

Nifty AIF

Benchmark Report

NSE Indices Ltd.



March 2021

Introduction to Alternative Investment Funds (AIFs)

Alternative Investment Fund or AIF means any fund established or incorporated in India which is a privately pooled investment vehicle which collects funds from

sophisticated investors, whether Indian or foreign, for investing it in accordance with a defined investment policy for the benefit of its investors.

There are 3 categories of AIFs:

Category I AIF

Category I AIFs are AIFs that invest in start-up or early-stage ventures or social ventures or SMEs or infrastructure or other sectors or areas which the government or regulators consider as socially or economically desirable and include venture capital funds, SME Funds, social venture funds and infrastructure funds.

Category II AIF

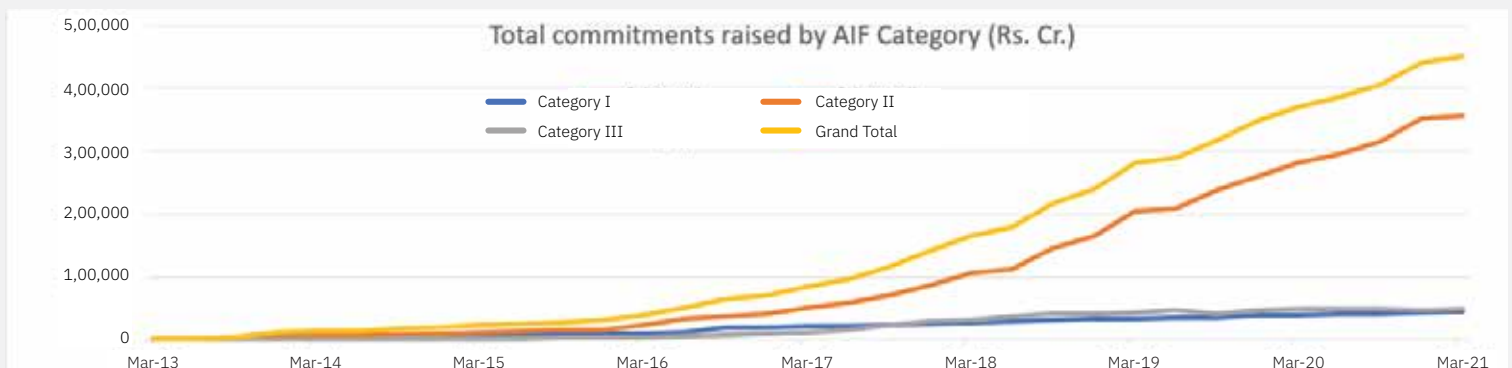
Category II AIFs are AIFs which do not fall in Category I and III and which do not undertake leverage or borrowing other than to meet day-to-day operational requirements and as permitted in the SEBI (Alternative Investment Funds) Regulations, 2012. Various types of funds such as real estate funds, private equity funds (PE funds), funds for distressed assets, etc. are registered as Category II AIFs.

Category III AIF

Category III AIFs are AIFs which employ diverse or complex trading strategies and may employ leverage including through investment in listed or unlisted derivatives; example: hedge funds, PIPE Funds, etc.

AIF industry in India

The AIF industry has witnessed rapid growth as the asset class has increased in popularity with investors. Total commitments raised across the AIF industry have increased by over 10x (63.3% CAGR) over the last 5 years – from Rs. 38,879 crores as of March 31, 2016 to Rs. 4,51,216 crores as of Mar 31, 2021.



Category	Commitments raised as of Mar 31, 2021 (Rs. Cr.)	Commitments raised as of Mar 31, 2016 (Rs. Cr.)	5y CAGR (%)
Category I	44,560	10,568	33.3%
Category II	3,56,627	24,062	71.5%
Category III	50,030	4,249	63.8%
Total	4,51,216	38,879	63.3%

Source: SEBI, NSE Indices calculations. Above numbers are based on commitment raised and are different from funds raised and investments made

Of the total commitments raised, Category II accounts for the largest share with Rs. 3,56,627 crores raised as of March 31, 2021 compared to Rs. 24,062 crores as of March 31, 2016, which represents 71.5% CAGR growth. The next largest category is Category III with Rs. 50,030 crores commitments raised as of March 31, 2021 compared to Rs. 4,249 crores commitments raised as of March 31, 2016. The smallest category is Category I with Rs. 44,560 crores commitments raised as of March 31, 2021 compared to Rs. 10,568 crores commitments raised as of March 31, 2016. Category II commitments raised

accounted for the largest share of total commitments raised at 79.0%, compared to Category III and Category I commitments raised shares of the total at 11.1% and 9.9% respectively. Category II has consistently remained the largest category within the AIF industry. Its share of total commitments raised has averaged 68.4% over the 5-year period between March 31, 2016 and March 31, 2021, compared to average share of 16.7% and 15.0% for Category I and Category III respectively.








Introducing NSE’s AIF Benchmark Indices

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In light of the rising importance of AIFs as an asset class for investors, NSE Indices Ltd. has created a suite of benchmark indices to measure returns across various Categories of AIFs. This increased transparency will benefit investors and also facilitate comparison of AIFs with their peers and with public market equivalents, where applicable.

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Coverage and Features of NSE’s AIF Benchmark Indices

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 NSE Indices Ltd.’s AIF performance indices represent industry aggregate performances of funds for the three fund categories (Category I, II and III)
- 
 For Category I and II, AIFs are further classified as per their vintage year and aggregate IRR is calculated for each benchmark year. IRRs and key multiples are calculated on a pooled and equal weight basis
- 
 For Category III AIFs, two performance benchmark indices, asset-weighted and equal-weighted, are calculated
- 
 Returns for all the three categories are on a post-expenses, pre-carry and pre-tax basis
- 
 For returns in dollar terms, all the cash flows, valuations and index values are converted to US dollar based on the Reserve Bank of India’s reference rates for the respective dates
- 
 Benchmarks are calculated based on the data submitted by AIFs to NSE Indices Ltd. The benchmarks consider schemes that have matured, thus accounting for survivorship bias
- 
 All metrics are calculated as of March 31, 2021

A summary of the number of AIF schemes and funds by category whose data has been used in this report is given below. We thank all the AIFs who submitted data to us.

Category	Number of AIF schemes	Number of AIF funds
Category I	75	66
Category II	202	159
Category III	115	52
Total	392	277

Source: NSE Indices. Data as of Mar 31, 2021

Definitions, Calculation Methodologies and Eligibility Criteria

NSE Indices strives to maintain consistency and transparency in the methodology and definitions used, and in alignment with best practices in the industry. Below are the definitions of metrics used.

Definitions relevant to Category I and II:



Vintage year

Benchmarks for Category I and II are calculated based on their vintage years. Vintage year is defined as the financial year in which the scheme had its first close i.e. the vintage year of a scheme will be FY14 if it had its first close anywhere between April 01, 2013 and March 31, 2014.



Pooled Internal Rate of Return (IRR)

Pooled IRR denotes the IRR calculated at an aggregate level by pooling all the cash flows that have occurred within all the schemes belonging to a particular category - vintage year combination. The cash flows are considered according to the date on which they have occurred and the valuation as of March 2021 is considered as the terminal value for calculation.



Equal-Weighted IRR

This is equivalent to a simple average of the individual schemes' IRRs. The result is that each scheme in these calculations has an equal impact on the output, regardless of the scheme size.



Multiples and realization ratios

Three types of ratios are considered for calculation of benchmarks, viz distributions to paid-in capital (DPI), residual value to paid-in capital (RVPI) and total value to paid-in capital (TVPI). All the three ratios are calculated for each applicable vintage year.



Pooled Multiples

These ratios are calculated by aggregating (summing) the cashflows of all schemes of a vintage year into a single series of cashflows.



Equal-Weighted Multiples

These ratios are calculated as the simple average of the multiples of constituent schemes of each vintage year.

○ Distribution to paid-in capital multiple (DPI):

DPI is calculated by dividing the total distributions made to investors, by the total paid-in capital by the investors. DPI is also known as the realization multiple.

