US Treasury 1 Month Yield - Spot
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Sept 2023 - Academy
Calibration
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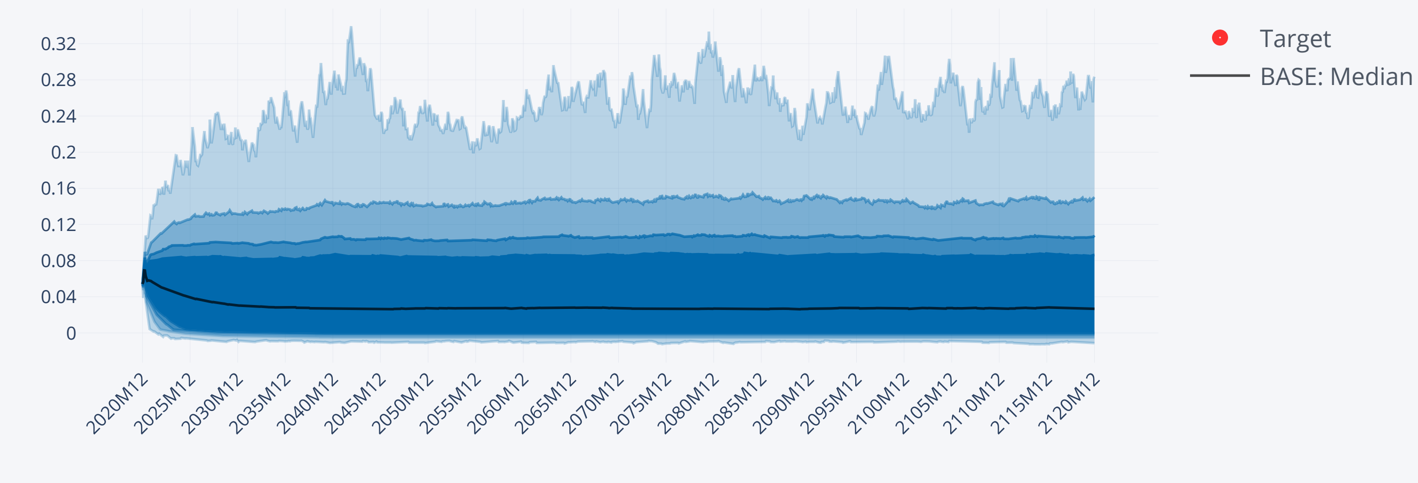
Simulated Data in Percentiles : US Treasury 1 Month Yield - Spot

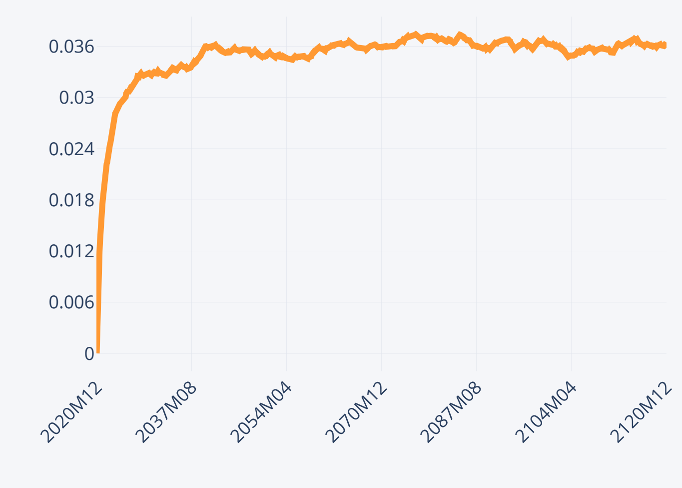


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0570	0.0352
std	0.0175	0.0351
min	0.0020	-0.0098
1%	0.0190	-0.0050
5%	0.0290	-0.0021
10%	0.0350	-0.0001
50%	0.0565	0.0268
90%	0.0796	0.0849
95%	0.0865	0.1026
99%	0.1005	0.1429
max	0.1258	0.2474

Cross Sectional Volatility Over Time : BASE



US Treasury 3 Month Yield - Spot

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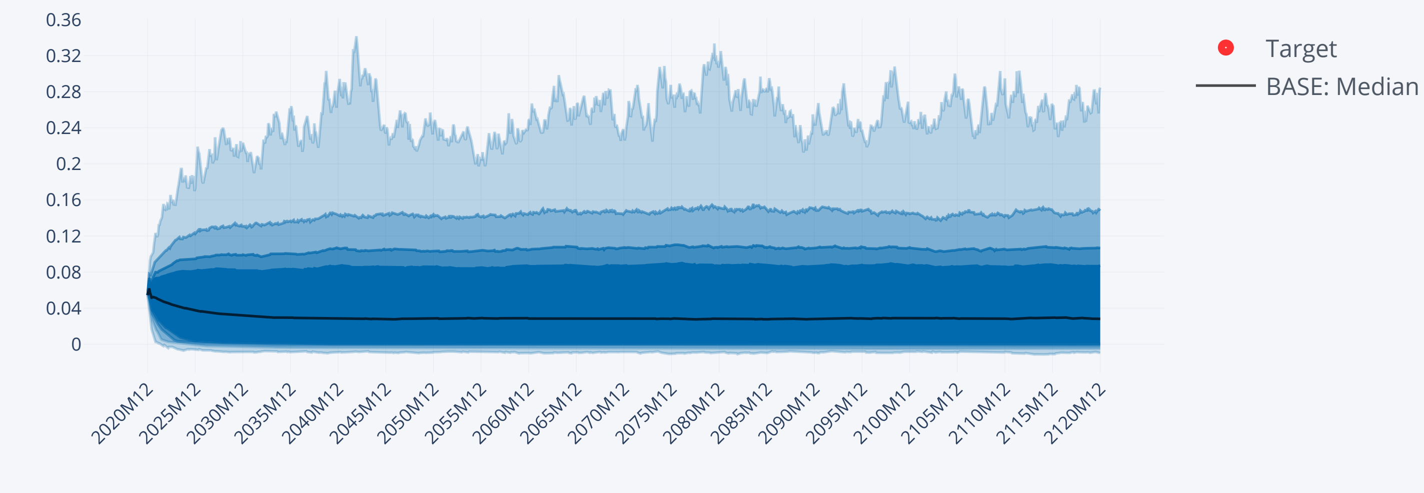
Simulated Data in Percentiles : US Treasury 3 Month Yield - Spot

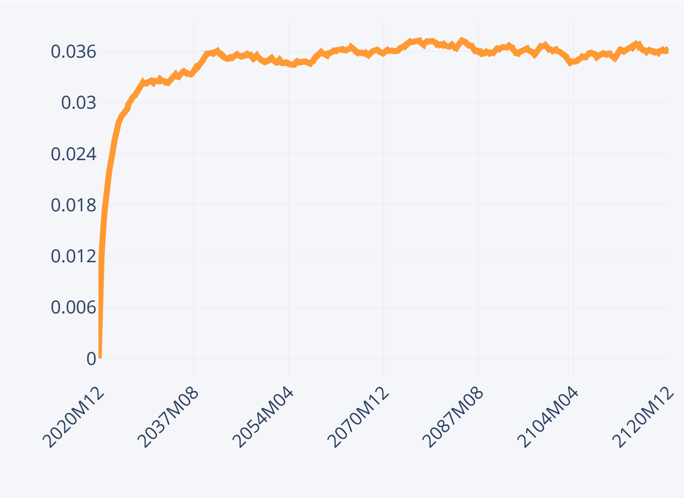


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

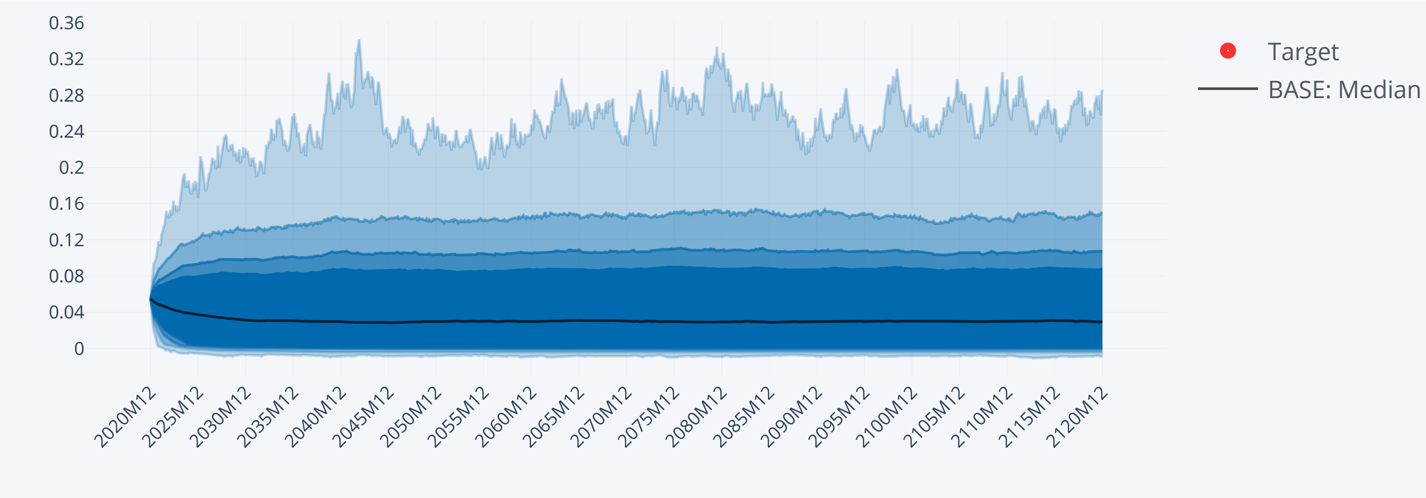
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0510	0.0362
std	0.0170	0.0350
min	0.0013	-0.0089
1%	0.0143	-0.0044
5%	0.0238	-0.0016
10%	0.0297	0.0003
50%	0.0505	0.0282
90%	0.0730	0.0860
95%	0.0794	0.1028
99%	0.0928	0.1439
max	0.1189	0.2443

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : US Treasury 6 Month Yield - Spot

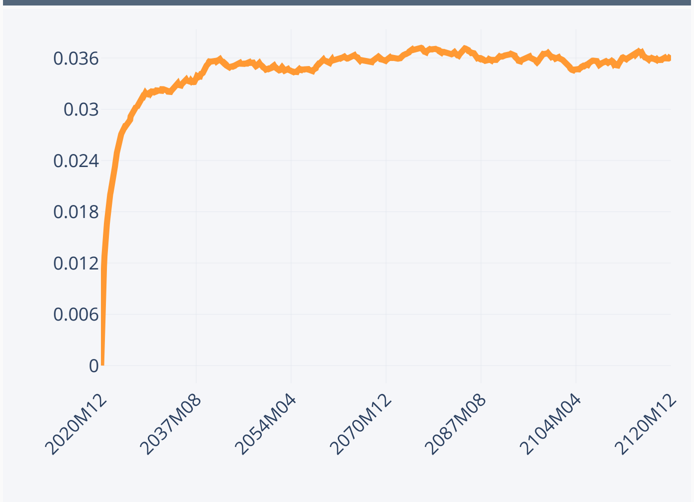


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

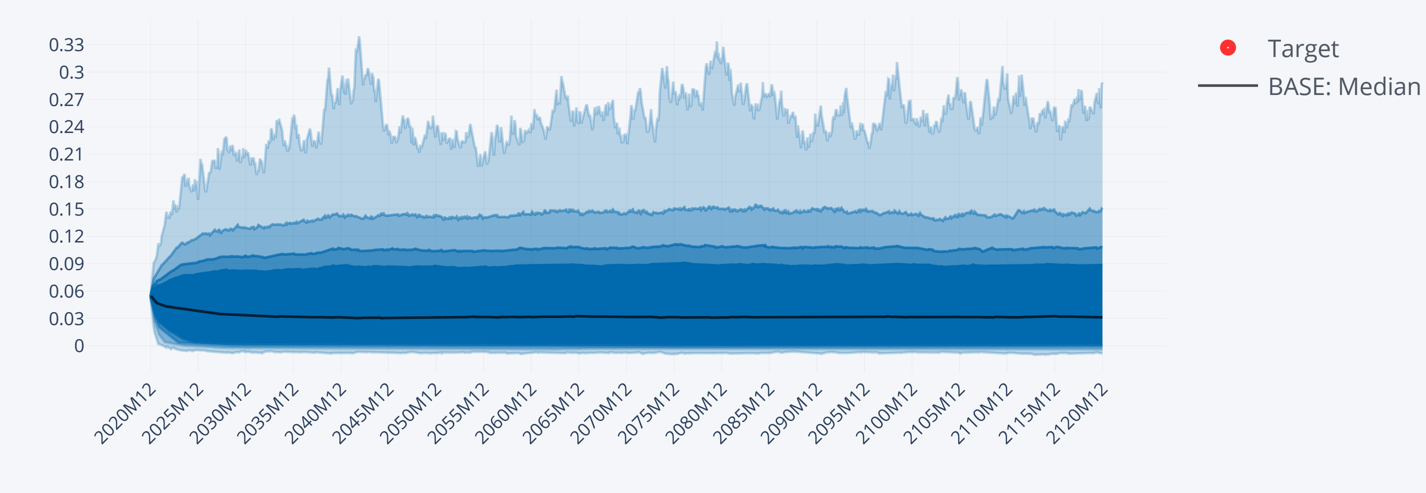
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0476	0.0371
std	0.0166	0.0350
min	0.0009	-0.0084
1%	0.0117	-0.0039
5%	0.0210	-0.0012
10%	0.0268	0.0007
50%	0.0473	0.0296
90%	0.0693	0.0862
95%	0.0754	0.1031
99%	0.0885	0.1438
max	0.1144	0.2416

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : US Treasury 1 Year Yield - Spot

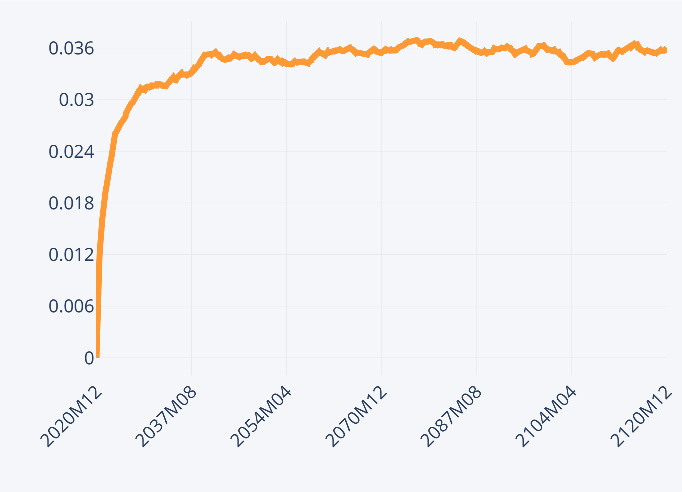


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0455	0.0383
std	0.0160	0.0347
min	0.0009	-0.0078
1%	0.0108	-0.0033
5%	0.0197	-0.0006
10%	0.0254	0.0012
50%	0.0452	0.0312
90%	0.0663	0.0868
95%	0.0724	0.1036
99%	0.0851	0.1434
max	0.1102	0.2379

Cross Sectional Volatility Over Time : BASE



US Treasury 2 Year Yield - Spot

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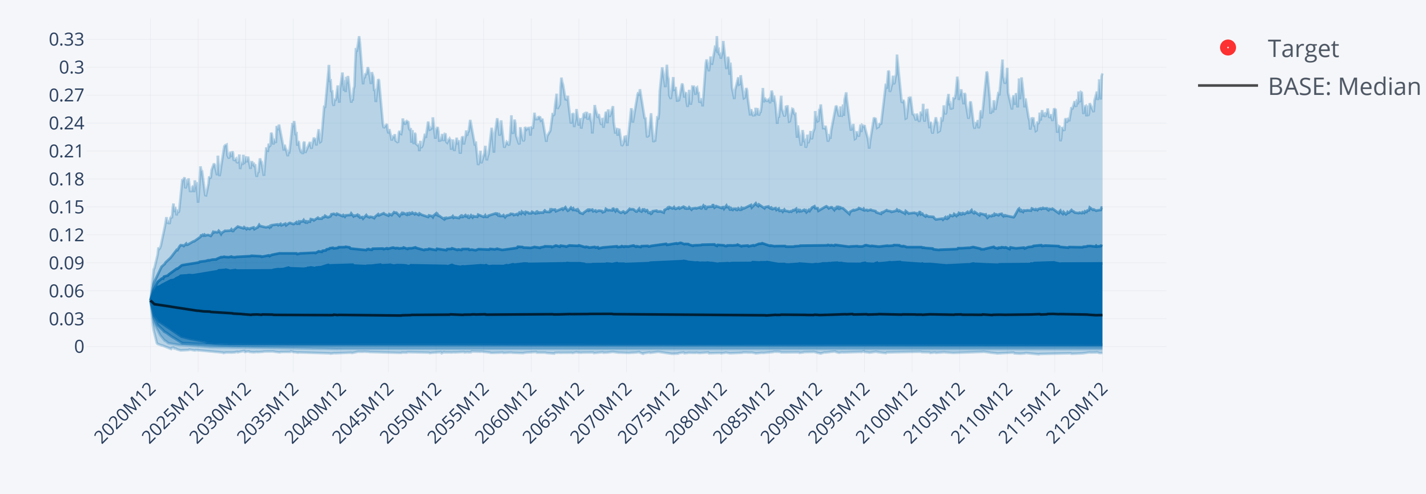
Simulated Data in Percentiles : US Treasury 2 Year Yield - Spot

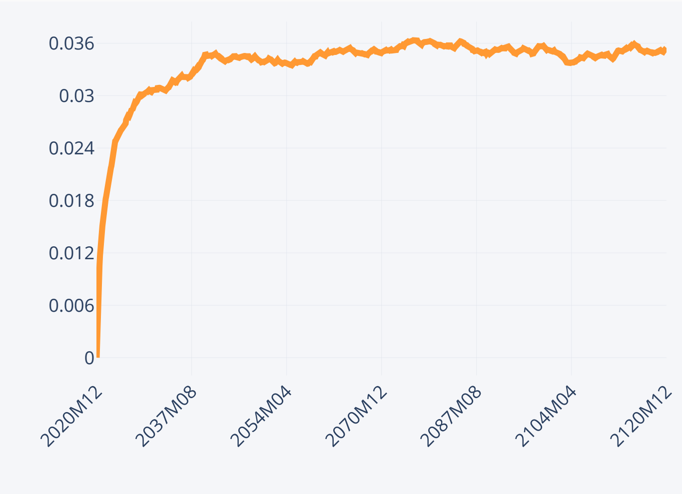


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0452	0.0402
std	0.0151	0.0341
min	0.0014	-0.0067
1%	0.0125	-0.0023
5%	0.0211	0.0003
10%	0.0263	0.0021
50%	0.0448	0.0340
90%	0.0646	0.0878
95%	0.0704	0.1036
99%	0.0824	0.1429
max	0.1059	0.2321

Cross Sectional Volatility Over Time : BASE



US Treasury 3 Year Yield - Spot
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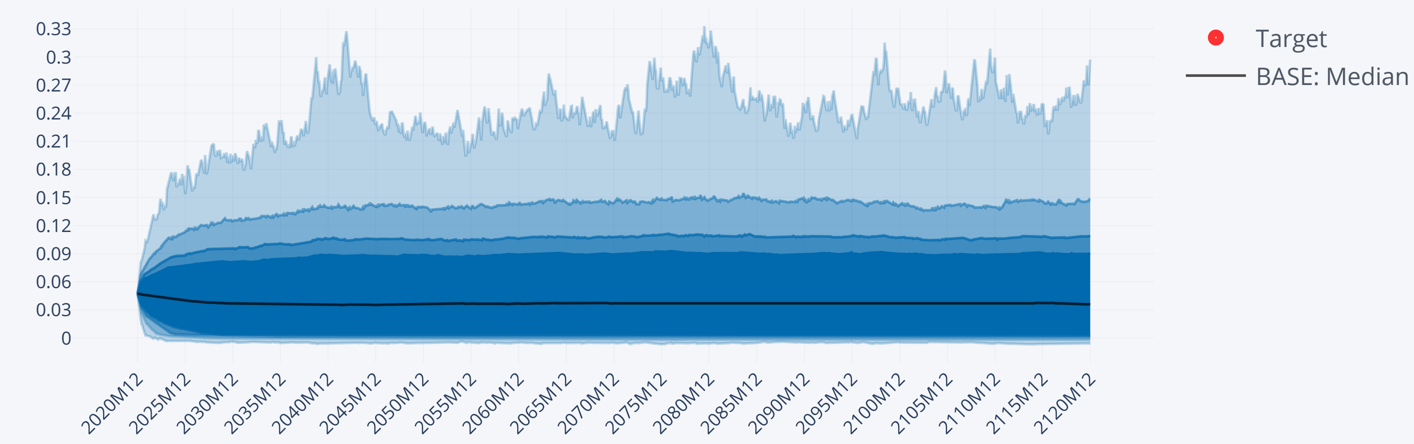
Simulated Data in Percentiles : US Treasury 3 Year Yield - Spot

