan securitised product, following tranches were suggested:
   a. AAA would be of interest to Insurance/Pension funds with lower yield
   b. A would be interest to MF with slightly better yield
   c. BBB – NBFC (edelweiss, IFMR) might be interested with high yield

13. UTI Asset Management Company Limited

Date: 24th September 2015

Stakeholders met: Mr. Amandeep Chopra, President, and Head - Fixed Income

Key discussion Points:

1) Mutual funds manage a corpus of around Rs 8 trillion, out of which Rs 2 trillion is under the fixed income portfolio (debt funds)
2) Out of this Rs 2 trillion, the addressable market for securitized assets would be around 15% - Rs 300 billion
3) UTI AMC manages a corpus of Rs 11 billion under debt funds, while a corpus of Rs 60 billion is partially dedicated to debt securities
4) Mr. Chopra has an opinion that PSBs may not be keen to securitize standard infra assets
5) Mr. Chopra also opines that foreign institutional investors would be better suitable for securitized assets, as domestic investors have far higher return expectations; however bankruptcy laws need to be strengthened to attract foreign investors
6) Mutual funds are beset with taxation issues;
7) Most of the mutual funds are open ended funds which require liquidity ;lack of liquidity will dampen the interest of mutual funds in securitized assets
8) Pension funds would be better investor class for securitized assets

14. HDFC Asset Management Company

Date: 23rd September 2015

Stakeholders met: Mr. Shobit Mehrotra – Senior Fund Manager and Head of Credit

Key discussion Points:

1) Mutual funds were highly active in securitization market till 2009
2) After the tax demand form Income Tax department in 2011, the investments of mutual funds in securitized papers completely stopped
3) Though the taxation was clarified (on retrospective basis) in Finance Bill 2013,the mutual funds are not really confident
4) Mutual funds expect the laws and regulations to be changed instead of just a clarification in the budget

5) Further Trust law is not sound enough, which could result in Income Tax Authority demanding tax, even after the clarification in budget 2013

6) If the taxation issue is solved satisfactorily, HDFC AMC may look at securitized papers of short to medium term, preferably within 5 years

7) In case of infra assets, HDFC AMC have invested only in an NHAI annuity asset till date.

8) The illiquidity risk of securitized infra assets will be a challenge for mutual funds. Further, the floating rates of infrastructure assets will be a challenge for mutual fund investments

9) HDFC AMC generally do not invest below A rated papers. Most of its portfolio is rated above AA

15. ICICI Bank

Date: 31 July 2015

Stakeholders met: Mr. Saikrishnan S, Deputy GM (Retail Structured Finance)

Ms. Seema Iyer, Senior Relationship Manager

Key discussion Points:

1) On Current Scenario of securitization in India –

   a. Overall, Rs 7,000-8,000 Cr worth of securitization took place in the current year. A large portion of this constituted of RMBS, primarily driven by PSL (as much as 90%)

   b. The securitization market has witnessed high de-growth, there is abundant negativity in the market regarding the same.

   c. There is absolutely no investor origination with NBFCs being key originators. Assets are limited to those of the retail sector.

   d. There is hardly any credit off-take. Nationalized banks undertake direct sell-downs for capital relief.

   e. Structural complexities in securitization is holding the market back.

2) Key Issues with Securitization –

   a. Mutual Funds is an important investor segment. However, due to legacy issues, Mutual Funds haven't returned to securitization.

   b. Insurance and pension funds do not have an appetite for investing in structured papers.

   c. Expense Disallowance under 14A –As the income so distributed in the hands of investors is tax free, the provisions of section 14A on proportional disallowance of expenditure of the investors applies. As a result, the tax implications are higher.

      - *Section 14A of the Income-tax Act, 1961, provides that for the purposes of computing the total income under Chapter-IV of the said Act, no deduction shall be allowed in respect of expenditure incurred by the assessee in* *relation to income which does not form part of the total income under the Income-tax Act.*

3) Specific concerns regarding securitization in the Infrastructure Sector –

    a. Ticket size is large and lenders are multiple.

    b. Diversification benefits are limited.

    c. Future cash flows are unidentifiable and assets may not be homogenous.

    d. PSB's may look at other assets for securitization, however, with PSB's, there may exist a case of data insufficiency for credit rating purposes.