○ Residual Value to paid-in capital multiple (RVPI):

RVPI is calculated by dividing the residual value of all the investments remaining in the scheme post distributions, by the total paid-in capital. The residual value refers to the valuation of the scheme as of the date for which the benchmarks have been calculated.

○ Total Value to paid-in capital multiple (TVPI):

TVPI is calculated by dividing the sum of total distributions and residual value, by the total paid-in capital. It is also known as the investment multiple. It is the sum of DPI and RVPI.



Quartile Analysis

Summary statistics of the distribution of IRRs and TVPIs by vintage year are calculated. Top quartile, median and bottom quartile IRR and TVPI levels are reported. Top and bottom quartiles are the calculated IRR/TVPI levels for the top 25% and bottom 25% schemes, respectively based on the individual scheme IRRs/TVPIs in each vintage year.



Kaplan-Schoar Public Market Equivalent (KS-PME)

The Kaplan-Schoar PME represents the market-adjusted equivalent to the traditional TVPI. It incorporates the performance contribution of a public market index by compounding each scheme cash flow – both capital calls and distributions – based on the public market index performance between the date of the cash flow and the valuation date. The KS-PME is calculated by adding the scheme's final NAV to the distributions compounded at the public market index CAGR and dividing this sum by the sum of capital calls compounded at the public market index CAGR. The KS-PME produces a multiple that represents the out/underperformance of the scheme relative to the public market index. If the KS-PME is greater than 1, the scheme outperformed the public market index and vice versa.

The formula for KS-PME is given as:

$$KS-PME = \frac{\sum FV(D) + NAV}{\sum FV(C)}$$

Where FV(D) and FV(C) are the sum of future value of distributions and capital calls respectively, compounded at the public market index CAGR

Definitions relevant to Category III:



Asset-weighted Index

For Category III schemes, an asset-weighted index is created at the category level based on quarterly returns of constituent schemes using relevant AUMs as weights. For schemes that have multiple share classes but have not submitted aggregated NAV, an aggregate NAV series is derived using weighted average quarterly returns of the individual share classes, weights being the opening share class AUMs.



Equal-weighted Index

For Category III schemes, an equal-weighted index is created at the category level based on the quarterly returns of constituent schemes by assigning equal weightage to each scheme. For schemes that have multiple share classes but have not submitted aggregated NAV, an aggregate NAV series is derived using weighted average quarterly returns of the individual share classes, weights being the opening share class AUMs.



Growth of 100 units of Investment Index

Growth of 100 units of investment index tracks the quarterly performance of a hypothetical 100 units of investment, assuming reinvestment, over a period of time. This index charts the total return gained by an investor over a specified period of time. It includes capital gains as well as reinvested dividends.

Eligibility Criteria

All AIFs registered with SEBI under the SEBI (Alternative Investment Funds) Regulations, 2012, are considered for the calculation of benchmarks, provided they fulfill the following criteria:

1. Completion of one year from the first close of the scheme as on the date for which the benchmarks are calculated. For e.g., the AIF benchmark calculated for the period ending March 31, 2021 will have schemes that had their first close on or before March 31, 2020
2. Valid data is provided to NSE Indices Ltd in the specified format and by the stipulated deadline

The following are excluded from calculation of benchmarks:

- Any scheme that has not completed one year since its first close as on the date for which the benchmarks are calculated, i.e., March 31, 2021
- Fund of funds
- Angel Funds registered under sub-category VCF under Category I-AIF
- Any scheme that has not provided complete or valid data or that has not provided data in the required format

Category I



**Category
I**

**Category
II**

**Category
III**

Nifty AIF Benchmarks

Category I

IRRs and Multiples by Vintage Year - Category I (INR)

Vintage year (FY)	No. of Schemes	Pooled IRR (%)	Equal Weighted IRR (%)	Pooled Multiples (x)			Equal Weighted Multiples (x)		
				DPI	RVPI	TVPI	DPI	RVPI	TVPI
Cat I 2016	17	19.6%	18.5%	0.09	1.72	1.82	0.16	1.82	1.98
Cat I 2017	11	25.9%	20.4%	0.30	1.26	1.56	0.11	1.50	1.60
Cat I 2018	10	25.6%	19.1%	0.14	1.30	1.44	0.22	1.41	1.63
Cat I 2019	11	16.5%	6.5%	0.00	1.23	1.24	0.00	1.15	1.16
Cat I 2020	13	4.0%	-4.2%	0.00	1.03	1.03	0.00	1.00	1.00

Source: NSE Indices. Data as of Mar 31, 2021. Returns and multiples are calculated on a post-expenses, pre-carry and pre-tax basis. Does not include 1 Cat I scheme which was excluded from the calculations as the data was missing / inconsistent. Does not include 1 scheme for vintage year FY13, 5 schemes for vintage year FY14 and 7 schemes for vintage year FY15 which were eligible but not included as there were less than 10 schemes available for those respective vintage years, which was not substantive enough to result in meaningful analysis

The table above shows the Pooled IRR, Equal Weighted IRR and return multiples (Pooled and Equal Weighted) of Cat I schemes (INR) by vintage year. For instance, there are 11 schemes with vintage year FY17. These 11 schemes have delivered 25.9% pooled IRR and 20.4% equal weighted IRR. They have a pooled DPI, RVPI and TVPI of 0.30, 1.26 and 1.56 respectively. On an equal weighted basis, the schemes from vintage year FY17 have a DPI, RVPI and TVPI of 0.11, 1.50 and 1.60 respectively

IRR and TVPI Distribution Analysis

Category I

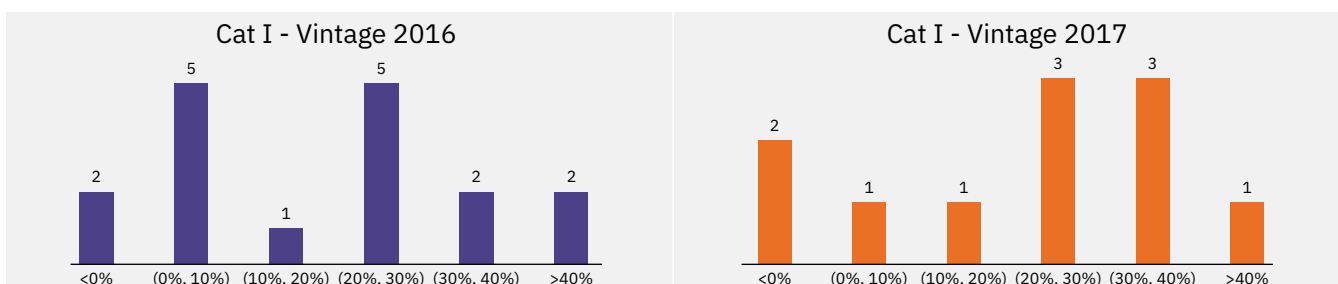
Distribution of IRRs and TVPIs - Category I (INR)