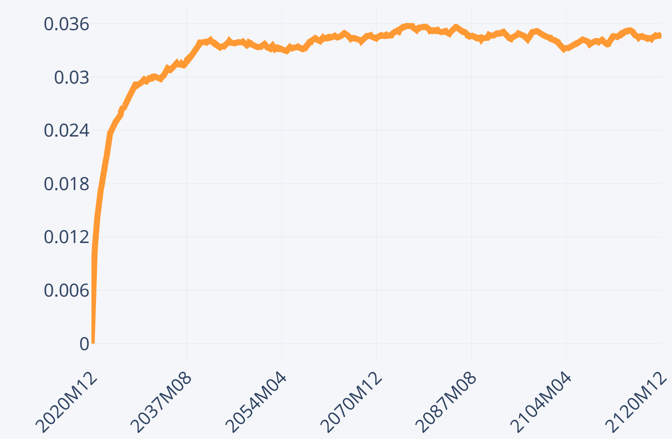


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0456	0.0419
std	0.0142	0.0335
min	0.0019	-0.0056
1%	0.0148	-0.0014
5%	0.0229	0.0010
10%	0.0278	0.0028
50%	0.0452	0.0363
90%	0.0642	0.0886
95%	0.0695	0.1046
99%	0.0809	0.1403
max	0.1028	0.2270

Cross Sectional Volatility Over Time : BASE



US Treasury 4 Year Yield - Spot
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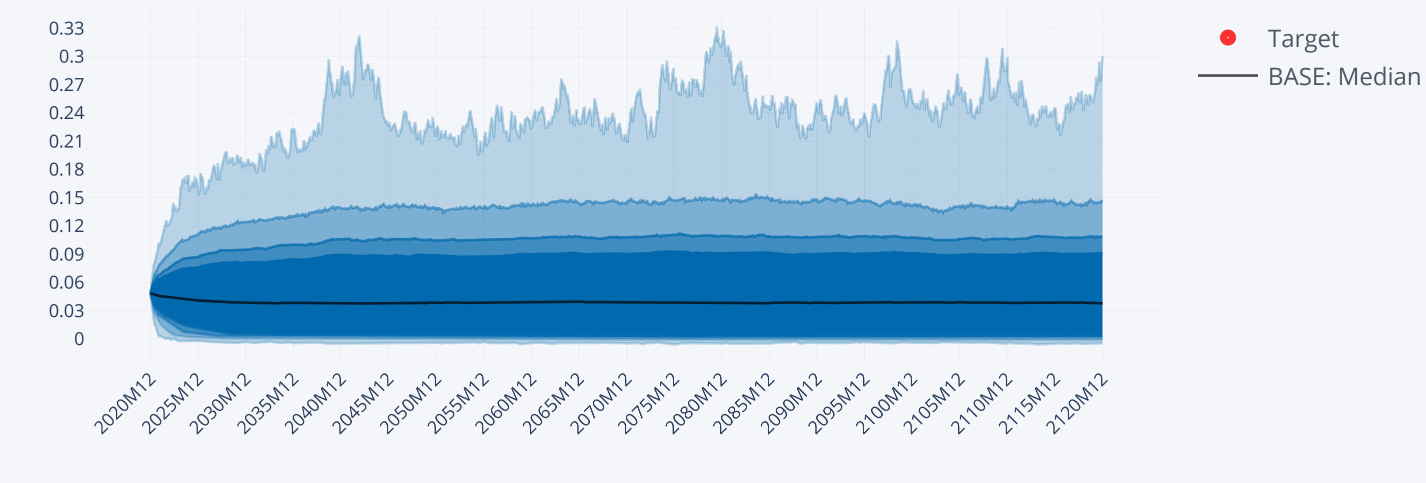
Simulated Data in Percentiles : US Treasury 4 Year Yield - Spot

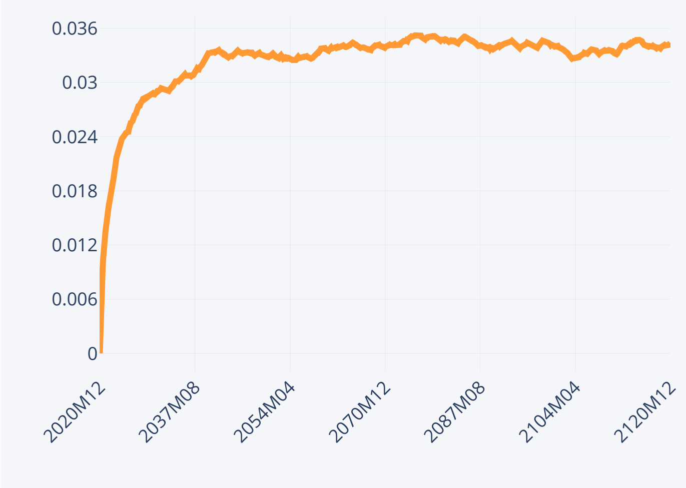


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

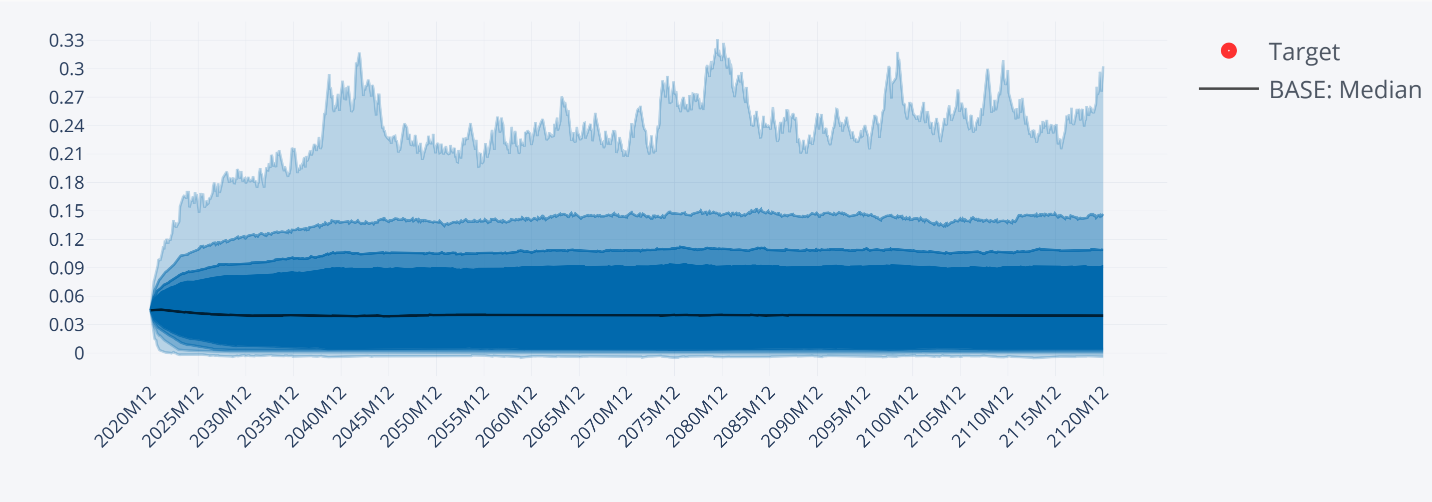
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0458	0.0434
std	0.0135	0.0330
min	0.0024	-0.0047
1%	0.0166	-0.0006
5%	0.0244	0.0017
10%	0.0290	0.0035
50%	0.0454	0.0383
90%	0.0635	0.0892
95%	0.0684	0.1043
99%	0.0793	0.1388
max	0.0999	0.2224

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : US Treasury 5 Year Yield - Spot

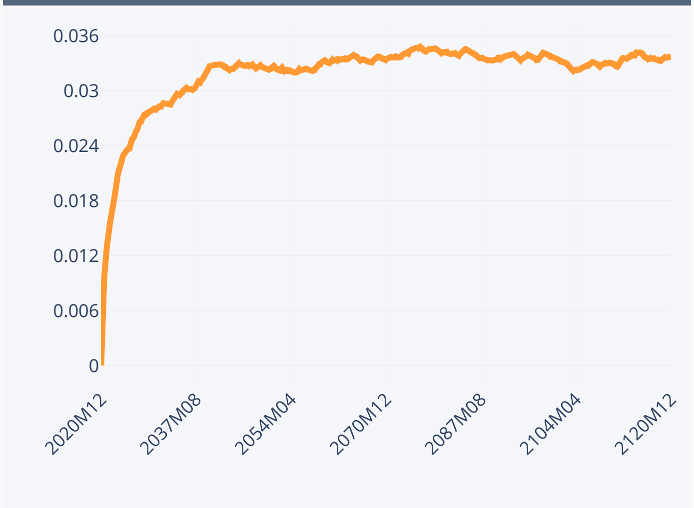


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0461	0.0448
std	0.0130	0.0325
min	0.0028	-0.0038
1%	0.0183	0.0001
5%	0.0255	0.0024
10%	0.0300	0.0041
50%	0.0457	0.0400
90%	0.0630	0.0898
95%	0.0679	0.1048
99%	0.0781	0.1383
max	0.0974	0.2183

Cross Sectional Volatility Over Time : BASE



US Treasury 6 Year Yield - Spot

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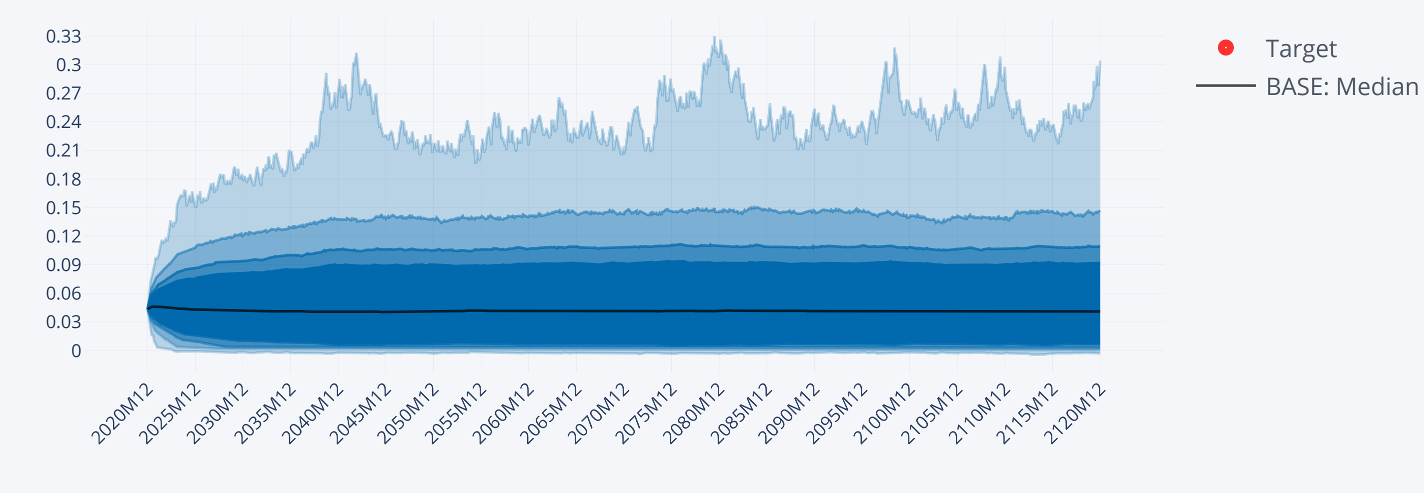
Simulated Data in Percentiles : US Treasury 6 Year Yield - Spot

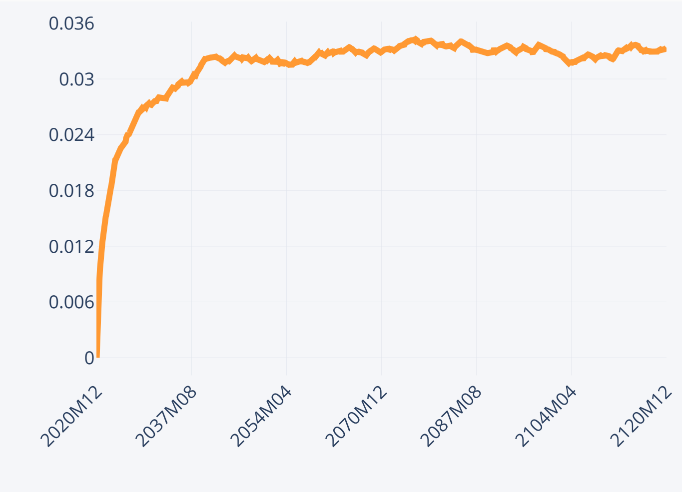


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0466	0.0461
std	0.0124	0.0321
min	0.0032	-0.0031
1%	0.0198	0.0007
5%	0.0269	0.0029
10%	0.0311	0.0064
50%	0.0462	0.0416
90%	0.0628	0.0902
95%	0.0675	0.1048
99%	0.0774	0.1383
max	0.0954	0.2144

Cross Sectional Volatility Over Time : BASE



US Treasury 7 Year Yield - Spot

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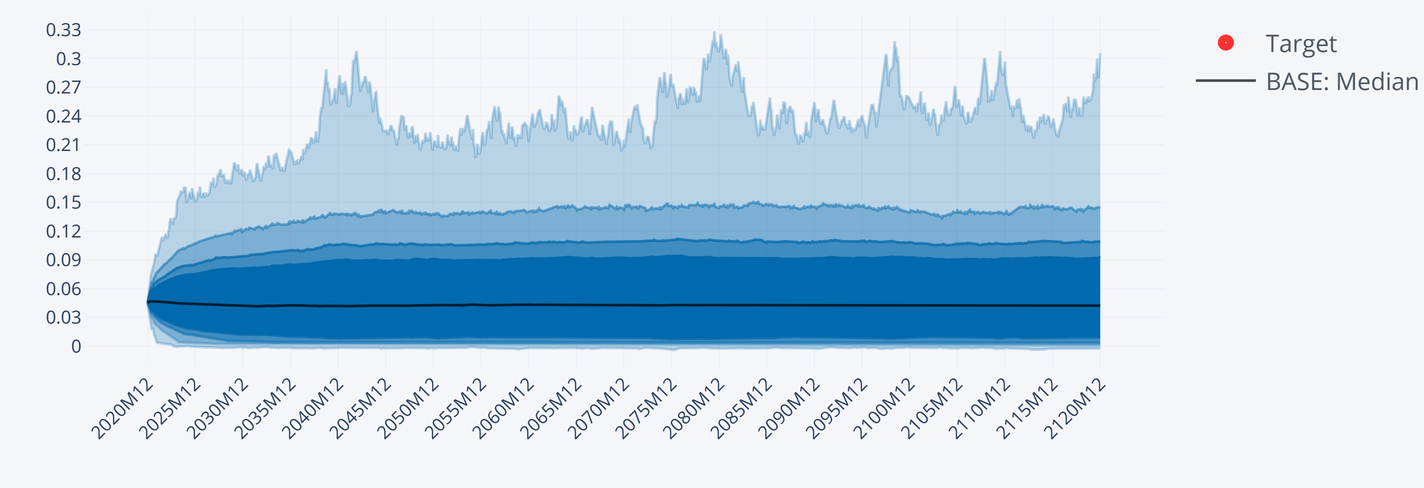
Simulated Data in Percentiles : US Treasury 7 Year Yield - Spot

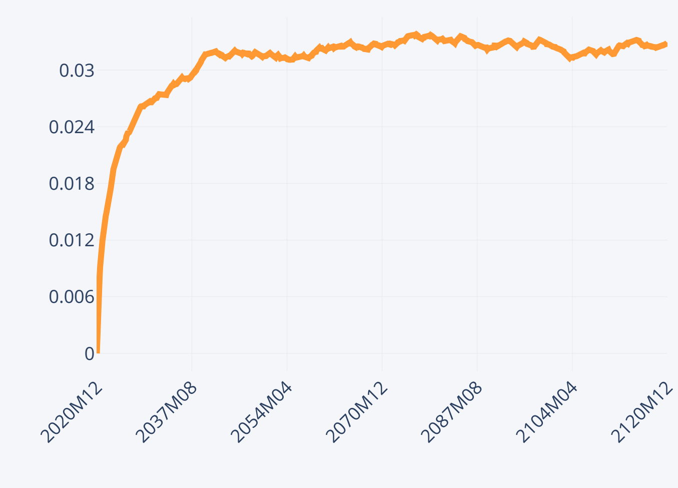


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0470	0.0472
std	0.0120	0.0316
min	0.0036	-0.0024
1%	0.0212	0.0013
5%	0.0280	0.0034
10%	0.0320	0.0087
50%	0.0467	0.0428
90%	0.0627	0.0907
95%	0.0673	0.1051
99%	0.0769	0.1379
max	0.0937	0.2109

Cross Sectional Volatility Over Time : BASE



US Treasury 8 Year Yield - Spot
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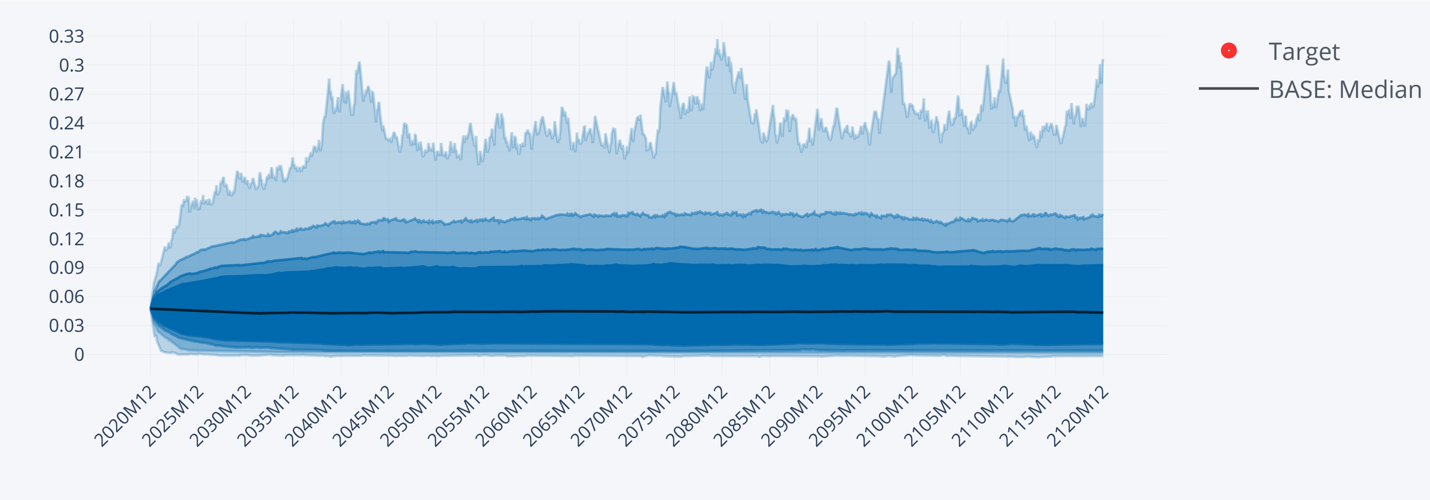
Simulated Data in Percentiles : US Treasury 8 Year Yield - Spot

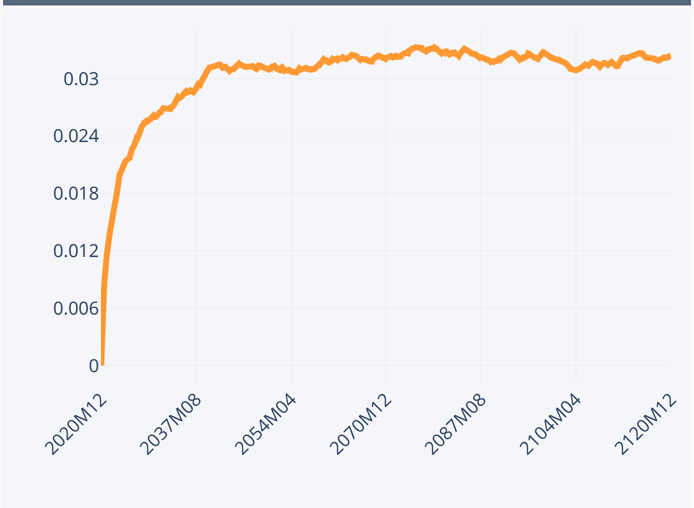


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0473	0.0481
std	0.0116	0.0312
min	0.0039	-0.0018
1%	0.0221	0.0018
5%	0.0289	0.0038
10%	0.0328	0.0105
50%	0.0469	0.0438
90%	0.0625	0.0911
95%	0.0670	0.1053
99%	0.0764	0.1378
max	0.0919	0.2076

