

The Bond Market of India: Opportunities and Risks

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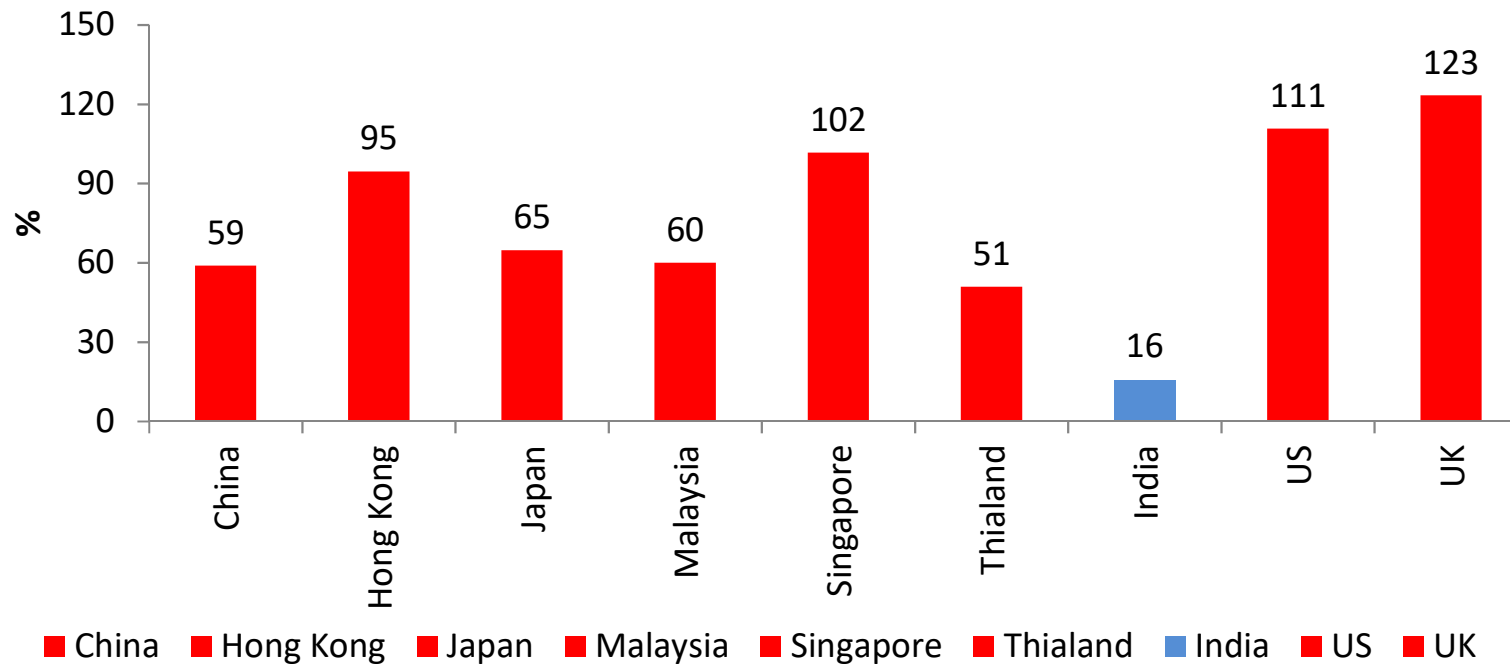


Debt Market Size

Rs billion	FY17	% share	FY18	% share	% growth (FY18 over FY17)
o/s Bank credit	78,819	52.2	86,507	51.7	9.8
o/s CP	3,980	2.6	3,726	2.2	-6.4
o/s Corp bonds^	21,692	14.4	26,470	15.8	22.0
o/s Government Securities	46,495	30.8	50,629*	30.3	8.9
Total	1,50,985		1,67,332		34.3

Source : Union Budget , RBI ,SEBI ; ^upto Dec'16 and Dec'17 respectively; * RE numbers

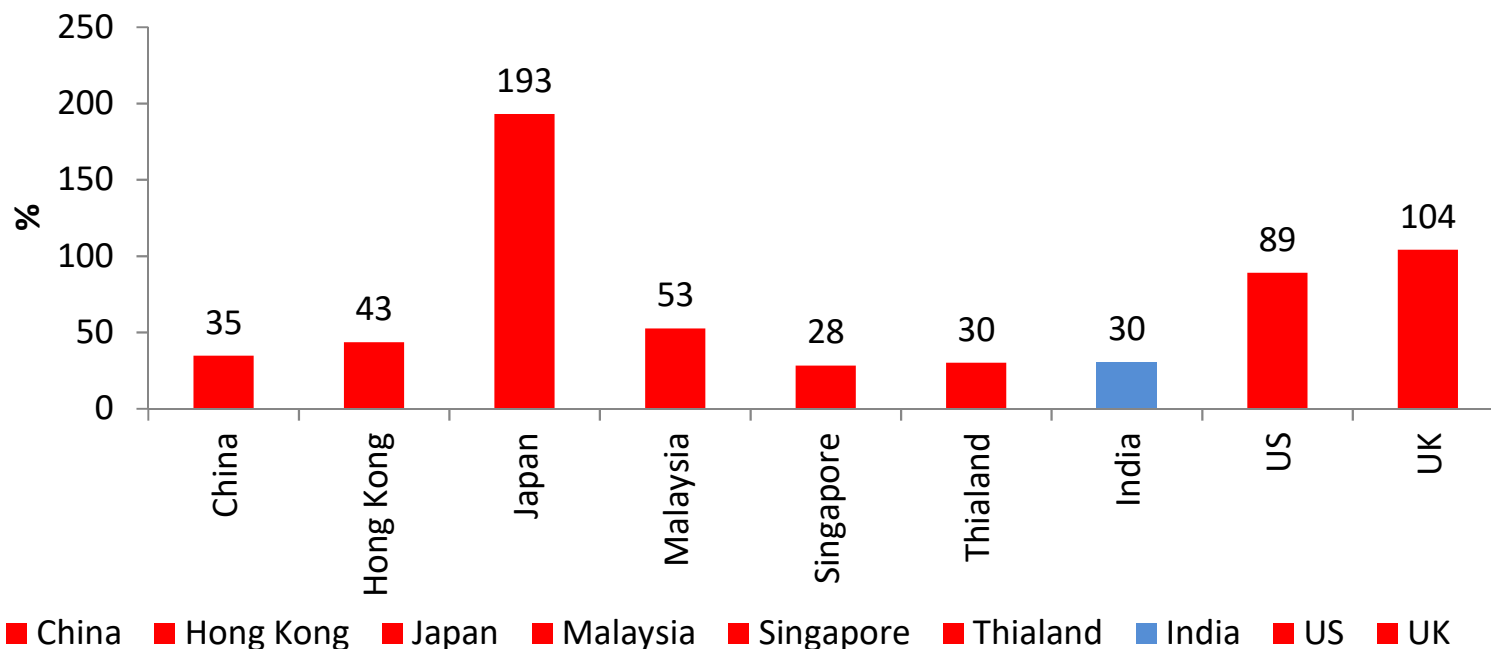
Positioning Indian bond market



Source : IMF, BIS, SEBI ; Data for o/s corporate bonds for India is at end of Dec'17 and GDP is as per second advance estimate. For other countries, corporate bond data is outstanding as at the end Q3FY17 and GDP is for the full year FY18.

- The ratio is low for India
- Potential to increase is immense
- Present thought process is to shift firms from banks to bonds

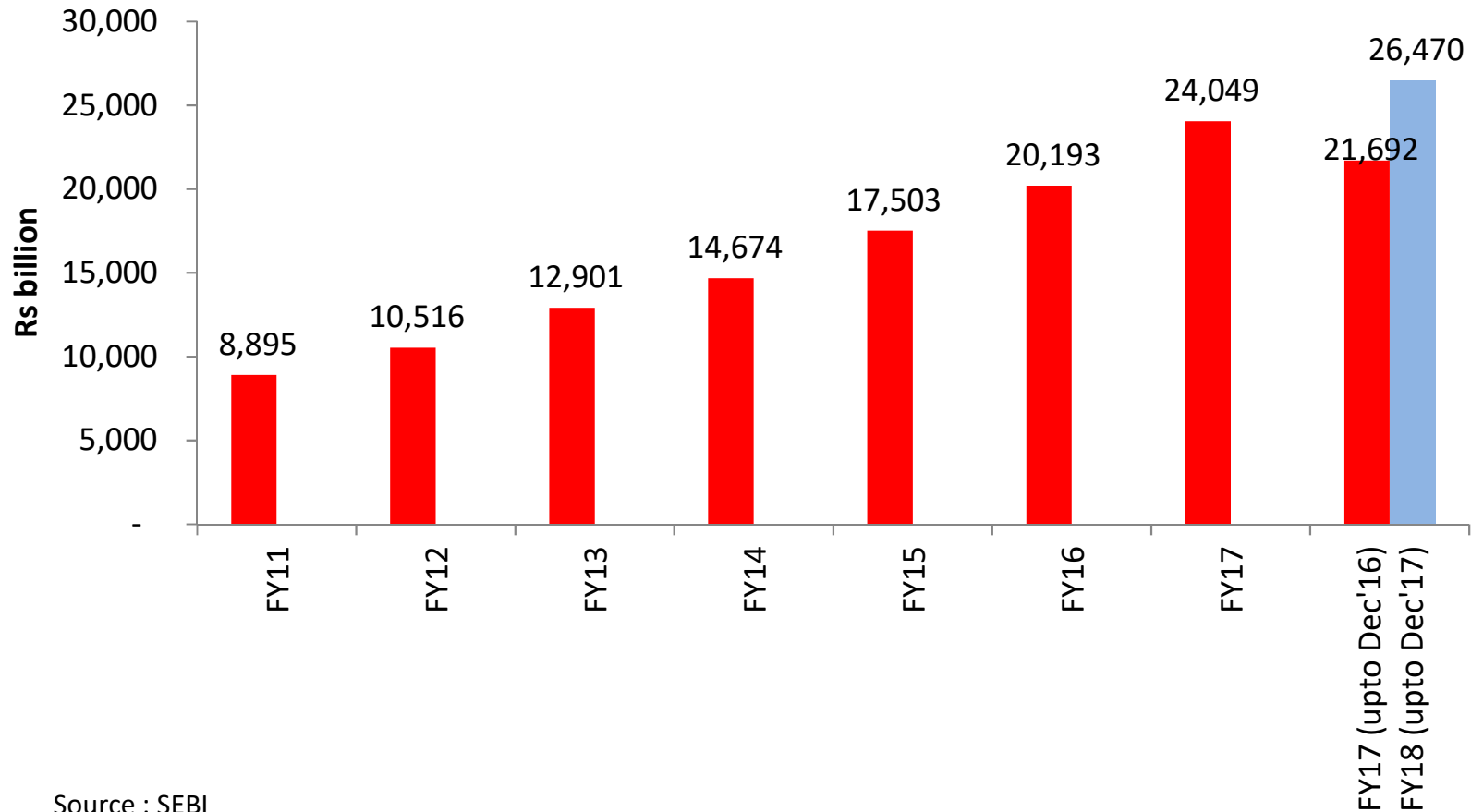
Outstanding GSec bonds as a % of GDP- A comparison with other countries : 2017



Source : BIS, IMF, RBI ; Data on India pertains to FY18, O/s GSecs is as per FY18 (revised estimates) and GDP data is for FY18 (second advance estimate). For rest of the countries, the data is for FY17.

The depth of Indian GSecs bond market stood at 30% in FY18 , much lower than that of Japan(193%), U.K(104%), U.S. (89%).