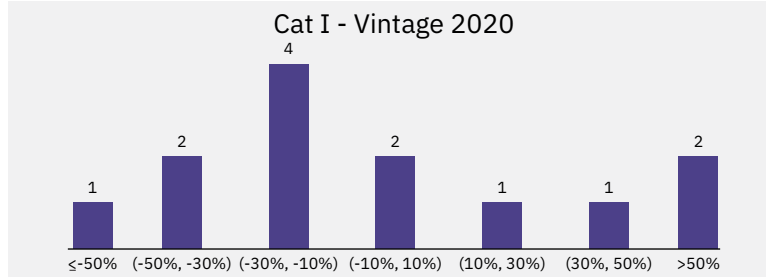
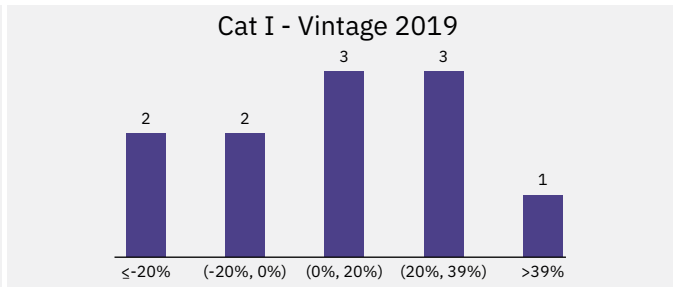
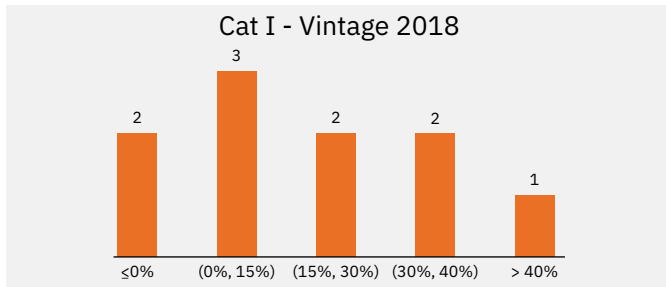
Vintage year (FY)	No. of Schemes	IRR Distribution (%)			TVPI Distribution (x)		
		1 st Quartile (Top 25 percentile level)	Median	3 rd Quartile (Bottom 25 percentile level)	1 st Quartile (Top 25 percentile level)	Median	3 rd Quartile (Bottom 25 percentile level)
Cat I 2016	17	27.9%	21.0%	4.3%	2.14	1.84	1.19
Cat I 2017	11	33.7%	24.6%	8.9%	1.95	1.57	1.13
Cat I 2018	10	31.7%	14.9%	10.5%	1.61	1.25	1.17
Cat I 2019	11	29.3%	6.5%	-8.7%	1.47	1.09	0.91
Cat I 2020	13	14.3%	-12.5%	-29.4%	1.18	0.92	0.80

Source: NSE Indices. Data as of Mar 31, 2021. Returns and multiples are calculated on a post-expenses, pre-carry and pre-tax basis. Does not include 1 Cat I scheme which was excluded from the calculations as the data was missing / inconsistent. Does not include 1 scheme for vintage year FY13, 5 schemes for vintage year FY14 and 7 schemes for vintage year FY15 which were eligible but not included as there were less than 10 schemes available for those respective vintage years, which was not substantive enough to result in meaningful analysis

The table above shows the distribution of IRRs and TVPIs for Cat I schemes (INR) by vintage year. For instance, there are 17 schemes with vintage year as FY16. The median IRR and median TVPI for that vintage year is 21.0% and 1.84 respectively. The 1st quartile (top 25 percentile level) IRR is 27.9% and 3rd quartile (bottom 25 percentile level) IRR is 4.3%. The 1st quartile (top 25 percentile level) TVPI is 2.14 and 3rd quartile (bottom 25 percentile level) TVPI is 1.19

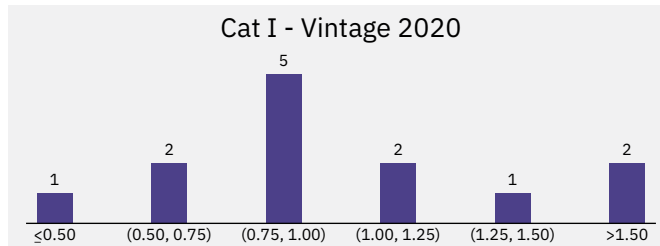
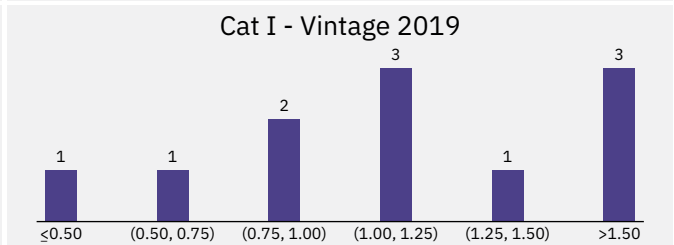
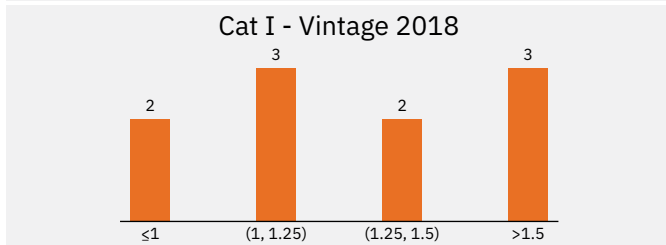
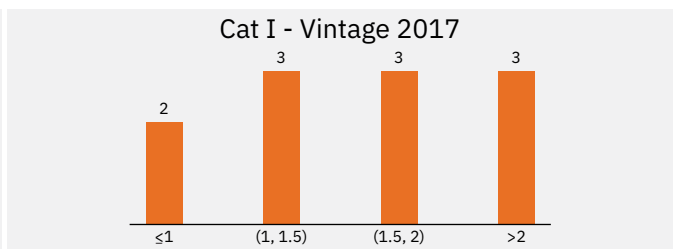
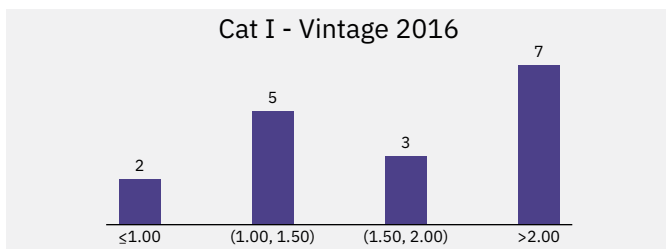
Distribution of IRRs – Category I (INR)





Source: NSE Indices. Data as of Mar 31, 2021. Returns and multiples are calculated on a post-expenses, pre-carry and pre-tax basis. Does not include 1 Cat I scheme which was excluded from the calculations as the data was missing / inconsistent. Does not include 1 scheme for vintage year FY13, 5 schemes for vintage year FY14 and 7 schemes for vintage year FY15 which were eligible but not included as there were less than 10 schemes available for those respective vintage years, which was not substantive enough to result in meaningful analysis

Distribution of TVPIs – Category I (INR)



Source: NSE Indices. Data as of Mar 31, 2021. Returns and multiples are calculated on a post-expenses, pre-carry and pre-tax basis. Does not include 1 Cat I scheme which was excluded from the calculations as the data was missing / inconsistent. Does not include 1 scheme for vintage year FY13, 5 schemes for vintage year FY14 and 7 schemes for vintage year FY15 which were eligible but not included as there were less than 10 schemes available for those respective vintage years, which was not substantive enough to result in meaningful analysis

IRRs and Multiples by Vintage Year – Category I (USD)

Vintage year (FY)	No. of Schemes	Pooled IRR (%)	Equal Weighted IRR (%)	Pooled Multiples (x)			Equal Weighted Multiples (x)		
				DPI	RVPI	TVPI	DPI	RVPI	TVPI
Cat I 2016	17	16.8%	15.9%	0.09	1.59	1.68	0.15	1.66	1.82
Cat I 2017	11	22.1%	17.0%	0.29	1.19	1.48	0.10	1.41	1.51
Cat I 2018	10	22.8%	16.3%	0.14	1.26	1.39	0.21	1.33	1.54
Cat I 2019	11	14.6%	4.7%	0.00	1.21	1.21	0.00	1.12	1.13
Cat I 2020	13	2.3%	-5.4%	0.00	1.02	1.02	0.00	0.98	0.98

Source: NSE Indices. Data as of Mar 31, 2021. Returns and multiples are calculated on a post-expenses, pre-carry and pre-tax basis. Does not include 1 Cat I scheme which was excluded from the calculations as the data was missing / inconsistent. Does not include 1 scheme for vintage year FY13, 5 schemes for vintage year FY14 and 7 schemes for vintage year FY15 which were eligible but not included as there were less than 10 schemes available for those respective vintage years, which was not substantive enough to result in meaningful analysis

Overall, schemes from vintage year FY18 have the highest pooled IRR of 22.8% whereas schemes from vintage year FY17 have the highest equal weighted IRR of 17.0% in USD terms. Schemes from vintage year FY20 have the lowest pooled and equal weighted IRR, at 2.3% and -5.4% respectively in USD terms