4) Private Banks will not be willing to invest in PTCs unless the returns are higher than 12-13%

16. Standard Chartered Bank

Date: 6th October 2015

Stakeholders met: Mr. Hitesh Girish, Director

Key discussion Points:

1) Trust is the easiest structure for securitisation, however, tax issues are a major impediment.

    a. Distribution Tax results in higher tax implications for insurance, pension as they end up paying tax on gross income. Further, the distributed income is tax exempt, and the associated expenses cannot be disallowed as per section 14A.

    b. Mutual Funds are unable to classify themselves as tax-free, they are unsure of securitisation due to previous litigations and do not want to take a risk.

2) Other concerns

    a. Market acceptance for securitized papers will come at a minimum rating of AA+(SO); credit enhancement is critical.

    b. Insurance companies cannot invest more than 10% of their net worth in a single investment.

    c. Cost implications will be high – cost of credit enhancement, assignment costs etc. may be disincentives for public sector banks

    d. Floating to fixed rate – there is no natural hedge to a bank's base rate. PSBs will have to provide a swap

    e. Merging bank loans may be a challenge due to difference in lending terms and loan clauses

    f. Consent from borrowers may also be needed.

17. Kotak Private Equity

Date: 15th October 2015

Stakeholders met: Mr. Anirban Sen, Principal

Key discussion Points:

1) PE firms will not be interested since their return expectations are very high – 19-20%
    a. They have never looked at securitized papers because of the low yields. (relatively)
    b. Developers are able to refinance operating assets in the market at 9-10%, are also able to raise money at 14-15%, thus they can't match PE firm expectations.

18. IDBI Bank

Date: 6th August 2015

Stakeholders met: Mr. N.S.Venkatesh, Executive Director and CFO

Key discussion Points:

1) Just like all other PSBs, IDBI bank's portfolio is under tremendous stress.
    a. Banks have given credit to Telecom, road and power sector projects
    b. There are some 30 promoters in infrastructure sector which have taken credit for their projects. Banks have given loans because they know the promoters and have confidence in them that they will make the projects up and running. For the development projects, promoters have put in equity from the group's EPC entity, to which the EPC wok was outsourced. The EPC entity is also funded using bank debts. So, in a way, a major proportion of the 30% equity money in development projects by promoters is also bank funds.
2) On securitisation of infra loans
    a. Securitisation of infra loans is a good idea; when structured properly, it will work for the bank as well as will as investors
    b. One level of Due Diligence of the portfolio has been done and that's the reason a consortium of banks have put in money. So, investors are assured at one level. For second level, they may do their own diligence.
    c. If securitisation is of post COD stage projects, they are anyway taking cash-flow risk only.
    d. Under securitisation, 100% of the loan can be sold by the bank for which cash will come to the bank which can be further used for lending
    e. If say 20% is left with the bank for collateralization purpose, bank would probably need support from ADB for which the bank can pay a fee to ADB

f. Foreign capital need to invest (Investment Management companies such as BlackRock, Foreign Insurance and Pension Funds); Why he believes so strongly that they would be interested only if taxation issues is solved for them45 –

g. They believe in India's growth story

3) India's infrastructure story

a. Are interested in long term debts and get higher yields in India. That's the reason they are investing in Banks' Perpetual Bonds

b. Rest could be Indian investors - Insurance Fund/Pension Fund/Provident Fund/Mutual Fund

4) On Long-term funding by banks

a. Strong belief Banks are not equipped to do long – term funding when their liability cycle is of 1 year. Banks should actually concentrate on funding of trade.

b. There is a strong need of long-term financing institutions; Two such institutions are IFCI which is mainly doing refinancing and IIFCL which is not doing anything incremental in the market

5) In CRISIL's report, of the need for specialised long-term financing institution should be included. Even the IMF report, 2012 talks about the even developed countries requiring specialised financial institutions for financing long-term projects in the country. In case of developing countries, it is a must. Present RBI governor, Raghuram Rajan has signed the report.

6) On issues in securitisation

a. Taxation – The distribution of income from trust to investor is net-off tax on which section 14A applies. This reduces the net yield for the investor.

b. Stamp duty rationalisation would be required across states.

c. Need of Bankruptcy court - In case of non-repayment by borrowers, enforcement of the security will become an issue. In the current judicial system, it takes a generation of time for solving one case.

d. For this, the govt. should act fast on Financial Sector Legislative Reforms Commission (FSLRC) recommendation on setting up of Bankruptcy courts. This court has a Supreme Court type of structure where this court would be the highest authority; there would be only one court filing and no appeals.

e. Foreign investors will come only when they are assured that if something goes bad, resolution will happen quickly.