Cross Sectional Volatility Over Time : BASE



US Treasury 9 Year Yield - Spot

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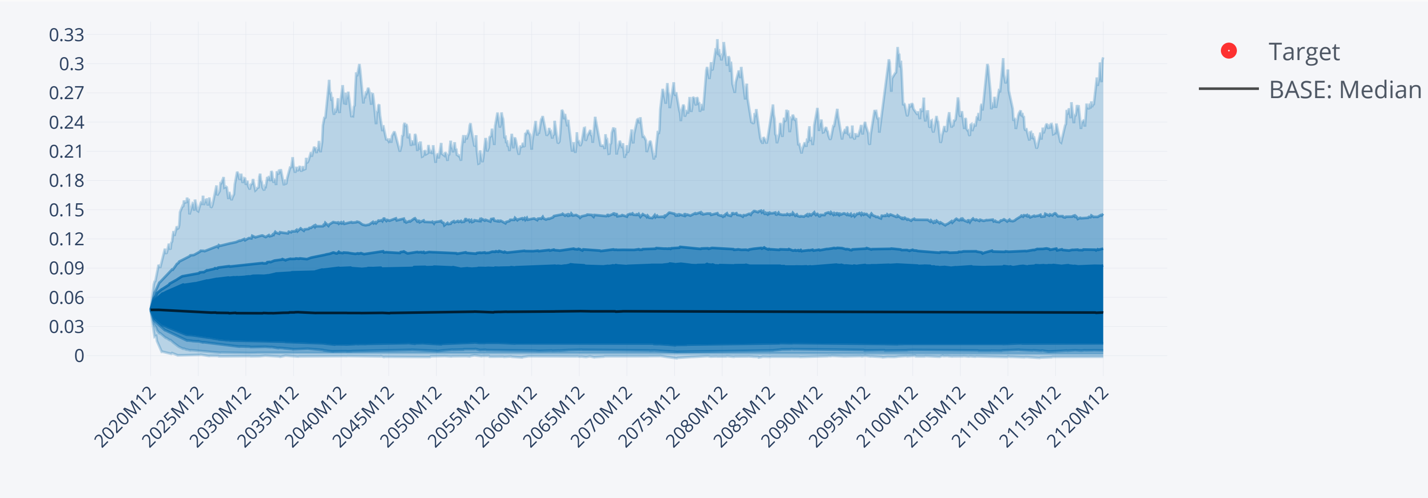
Simulated Data in Percentiles : US Treasury 9 Year Yield - Spot

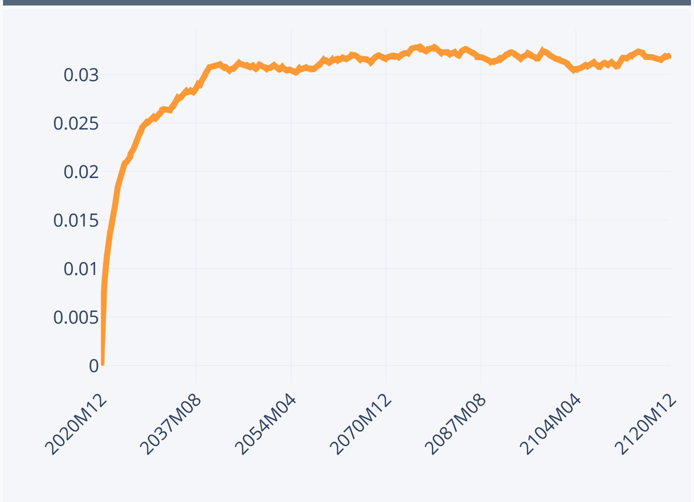


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0475	0.0490
std	0.0113	0.0308
min	0.0051	-0.0012
1%	0.0231	0.0023
5%	0.0297	0.0050
10%	0.0334	0.0123
50%	0.0471	0.0449
90%	0.0623	0.0914
95%	0.0667	0.1056
99%	0.0757	0.1374
max	0.0903	0.2045

Cross Sectional Volatility Over Time : BASE



US Treasury 10 Year Yield - Spot

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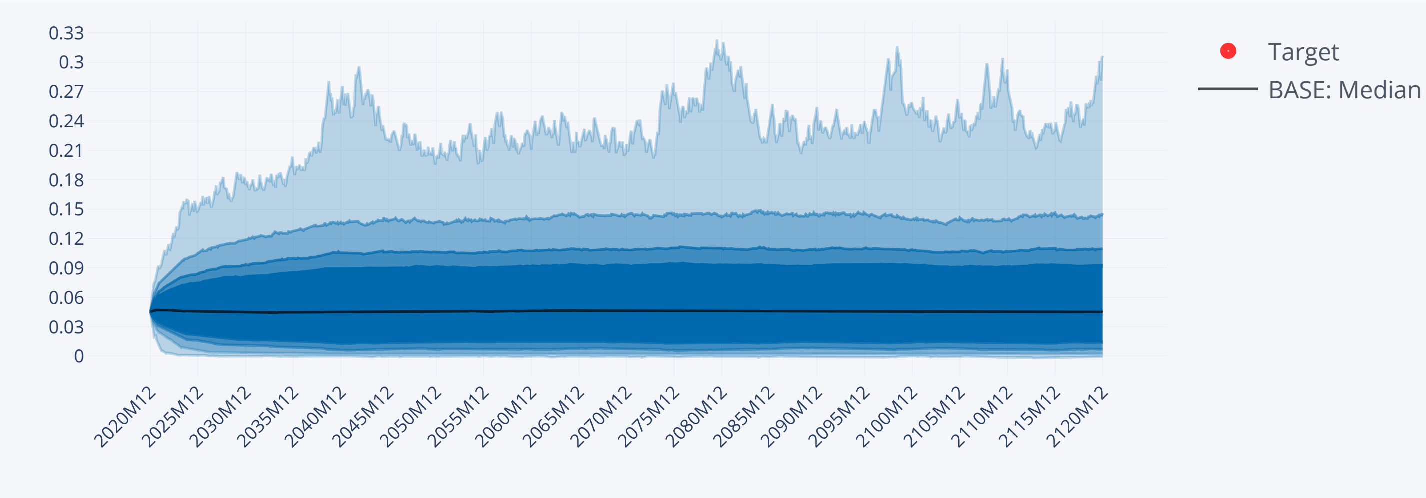
Simulated Data in Percentiles : US Treasury 10 Year Yield - Spot

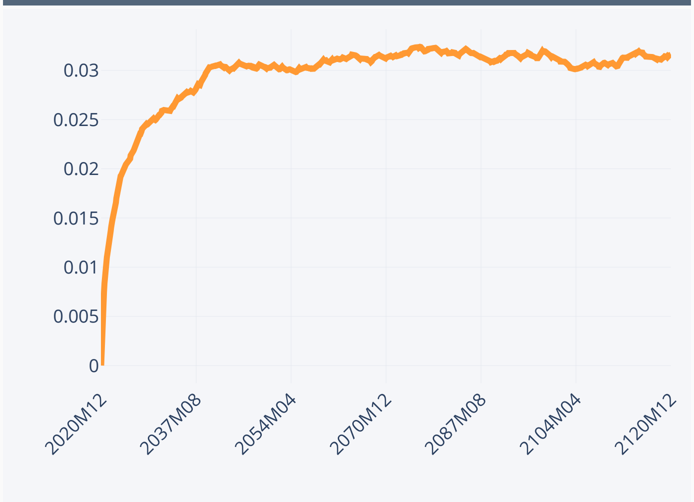


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

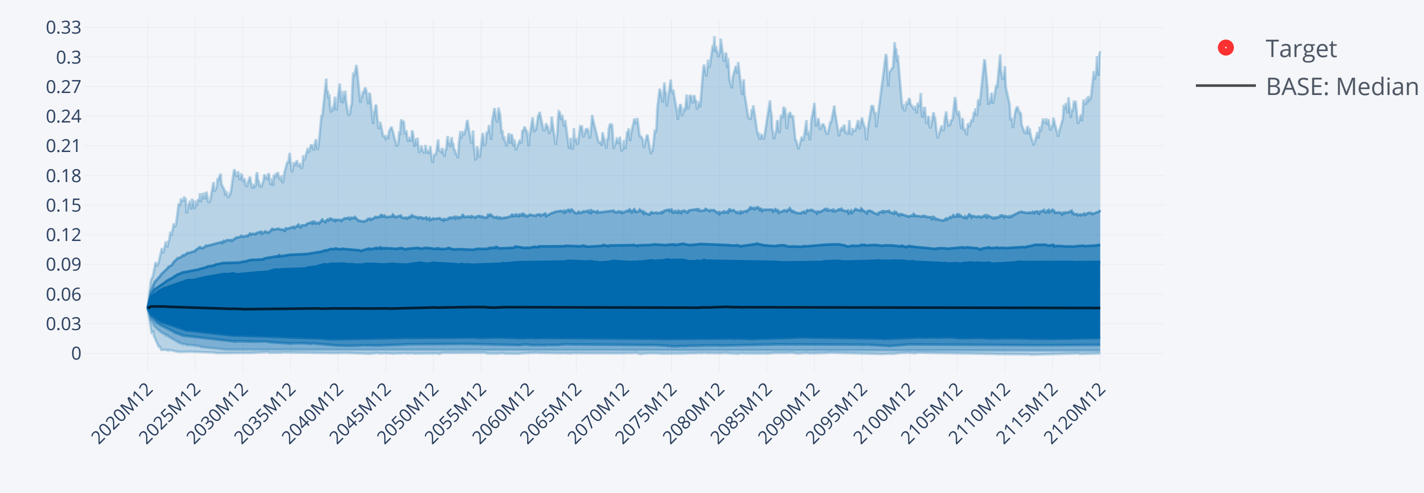
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0477	0.0498
std	0.0110	0.0304
min	0.0064	-0.0007
1%	0.0239	0.0027
5%	0.0304	0.0067
10%	0.0340	0.0137
50%	0.0473	0.0457
90%	0.0621	0.0915
95%	0.0664	0.1058
99%	0.0752	0.1370
max	0.0889	0.2016

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : US Treasury 11 Year Yield - Spot

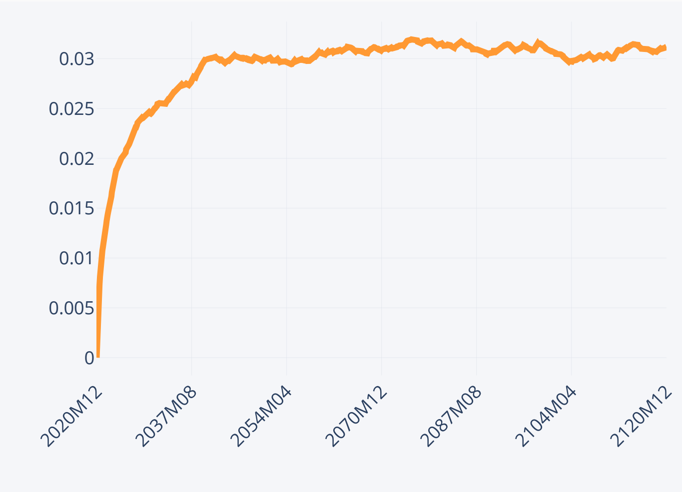


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0479	0.0505
std	0.0107	0.0300
min	0.0077	-0.0002
1%	0.0247	0.0030
5%	0.0310	0.0082
10%	0.0346	0.0152
50%	0.0475	0.0464
90%	0.0619	0.0918
95%	0.0662	0.1057
99%	0.0748	0.1366
max	0.0879	0.1988

Cross Sectional Volatility Over Time : BASE



US Treasury 12 Year Yield - Spot

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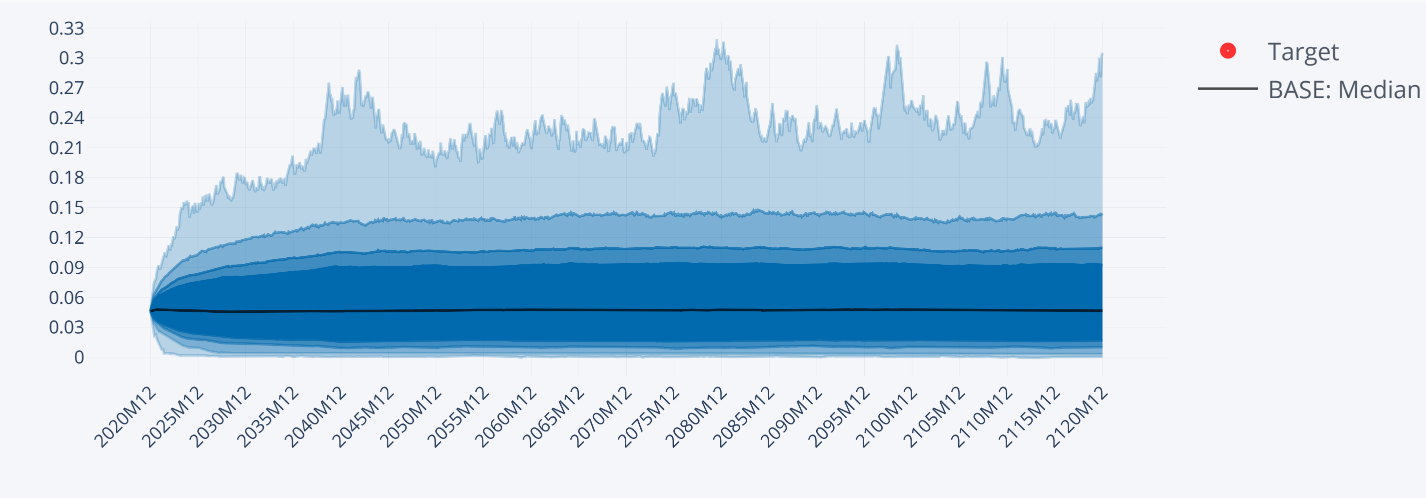
Simulated Data in Percentiles : US Treasury 12 Year Yield - Spot

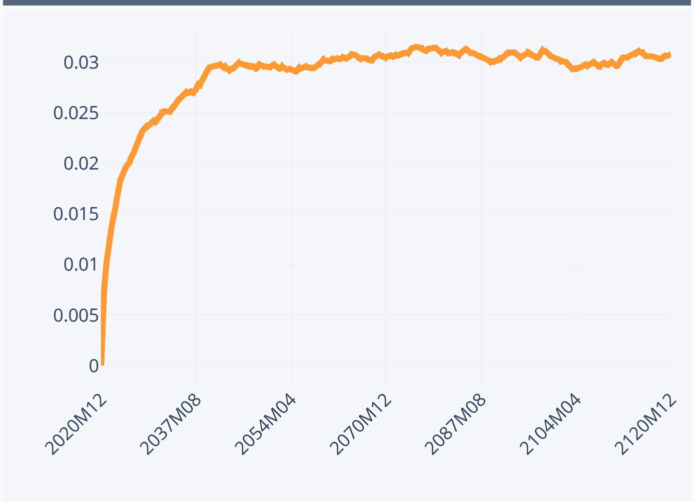


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

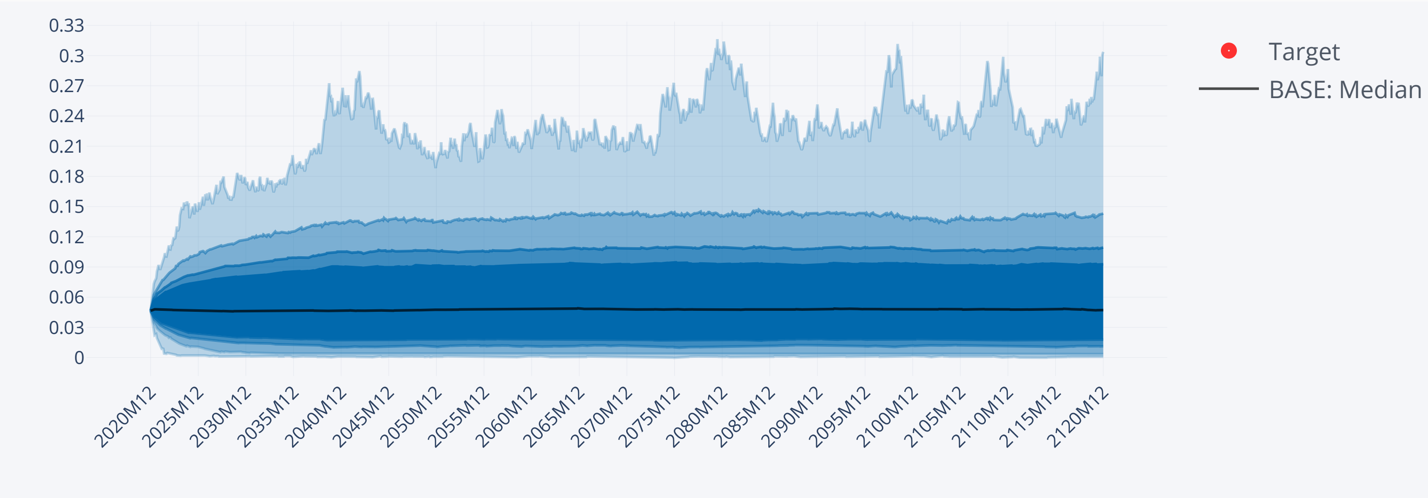
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0481	0.0511
std	0.0105	0.0296
min	0.0089	0.0002
1%	0.0254	0.0033
5%	0.0316	0.0095
10%	0.0351	0.0163
50%	0.0477	0.0470
90%	0.0618	0.0918
95%	0.0659	0.1056
99%	0.0743	0.1361
max	0.0875	0.1961

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : US Treasury 13 Year Yield - Spot

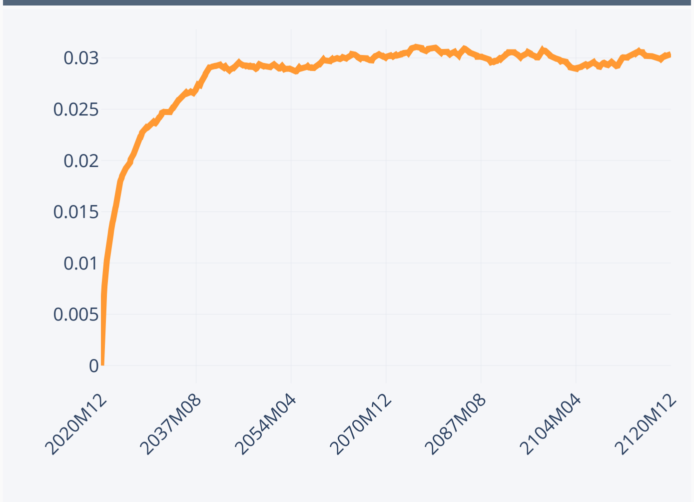


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0483	0.0516
std	0.0103	0.0292
min	0.0100	0.0006
1%	0.0261	0.0036
5%	0.0321	0.0107
10%	0.0355	0.0174
50%	0.0479	0.0475
90%	0.0616	0.0919
95%	0.0657	0.1055
99%	0.0739	0.1357
max	0.0871	0.1935

Cross Sectional Volatility Over Time : BASE



US Treasury 14 Year Yield - Spot
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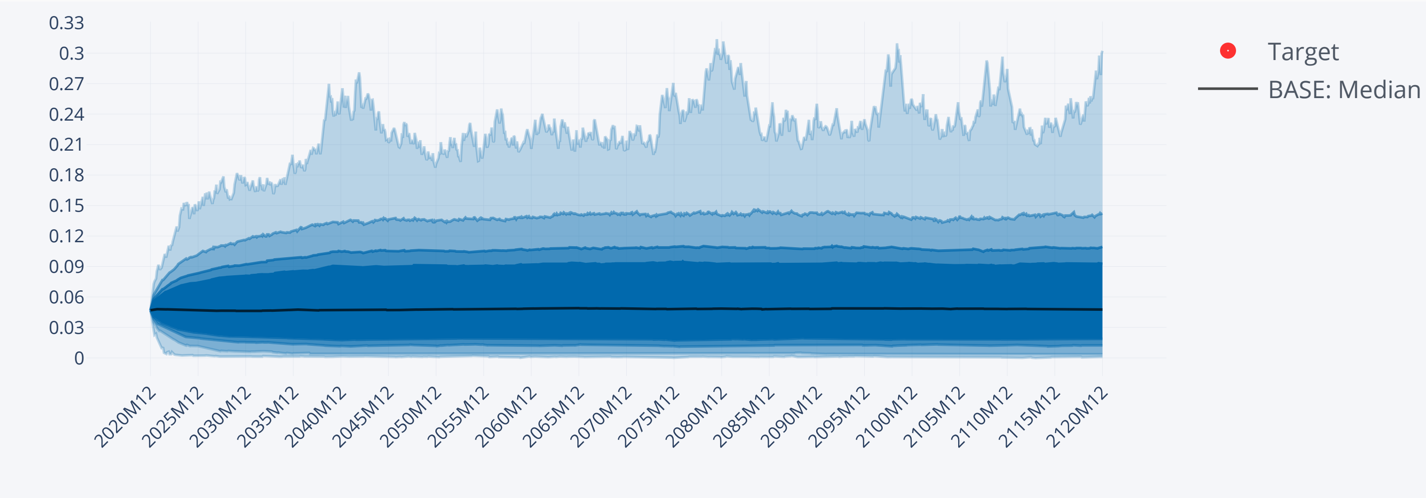
Simulated Data in Percentiles : US Treasury 14 Year Yield - Spot