Distribution of IRRs and TVPIs - Category I (USD)

Vintage year (FY)	No. of Schemes	IRR Distribution (%)			TVPI Distribution (x)		
		1 st Quartile (Top 25 percentile level)	Median	3 rd Quartile (Bottom 25 percentile level)	1 st Quartile (Top 25 percentile level)	Median	3 rd Quartile (Bottom 25 percentile level)
Cat I 2016	17	24.8%	17.9%	1.4%	2.01	1.75	1.06
Cat I 2017	11	30.2%	21.4%	5.2%	1.84	1.52	1.07
Cat I 2018	10	28.5%	12.1%	9.0%	1.55	1.22	1.15
Cat I 2019	11	26.6%	4.4%	-9.7%	1.42	1.06	0.90
Cat I 2020	13	11.7%	-12.1%	-30.9%	1.15	0.92	0.77

Source: NSE Indices. Data as of Mar 31, 2021. Returns and multiples are calculated on a post-expenses, pre-carry and pre-tax basis. Does not include 1 Cat I scheme which was excluded from the calculations as the data was missing / inconsistent. Does not include 1 scheme for vintage year FY13, 5 schemes for vintage year FY14 and 7 schemes for vintage year FY15 which were eligible but not included as there were less than 10 schemes available for those respective vintage years, which was not substantive enough to result in meaningful analysis

The table above shows the distribution of IRRs and TVPIs for Cat I schemes (USD) by vintage year. For instance, there are 17 schemes with vintage year as FY16. The median IRR and median TVPI for that vintage year is 17.9% and 1.75 respectively in USD terms. The 1st quartile (top 25 percentile level) IRR is 24.8% and 3rd quartile (bottom 25 percentile level) IRR is 1.4%. The 1st quartile (top 25 percentile level) TVPI is 2.01 and 3rd quartile (bottom 25 percentile level) TVPI is 1.06

Kaplan Schoar Public Market Equivalent (KS-PME) Analysis

Category I

KS-PME (INR)

Vintage year (FY)	No. of Schemes	KS-PME (INR)							
		vs. Nifty 50 TR	vs. Nifty Next 50 TR	vs. Nifty 100 TR	vs. Nifty Midcap 150 TR	vs. Nifty Smallcap 250 TR	vs. Nifty 500 TR	vs. Nifty Total Market TR	vs. Nifty Composite Debt Index TR
Cat I 2016	17	1.16	1.28	1.18	1.11	1.31	1.18	1.18	1.39
Cat I 2017	11	1.21	1.31	1.22	1.20	1.32	1.23	1.23	1.34
Cat I 2018	10	1.09	1.16	1.10	1.02	1.05	1.09	1.09	1.26
Cat I 2019	11	0.94	0.98	0.95	0.86	0.87	0.93	0.93	1.09
Cat I 2020	13	0.85	0.87	0.85	0.77	0.76	0.83	0.83	0.97

Source: NSE Indices. Data as of Mar 31, 2021. Returns and multiples are calculated on a post-expenses, pre-carry and pre-tax basis. Does not include 1 Cat I scheme which was excluded from the calculations as the data was missing / inconsistent. Does not include 1 scheme for vintage year FY13, 5 schemes for vintage year FY14 and 7 schemes for vintage year FY15 which were eligible but not included as there were less than 10 schemes available for those respective vintage years, which was not substantive enough to result in meaningful analysis

The table above shows the KS-PME for schemes by vintage year (INR). If the KS-PME is greater than 1, it indicates the schemes for that vintage year outperformed the public market index on aggregate. The KS-PME for schemes of vintage year FY16 is 1.18 with respect to the Nifty 500. This implies schemes for that vintage year outperformed the Nifty 500 on aggregate

Schemes of vintage year FY17 have the highest KS-PME of 1.23 with respect to the Nifty 500, indicating outperformance relative to the Nifty 500. The KS-PME for vintage year FY17 is greater than 1 for all public market indices w.r.t to which the ratio has been calculated. Schemes of vintage year FY20 have the lowest KS-PME of 0.83 with respect to the Nifty 500, indicating underperformance relative to the Nifty 500. The KS-PME for vintage year FY20 is less than 1 for all public market indices w.r.t to which the ratio has been calculated

Category II



Category
I

Category
II

Category
III

Nifty AIF Benchmarks

Category II

IRRs and Multiples by Vintage Year – Category II (INR)

Vintage year (FY)	No. of Schemes	Pooled IRR (%)	Equal Weighted IRR (%)	Pooled Multiples (x)			Equal Weighted Multiples (x)		
				DPI	RVPI	TVPI	DPI	RVPI	TVPI
Cat II 2016	17	11.6%	11.7%	0.38	1.00	1.38	0.49	0.93	1.42
Cat II 2017	29	8.3%	9.8%	0.40	0.79	1.18	0.43	0.88	1.32
Cat II 2018	39	16.2%	14.1%	0.24	1.13	1.37	0.28	1.04	1.32
Cat II 2019	49	20.7%	11.5%	0.16	1.13	1.29	0.16	1.03	1.19
Cat II 2020	47	15.8%	16.0%	0.19	0.93	1.12	0.13	0.97	1.10

Source: NSE Indices. Data as of Mar 31, 2021. Returns and multiples are calculated on a post-expenses, pre-carry and pre-tax basis. Does not include 9 Cat II schemes which were excluded from the calculations as the data was missing / inconsistent. Does not include 1 scheme for vintage year FY13, 10 schemes for vintage year FY14 and 10 schemes for vintage year FY15 which were eligible but not included as there were less than 15 schemes available for those respective vintage years, which was not substantive enough to result in meaningful analysis

The table above shows the Pooled IRR, Equal Weighted IRR and return multiples (Pooled and Equal Weighted) of Cat II schemes (INR) by vintage year. There are 39 schemes with vintage year FY18. These 39 schemes have delivered 16.2% pooled IRR and 14.1% equal weighted IRR. They have a pooled DPI, RVPI and TVPI of 0.24, 1.13 and 1.37 respectively. On an equal weighted basis, the schemes from vintage year FY18 have an equal weighted DPI, RVPI and TVPI of 0.28, 1.04 and 1.32 respectively.

Schemes from vintage year FY19 have the highest pooled IRR of 20.7%, while schemes from vintage year FY20 have the highest equal weighted IRR of 16%. Schemes from vintage year FY17 have the lowest pooled and equal weighted IRR of 8.3% and 9.8% respectively

IRR and TVPI Distribution Analysis

Category II

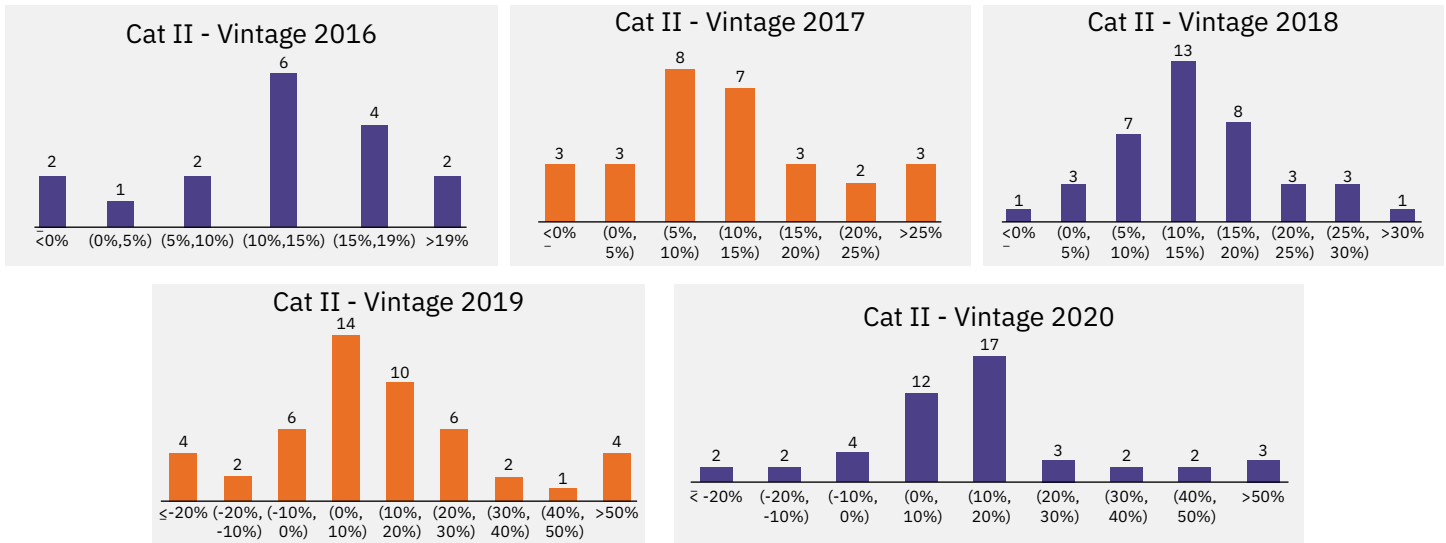
Distribution of IRRs and TVPIs - Category II (INR)