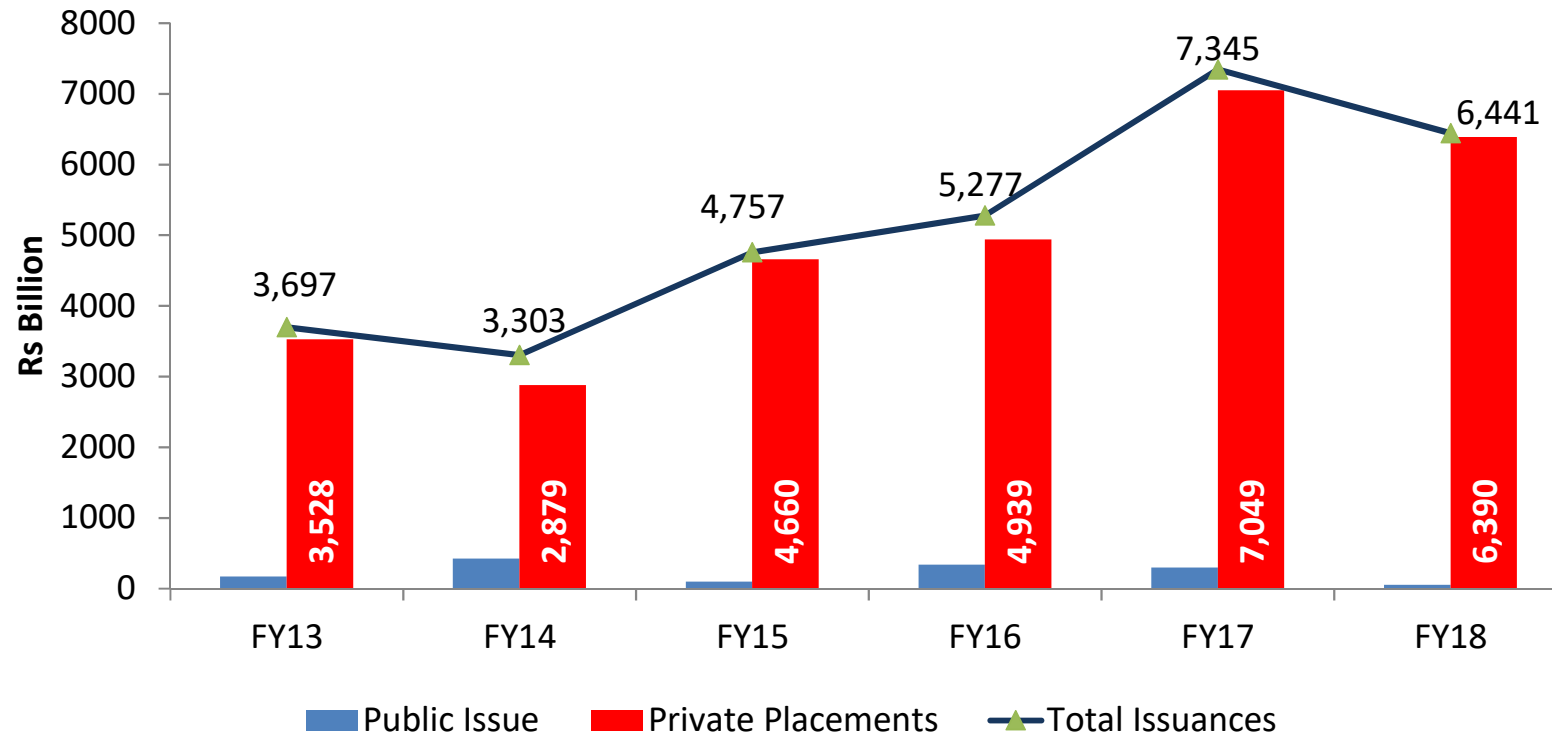
Total outstanding corporate bonds



Source : SEBI

- O/S corporate bonds recorded a CAGR of 17% during FY13-FY17.

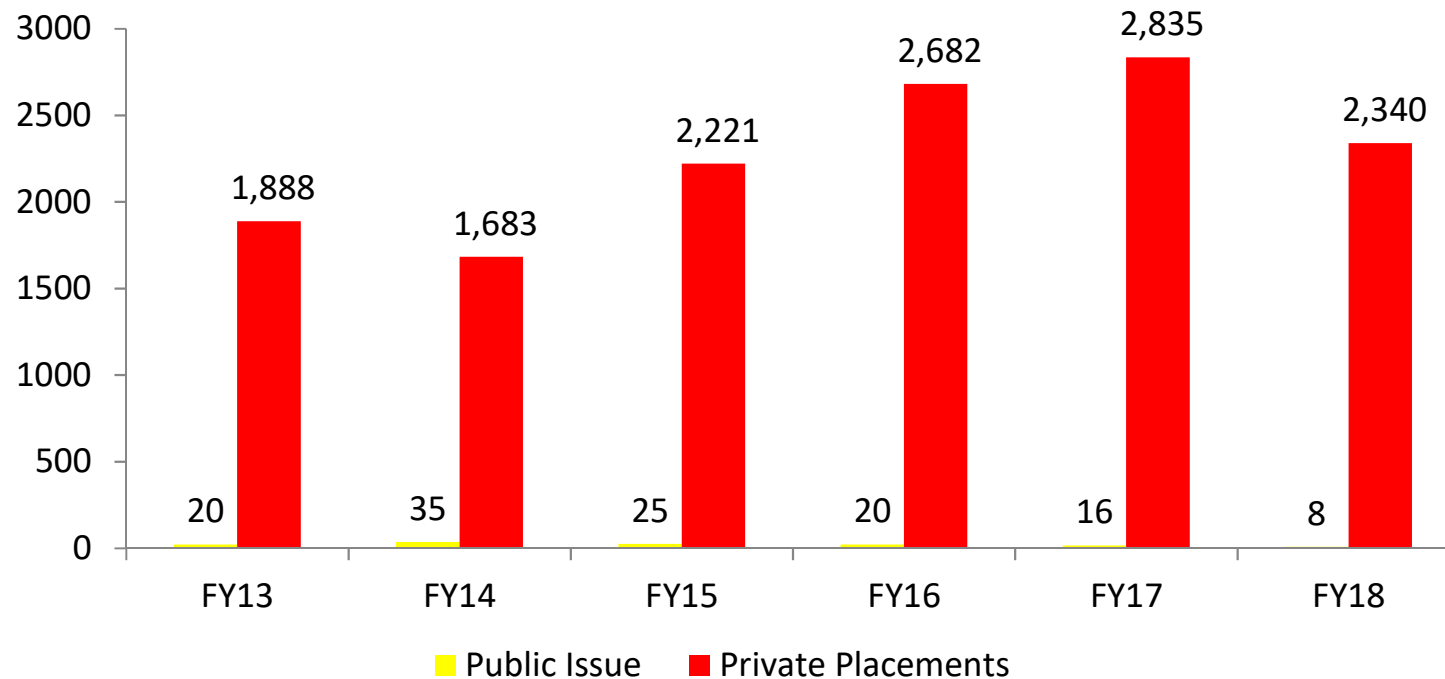
Primary Issuances



Source :Prime Database

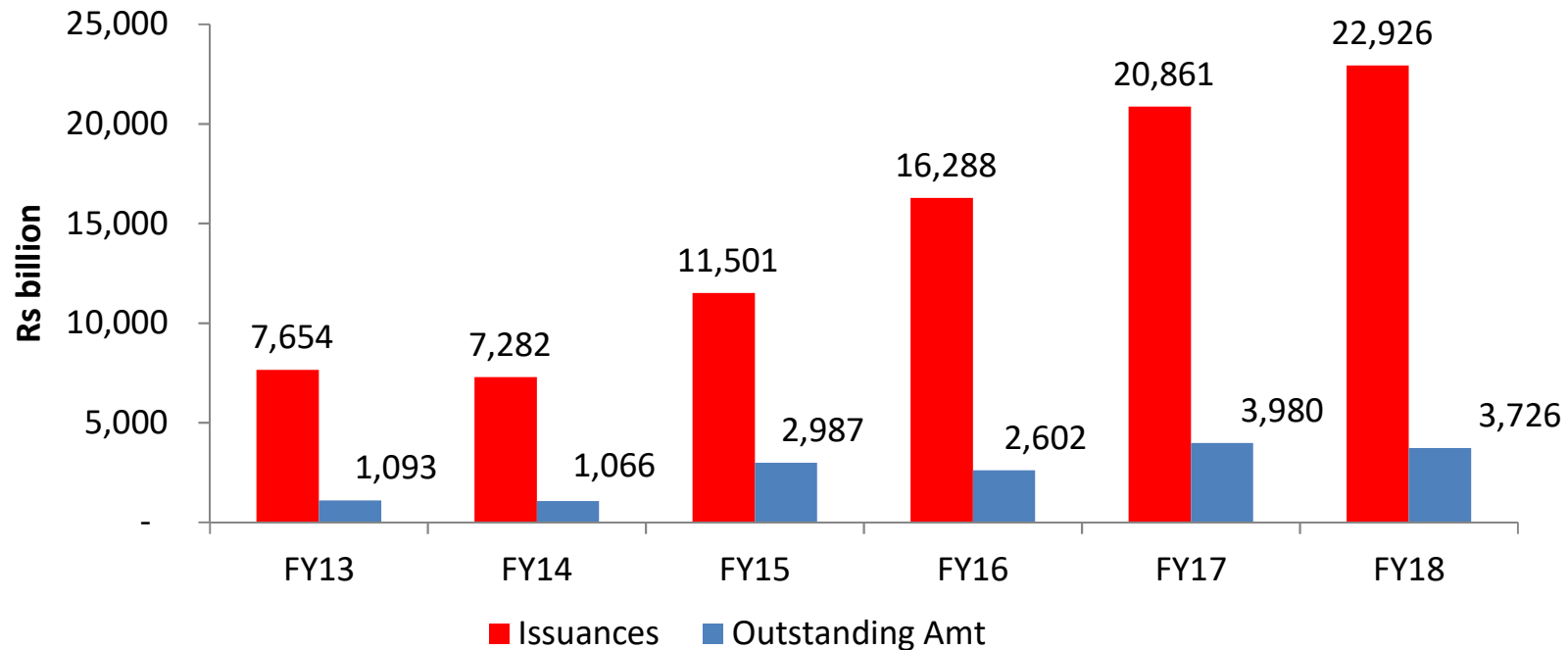
- Issuances are mainly through the private placement route

Public issue and Private placements (No. of issues)