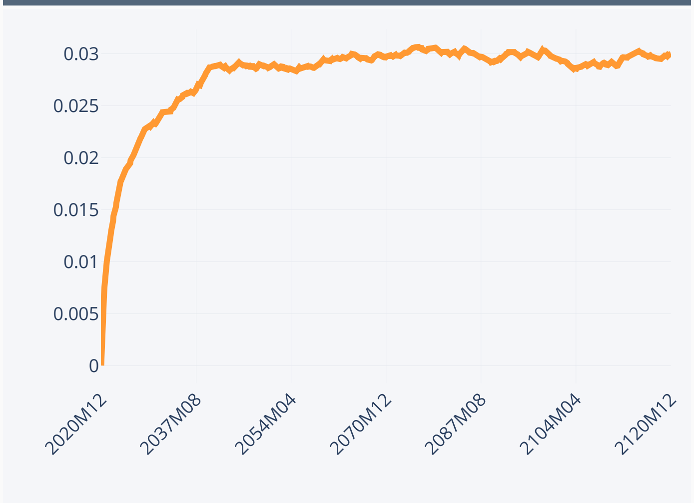


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0484	0.0520
std	0.0101	0.0288
min	0.0110	0.0009
1%	0.0268	0.0039
5%	0.0326	0.0119
10%	0.0359	0.0184
50%	0.0480	0.0481
90%	0.0615	0.0918
95%	0.0655	0.1052
99%	0.0734	0.1349
max	0.0867	0.1910

Cross Sectional Volatility Over Time : BASE



US Treasury 15 Year Yield - Spot

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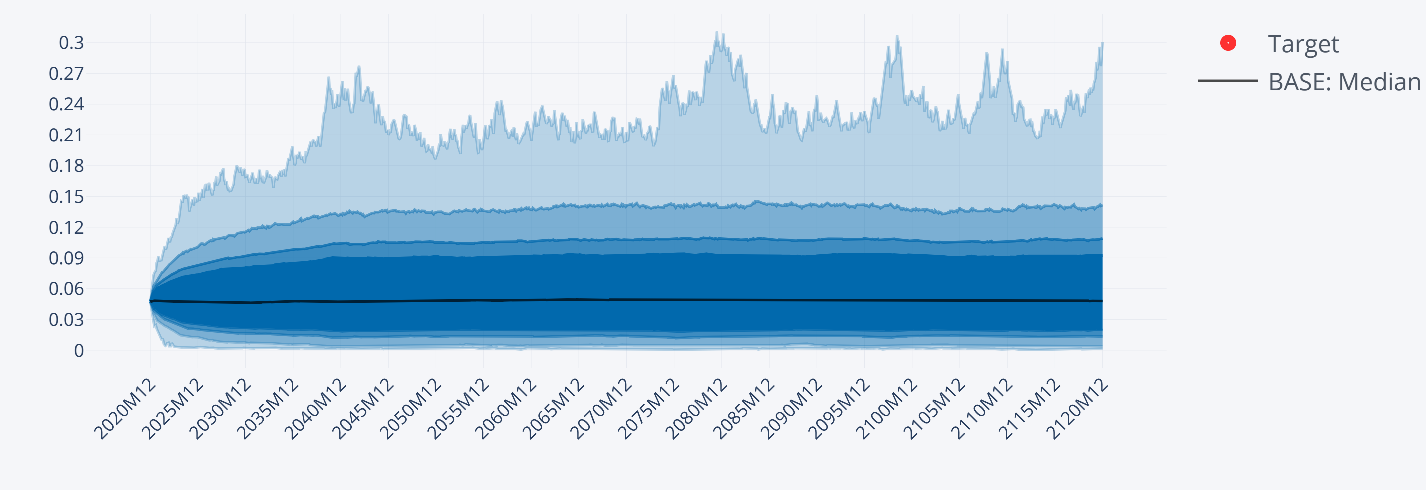
Simulated Data in Percentiles : US Treasury 15 Year Yield - Spot



Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.

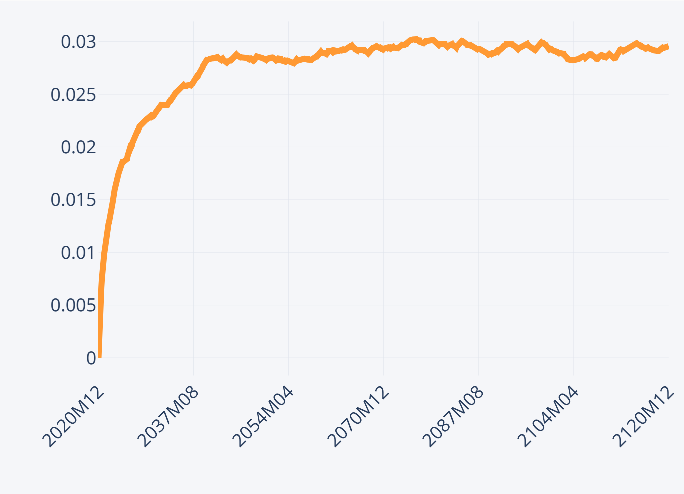
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max

The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0485	0.0523
std	0.0099	0.0285
min	0.0119	0.0013
1%	0.0273	0.0047
5%	0.0331	0.0129
10%	0.0363	0.0193
50%	0.0481	0.0484
90%	0.0614	0.0917
95%	0.0653	0.1049
99%	0.0732	0.1341
max	0.0864	0.1885

Cross Sectional Volatility Over Time : BASE



US Treasury 16 Year Yield - Spot

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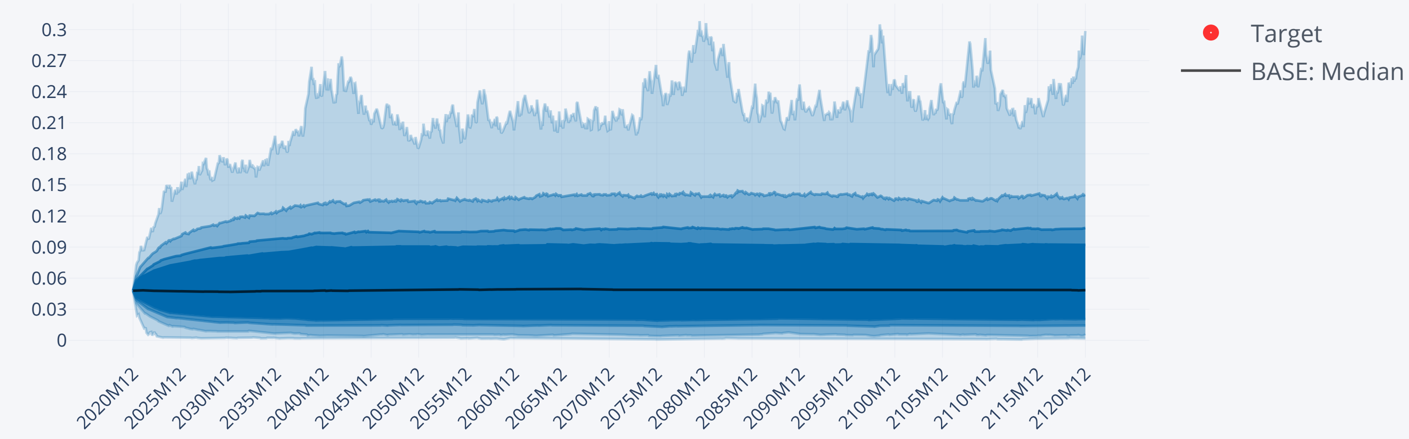
Simulated Data in Percentiles : US Treasury 16 Year Yield - Spot

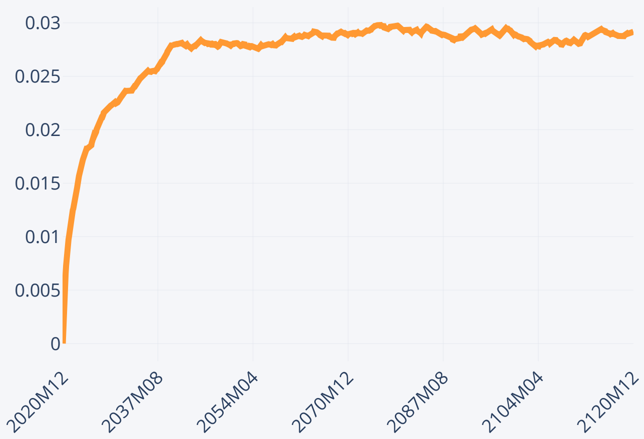


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0486	0.0526
std	0.0097	0.0281
min	0.0128	0.0016
1%	0.0278	0.0057
5%	0.0335	0.0138
10%	0.0366	0.0201
50%	0.0482	0.0488
90%	0.0612	0.0914
95%	0.0651	0.1047
99%	0.0728	0.1335
max	0.0861	0.1861

Cross Sectional Volatility Over Time : BASE



US Treasury 17 Year Yield - Spot
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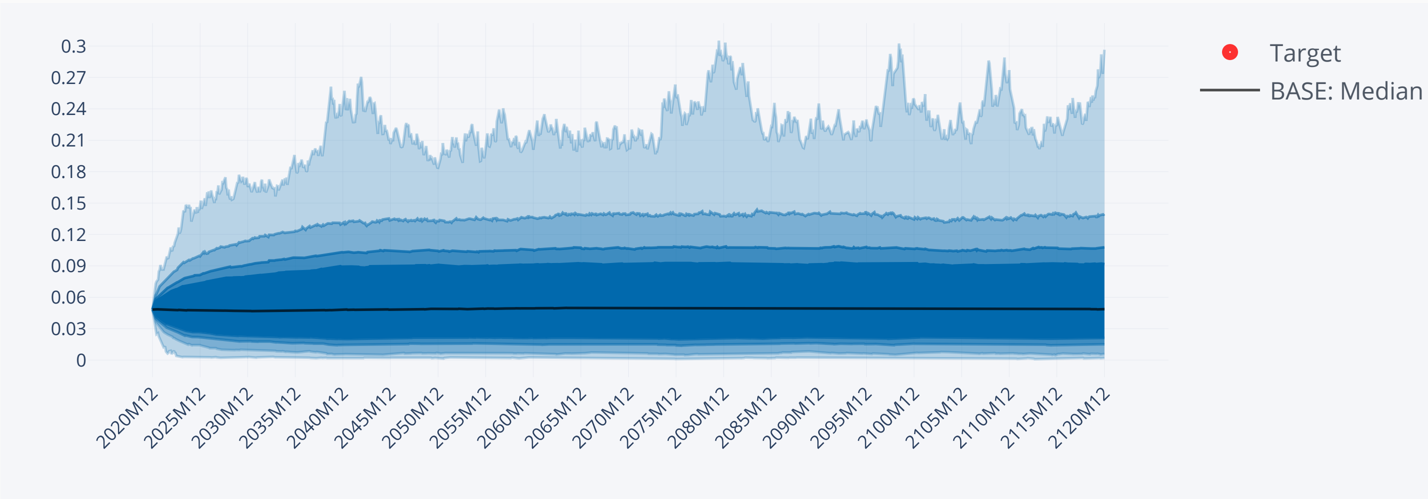
Simulated Data in Percentiles : US Treasury 17 Year Yield - Spot

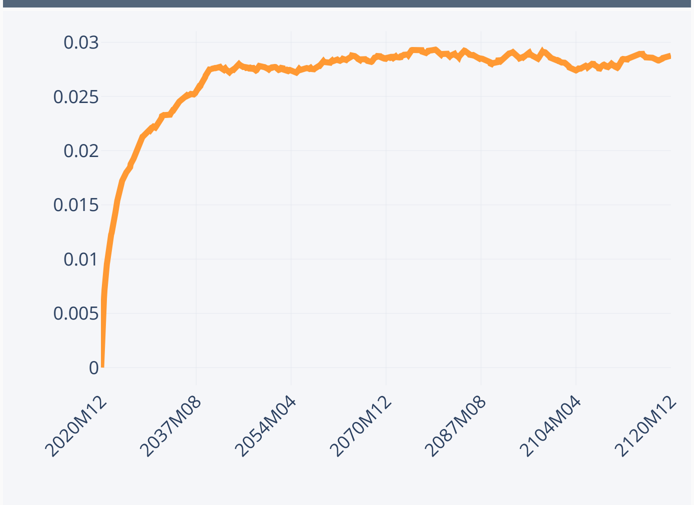


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0487	0.0529
std	0.0095	0.0277
min	0.0136	0.0019
1%	0.0282	0.0068
5%	0.0338	0.0146
10%	0.0368	0.0208
50%	0.0483	0.0491
90%	0.0610	0.0912
95%	0.0648	0.1043
99%	0.0724	0.1328
max	0.0858	0.1837

Cross Sectional Volatility Over Time : BASE



US Treasury 18 Year Yield - Spot

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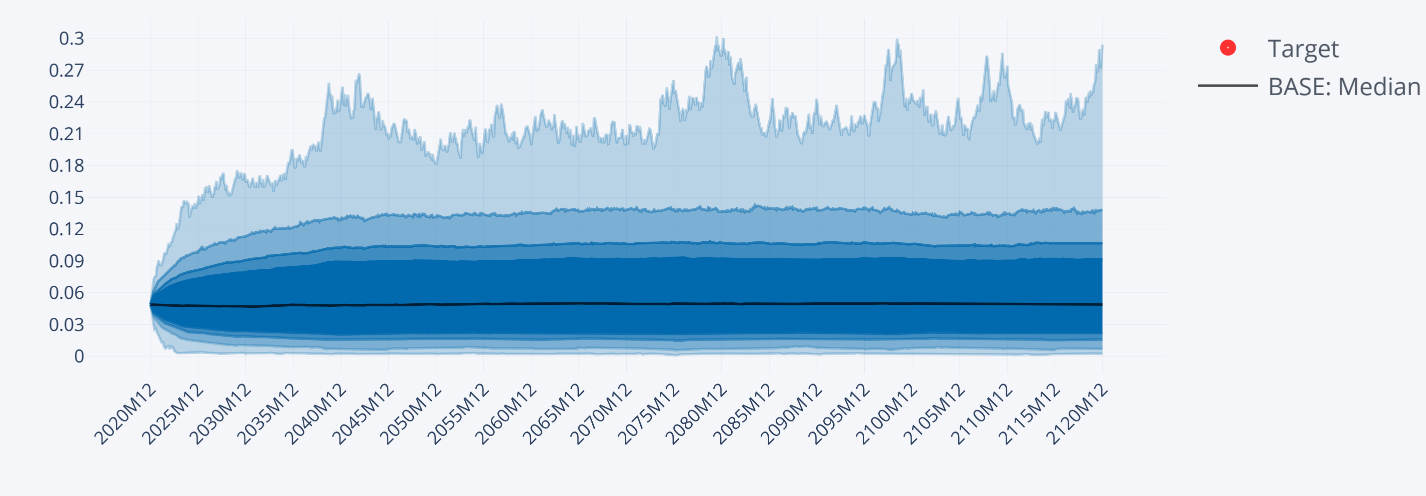
Simulated Data in Percentiles : US Treasury 18 Year Yield - Spot

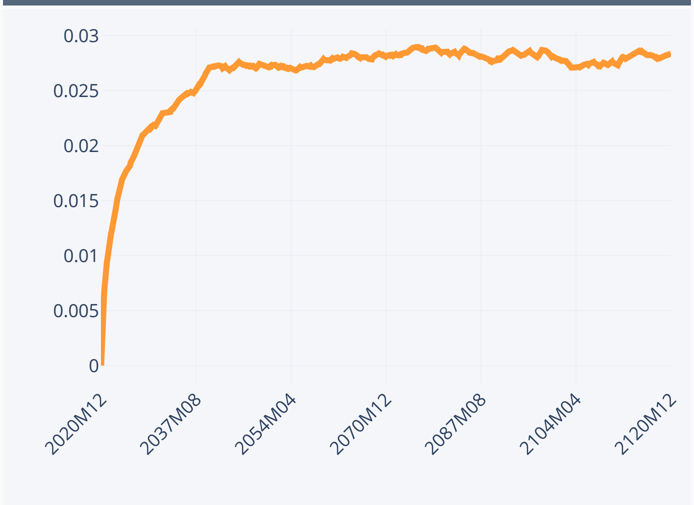


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0487	0.0530
std	0.0094	0.0273
min	0.0144	0.0021
1%	0.0286	0.0077
5%	0.0341	0.0154
10%	0.0371	0.0215
50%	0.0483	0.0493
90%	0.0608	0.0909
95%	0.0646	0.1038
99%	0.0721	0.1321
max	0.0854	0.1814

Cross Sectional Volatility Over Time : BASE



US Treasury 19 Year Yield - Spot
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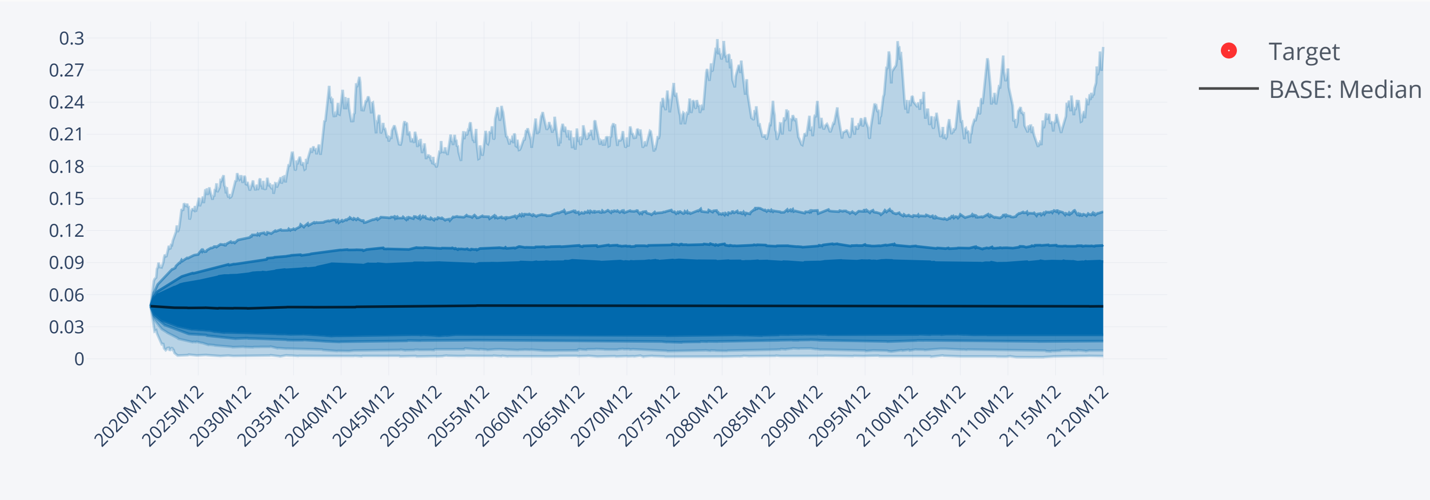
Simulated Data in Percentiles : US Treasury 19 Year Yield - Spot

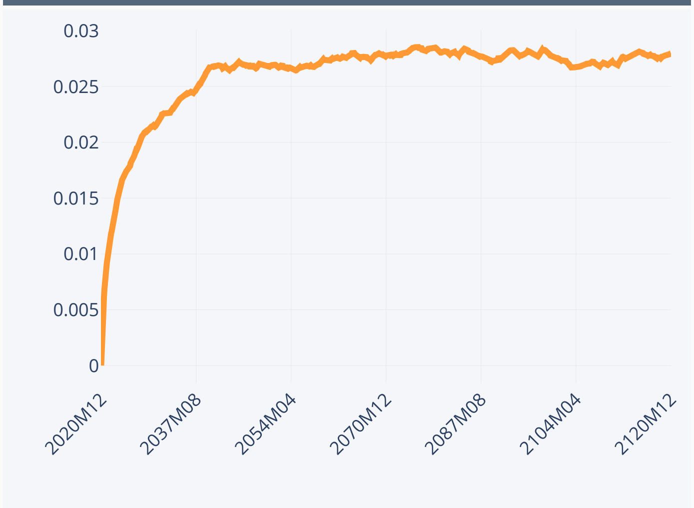


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0487	0.0532
std	0.0092	0.0269
min	0.0151	0.0023
1%	0.0290	0.0086
5%	0.0343	0.0162
10%	0.0373	0.0220
50%	0.0483	0.0494
90%	0.0607	0.0904
95%	0.0643	0.1034
99%	0.0717	0.1311
max	0.0850	0.1791