Vintage year (FY)	No. of Schemes	IRR Distribution (%)			TVPI Distribution (x)		
		1 st Quartile (Top 25 percentile level)	Median	3 rd Quartile (Bottom 25 percentile level)	1 st Quartile (Top 25 percentile level)	Median	3 rd Quartile (Bottom 25 percentile level)
Cat II 2016	17	16.8%	12.5%	8.4%	1.49	1.46	1.24
Cat II 2017	29	16.0%	11.4%	7.5%	1.41	1.29	1.17
Cat II 2018	39	17.1%	12.8%	9.3%	1.37	1.30	1.22
Cat II 2019	49	20.6%	8.9%	0.4%	1.28	1.12	1.01
Cat II 2020	47	18.0%	12.7%	3.5%	1.15	1.10	1.01

Source: NSE Indices. Data as of Mar 31, 2021. Returns and multiples are calculated on a post-expenses, pre-carry and pre-tax basis. Does not include 9 Cat II schemes which were excluded from the calculations as the data was missing / inconsistent. Does not include 1 scheme for vintage year FY13, 10 schemes for vintage year FY14 and 10 schemes for vintage year FY15 which were eligible but not included as there were less than 15 schemes available for those respective vintage years, which was not substantive enough to result in meaningful analysis

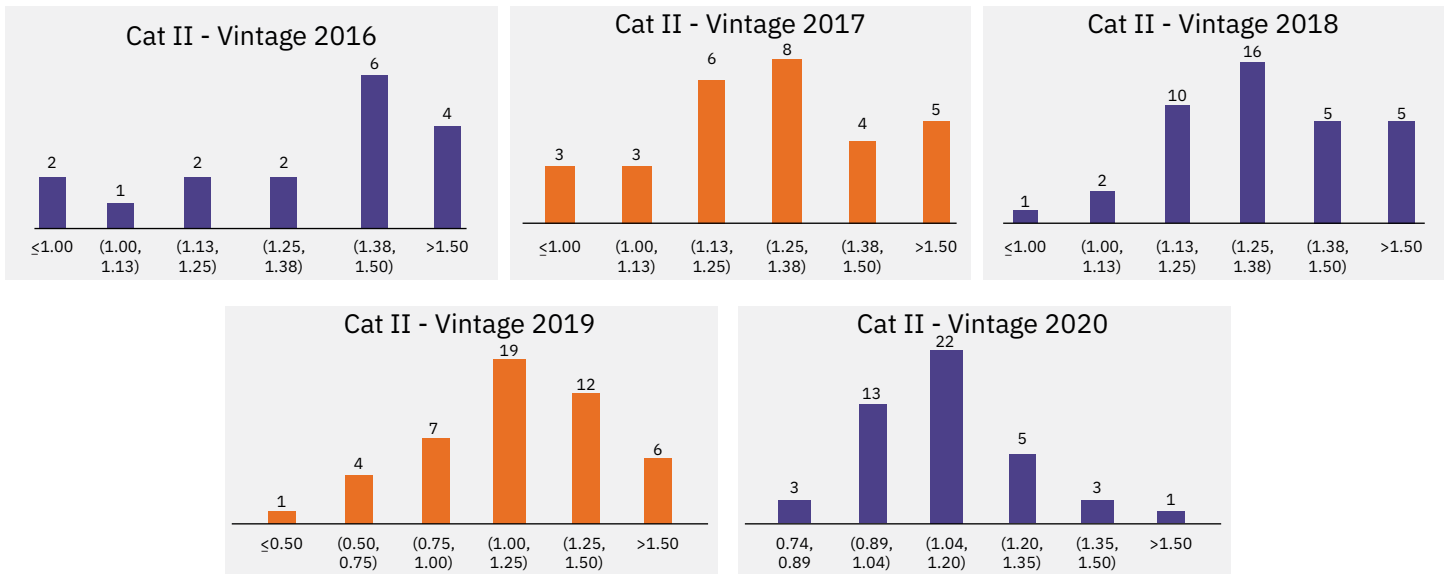
Schemes for vintage year FY18 have the highest median IRR of 12.8%, while schemes for vintage year FY16 have the highest median TVPI of 1.46

Distribution of IRRs – Category II (INR)



Source: NSE Indices. Data as of Mar 31, 2021. Returns and multiples are calculated on a post-expenses, pre-carry and pre-tax basis. Does not include 9 Cat II schemes which were excluded from the calculations as the data was missing / inconsistent. Does not include 1 scheme for vintage year FY13, 10 schemes for vintage year FY14 and 10 schemes for vintage year FY15 which were eligible but not included as there were less than 15 schemes available for those respective vintage years, which was not substantive enough to result in meaningful analysis

Distribution of TVPIs – Category II (INR)



Source: NSE Indices. Data as of Mar 31, 2021. Returns and multiples are calculated on a post-expenses, pre-carry and pre-tax basis. Does not include 9 Cat II schemes which were excluded from the calculations as the data was missing / inconsistent. Does not include 1 scheme for vintage year FY13, 10 schemes for vintage year FY14 and 10 schemes for vintage year FY15 which were eligible but not included as there were less than 15 schemes available for those respective vintage years, which was not substantive enough to result in meaningful analysis

IRRs and Multiples by Vintage Year – Category II (USD)

Vintage year (FY)	No. of Schemes	Pooled IRR (%)	Equal Weighted IRR (%)	Pooled Multiples (x)			Equal Weighted Multiples (x)		
				DPI	RVPI	TVPI	DPI	RVPI	TVPI
Cat II 2016	17	9.3%	9.5%	0.38	0.92	1.29	0.47	0.86	1.33
Cat II 2017	29	5.5%	7.1%	0.39	0.73	1.12	0.41	0.82	1.24
Cat II 2018	39	12.7%	10.7%	0.23	1.06	1.29	0.26	0.97	1.24
Cat II 2019	49	18.4%	9.5%	0.16	1.10	1.26	0.15	1.01	1.16
Cat II 2020	47	13.7%	14.3%	0.19	0.92	1.11	0.12	0.96	1.09

Source: NSE Indices. Data as of Mar 31, 2021. Returns and multiples are calculated on a post-expenses, pre-carry and pre-tax basis. Does not include 9 Cat II schemes which were excluded from the calculations as the data was missing / inconsistent. Does not include 1 scheme for vintage year FY13, 10 schemes for vintage year FY14 and 10 schemes for vintage year FY15 which were eligible but not included as there were less than 15 schemes available for those respective vintage years, which was not substantive enough to result in meaningful analysis

Overall, schemes from vintage year FY19 have the highest pooled IRR of 18.4% whereas schemes from vintage year FY20 have the highest equal weighted IRR of 14.3% in USD terms. Schemes from vintage year FY17 have the lowest pooled and equal weighted IRR of 5.5% and 7.1% respectively in USD terms

Distribution of IRRs and TVPIs - Category II (USD)