Source : Prime Database

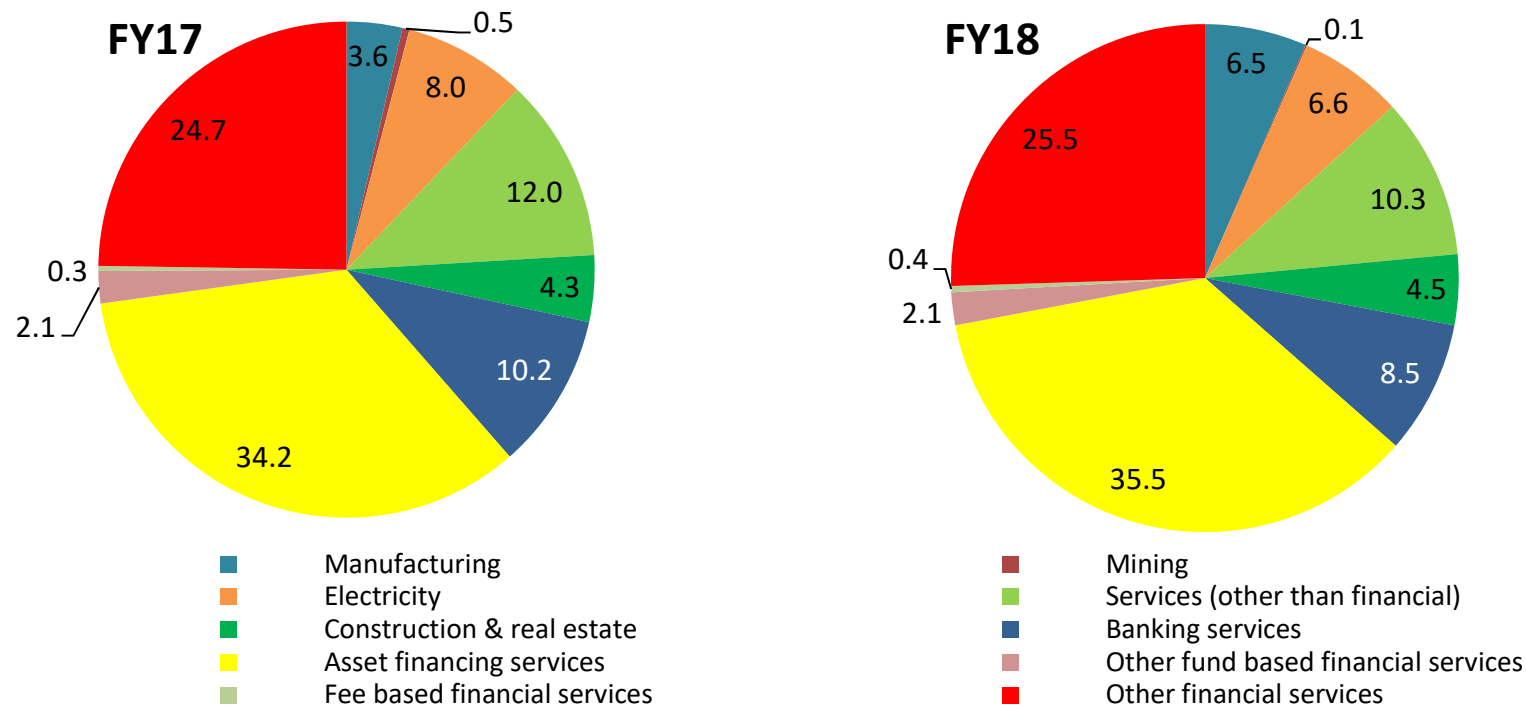
Outstanding amount and issuances of Commercial paper



Source : Reserve Bank of India

O/s commercial papers grew significantly higher at 81% in FY15 compared with the contraction of 2% witnessed in FY14. Thereafter, it grew by 35% and 53% in FY16 and FY17 respectively. However, it declined by 6% in FY18.

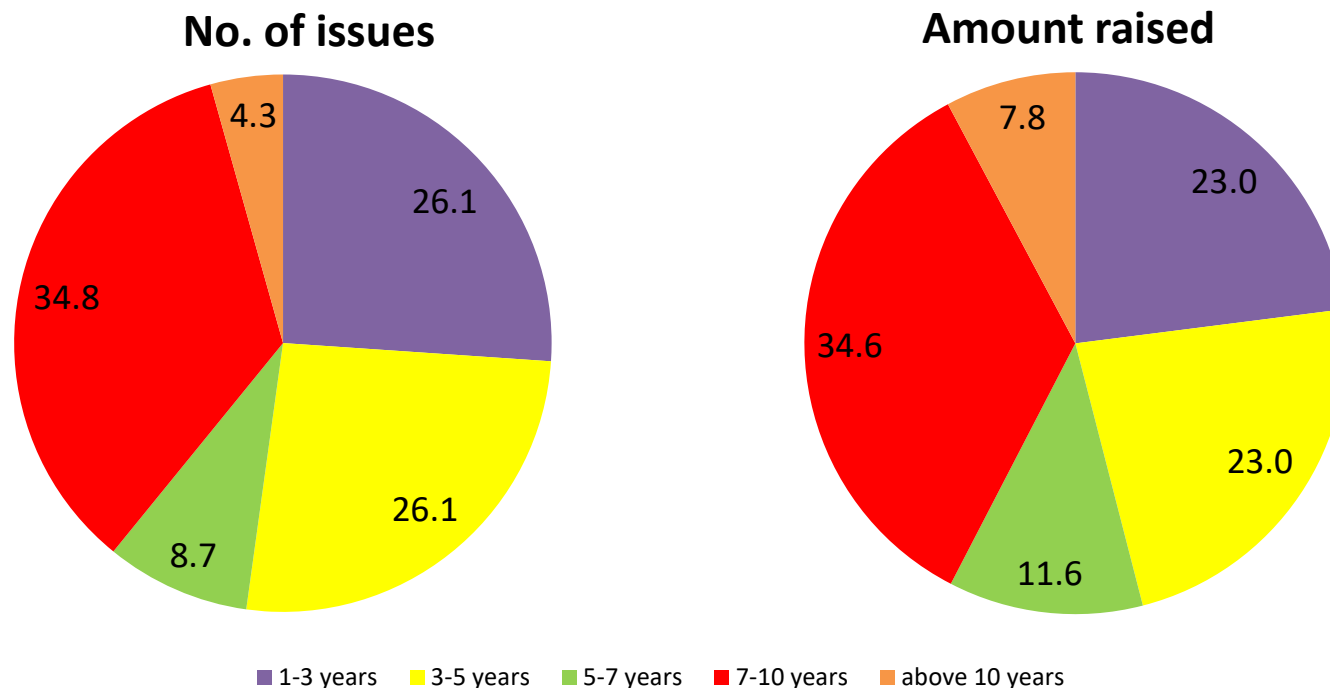
Who raised funds from Primary markets in FY17 and FY18 (% share in total funds)



Source : CMIE

- Asset financing services held majority of the share in the issuances in primary market (36%) followed by other financial services (26%), services(other than financial 10.3%) and banking services (8.5%).

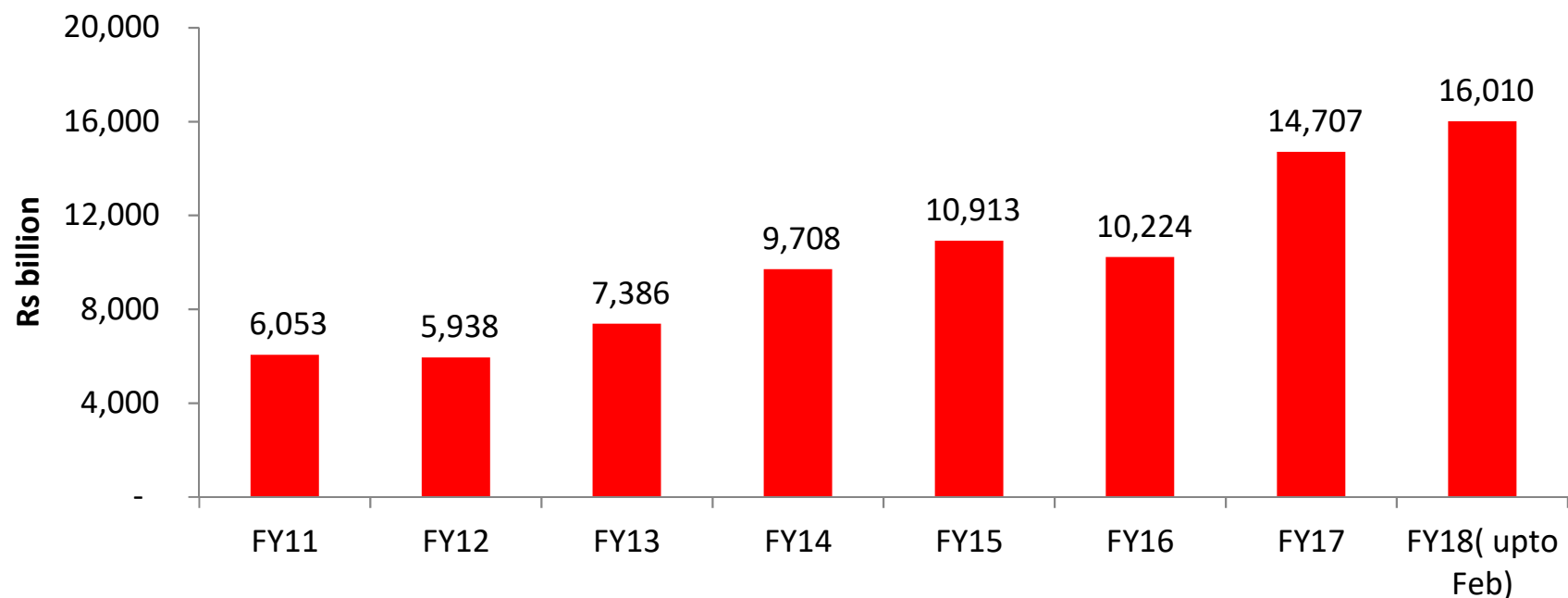
Tenors, No. of instruments issued and amount of Public issues : FY18



Source : Prime Database

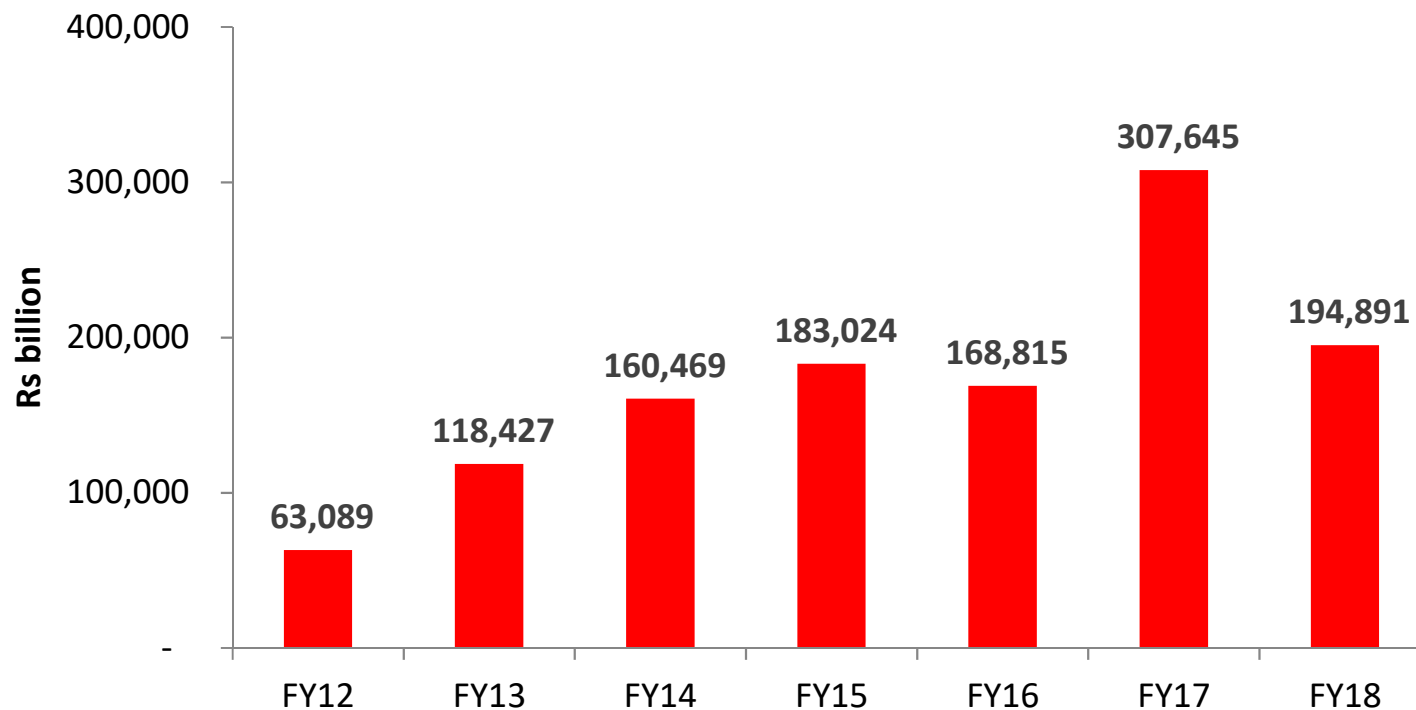
- Around 35% of the total instruments were issued with a tenor of 7-10 years in FY18 followed by 3-5 years (26%).
- In terms of amount, around 35% of the total amount were raised with a tenor 7-10 years followed by tenor of upto 3 years and 3-5 years (23%)