7) Role of Asset Reconstruction Companies (ARC) - Presently not solving the problem.

[45] FII in real estate projects is allowed after the recent development where RBI allowed them to invest and sell property. Only clause is that the buyer of real estate properties have to be Indian.

a. Asset Reconstruction Company (India) Limited (ARCIL) is buying the assets from banks and selling it to promoters

b. They are acting like a broker where in the process, they make a significant margin

c. ARCIL is supposed to put 15% equity but they adjust the values in such a way, they actually put only 5% money

d. On securitisation of including one banks' asset loan in the securitised portfolio, where a consortium of banks has granted loan to that asset

e. NOCs from other banks would be needed which should not be a problem

f. On infra loans being on floating interest rate

g. In case of floating interest rate which is typically linked to banks' Prime Lending Rate (PLR), the terms and conditions with the borrower will have condition as PLR + X% will be charged

h. It could be solved as part of structuring where Lender could give assurance to the investor to compensate whenever it drops below a certain rate

8) On participation as candidate bank for the securitisation study

a. IDBI will be interested to participate for the development of the market

b. On being asked if the bank would be ready to part with the good assets - IDBI will have no issues in selling good assets

c. Should be structured in such a way that for the Originator bank it should come as a True Sale and not Covered Bond Issuance46

19. Union Bank

Date: 11th September 2015

Stakeholders met: Mr. K.N. Regunathan, GM, Treasury

Key discussion Points:

1) Taxation issues arising out of Pass-through certificates are a major deterrent for investors like HNIs to invest in securitized assets

2) Income from PTCs are taxable at the trustee level, but no TDS certificates are issued to the investor.

3) For banks, infrastructure assets are the ideally suited for securitization, as retail assets are mainly retained to comply with Priority Sector Lending norms. Large-ticket housing loans which can be securitized are generally issued by NBFCs on the basis of relationship banking and have more lenient documentation requirements.

[46] For Covered Bond Issuance, as per Banking Relations Act RBI permission is required.

4) The infrastructure sector has the largest share of NPAs, and hence credit growth drivers are needed to increase demand for credit and serve as an incentive for securitizing infrastructure assets. Currently, the rate of credit growth is slower than the rate of deposit growth and hence Union Bank does not foresee any capital adequacy issues in the near future.

5) For increase in the loan book size of infrastructure assets, private sector investments in the sector needs a boost – this will lead to a faster roll-over of funds and provide an incentive to banks to monetize their performing infrastructure assets.

20. Punjab National Bank

Date: 21 September 2015

Stakeholders met: Mr. Ved Mathur – GM, Recovery Division,

Mr. LK Malhotra – GM, Recovery Division

Mr. Balbir Singh – Chief Manager, Strategic Management & Advisory Business.

Key discussion Points:

6) Securitisation could be used to offload infra assets of the bank ; but the stressed infra portfolio won't have many buyers

7) PNB's infra portfolio is dominated by road and power generation sector assets

8) PNB's Tier 1 capital ratio as on June is comfortable at over 9.5% because of government equity infusion of Rs.1832 crores and low credit growth

9) PNB may not have capitalization problem in the next 1-2 years as the credit growth is expected to be low; the credit growth for FY 2016 is expected to be around 10%

10) However, if the credit growth improves on account of economic recovery, it might have to look at alternate avenues to meet BASEL III norms, including securitization.

Date: 21 September 2015

Stakeholders met: Mr. Ram Kumar – DGM, Industrial Rehabilitation Department – Credit Division

Key discussion Points:

1) The main problem of infra sector is high leverage, clearances / RoW issues and lack of integrity of promoters. There has to be measures to solve these issues to increase funding to infra sector

2) Securitization of infra assets is an efficient tool for banks to improve capital efficiency and portfolio diversity

    a. Banks have significant asset-liability mismatch (ALM) due to the long tenure of infra assets.

    b. The capital released through securitized infra assets could be efficiently deployed in more suitable asset classes which could provide better returns, while addressing ALM issue

3) In his opinion, public sector banks would be better off selling the standard infra assets on account of the reason above

    a. NHAI road projects which have commenced operations could be looked at, for securitisation