Vintage year (FY)	No. of Schemes	IRR Distribution (%)			TVPI Distribution (x)		
		1 st Quartile (Top 25 percentile level)	Median	3 rd Quartile (Bottom 25 percentile level)	1 st Quartile (Top 25 percentile level)	Median	3 rd Quartile (Bottom 25 percentile level)
Cat II 2016	17	15.2%	10.4%	5.5%	1.40	1.37	1.22
Cat II 2017	29	12.9%	8.6%	3.8%	1.31	1.20	1.10
Cat II 2018	39	13.6%	9.3%	6.3%	1.27	1.22	1.14
Cat II 2019	49	18.2%	6.8%	-1.1%	1.26	1.09	0.98
Cat II 2020	47	16.6%	10.3%	2.9%	1.13	1.08	1.02

Source: NSE Indices. Data as of Mar 31, 2021. Returns and multiples are calculated on a post-expenses, pre-carry and pre-tax basis. Does not include 9 Cat II schemes which were excluded from the calculations as the data was missing / inconsistent. Does not include 1 scheme for vintage year FY13, 10 schemes for vintage year FY14 and 10 schemes for vintage year FY15 which were eligible but not included as there were less than 15 schemes available for those respective vintage years, which was not substantive enough to result in meaningful analysis

Overall, schemes from vintage year FY16 have the highest median IRR of 10.4% and highest median TVPI of 1.37 in USD terms

Kaplan Schoar Public Market Equivalent (KS-PME) Analysis

Category II

KS-PME (INR)

Vintage year (FY)	No. of Schemes	KS-PME (INR)							
		vs. Nifty 50 TR	vs. Nifty Next 50 TR	vs. Nifty 100 TR	vs. Nifty Midcap 150 TR	vs. Nifty Smallcap 250 TR	vs. Nifty 500 TR	vs. Nifty Total Market TR	vs. Nifty Composite Debt Index TR
Cat II 2016	17	0.93	0.99	0.94	0.90	1.04	0.94	0.95	1.09
Cat II 2017	29	0.90	0.98	0.91	0.90	1.01	0.92	0.92	0.99
Cat II 2018	39	1.03	1.14	1.05	1.02	1.13	1.05	1.05	1.14
Cat II 2019	49	1.03	1.08	1.04	0.96	0.99	1.02	1.02	1.14
Cat II 2020	47	0.94	0.95	0.94	0.86	0.86	0.92	0.92	1.05

Source: NSE Indices. Data as of Mar 31, 2021. Returns and multiples are calculated on a post-expenses, pre-carry and pre-tax basis. Does not include 9 Cat II schemes which were excluded from the calculations as the data was missing / inconsistent. Does not include 1 scheme for vintage year FY13, 10 schemes for vintage year FY14 and 10 schemes for vintage year FY15 which were eligible but not included as there were less than 15 schemes available for those respective vintage years, which was not substantive enough to result in meaningful analysis

The table above shows the KS-PME for Category II schemes by vintage year (INR). If the KS-PME is greater than 1, it indicates the schemes for that vintage year outperformed the public market index on aggregate. The KS-PME for schemes of vintage year FY16 is 0.94 with respect to the Nifty 500. This implies schemes for that vintage year underperformed the Nifty 500 on aggregate

Schemes of vintage year FY18 have the highest KS-PME of 1.05 with respect to the Nifty 500, indicating outperformance relative to the Nifty 500. Schemes of vintage year FY17 have the lowest KS-PME of 0.92 with respect to the Nifty 500, indicating underperformance relative to the Nifty 500

Category III



Category
I

Category
II

**Category
III**

Nifty AIF Benchmarks

Category III

AIF Performance indices vs Public Market Indices (PMIs)

Period	Asset weighted		Equal weighted		Public Market Indices			
	Cat III (INR)	Cat III (USD)	Cat III (INR)	Cat III (USD)	Nifty 50 TR (INR)	Nifty 500 TR (INR)	Nifty Total Market TR (INR)	Nifty Composite Debt TR (INR)
Since Inception (Mar 31, 2014)	15.6%	12.3%	14.5%	11.3%	13.2%	14.3%	14.6%	9.2%
5 Years	11.4%	9.0%	10.1%	7.9%	15.1%	15.2%	15.1%	8.5%
3 Years	8.9%	4.5%	5.5%	1.4%	14.4%	12.4%	12.1%	9.0%
2 Years	12.9%	9.6%	10.9%	7.9%	14.6%	15.1%	15.1%	10.2%
1 Year	52.0%	55.7%	60.9%	65.6%	72.5%	77.6%	78.5%	8.6%
6 Months	22.7%	22.9%	23.3%	23.8%	31.2%	32.4%	32.6%	2.7%
3 Months	5.1%	4.7%	5.9%	5.7%	5.3%	7.1%	7.3%	-0.4%

Source: NSE Indices. Data as of Mar 31, 2021. Returns are calculated on a post-expenses, pre-carry and pre-tax basis for Cat III indices. Returns for PMIs are based on TRI values; 6-month, 3-month and 1-year returns are absolute returns. Returns for greater than one year are CAGR returns. Does not include 11 Cat III schemes which were excluded from the calculations as the data was missing / inconsistent. Indices are created from the quarter in which at least three schemes were available i.e. Mar 31, 2014

The table above shows the returns of Cat III performance indices versus various Nifty TR indices over specified horizons. The Cat III asset weighted index has delivered 15.6% CAGR in INR terms and 12.3% CAGR in USD terms since inception on March 31, 2014 to March 31, 2021. On an equal weighted basis, Cat III schemes have returned 14.5% in INR terms and 11.3% in USD terms since inception. In comparison, the Nifty 50 TR and Nifty Composite Debt TR index have delivered 13.2% and 9.2% CAGR respectively since March 31, 2014 to March 31, 2021

AIF Performance indices vs PMIs by financial year

Financial Year	Asset weighted		Equal weighted		Public Market Indices			
	Cat III (INR)	Cat III (USD)	Cat III (INR)	Cat III (USD)	Nifty 50 TR (INR)	Nifty 500 TR (INR)	Nifty Total Market TR (INR)	Nifty Composite Debt TR (INR)
FY 2015	50.3%	44.4%	44.8%	39.1%	28.2%	34.9%	36.3%	14.4%
FY 2016	7.3%	1.1%	10.6%	4.2%	-7.8%	-6.5%	-6.0%	7.5%
FY 2017	19.8%	22.4%	24.3%	27.1%	20.2%	25.5%	25.9%	10.5%
FY 2018	10.8%	10.2%	10.8%	10.3%	12.5%	13.7%	14.1%	5.1%
FY 2019	1.2%	-5.1%	-4.5%	-10.4%	13.9%	7.1%	6.4%	6.6%
FY 2020	-16.1%	-22.8%	-23.6%	-29.7%	-23.9%	-25.4%	-25.9%	11.8%
FY 2021	52.0%	55.7%	60.9%	65.6%	72.5%	77.6%	78.5%	8.6%

Source: NSE Indices. Data as of Mar 31, 2021. Returns are calculated on a post-expenses, pre-carry and pre-tax basis for Cat III indices. Returns for PMIs are based on TRI values. Does not include 11 Cat III schemes which were excluded from the calculations as the data was missing / inconsistent. Indices are created from the quarter in which at least three schemes were available i.e. Mar 31, 2014

The table above shows the returns of Cat III indices versus various Nifty TR indices by financial year. Over FY2019, the Cat III asset weighted index returned 1.2% in INR terms and -5.1% in USD terms. The Cat III equal weighted index returned -4.5% in INR terms and -10.4% in USD terms over FY2019. In comparison, the Nifty 50 TR and Nifty Composite Debt TR index delivered 13.9% and 6.6% return in INR terms respectively over FY2019

The Cat III asset weighted index has outperformed the Nifty 50 TR index in 3 out of the last 7 financial years – FY2015, FY2016 and FY2020