Corporate Bond : Secondary market volumes



- Volumes of trade is low, reflecting low liquidity
- Need to have market makers
- Need to have more paper with same attributes: reissuances

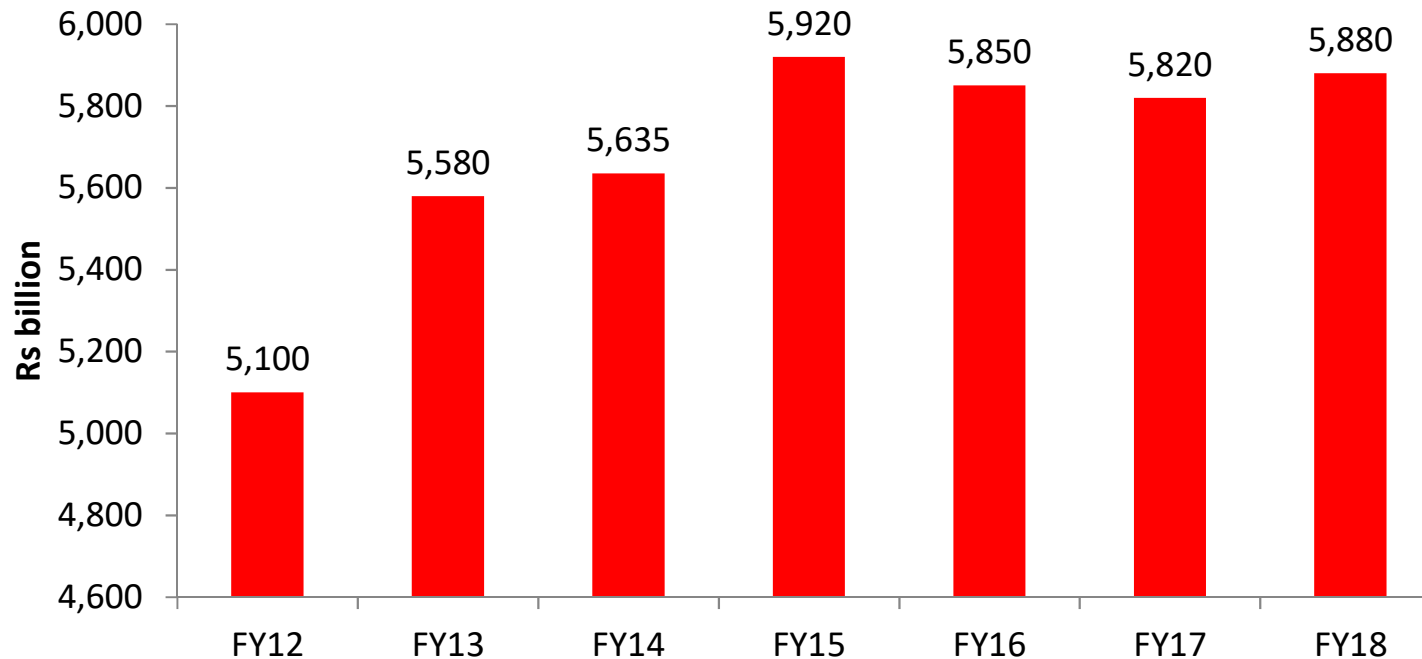
Secondary market volumes of G-Secs



Source : RBI

- The secondary market volumes for GSecs are far more than the volumes in the corporate bonds.

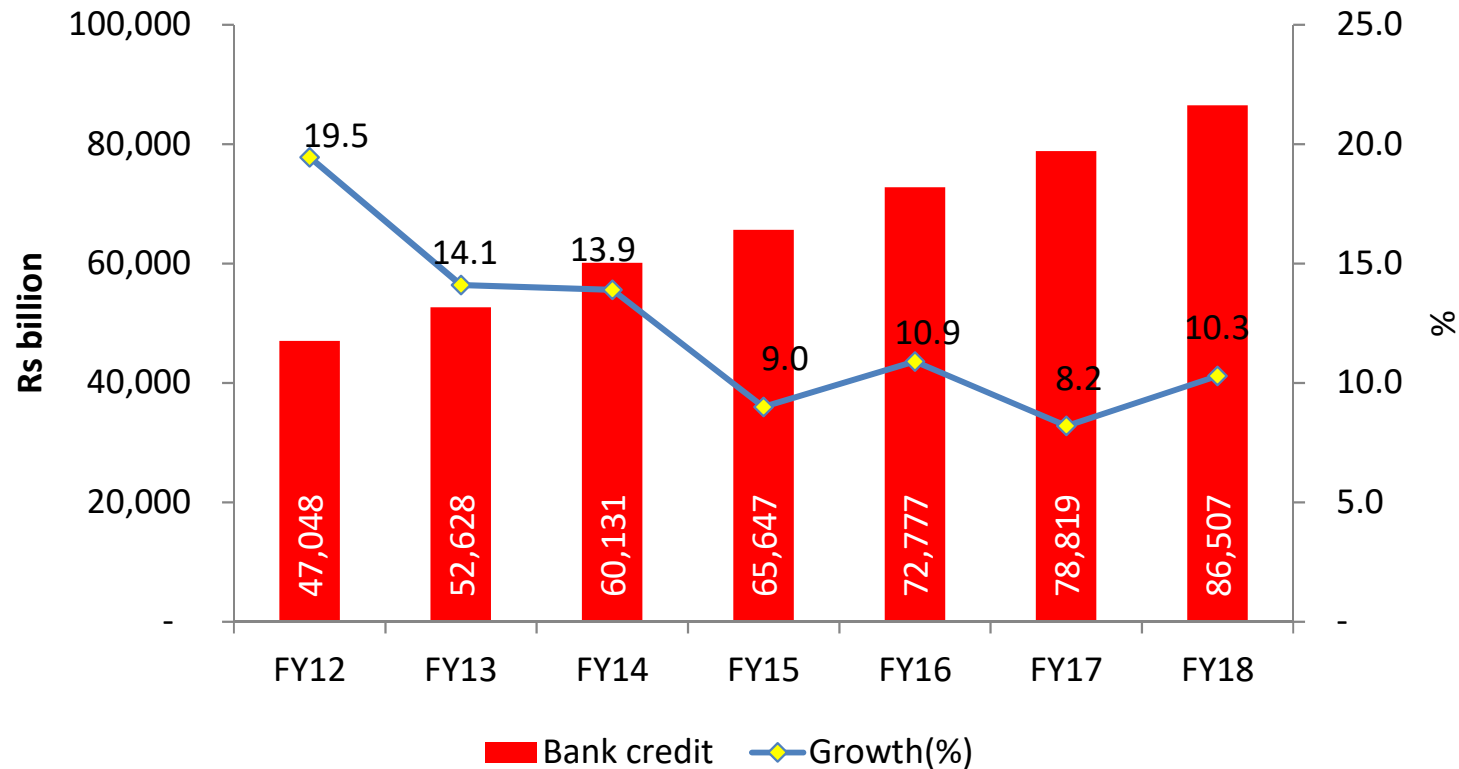
A comparison with Central Government Borrowings



Source : Reserve Bank of India , * The data doesn't include issuances of treasury bills.

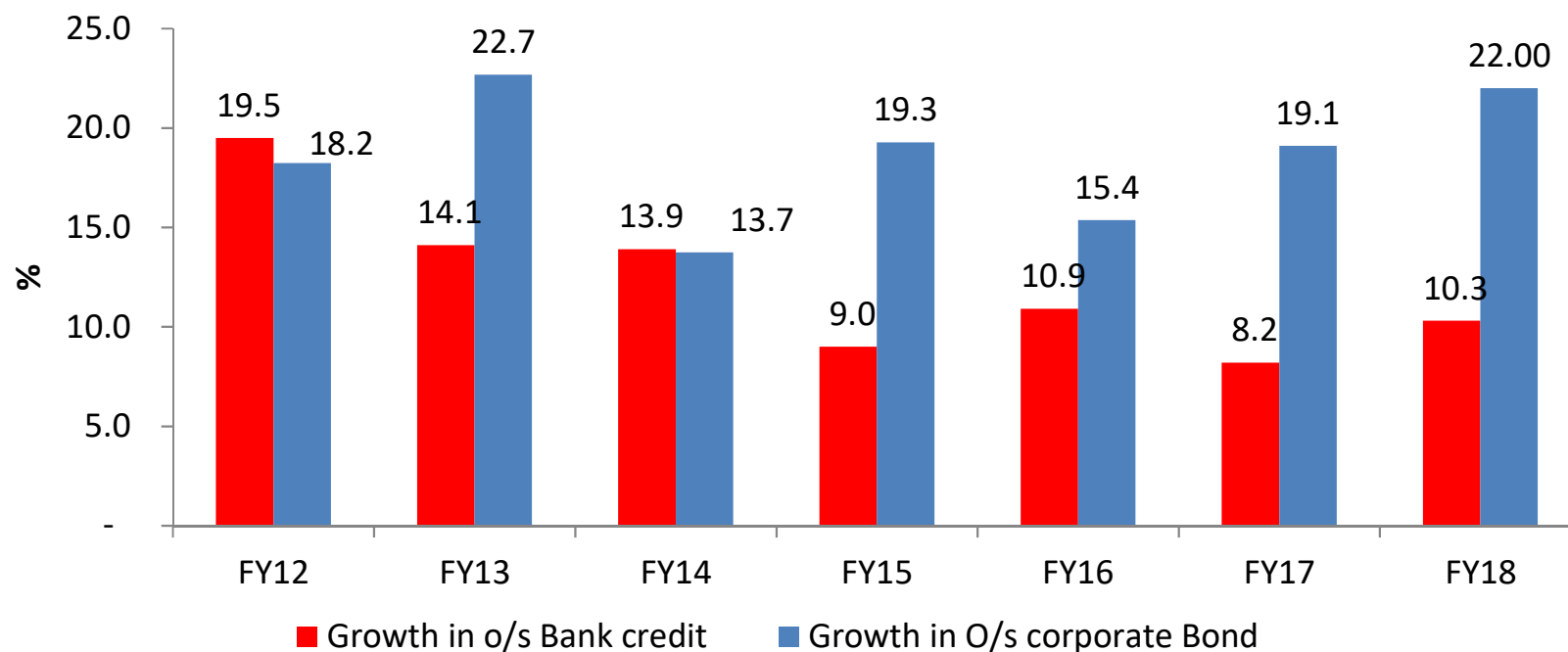
- The central government borrowings during FY18 stood at Rs 5.81 trillion lower than the issuances in corporate bond market that stood at Rs 6.4 trillion.
- For the second consecutive time, corporate bond issuances exceeded GSec issuances.