4) Though PNB has comfortable capitalization currently, securitization of infra assets will help achieve capital efficiency in the medium to long term

21. Syndicate Bank

Date: 23rd September 2015

Stakeholders met: Mr. Uday Sankar Majumder – GM, Treasury & International Banking Department

Key discussion Points:

1) Current outstanding exposure to Infrastructure sector is Rs 334 billion, while Gross NPA ratio is currently 3.13% (Net NPA 1.90%)

2) The infra portfolio consists mainly of power discoms (25), roads (50%) and aviation

3) Lending to infra sector creates ALM mismatch and securitization could be a solution to solve the issue

4) However, the bank does not face any capital requirement in the near term as the credit growth is very low. The expected credit growth is just about 7-8%.

5) The bank could look at securitization as one of the key tools, if capitalization is required in the medium term

22. Bank of Baroda

Date: 24th September 2015

Stakeholders met: Mr. Jhurmarvala Dipesh N, GM, Treasury

Key discussion Points:

1) The two main issues in securitizing infra assets are:

    a. Arriving at a valuation for the securitized pool, given the complex nature of the securitization structure

    b. Finding investors who would like to invest in long term assets

2) The bank currently doesn’t have issue in meeting BASEL III capitalization norms, as it is expecting a flat credit growth in the current financial year

3) Further securitization of standard infra assets would worsen the NPA ratio, which is a concern.

23. Andhra Bank

Date: 23rd September 2015

Stakeholders met: Mr. Rayar – CGM Treasury

Key discussion Points:

1) Current Gross NPA Ratio – 5.31%; have a high exposure of Rs 125 billion to the power sector.
2) Banks should reduce exposure to infrastructure sector, as it increases ALM
3) Mr. Rayar is of the view that banks should securitize standard infra assets and deploy the funds to diversify the portfolio – especially in sectors such as retail, which is suitable for lending.
4) He also opines that banks could find ideal assets for the capital released to maintain the credit growth, after securitisation

24. India Ratings and Research

Date: 13th October 2015

Stakeholders: Mr. Sandeep Singh, Director – Structured Ratings

Key discussion Points:

1) Currently, various schemes and initiatives are present in the market that target single borrowings/loans (PCG, BGFI etc.), in this context, securitisation is a relatively more powerful if made a reality.
2) Key concerns
    a. Guidelines that govern securitisation transactions in India are archaic, securitisation SPVs can issue only one class of debt - Pass through certificates. There is stigma in the market related to PTCs, they are not prevalent in the market.
    b. Mechanisms such as the proposed Bond Guarantee Fund for India can come in as a mezzanine investor to support the investor.
    c. Taxation, stamp duty issues need to be resolved for larger play.
3) Recommendations
    a. Allowing the securitization trust to issue a variety of instruments rather than only PTCs will enable successful warehousing of loans.
    b. Securitisation trusts should be allowed to issue NCDs to enable better marketability – like in the rest of the world.
    c. NCDs are more flexible and will allow for bankruptcy remoteness.
    d. A Securitisation trust may be permitted to operate as a corporate entity that is capable of issuing structured NCDs instead of PTCs
    e. Taxation, Legal and accounting frameworks pertaining to securitisation need to be reformed through a multi stakeholder assessment.
    f. Frameworks need to be standardized, higher disclosure requirements needed for securitisation to gain traction in the market.

25. ICRA

Date: 13th October 2015

Stakeholders: Mr. Karthik Srinivasan – Senior Vice President

Key discussion Points:

1) Securitisation ailing bank's capital position depends highly on how much capital the bank will need post a securitisation transaction – it is highly unlikely that an infrastructure loan can attain a AAA rating with a 9% enhancement)
2) Investors' key concerns revolve around distribution tax regime and the incidence of stamp duty
3) Other concerns
    a. Obtaining data on infrastructure is a challenge, rating agencies will be faced with a lack of data to rate transactions
    b. A larger, attractive senior tranche can only come with substantial credit enhancement, which is difficult.
    c. Banks are typically wary of releasing their post COD loans
    d. Diversity of the pool is a benefit for the transaction, however, in case of infrastructure, the loan size is very large, will probably contribute to 10-15% of the total portfolio size. In contrast, in case of retail, each loan contributes to less than 1%.