Rolling Returns: Category III

Cat III indices vs PMIs: 3-Year Rolling Returns

3-Year ended	Asset weighted		Equal weighted		Public Market Indices			
	Cat III (INR)	Cat III (USD)	Cat III (INR)	Cat III (USD)	Nifty 50 TR (INR)	Nifty 500 TR (INR)	Nifty Total Market TR (INR)	Nifty Composite Debt TR (INR)
Mar - 2017	24.6%	21.3%	25.8%	22.6%	12.4%	16.5%	17.3%	10.8%
Jun - 2017	17.2%	14.4%	18.4%	15.5%	9.1%	11.8%	12.3%	10.4%
Sep - 2017	15.4%	13.2%	17.0%	14.8%	8.7%	11.8%	12.2%	10.2%
Dec - 2017	15.2%	14.7%	18.0%	17.6%	9.5%	13.0%	13.5%	8.2%
Mar - 2018	12.5%	10.9%	15.1%	13.5%	7.6%	10.1%	10.5%	7.7%
Jun - 2018	12.1%	9.4%	14.2%	11.6%	10.2%	11.5%	11.9%	7.0%
Sep - 2018	9.2%	5.6%	9.2%	5.7%	13.1%	13.3%	13.4%	6.2%
Dec - 2018	8.7%	6.8%	7.0%	5.2%	12.5%	12.3%	12.3%	7.4%
Mar - 2019	10.4%	8.6%	9.6%	7.9%	15.5%	15.2%	15.2%	7.4%
Jun - 2019	7.6%	6.7%	6.2%	5.4%	14.1%	12.9%	12.7%	7.7%
Sep - 2019	5.9%	3.8%	2.9%	0.9%	11.5%	9.4%	9.2%	7.1%
Dec - 2019	7.6%	5.8%	5.3%	3.6%	16.4%	14.5%	14.2%	7.0%
Mar - 2020	-2.0%	-6.9%	-6.8%	-11.4%	-0.8%	-3.1%	-3.5%	7.8%
Jun - 2020	0.9%	-4.2%	-3.5%	-8.4%	4.0%	1.8%	1.5%	8.5%
Sep - 2020	3.1%	-1.0%	-0.7%	-4.6%	5.7%	3.8%	3.5%	8.4%
Dec - 2020	5.9%	1.1%	1.3%	-3.2%	11.4%	8.1%	7.7%	9.6%
Mar - 2021	8.9%	4.5%	5.5%	1.4%	14.4%	12.4%	12.1%	9.0%
Mean 3y rolling return	9.6%	6.8%	8.5%	5.8%	10.3%	10.3%	10.4%	8.3%
Min 3y rolling return	-2.0%	-6.9%	-6.8%	-11.4%	-0.8%	-3.1%	-3.5%	6.2%
Median 3y rolling return	8.9%	6.7%	7.0%	5.4%	11.4%	11.8%	12.2%	7.8%
Max 3y rolling return	24.6%	21.3%	25.8%	22.6%	16.4%	16.5%	17.3%	10.8%

Source: NSE Indices. Data as of Mar 31, 2021. Returns are calculated on a post-expenses, pre-carry and pre-tax basis for Cat III indices. Returns for PMIs are based on TRI values. Returns for greater than one year are CAGR returns. Does not include 11 Cat III schemes which were excluded from the calculations as the data was missing / inconsistent. Indices are created from the quarter in which at least three schemes were available i.e. Mar 31, 2014

The table above shows the 3-year rolling returns on quarterly ending dates for Cat III indices as well as Nifty TR indices. Over the last 3-year rolling period, between Mar 31, 2018 and Mar 31, 2021, the Cat III asset weighted index returned 8.9% CAGR in INR terms and 4.5% CAGR in USD terms. The Cat III equal weighted index returned 5.5% in INR terms and 1.4% CAGR in USD terms over the same period. The Nifty 50 TR and Nifty Composite Debt TR index returned 14.4% CAGR and 9.0% CAGR respectively over the same period

The average 3-year rolling return across all periods analysed is 9.6% CAGR for Cat III asset weighted index, compared to 10.3% CAGR and 8.3% CAGR for Nifty 50 TR index and Nifty Composite Debt TR index respectively

Cat III indices vs PMIs: 5-Year Rolling Returns

5-Year ended	Asset weighted		Equal weighted		Public Market Indices			
	Cat III (INR)	Cat III (USD)	Cat III (INR)	Cat III (USD)	Nifty 50 TR (INR)	Nifty 500 TR (INR)	Nifty Total Market TR (INR)	Nifty Composite Debt TR (INR)
Mar-2019	16.7%	13.3%	16.1%	12.7%	12.7%	14.0%	14.4%	8.8%
Jun-2019	11.8%	8.7%	10.5%	7.5%	10.6%	10.7%	10.9%	8.7%
Sep-2019	10.2%	7.2%	8.6%	5.7%	8.9%	9.1%	9.1%	8.9%
Dec-2019	9.1%	6.5%	7.7%	5.2%	9.4%	9.1%	9.1%	8.2%
Mar-2020	3.9%	0.0%	2.1%	-1.6%	1.6%	1.3%	1.3%	8.3%
Jun-2020	6.3%	2.7%	5.7%	2.2%	5.6%	5.5%	5.5%	9.1%
Sep-2020	7.4%	4.9%	6.5%	4.1%	8.5%	8.3%	8.3%	8.7%
Dec-2020	10.0%	7.7%	8.0%	5.9%	13.4%	12.7%	12.6%	9.1%
Mar-2021	11.4%	9.0%	10.1%	7.9%	15.1%	15.2%	15.1%	8.5%
Mean 5y rolling return	9.6%	6.7%	8.4%	5.5%	9.5%	9.5%	9.6%	8.7%
Min 5y rolling return	3.9%	0.0%	2.1%	-1.6%	1.6%	1.3%	1.3%	8.2%
Median 5y rolling return	10.0%	7.2%	8.0%	5.7%	9.4%	9.1%	9.1%	8.7%
Max 5y rolling return	16.7%	13.3%	16.1%	12.7%	15.1%	15.2%	15.1%	9.1%

Source: NSE Indices. Data as of Mar 31, 2021. Returns are calculated on a post-expenses, pre-carry and pre-tax basis for Cat III indices. Returns for PMIs are based on TRI values. Returns for greater than one year are CAGR returns. Does not include 11 Cat III schemes which were excluded from the calculations as the data was missing / inconsistent. Indices are created from the quarter in which at least three schemes were available i.e. Mar 31, 2014

CAGR Distribution Analysis

Distribution of historical scheme CAGRs – Category III (INR)

Period	No. of Schemes	Scheme-level CAGR Distribution (%)		
		1 st Quartile (Top 25 percentile level)	Median	3 rd Quartile (Bottom 25 percentile level)
1-year return	91	93.2%	62.2%	32.3%
2-year return	70	15.2%	11.6%	4.3%
3-year return	44	9.8%	6.9%	0.5%

Source: NSE Indices. Data as of Mar 31, 2021. Returns are calculated on a post-expenses, pre-carry and pre-tax basis. Does not include 11 Cat III schemes which were excluded from the calculations as the data was missing / inconsistent.