Bank Credit Growth



- Higher bond issuances in FY15-FY17 and CPs corresponded with lower growth in bank credit

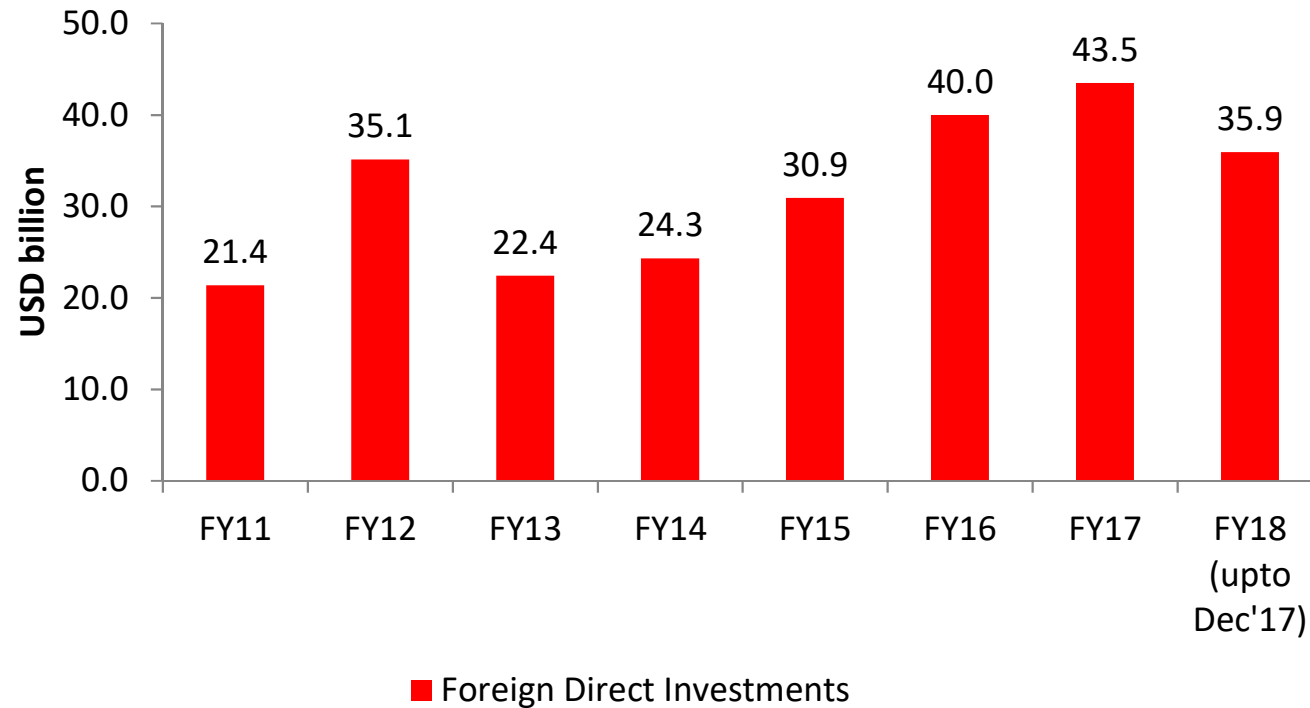
Growth in o/s corporate bond - Comparison with banks



Source : RBI , SEBI ; Growth rate for corporate bonds for FY18 is calculated as Dec'17 over Dec'16.

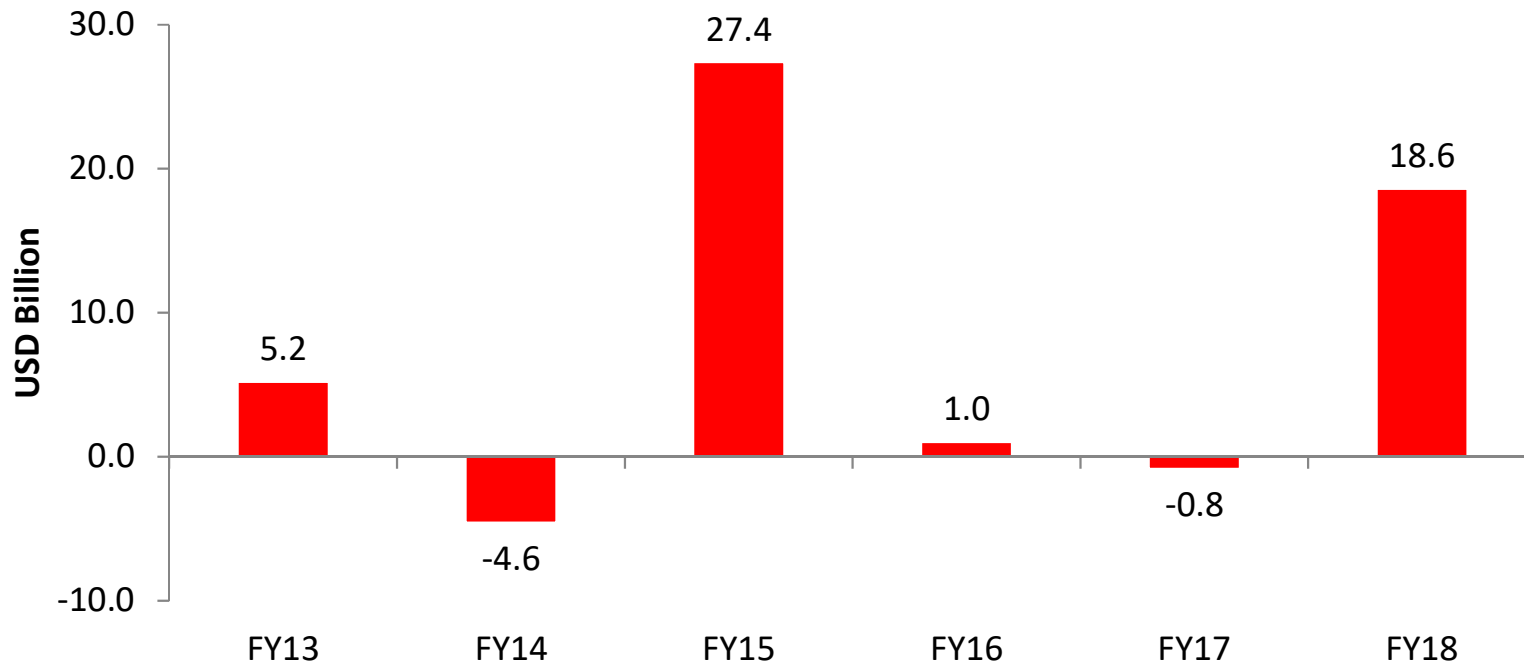
- Bank credit growth has been much lower compared with the growth witnessed in corporate bond market.

Foreign Direct Investment



Source : DIPP

FPIs in Debt



Source : CMIE

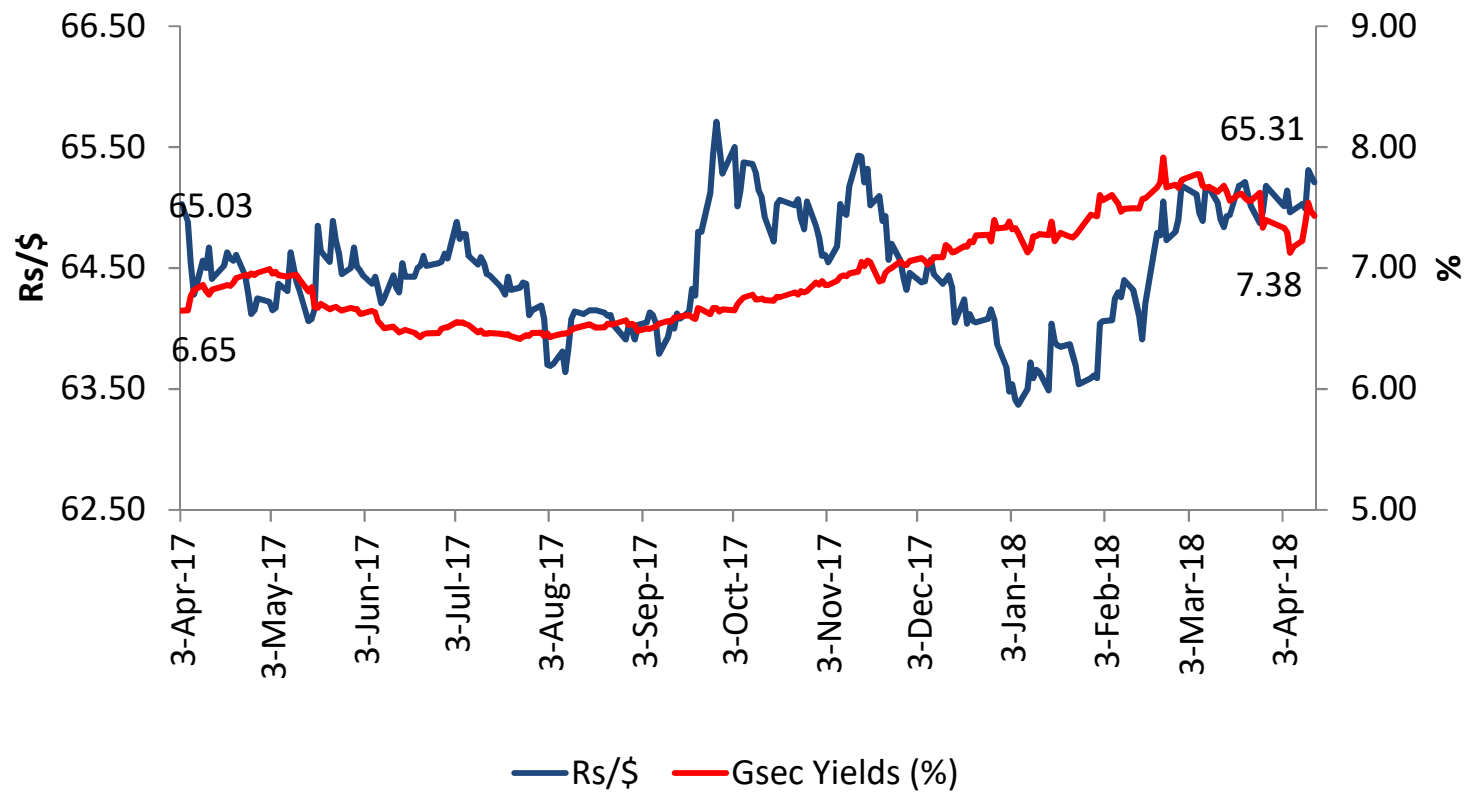
- The economy witnessed foreign portfolio investments to the tune of \$18.6 bn in FY18 as against the outflows of \$0.8 bn in the previous year.

Revision in FPI limits

Rs billion	G-Sec- General	G-Sec- Long Term	SDL - General	SDL-Long Term	Corporate Bonds	Total Debt
Current limit	1,91,3	651	315	136	2,443	5,458
Revised Limit for the HY Apr-Sep, 2018	2,073*	787	348	710	2,667	5,946
Revised Limit for the HY Oct 2018-March, 2019	2,233*	923	381	710	2,891	6,499

Source : RBI , *Includes Rs 4,760 cr of coupon investment amount. \$ our calculation based on full incremental utilization.