Cross Sectional Volatility Over Time : BASE



US Treasury 20 Year Yield - Spot

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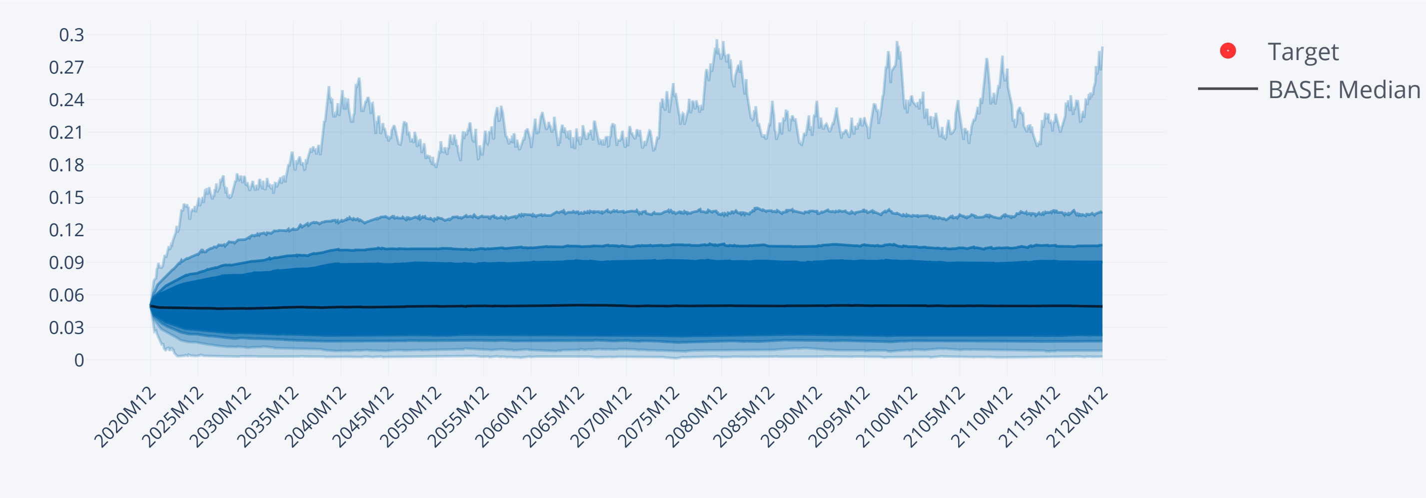
Simulated Data in Percentiles : US Treasury 20 Year Yield - Spot

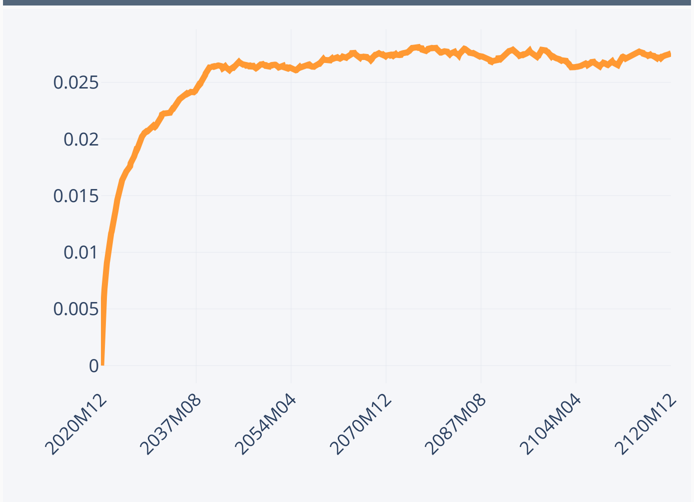


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0487	0.0533
std	0.0091	0.0265
min	0.0157	0.0026
1%	0.0293	0.0094
5%	0.0345	0.0168
10%	0.0374	0.0226
50%	0.0482	0.0496
90%	0.0604	0.0900
95%	0.0640	0.1028
99%	0.0714	0.1300
max	0.0846	0.1771

Cross Sectional Volatility Over Time : BASE



US Treasury 21 Year Yield - Spot
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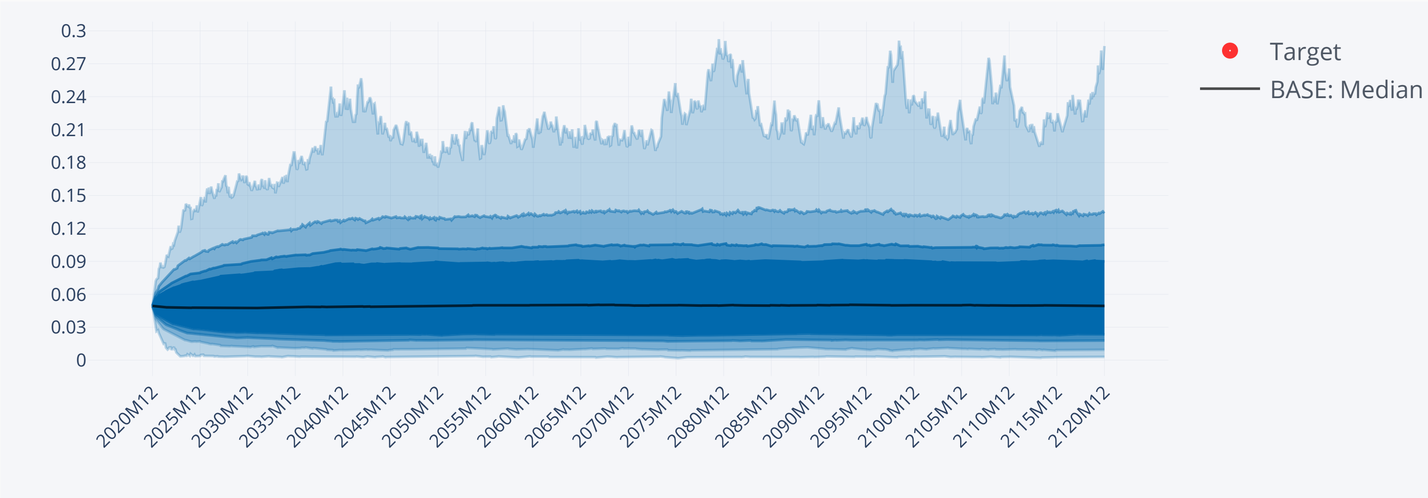
Simulated Data in Percentiles : US Treasury 21 Year Yield - Spot

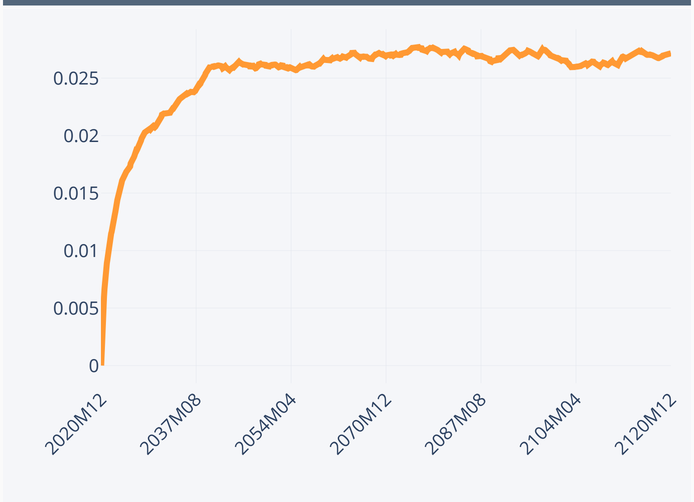


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0486	0.0533
std	0.0089	0.0261
min	0.0163	0.0028
1%	0.0295	0.0101
5%	0.0347	0.0174
10%	0.0375	0.0231
50%	0.0482	0.0497
90%	0.0602	0.0895
95%	0.0637	0.1022
99%	0.0709	0.1291
max	0.0840	0.1755

Cross Sectional Volatility Over Time : BASE



US Treasury 22 Year Yield - Spot

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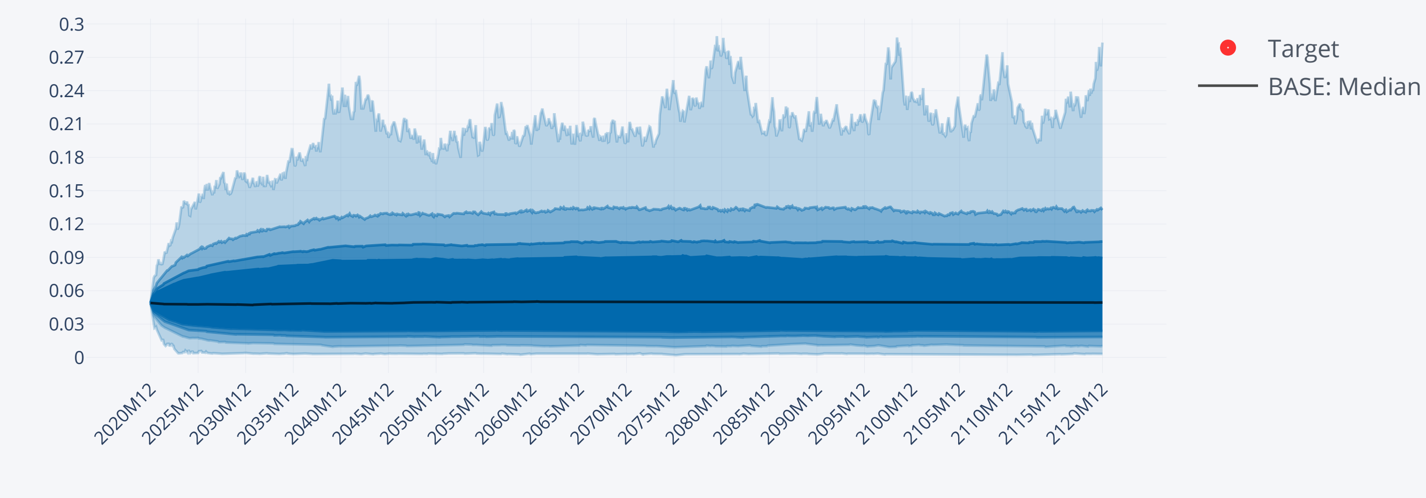
Simulated Data in Percentiles : US Treasury 22 Year Yield - Spot

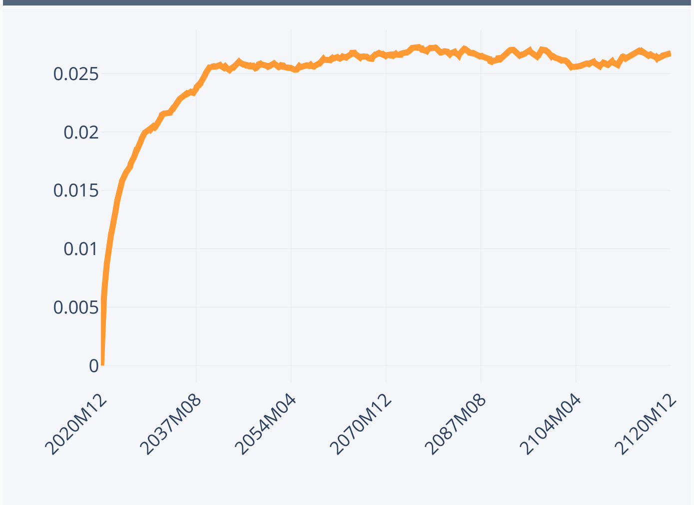


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0485	0.0533
std	0.0088	0.0258
min	0.0168	0.0030
1%	0.0297	0.0109
5%	0.0349	0.0179
10%	0.0376	0.0236
50%	0.0481	0.0497
90%	0.0599	0.0890
95%	0.0633	0.1014
99%	0.0704	0.1281
max	0.0835	0.1739

Cross Sectional Volatility Over Time : BASE



US Treasury 23 Year Yield - Spot
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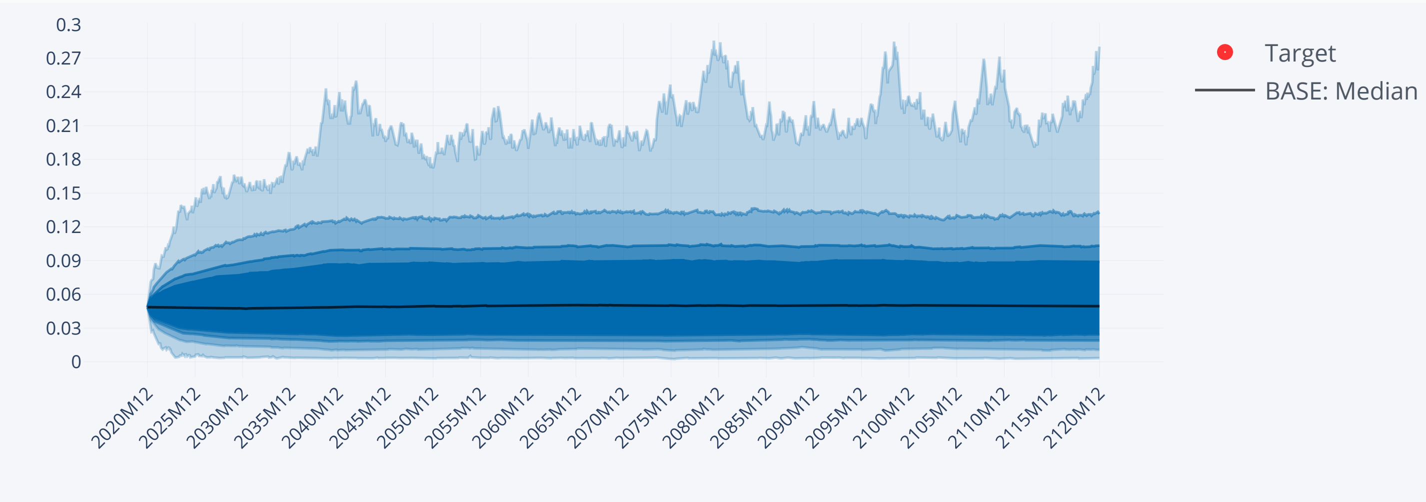
Simulated Data in Percentiles : US Treasury 23 Year Yield - Spot

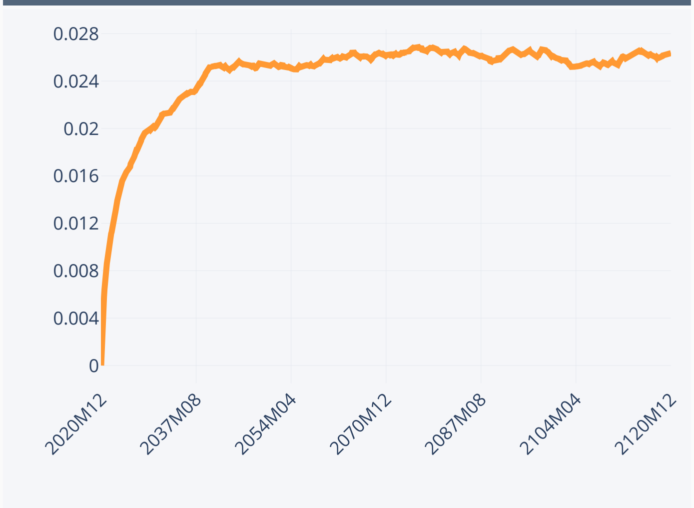


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0484	0.0533
std	0.0086	0.0254
min	0.0173	0.0032
1%	0.0299	0.0116
5%	0.0350	0.0184
10%	0.0377	0.0240
50%	0.0480	0.0498
90%	0.0596	0.0884
95%	0.0630	0.1007
99%	0.0700	0.1271
max	0.0830	0.1722

Cross Sectional Volatility Over Time : BASE



US Treasury 24 Year Yield - Spot
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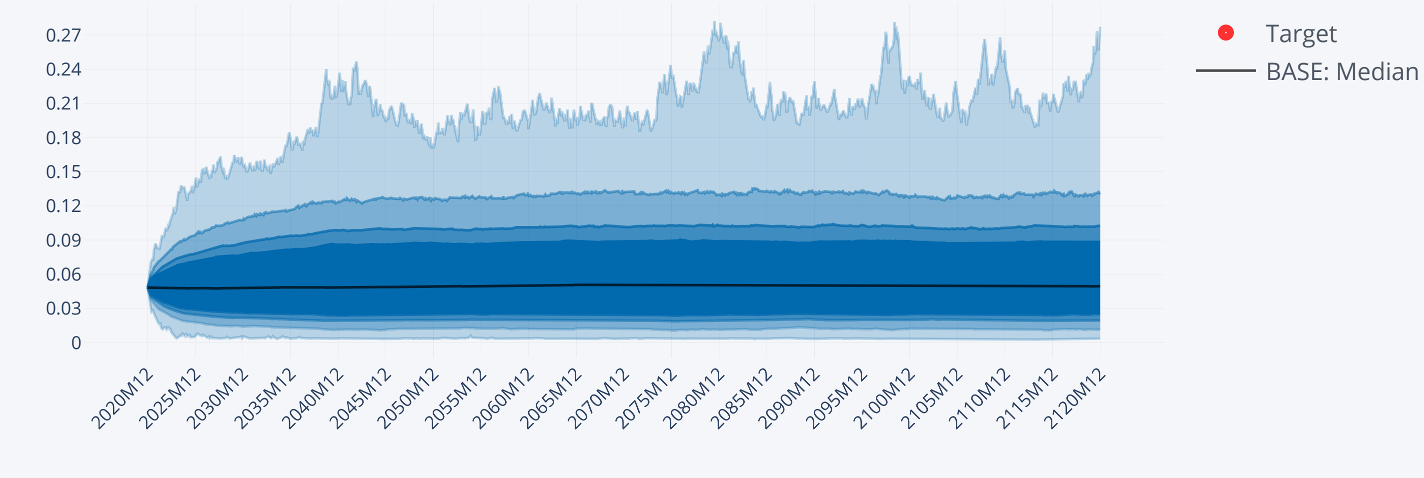
Simulated Data in Percentiles : US Treasury 24 Year Yield - Spot

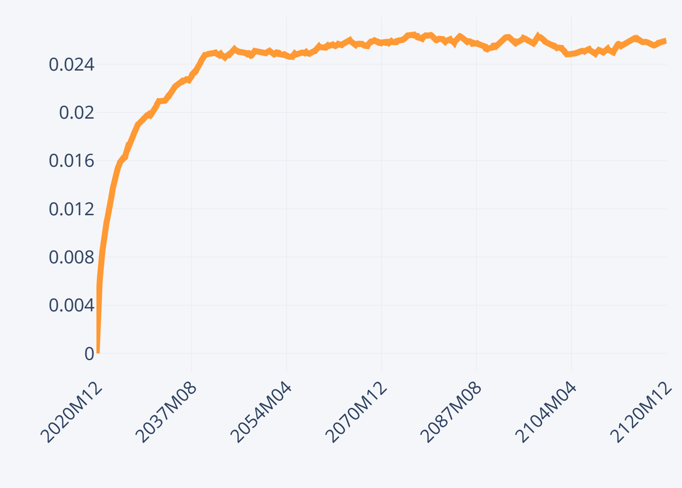


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0483	0.0532
std	0.0085	0.0250
min	0.0178	0.0033
1%	0.0301	0.0122
5%	0.0351	0.0190
10%	0.0378	0.0244
50%	0.0479	0.0498
90%	0.0593	0.0879
95%	0.0626	0.0999
99%	0.0695	0.1259
max	0.0824	0.1705