The table above shows the distribution of 1,2 and 3-year CAGRs of Cat III schemes (INR). For instance, there are 70 schemes with 2-year CAGRs. Till March 31, 2021, the 70 schemes had a median 2-year CAGR of 11.6%, the 1st quartile (top 25 percentile level) CAGR is 15.2% and 3rd quartile (bottom 25 percentile level) CAGR is 4.3%

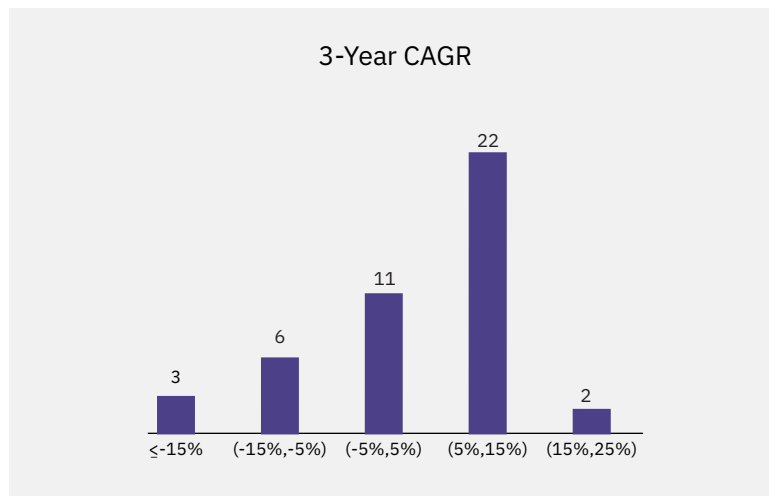
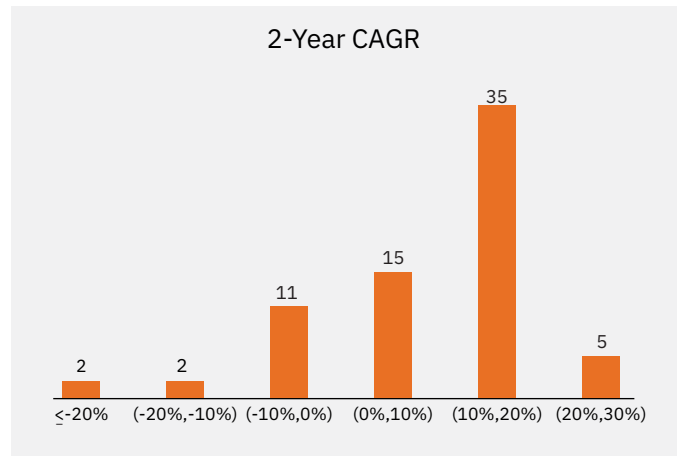
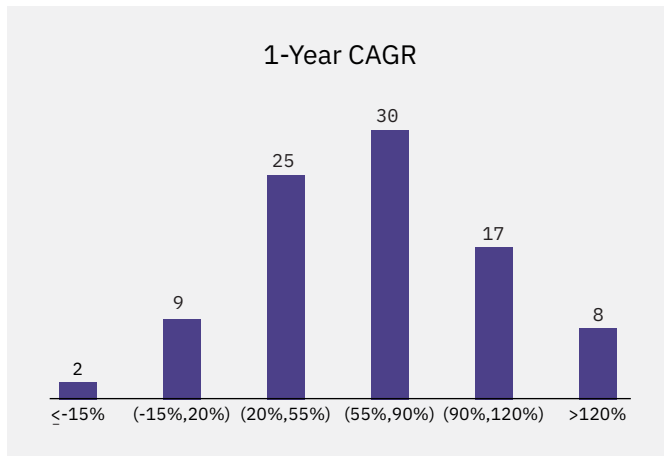
Distribution of historical scheme CAGRs – Category III (USD)

Period	No. of Schemes	Scheme-level CAGR Distribution (%)		
		1 st Quartile (Top 25 percentile level)	Median	3 rd Quartile (Bottom 25 percentile level)
1-year return	91	98.9%	67.0%	36.3%
2-year return	70	12.1%	8.7%	1.6%
3-year return	44	5.6%	2.8%	-3.4%

Source: NSE Indices. Data as of Mar 31, 2021. Returns are calculated on a post-expenses, pre-carry and pre-tax basis. Does not include 11 Cat III schemes which were excluded from the calculations as the data was missing / inconsistent.

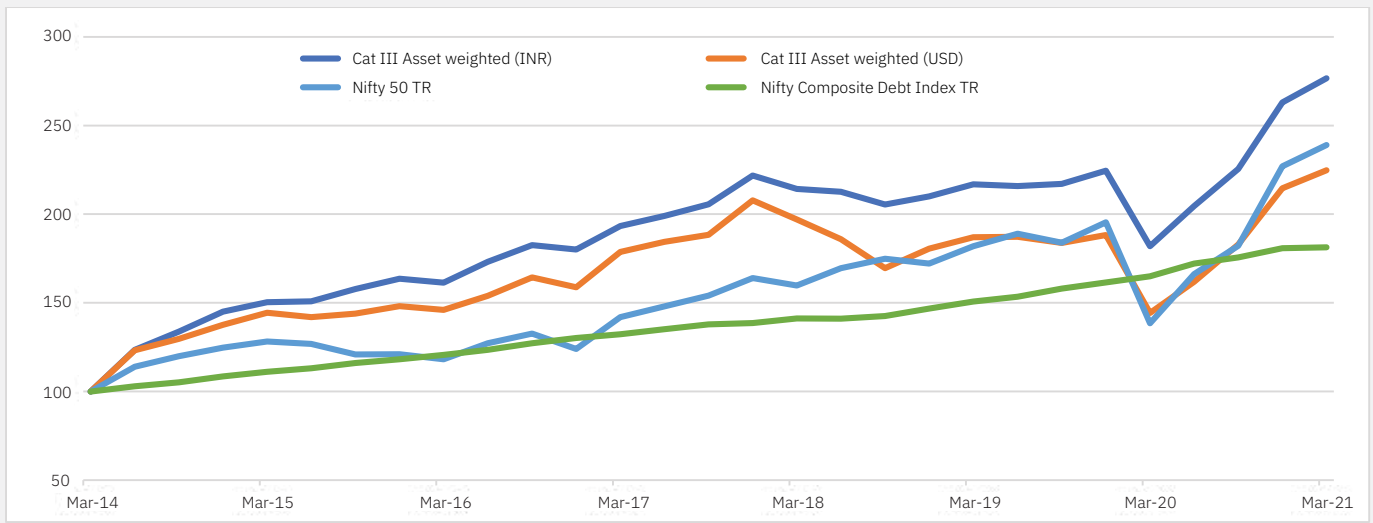
The table above shows the distribution of 1,2 and 3-year CAGRs of Cat III schemes (USD). For instance, there are 44 schemes with 3-year CAGRs. Till March 31, 2021, the 44 schemes had a median 3-year CAGR is 2.8%, the 1st quartile (top 25 percentile level) CAGR is 5.6% and 3rd quartile (bottom 25 percentile level) CAGR is -3.4%

Distribution of historical CAGRs – Category III (INR)



Source: NSE Indices. Data as of Mar 31, 2021. Returns are calculated on a post-expenses, pre-carry and pre-tax basis. Does not include 11 Cat III schemes which were excluded from the calculations as the data was missing / inconsistent. Indices are created from the quarter in which at least three schemes were available i.e. Mar 31, 2014

Growth of 100 units of Investment Index: Category – III



Source: NSE Indices. Data as of Mar 31, 2021. Does not include 11 Cat III schemes which were excluded from the calculations as the data was missing / inconsistent. Indices are created from the quarter in which at least three schemes were available i.e. Mar 31, 2014

The table above shows the Growth of 100 units of investment both in INR and USD terms. This index represents how much 100 units invested in the respective currency on Mar 31, 2014 across different indices would be worth as of Mar 31, 2021

For example, Rs. 100 invested in the Cat III asset weighted index on Mar 31, 2014 would be worth Rs. 277 after 7 years as of Mar 31, 2021. The same amount invested in the Nifty 50 TR would be worth Rs. 239 as of Mar 31, 2021

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NSE Indices Limited (formerly known as India Index Services & Products Ltd. -IISL), a subsidiary of NSE, provides a variety of indices and index related services for the capital markets. The company focuses on the index as a core product. The company owns and manages a portfolio of indices under the NIFTY brand of NSE, including the flagship index, the NIFTY 50. NIFTY equity indices comprises of broad-based benchmark indices, sectoral indices, strategy indices, thematic indices and customised indices. NSE Indices Limited also maintains fixed income indices based on Government of India securities, corporate bonds, money market instruments and hybrid indices. Many investment products based on NIFTY indices have been developed within India and abroad. These include index based derivatives traded on NSE, NSE IFSC and Singapore Exchange Ltd. (SGX) and a number of index funds and exchange traded funds. The flagship 'NIFTY 50' index is widely tracked and traded as the benchmark for Indian Capital Markets.

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