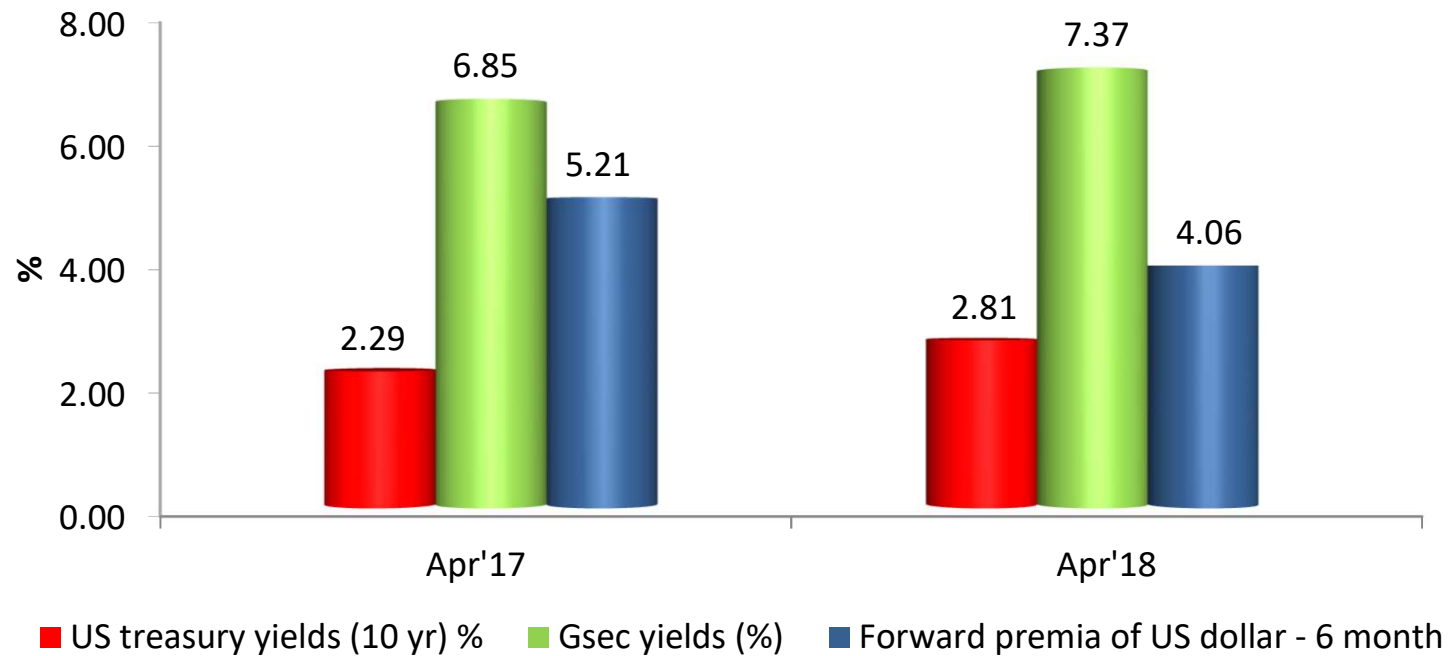
Movement in Exchange rate and GSec yields in FY18



Source :FIMMDA and RBI

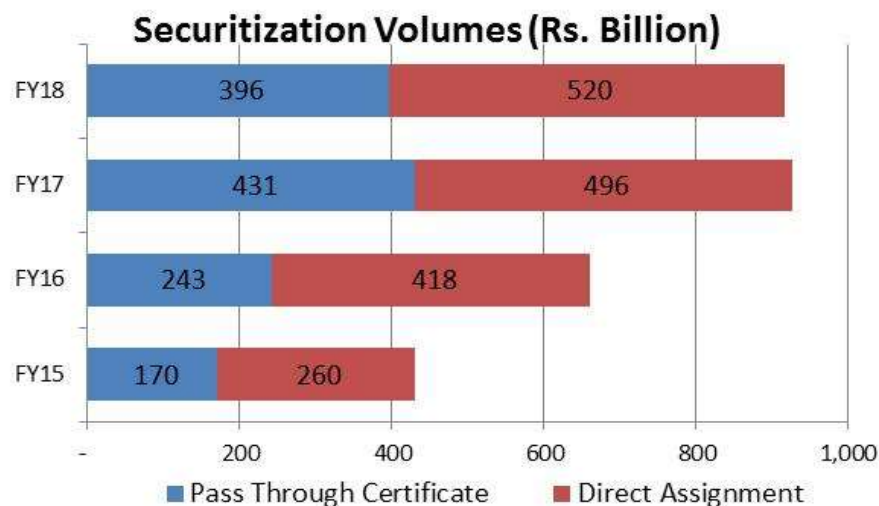
- We expect rupee to depreciate going forward and yields to remain in the range of 7.3-7.5%.

US treasury yields, GSec yields and US Forward Premium



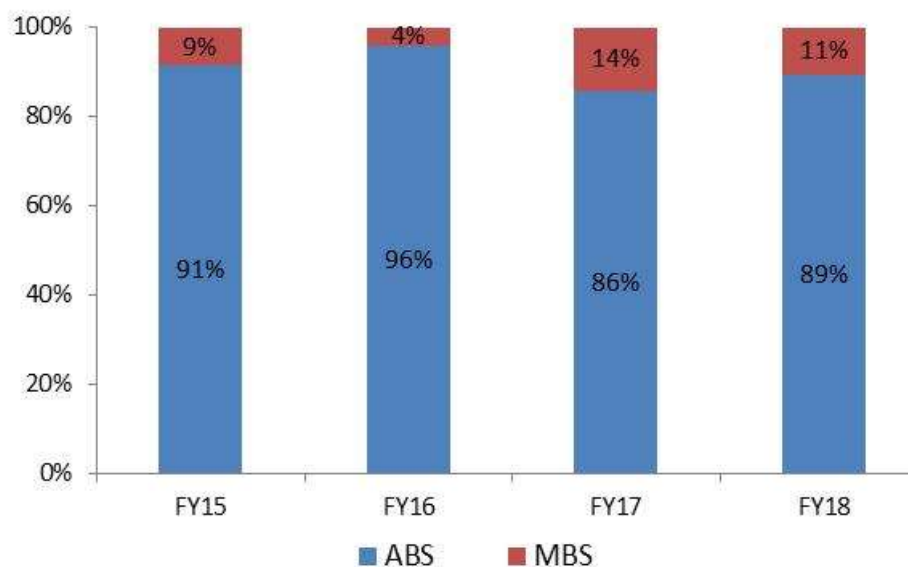
Source : RBI, CNN Markets, FIMMDA; GSec yields (10 yr.), Forward premia – 6 month

Indian Securitization Market Volumes

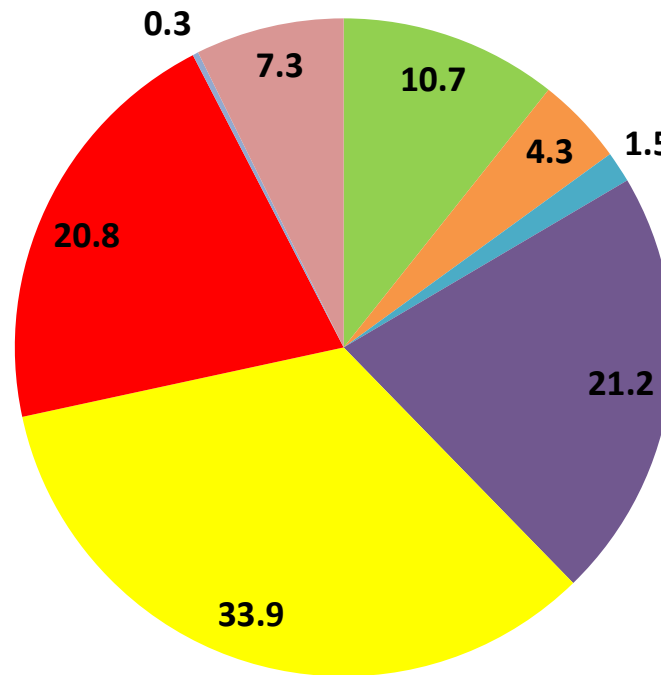


- MBS issuances fell by nearly 31% in FY18 due to low appetite from institutional investors for long term securities and because of their preference for fixed coupons on PTCs.
- ABS issuance remained at the same level as FY18 due to reduced Microfinance Loan Securitisation
- The erstwhile issuers of Microfinance loan backed PTCs became issuers of PSLCs upon their conversion into Small Finance Bank.

- PTC Volume declined by nearly 8% in FY18
- The decline is mainly due to the increased issuance of newly introduced Priority Sector Lending Certificates which helped banks to meet their PSL requirements.
- The year was also marked by emergence new asset classes like Consumer Durable Loans and Education Loans as well as the entry of Foreign Portfolio Investors and re-entry of Insurance Companies as investors in Pass Through Certificates (PTCs).



Number of companies in different buckets: CARE portfolio



■ CARE A ■ CARE AA ■ CARE AAA ■ CARE B ■ CARE BB ■ CARE BBB ■ CARE C ■ CARE D

Source : CARE Ratings



Cumulative Default Rates

CARE's Issuer Weighted Cumulative Default Rates for the period March 2007 - March 2017

	One year		Two Year		Three Year	
Rating Category	Avg. No. of Issuers	CDR	Avg. No. of Issuers	CDR	Avg. No. of Issuers	CDR
AAA	53.9	0.00%	51.0	0.00%	47.8	0.00%
AA	139.3	0.07%	130.4	0.51%	121.9	1.03%
A	276.4	0.40%	245.7	1.40%	220.9	3.00%
BBB	814.4	1.60%	741.1	3.58%	658.1	5.53%
BB	821.6	4.21%	689.9	7.01%	546.6	9.31%
B	387.3	7.20%	319.9	11.01%	239.9	14.70%
C	22.2	22.07%	21.3	28.65%	19.8	32.28%
Total	2515.1	3.24%	2199.3	5.47%	1854.9	7.37%

The categories of AA, A, BBB, BB, B and C include ratings with the suffix '+' or '-' within the respective categories. Thus, for instance, the AA category includes three ratings: AA+, AA and AA-.

Source : CARE Ratings



Rating Transition Rates

**Figure 1: Average 1-year Rating Transition Rates for the period
Mar 2007- Mar 2017**

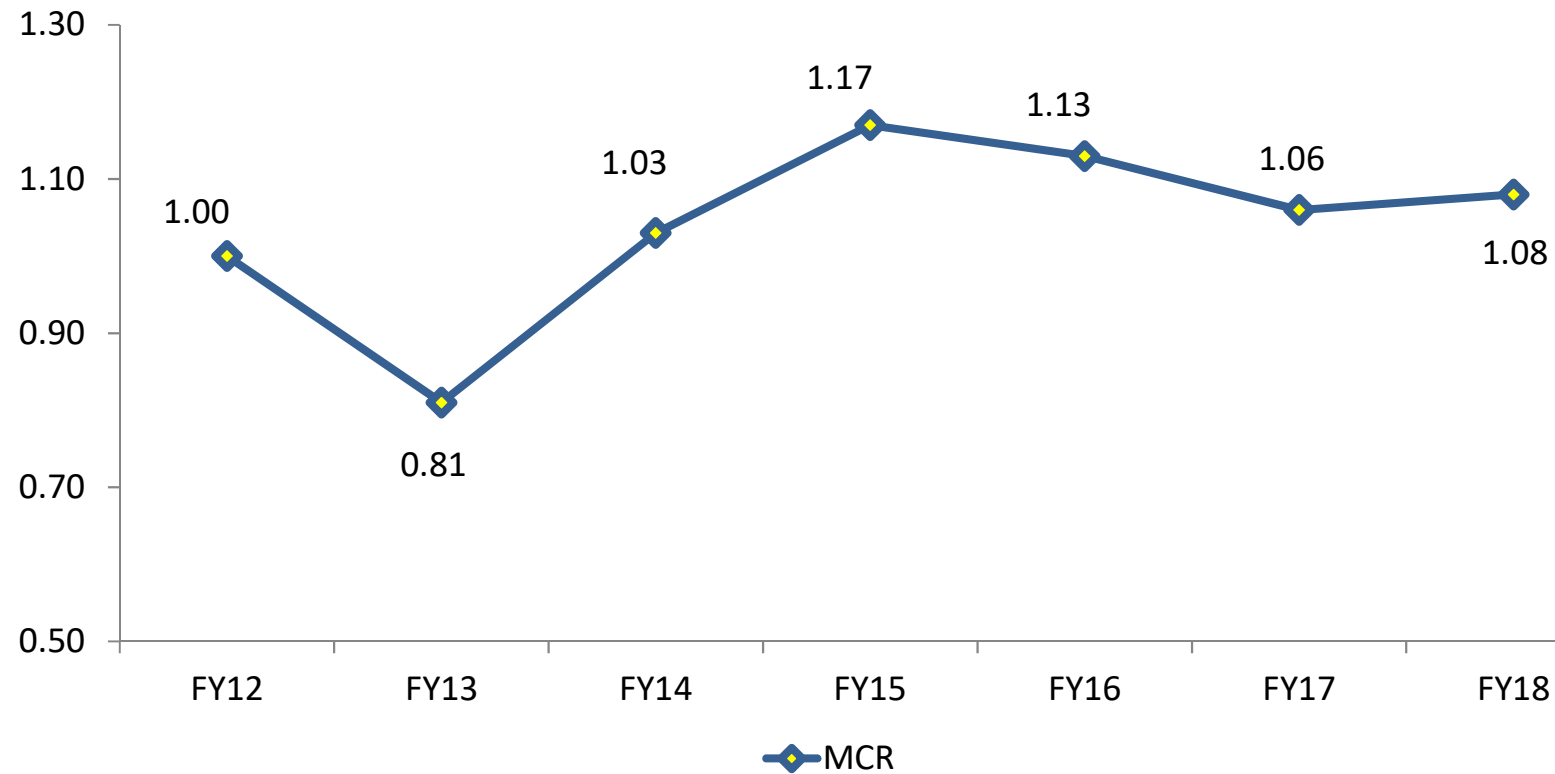
	Issuers	AAA	AA	A	BBB	BB	B	C	D
AAA	529	97.73%	2.27%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
AA	1349	1.56%	93.92%	4.08%	0.15%	0.15%	0.07%	0.00%	0.07%
A	2599	0.00%	3.46%	88.15%	6.96%	0.85%	0.12%	0.04%	0.42%
BBB	7168	0.00%	0.06%	4.48%	87.90%	5.40%	0.33%	0.01%	1.81%
BB	6005	0.00%	0.02%	0.00%	5.48%	85.35%	3.11%	0.28%	5.76%
B	2667	0.00%	0.00%	0.00%	0.15%	13.35%	75.67%	0.37%	10.46%
C	157	0.00%	0.00%	0.00%	1.91%	8.92%	21.66%	36.31%	31.21%