Cross Sectional Volatility Over Time : BASE



US Treasury 25 Year Yield - Spot

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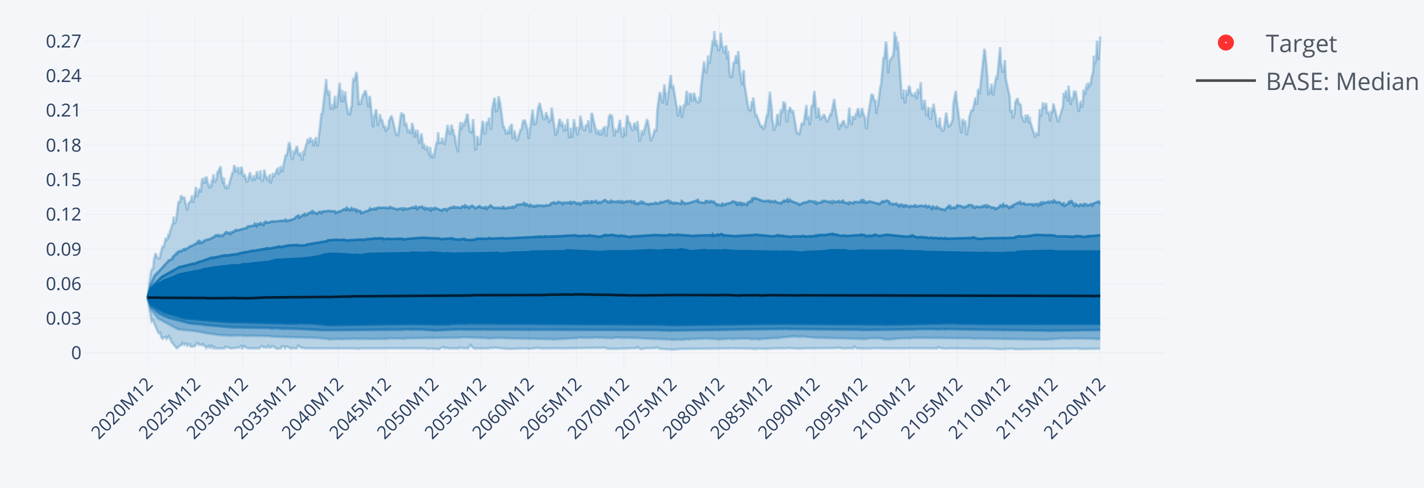
Simulated Data in Percentiles : US Treasury 25 Year Yield - Spot

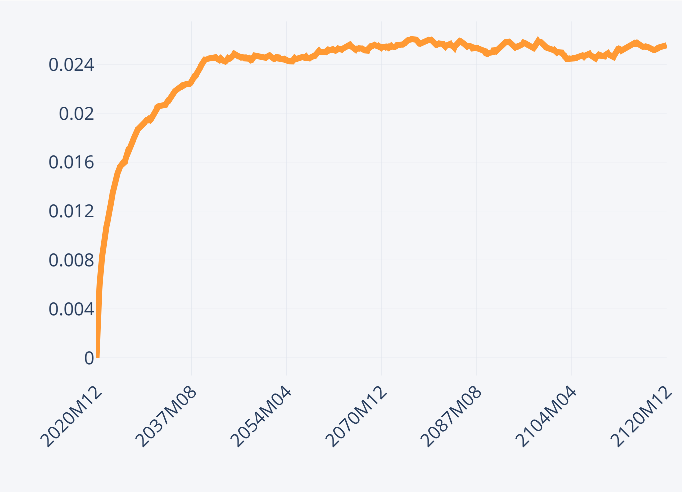


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0482	0.0531
std	0.0083	0.0246
min	0.0183	0.0035
1%	0.0302	0.0128
5%	0.0352	0.0195
10%	0.0378	0.0248
50%	0.0477	0.0497
90%	0.0590	0.0873
95%	0.0623	0.0990
99%	0.0690	0.1248
max	0.0818	0.1687

Cross Sectional Volatility Over Time : BASE



US Treasury 26 Year Yield - Spot

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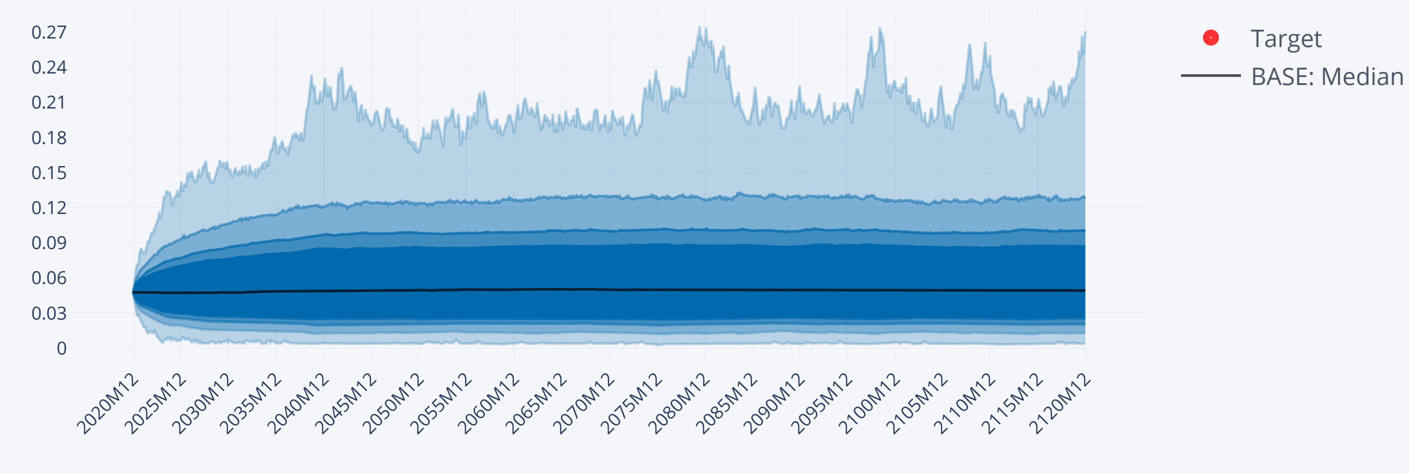
Simulated Data in Percentiles : US Treasury 26 Year Yield - Spot

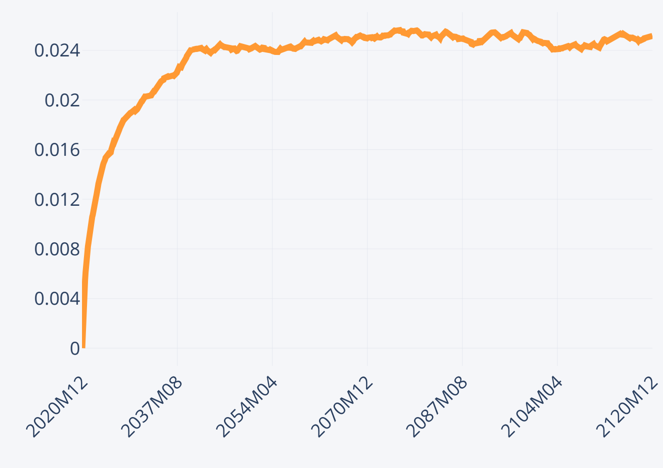


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0480	0.0530
std	0.0082	0.0242
min	0.0187	0.0037
1%	0.0304	0.0134
5%	0.0353	0.0199
10%	0.0378	0.0251
50%	0.0476	0.0496
90%	0.0587	0.0866
95%	0.0619	0.0981
99%	0.0685	0.1236
max	0.0812	0.1669

Cross Sectional Volatility Over Time : BASE



US Treasury 27 Year Yield - Spot

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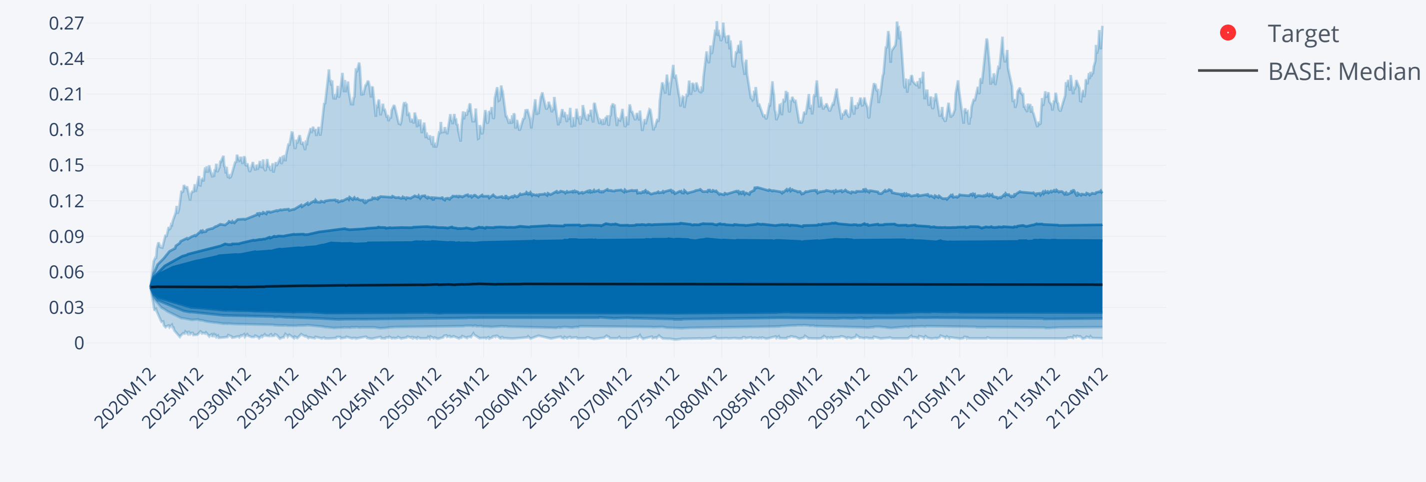
Simulated Data in Percentiles : US Treasury 27 Year Yield - Spot

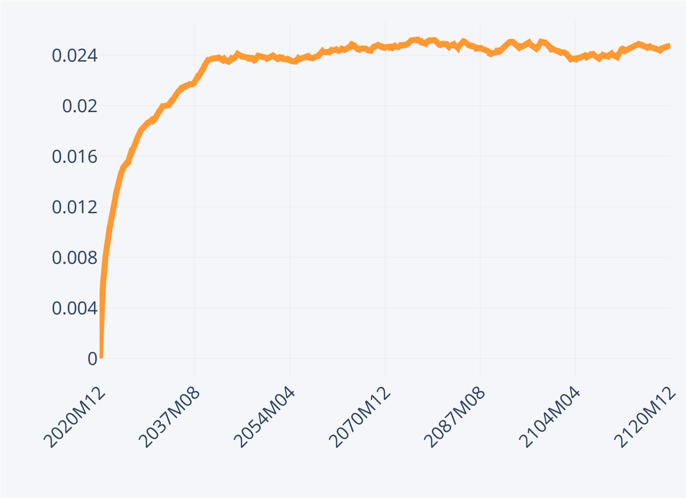


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

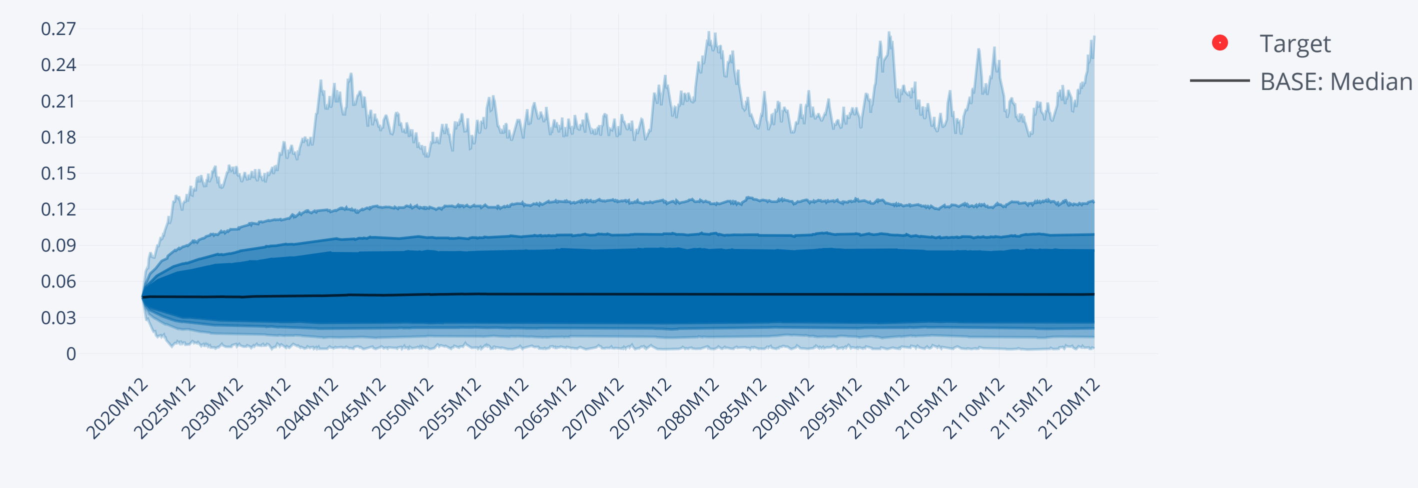
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0479	0.0529
std	0.0081	0.0239
min	0.0191	0.0038
1%	0.0306	0.0139
5%	0.0353	0.0203
10%	0.0379	0.0254
50%	0.0475	0.0496
90%	0.0583	0.0860
95%	0.0615	0.0973
99%	0.0680	0.1224
max	0.0805	0.1651

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : US Treasury 28 Year Yield - Spot

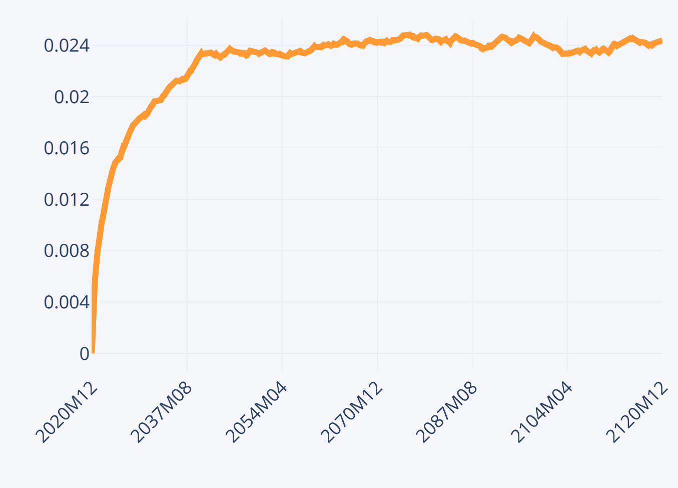


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0477	0.0527
std	0.0079	0.0235
min	0.0195	0.0040
1%	0.0307	0.0144
5%	0.0354	0.0207
10%	0.0378	0.0257
50%	0.0473	0.0494
90%	0.0580	0.0853
95%	0.0612	0.0965
99%	0.0675	0.1211
max	0.0799	0.1633

Cross Sectional Volatility Over Time : BASE



US Treasury 29 Year Yield - Spot
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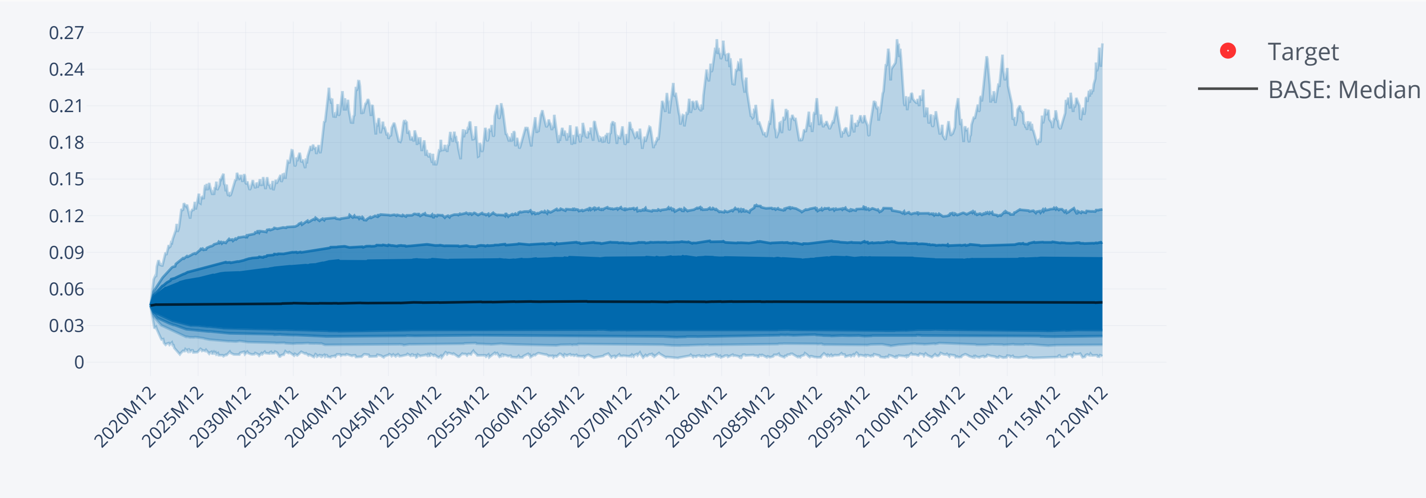
Simulated Data in Percentiles : US Treasury 29 Year Yield - Spot

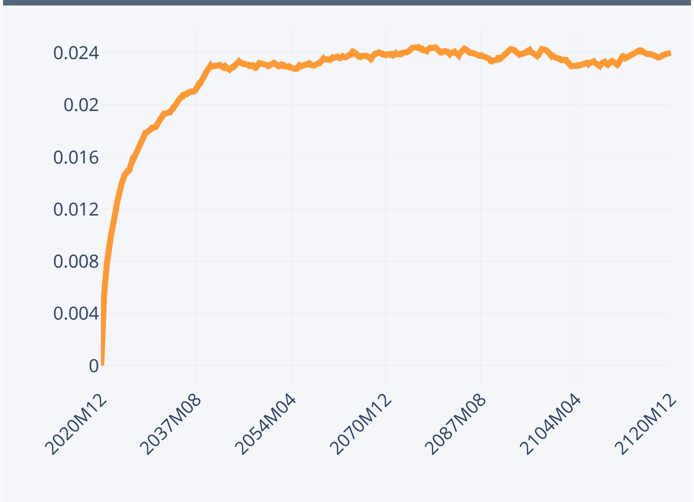


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0476	0.0526
std	0.0078	0.0231
min	0.0198	0.0046
1%	0.0308	0.0149
5%	0.0354	0.0211
10%	0.0378	0.0259
50%	0.0472	0.0493
90%	0.0576	0.0846
95%	0.0608	0.0956
99%	0.0671	0.1199
max	0.0792	0.1614

Cross Sectional Volatility Over Time : BASE



US Treasury 30 Year Yield - Spot

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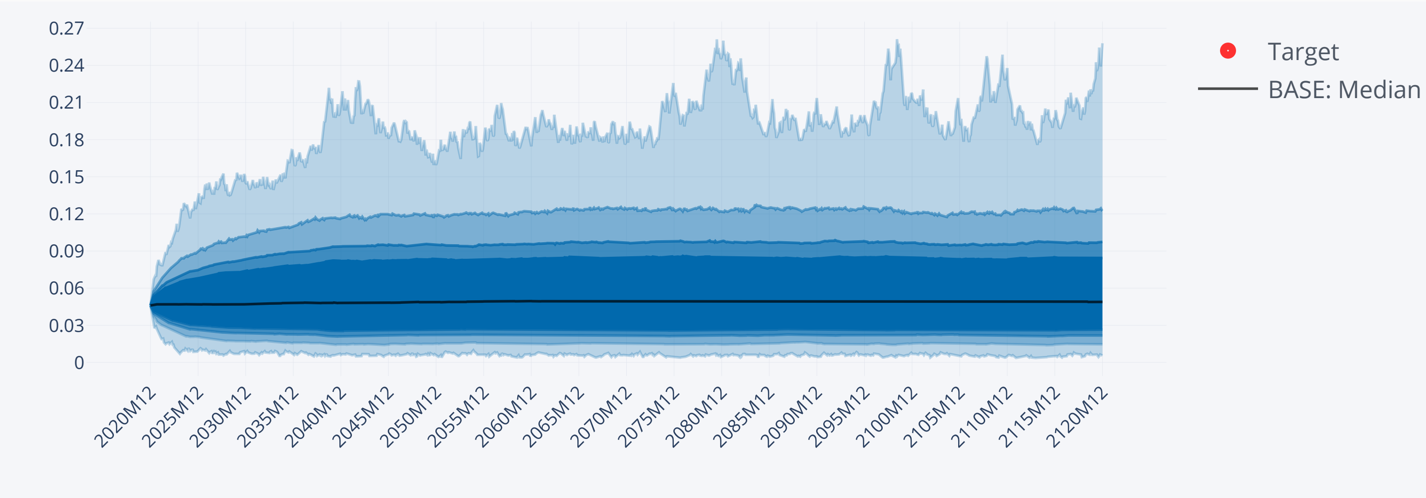
Simulated Data in Percentiles : US Treasury 30 Year Yield - Spot