Below Investment Grade refers to ratings below BBB- (i.e. BB+ till D)

The categories of AA, A, BBB, BB, B and C include ratings with the suffix '+' or '-' within the respective categories. Thus, for instance, the AA category includes three ratings: AA+, AA and AA-.

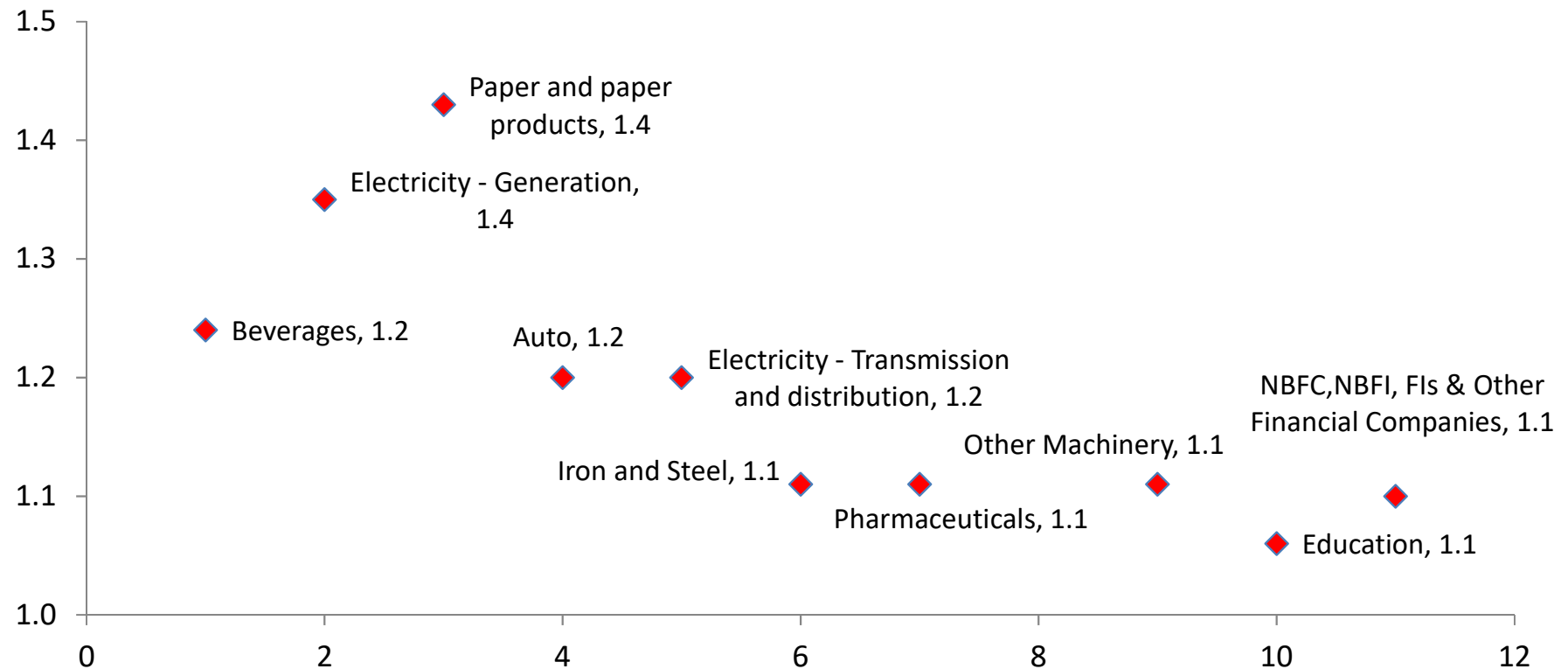
Source : CARE Ratings

Modified Credit Ratio (MCR)



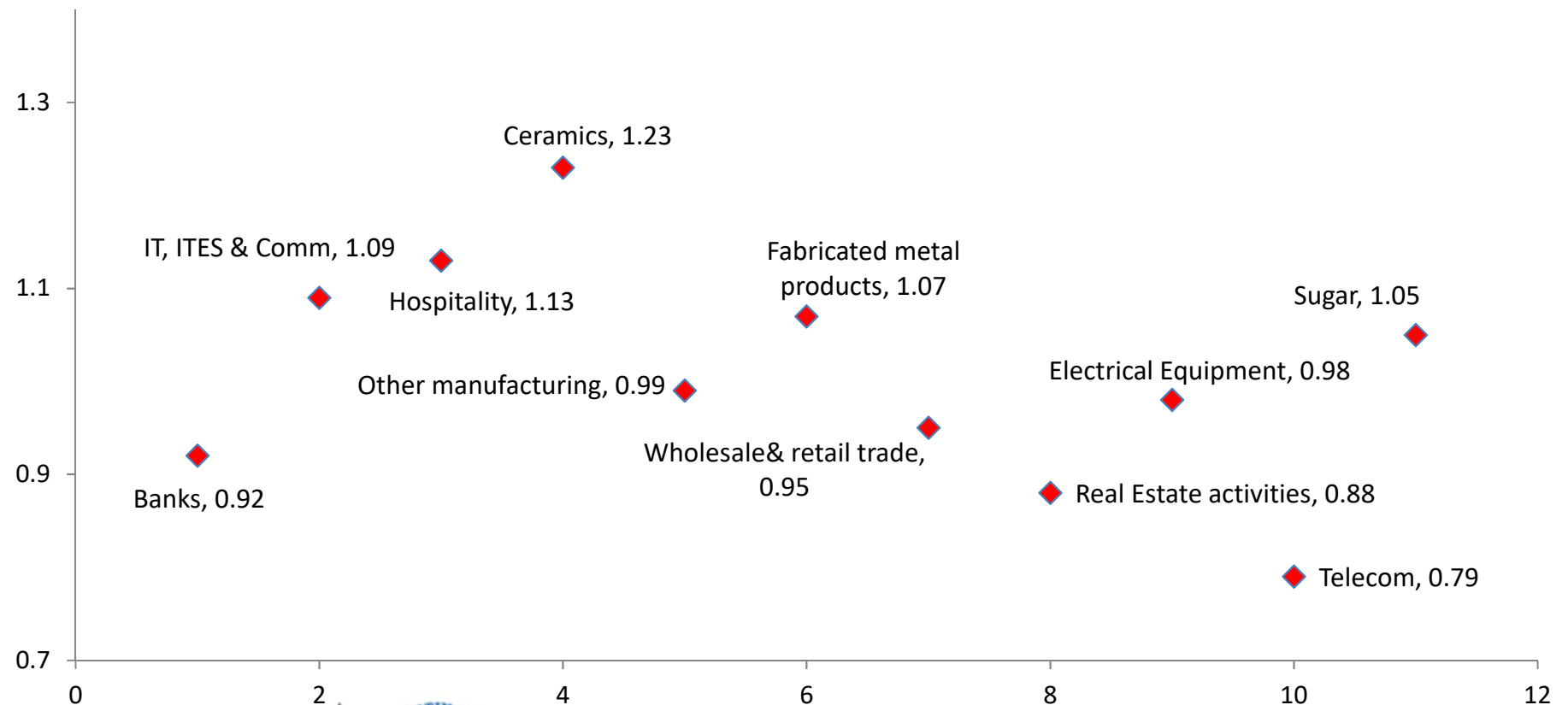
Industry- Wise (MCR)

Industries that witnessed improvement in MCR in FY18 vis-à-vis FY17



Industry- Wise (MCR)

Major industries that witnessed deterioration in MCR in FY18 vis-à-vis FY17



Corporate bond spreads –end of month (bps)

10 year	Dec 16	Jan 17	Feb 17	Mar 17	Apr 17	May 17	Jun 17	Jul 17	Aug 17	Sep 17	Oct 17	Nov 17	Dec 17	Jan 18	Feb 18	Mar 18
AAA	106	72	87	93	72	114	109	94	84	73	56	49	44	56	58	46
AA+	133	97	106	113	92	137	123	118	109	96	80	72	65	84	78	74
AA	159	118	131	138	117	165	153	142	134	118	101	92	87	107	102	104
AA-	191	155	166	180	158	190	186	168	164	146	141	137	127	139	133	142
A+	291	255	316	330	308	240	236	218	214	221	216	212	202	214	233	242
A	316	280	366	380	358	340	336	318	314	346	341	287	277	289	283	292
A-	366	330	416	430	408	390	386	368	364	396	391	337	327	339	333	342
BBB+	366	330	466	480	458	490	486	468	464	446	441	437	427	439	433	442
BBB	391	355	491	505	483	515	511	493	489	496	491	462	452	464	458	467
BBB-	466	430	516	530	508	540	536	518	514	546	541	537	527	539	483	492

Source : FIMMDA

Fund Raising by Indian Companies - Masala Bonds

Companies	Issue Date	Amount (Rs bn)	Coupon (%)	Tenor
IREDA	29-Sep-17	19.5	7.13	5 yrs
National Highways Authority of India (NHAI)	18-May-17	30	7.3	5yrs
National Thermal Power Corporation (NTPC)	03-May-17	20	7.25	5yrs
Housing Development Finance Corporation (HDFC)	30-Mar-17	33	6.87	3yrs
International Finance Corporation (IFC)	07-Mar-17	0.8	4.85	5yrs
Housing Development Finance Corporation (HDFC)	09-Sep-16	20	7	4yrs
National Thermal Power Corporation (NTPC)	10-Aug-16	20	7.37	5yrs
Housing Development Finance Corporation (HDFC)	21-Jul-16	30	7.87	3yrs
Adani	05-Aug-16	5	9.1	5 yrs
Indiabulls housing Finance Limited	19-Sep-16	13.3	8.56	3 years
Shriram Transport Finance Company	20-Jan-17	4.75	8.25	3 years
ECL Finance Ltd.	31-Oct-16	5.02	9.05	3 yrs, 2 month
Fullerton India Credit Company Ltd.	25-Oct-16	5	8.12	3 yrs & 1 month
Dewan Housing Finance Ltd (DHFL)	11-Apr-18	10	8.50	5 yrs

Source : London Stock Exchange , Singapore Stock exchange

Foreign Currency Bond Issuances By Indian companies: 2017

Companies	Amount (\$ Million)	Coupon %
Vedanta resources	1,000	6.38
Vedanta	1,000	6.13
Greenko Dutch	650	5.25
SBI/ London	600	2.10
BPRL Int. Singapore	600	4.38
SBI/ London	550	3.25
Oil India int.	500	4.00
Marble II Pte	500	5.30
JSW Steel	500	5.25
HPCL	500	4.00
Azure Power	500	5.50
APSEZ	500	4.00
APSEZ	500	3.95
Neer Energy	475	6.00
REC	450	3.88
HMEL	375	5.25
Greenko Dutch	350	4.87
GHIAL	350	4.25
SMRP	343	1.80
ICICI/ Dubai	300	3.25
Jain int trading	200	7.13
HT Global	85	7.00
NTPC	500	2.75

Limits on corporate bonds for various institutions

EPFO	→	35-45%
PFRDA	→	Upto 45% for government employee, no restriction under NPS for all.
Life Insurance	→	Not exceeding 50%.
General Insurance	→	Not exceeding 70%.
Mutual funds	→	No limits.
Pension and group business	→	Not exceeding 60%.
FPI	→	Rs 2,667 bn during Apr-Sep'18 and Rs 2,891 bn during Oct-Mar'19
Banks	→	NA.

Recent regulations and measures to develop corporate bond markets

- Increase in ceiling of Partial Credit Enhancement provided by banks (From 20% to 50%)
- Issuance of Rupee denominated bonds overseas
- Repo in corporate bonds allowed
- Acceptance of corporate bonds under Liquidity Adjustment Facility (LAF) of RBI
- Introduction of Electronic Dealing Platform for repo in corporate bonds
- The Finance Minister urged regulators to move from 'AA' to 'A' rating for investment eligibility to encourage raising funds from bond market
- SEBI will also consider mandating, beginning with large Corporates, to meet about one-fourth of their financing needs from the bond market
- Government has also enhanced the limit for corporate bond market from Rs 2,443 bn to Rs 2,667 bn during Apr – Sep'18 and Rs 2,891 bn during the second half of FY19

RBI directives

Large exposures framework (from April 2019)

- Creation of a class of “Specified Borrowers”
 - Borrowers with aggregate sanctioned credit limit of INR 100 Billion from April 2019 to be classified as “Specified Borrowers”
- Normally permitted lending limit (NPLL)
- Higher capital provisioning by banks
- Exposure limit for banks
- Banks to subscribe to bonds reissued by corporates who have reached the NPLL.
- SEBI to consider mandating, beginning with large Corporates, to meet about one-fourth of their financing needs from the bond market as per the Union Budget FY19.

Focus on IBC as it is a precursor to development of bond market

Insolvency and Bankruptcy Code, 2016

- Time-bound processes for insolvency resolution of companies and individual
- The law is expected to ensure timely settlement of insolvency, enable faster turnaround of business and create a database of serial defaulters
- These processes will be completed within 180 days
- If insolvency cannot be resolved, the assets of the borrowers may be sold to repay creditors

Resolution of stressed assets – Revised Framework

On February 12, 2018, in view of the enactment of the Insolvency and Bankruptcy Code, 2016 (IBC), The Reserve Bank of India has decided to substitute the existing guidelines with a harmonised and simplified generic framework for resolution of stressed assets. The details of the framework is mentioned below.

A. Early identification and reporting of stress

- Lenders shall identify incipient stress in loan accounts, immediately on default, by classifying stressed assets as special mention accounts (SMA) as per the following categories:

SMA Sub-categories	Basis for classification – Principal or interest payment or any other amount wholly or partly overdue between
SMA-0	1-30 days
SMA-1	31-60 days
SMA-2	61-90 days

Resolution of stressed assets – Revised Framework

B. Implementation of Resolution Plan

- All lenders must put in place Board-approved policies for resolution of stressed assets under this framework, including the timelines for resolution
- The resolution plan (RP) may involve any actions / plans / reorganization including, but not limited to, regularization of the account by payment of all over dues by the borrower entity, sale of the exposures to other entities / investors, change in ownership, or restructuring

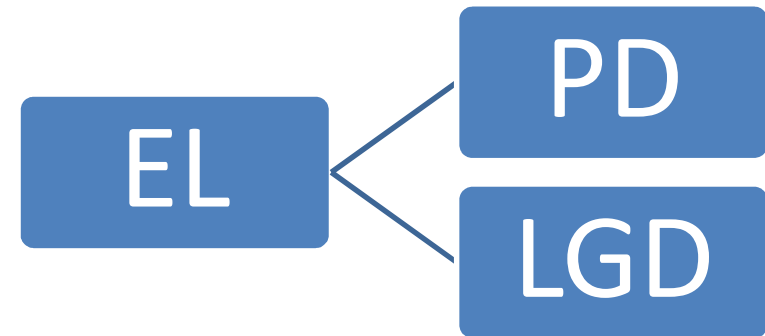
C. Implementation Conditions for RP

- A RP shall be deemed to be ‘implemented’ only if the following conditions are met:
 - a. the borrower entity is no longer in default with any of the lenders;
 - b. if the resolution involves restructuring
- Additionally, RPs involving restructuring/change in ownership in respect of ‘large’ accounts shall require independent credit evaluation (ICE) of the residual debt by **credit rating agencies (CRAs)** specifically authorized by the Reserve Bank for this purpose

Expected Loss Ratings

Expected Loss (EL) Rating for Infrastructure Projects

- A linear rating scale which
 - Retains the valuable probability of default (PD) approach
 - Integrates the same with Loss Given Default (LGD) which is driven by the recovery prospects
- Introduced for rating debt of infra projects
- Captures the structural nuances of infra projects
- PD looks at the timeliness of repayments
- LGD captures the overall project viability over its life based on expected level of indebtedness, type & structure of debt, and various inbuilt safeguards available for infrastructure projects



Expected Loss (EL) Rating Scale

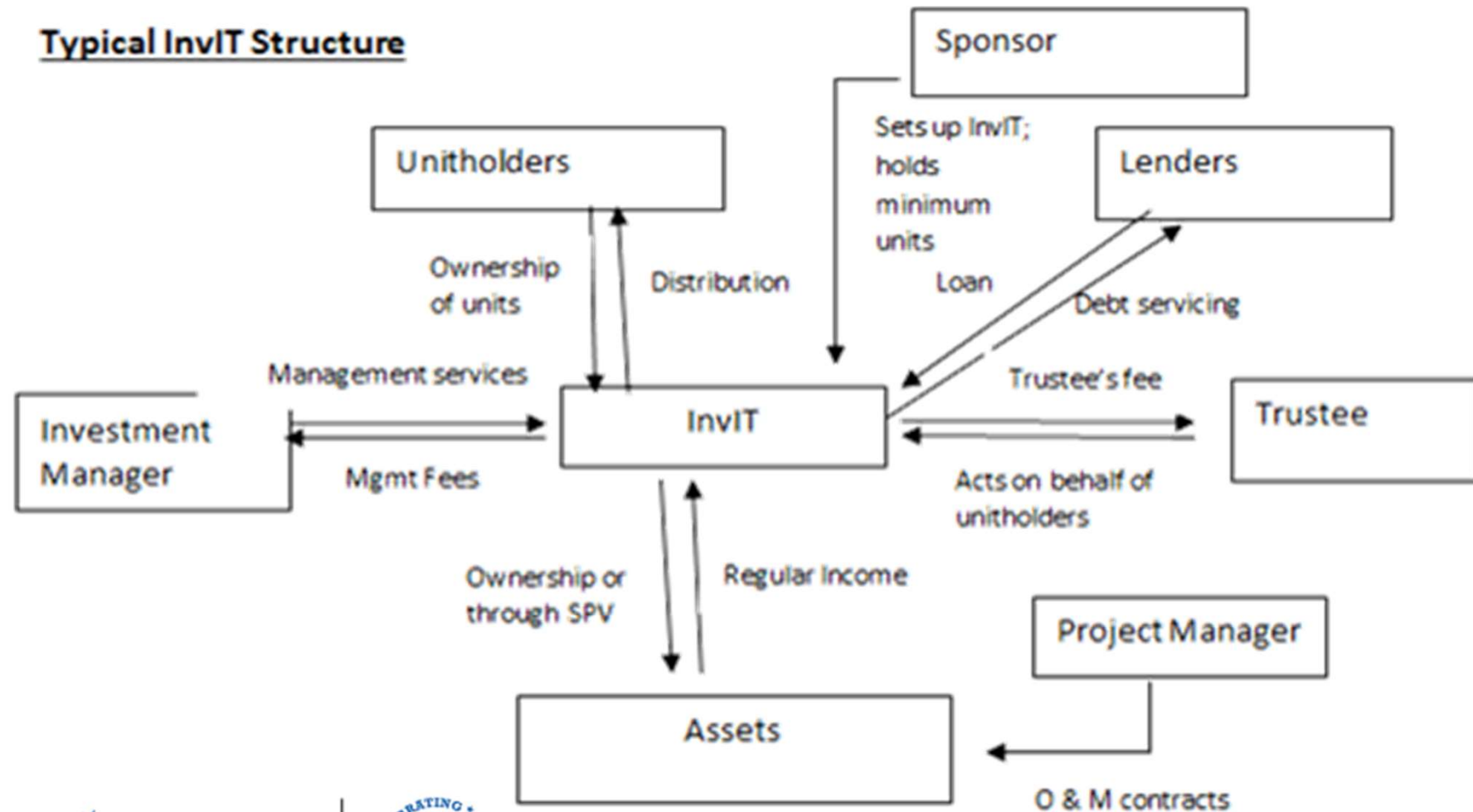
Rating	Definition	EL ranges corresponding to each EL rating
CARE [INFRA] EL 1	Lowest expected loss – Instruments rated ‘EL 1’ are considered to have the lowest expected loss, over the life of the instrument	<1.25%
CARE [INFRA] EL 2	Very Low expected loss – Instruments rated ‘EL 2’ are considered to have very low expected loss, over the life of the instrument	1.25<X<3.5%
CARE [INFRA] EL 3	Low expected loss – Instruments rated ‘EL 3’ are considered to have low expected loss, over the life of the instrument	3.5<X<7.5%
CARE [INFRA] EL 4	Moderate expected loss – Instruments rated ‘EL 4’ are considered to have moderate expected loss over the life of the instrument.	7.5<X<15%
CARE [INFRA] EL 5	High expected loss – Instruments rated ‘EL 5’ are considered to have high expected loss, over the life of the instrument	15<X<25%
CARE [INFRA] EL 6	Very High expected loss- Instruments rated ‘EL 6’ are considered to have very high expected loss, over the life of the instrument	25<X<35%
CARE [INFRA] EL 7	Highest expected loss - Instruments rated ‘EL 7’ are considered to have highest expected loss, over the life of the instrument	>35%

Infrastructure Investment Trusts (InvITs)

- SEBI introduced guidelines for Infrastructure Investment Trusts (InvITs) in Sept 2014
- InvITs are a mechanism that enable developers of infrastructure assets to monetize their assets by pooling multiple projects under a single entity and free up capital
- InvITs listed so far: IRB InvIT and Sterlite Power's IndiGrid Trust
- Two issues mobilized funds of over INR 65 Billion

Infrastructure Investment Trusts (InvITs)

Typical InvIT Structure



Thank You