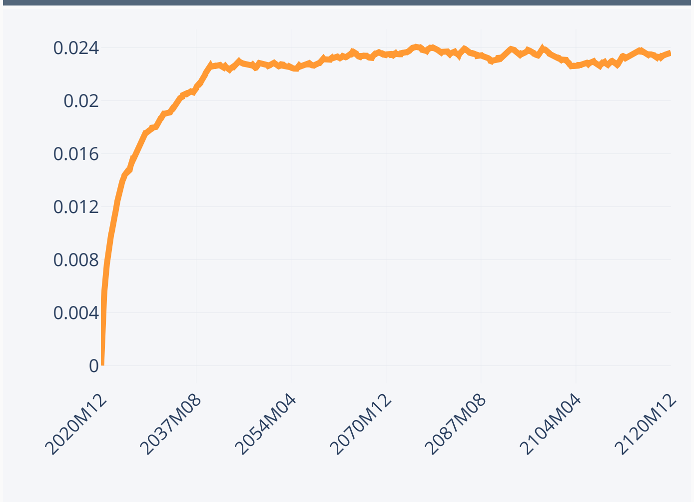


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0474	0.0524
std	0.0077	0.0227
min	0.0201	0.0052
1%	0.0309	0.0153
5%	0.0354	0.0215
10%	0.0378	0.0262
50%	0.0470	0.0492
90%	0.0573	0.0839
95%	0.0604	0.0948
99%	0.0666	0.1188
max	0.0786	0.1596

Cross Sectional Volatility Over Time : BASE



US Treasury 1 Month Yield - Coupon

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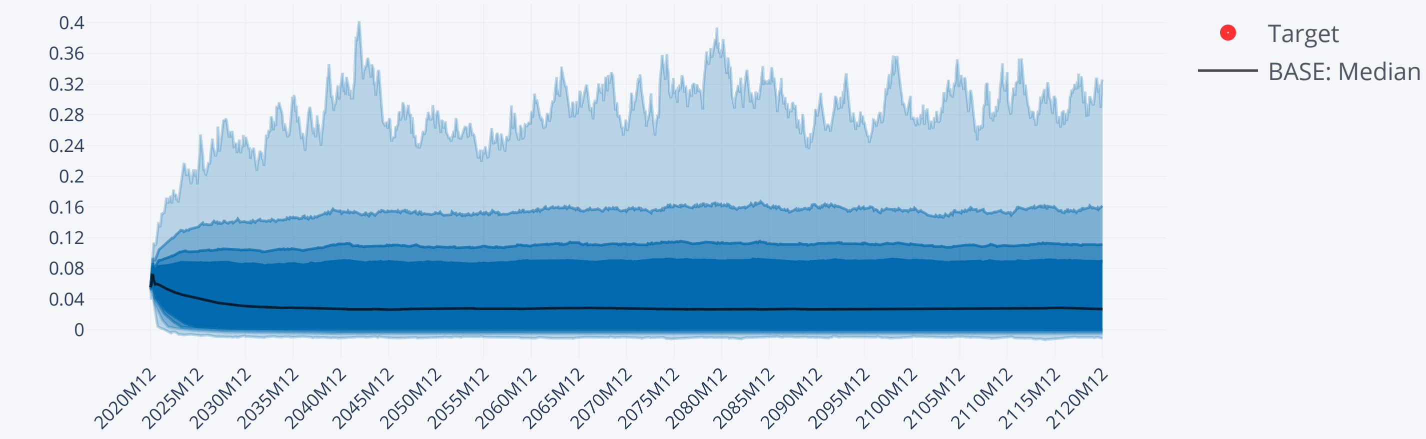
Simulated Data in Percentiles : US Treasury 1 Month Yield - Coupon

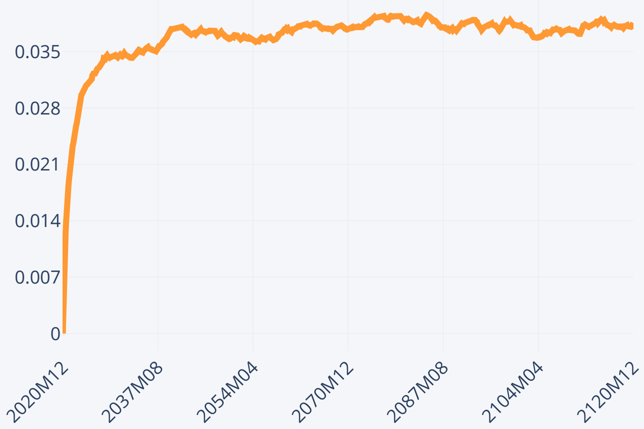


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0587	0.0364
std	0.0184	0.0370
min	0.0020	-0.0097
1%	0.0192	-0.0050
5%	0.0294	-0.0021
10%	0.0356	-0.0001
50%	0.0580	0.0272
90%	0.0826	0.0883
95%	0.0901	0.1076
99%	0.1054	0.1529
max	0.1335	0.2790

Cross Sectional Volatility Over Time : BASE



US Treasury 3 Month Yield - Coupon

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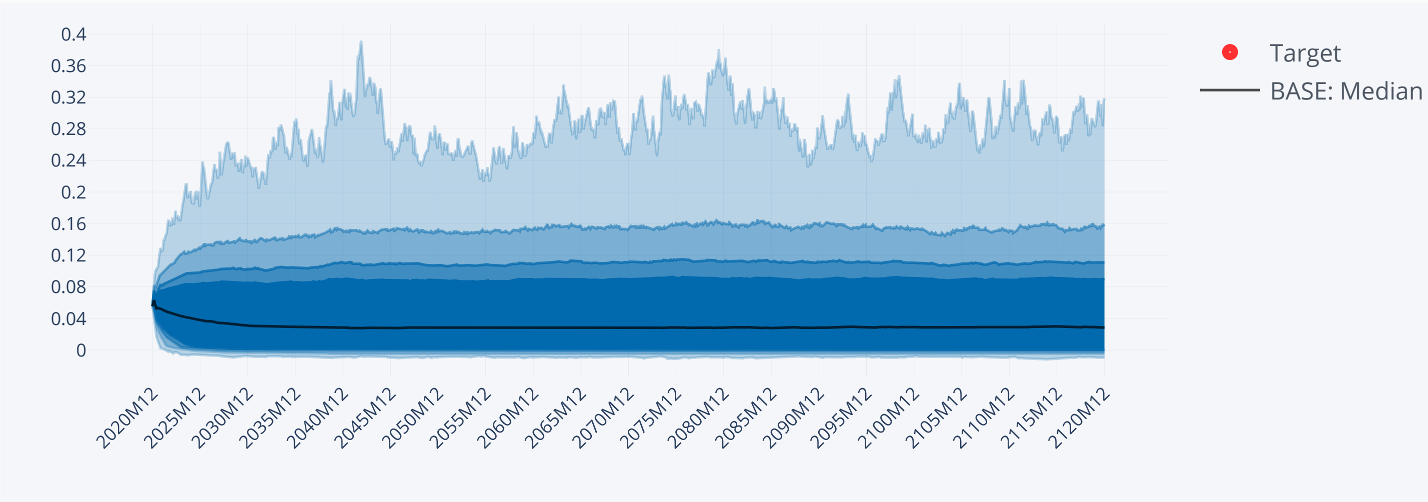
Simulated Data in Percentiles : US Treasury 3 Month Yield - Coupon

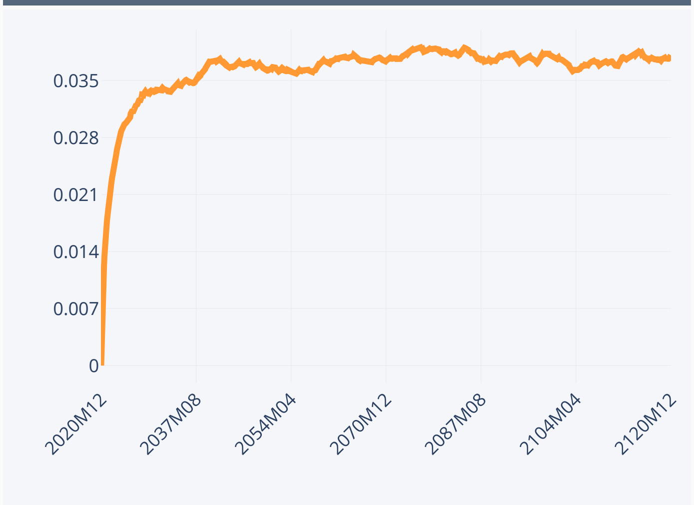


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0521	0.0372
std	0.0176	0.0366
min	0.0013	-0.0088
1%	0.0144	-0.0044
5%	0.0240	-0.0016
10%	0.0300	0.0003
50%	0.0515	0.0285
90%	0.0751	0.0889
95%	0.0818	0.1070
99%	0.0962	0.1521
max	0.1245	0.2688

Cross Sectional Volatility Over Time : BASE



US Treasury 6 Month Yield - Coupon

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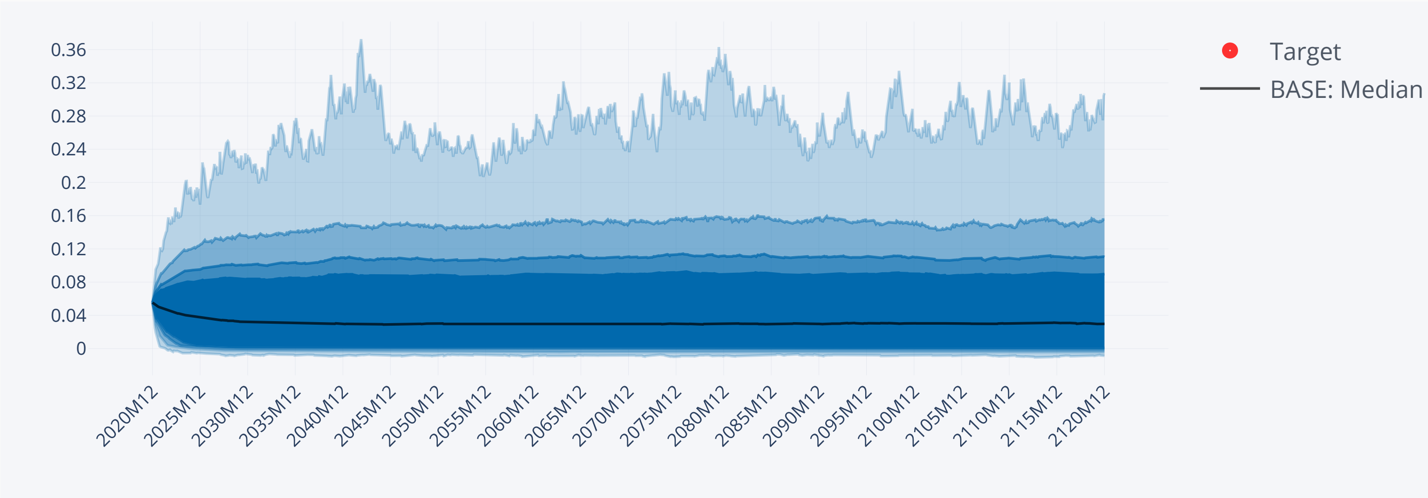
Simulated Data in Percentiles : US Treasury 6 Month Yield - Coupon

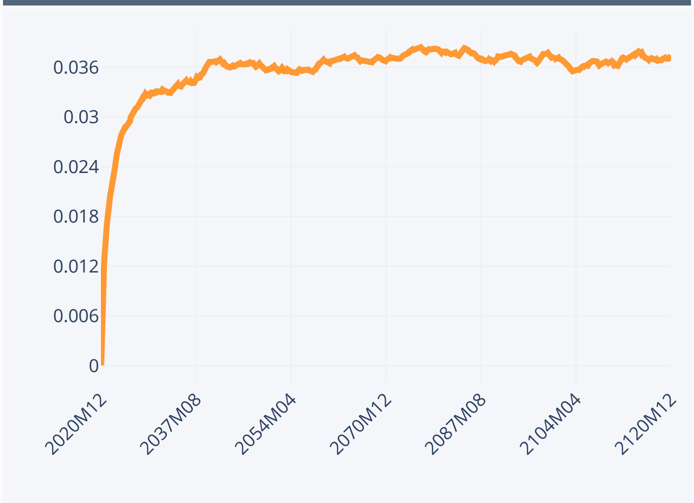


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0482	0.0377
std	0.0170	0.0359
min	0.0009	-0.0084
1%	0.0118	-0.0039
5%	0.0211	-0.0012
10%	0.0270	0.0007
50%	0.0479	0.0299
90%	0.0705	0.0881
95%	0.0769	0.1058
99%	0.0905	0.1491
max	0.1178	0.2568

Cross Sectional Volatility Over Time : BASE



US Treasury 1 Year Yield - Coupon

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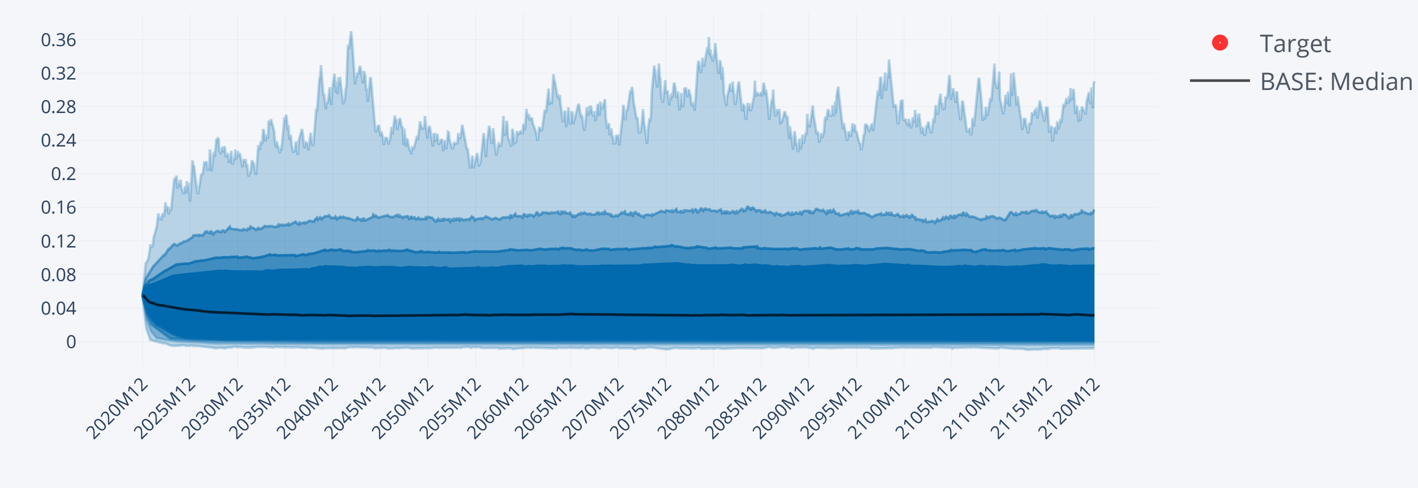
Simulated Data in Percentiles : US Treasury 1 Year Yield - Coupon

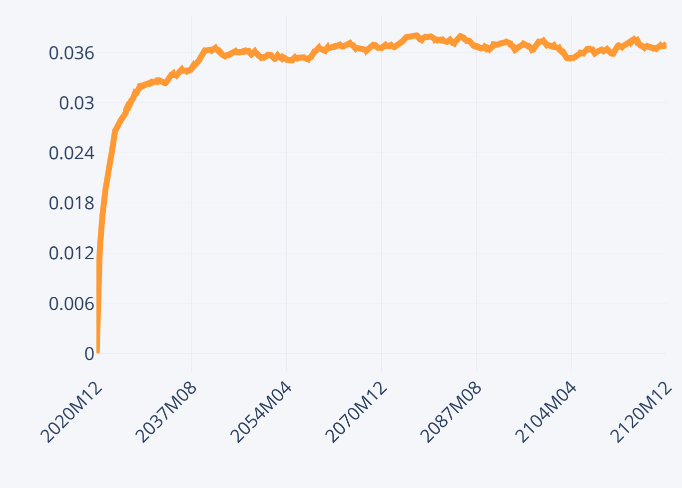


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

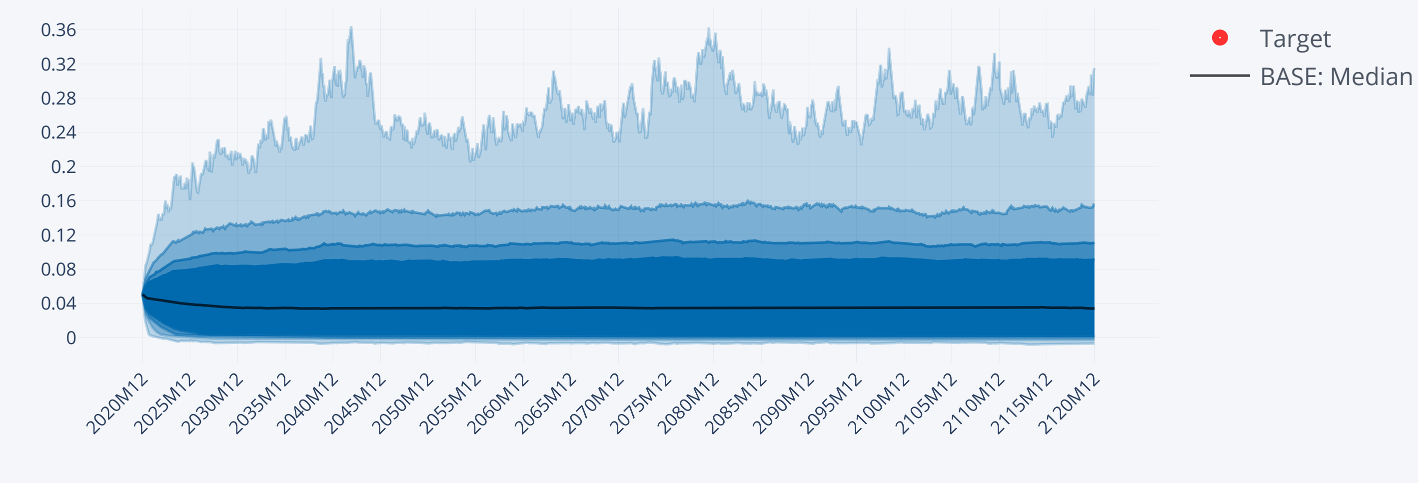
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0461	0.0389
std	0.0164	0.0357
min	0.0009	-0.0078
1%	0.0108	-0.0033
5%	0.0198	-0.0006
10%	0.0256	0.0012
50%	0.0458	0.0315
90%	0.0675	0.0887
95%	0.0738	0.1063
99%	0.0870	0.1487
max	0.1134	0.2529

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : US Treasury 2 Year Yield - Coupon

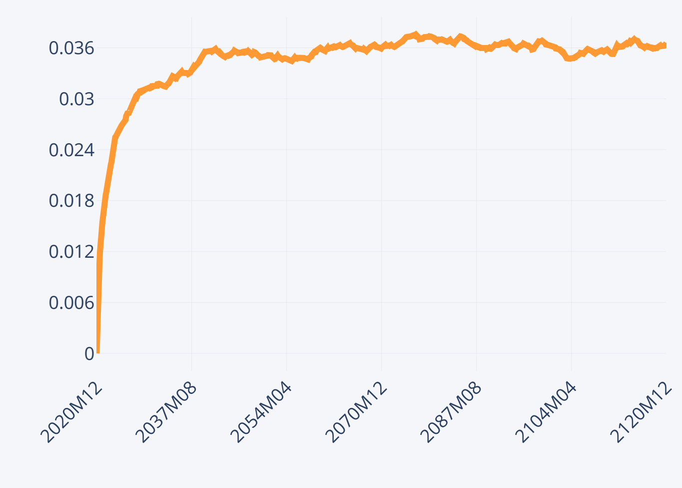


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0458	0.0409
std	0.0154	0.0351
min	0.0014	-0.0067
1%	0.0125	-0.0023
5%	0.0212	0.0003
10%	0.0264	0.0021
50%	0.0453	0.0342
90%	0.0658	0.0896
95%	0.0718	0.1064
99%	0.0843	0.1484
max	0.1090	0.2471

Cross Sectional Volatility Over Time : BASE



US Treasury 3 Year Yield - Coupon

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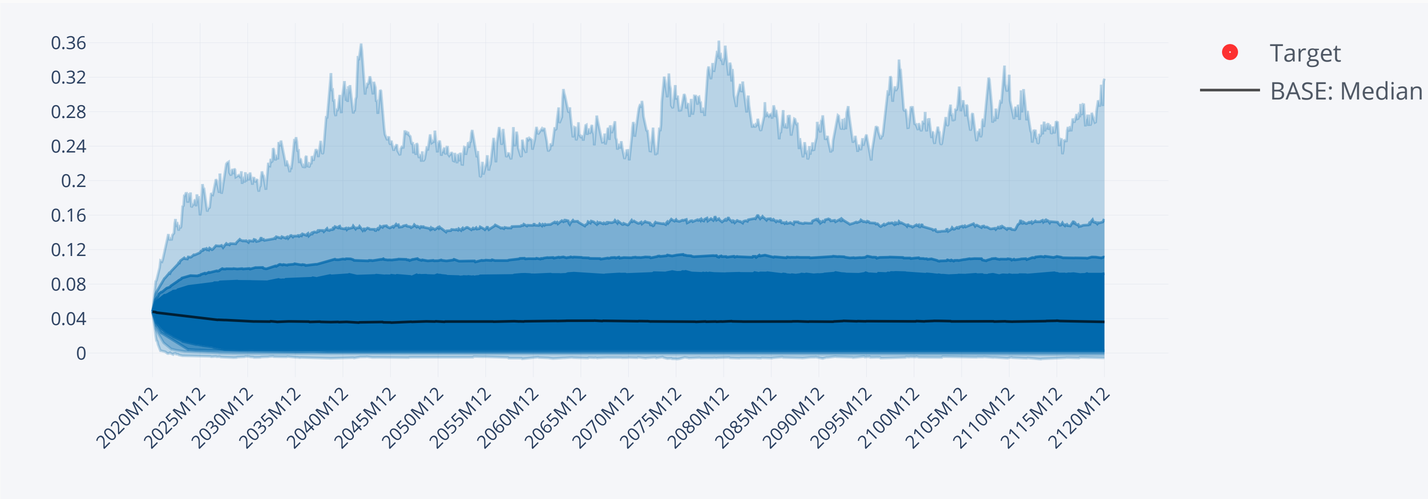
Simulated Data in Percentiles : US Treasury 3 Year Yield - Coupon

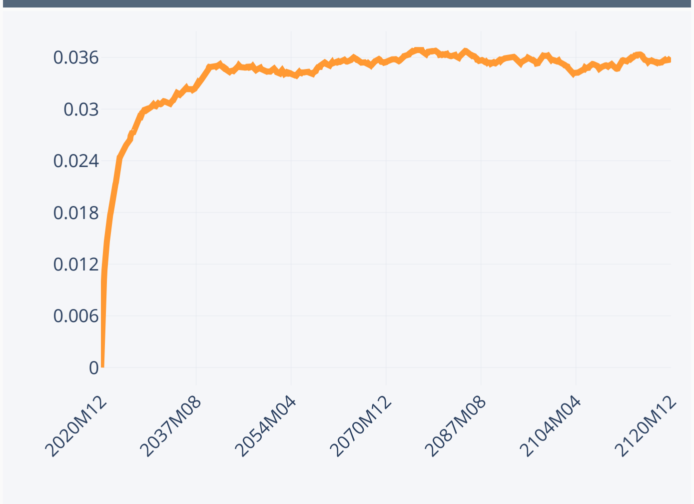


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0462	0.0426
std	0.0146	0.0345
min	0.0019	-0.0056
1%	0.0149	-0.0014
5%	0.0230	0.0010
10%	0.0279	0.0028
50%	0.0457	0.0365
90%	0.0653	0.0905
95%	0.0708	0.1071
99%	0.0828	0.1459
max	0.1060	0.2424

Cross Sectional Volatility Over Time : BASE



US Treasury 4 Year Yield - Coupon
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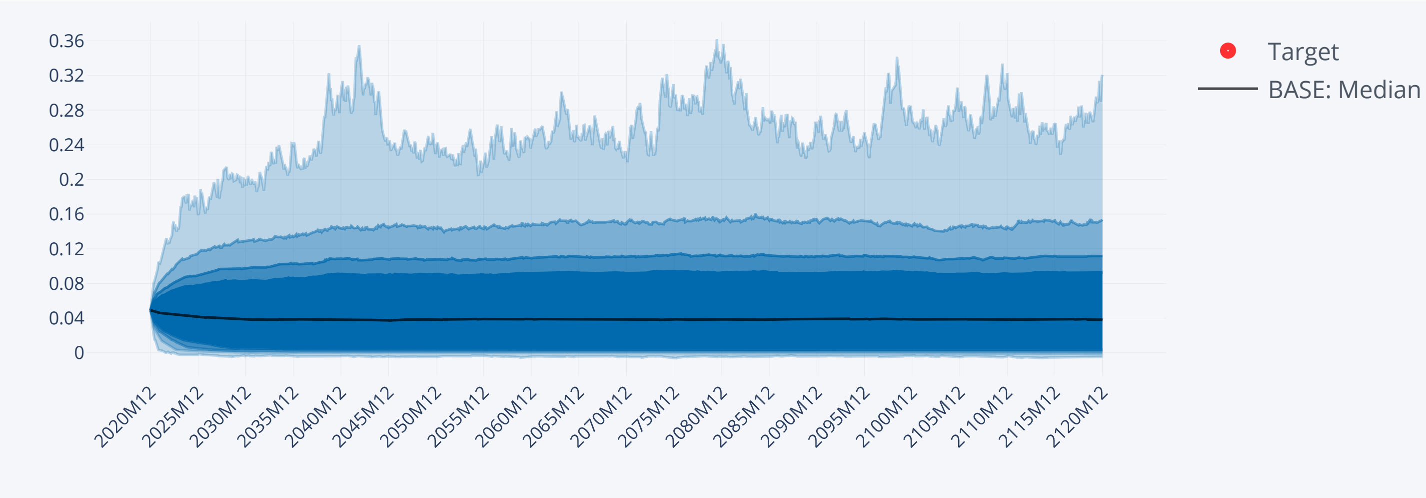
Simulated Data in Percentiles : US Treasury 4 Year Yield - Coupon

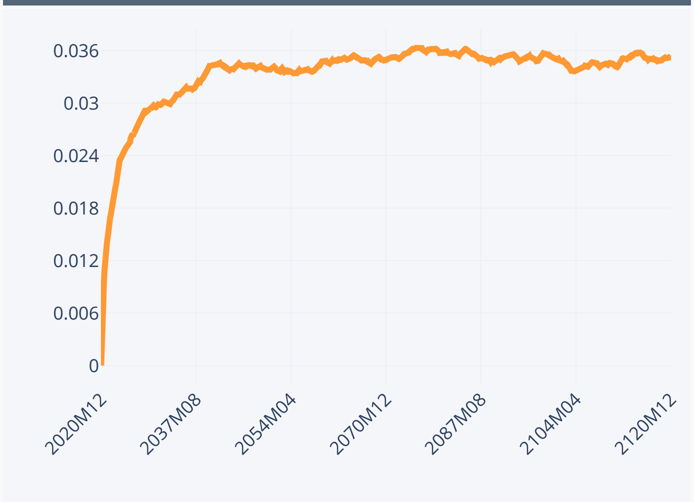


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0464	0.0440
std	0.0140	0.0340
min	0.0024	-0.0046
1%	0.0166	-0.0006
5%	0.0244	0.0017
10%	0.0291	0.0035
50%	0.0459	0.0384
90%	0.0646	0.0911
95%	0.0698	0.1071
99%	0.0811	0.1441
max	0.1033	0.2385

Cross Sectional Volatility Over Time : BASE



US Treasury 5 Year Yield - Coupon

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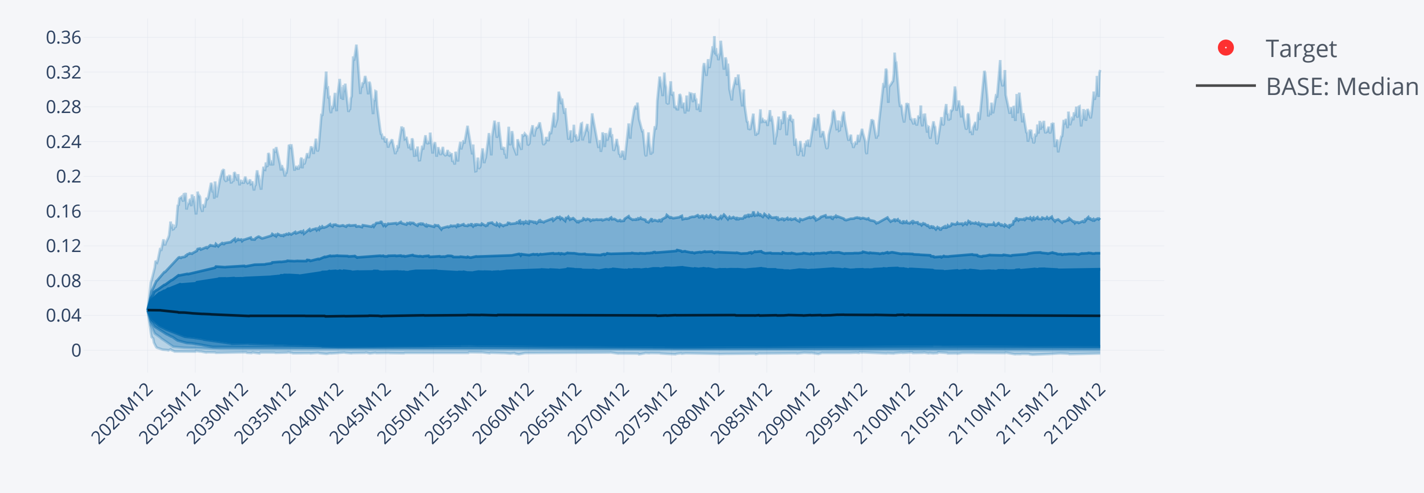
Simulated Data in Percentiles : US Treasury 5 Year Yield - Coupon

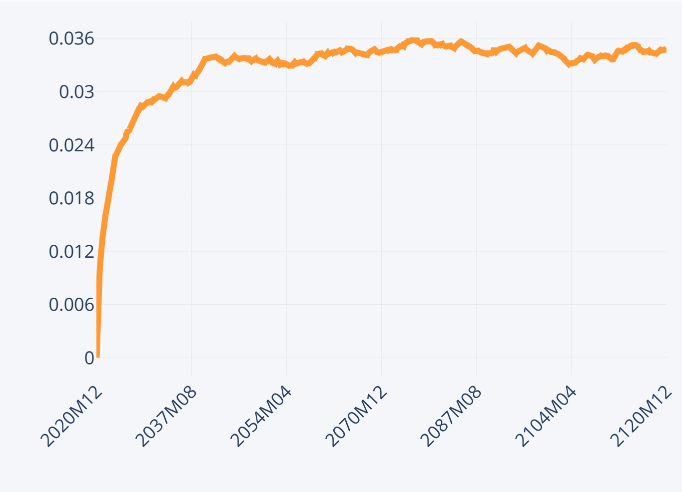


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0467	0.0454
std	0.0134	0.0335
min	0.0028	-0.0038
1%	0.0182	0.0001
5%	0.0256	0.0023
10%	0.0301	0.0041
50%	0.0462	0.0400
90%	0.0642	0.0915
95%	0.0692	0.1074
99%	0.0802	0.1434
max	0.1010	0.2352

Cross Sectional Volatility Over Time : BASE



US Treasury 6 Year Yield - Coupon

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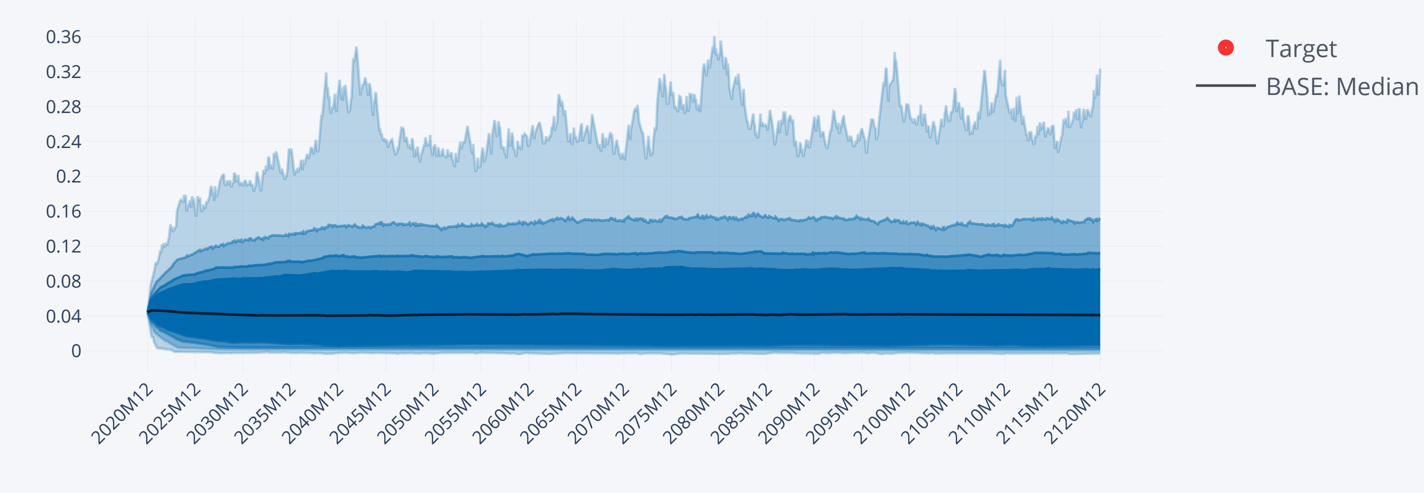
Simulated Data in Percentiles : US Treasury 6 Year Yield - Coupon

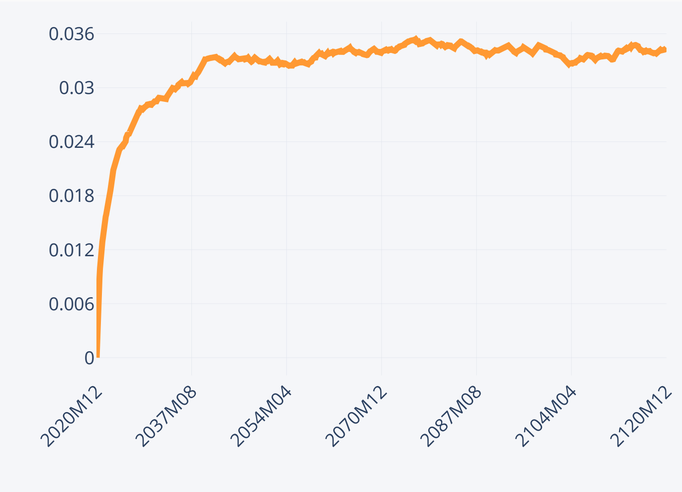


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

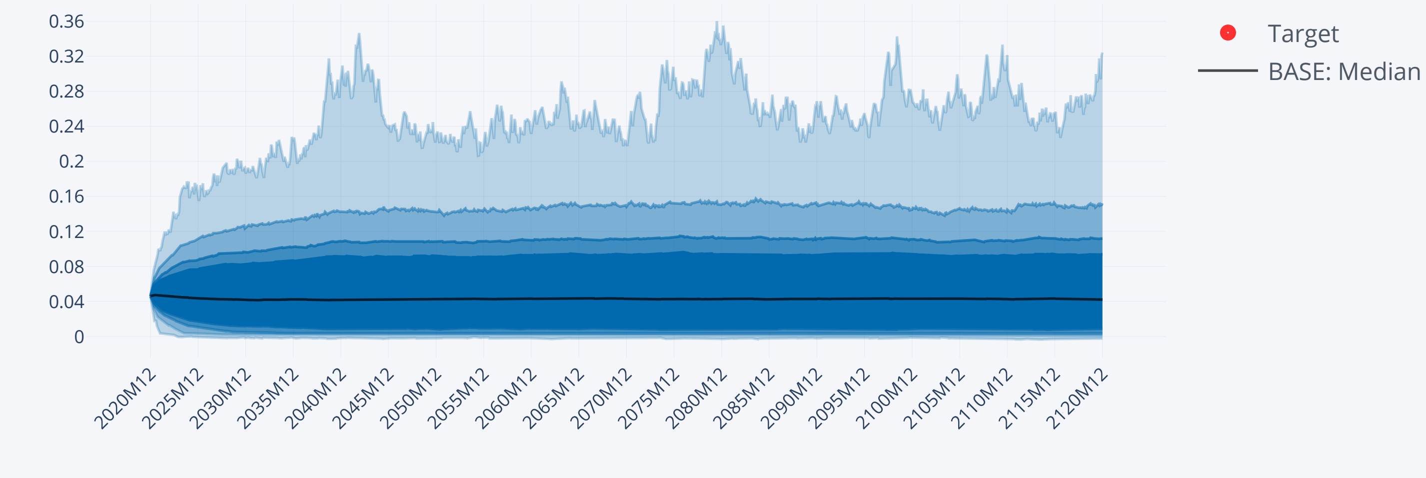
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0471	0.0465
std	0.0129	0.0330
min	0.0032	-0.0030
1%	0.0198	0.0007
5%	0.0269	0.0029
10%	0.0312	0.0064
50%	0.0467	0.0415
90%	0.0640	0.0920
95%	0.0688	0.1074
99%	0.0795	0.1429
max	0.0992	0.2324

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : US Treasury 7 Year Yield - Coupon

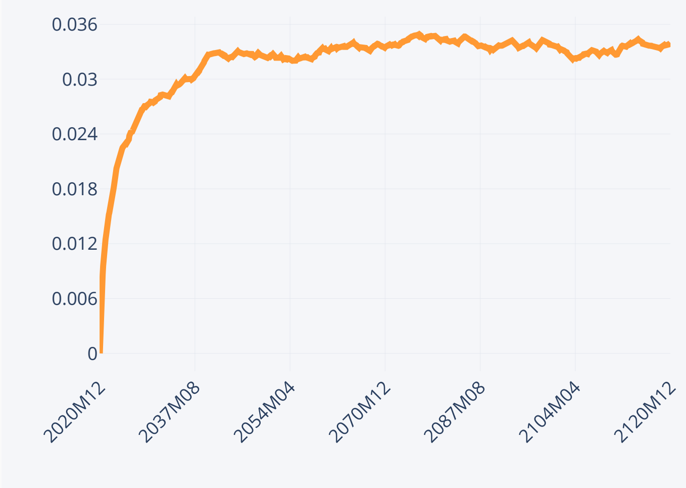


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

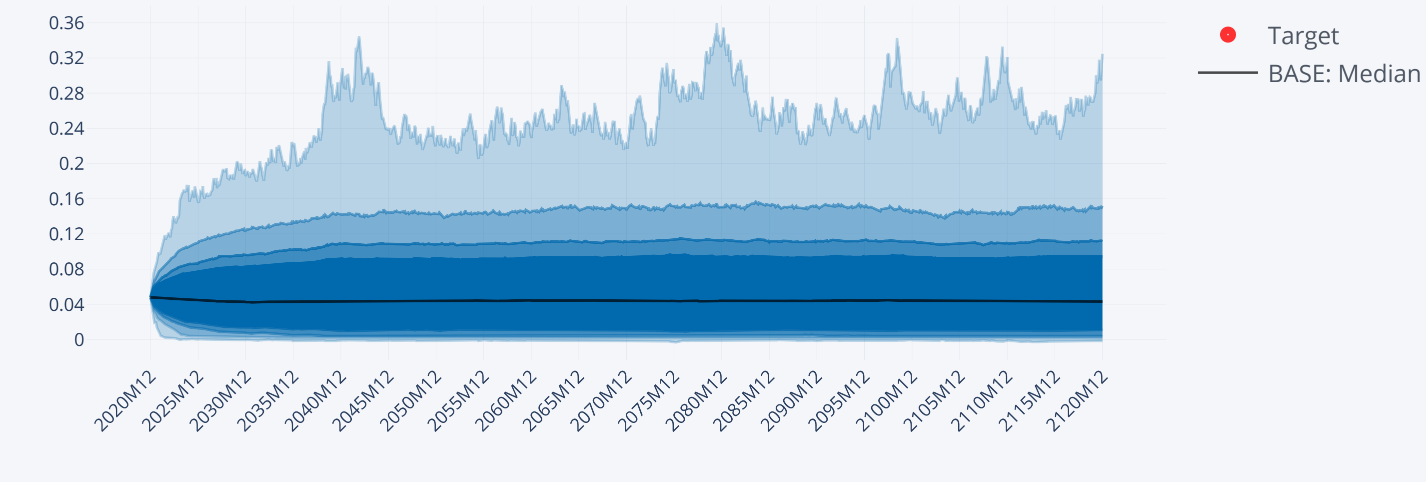
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0475	0.0476
std	0.0125	0.0326
min	0.0036	-0.0024
1%	0.0211	0.0013
5%	0.0280	0.0034
10%	0.0320	0.0086
50%	0.0471	0.0428
90%	0.0638	0.0922
95%	0.0686	0.1075
99%	0.0789	0.1424
max	0.0977	0.2300

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : US Treasury 8 Year Yield - Coupon

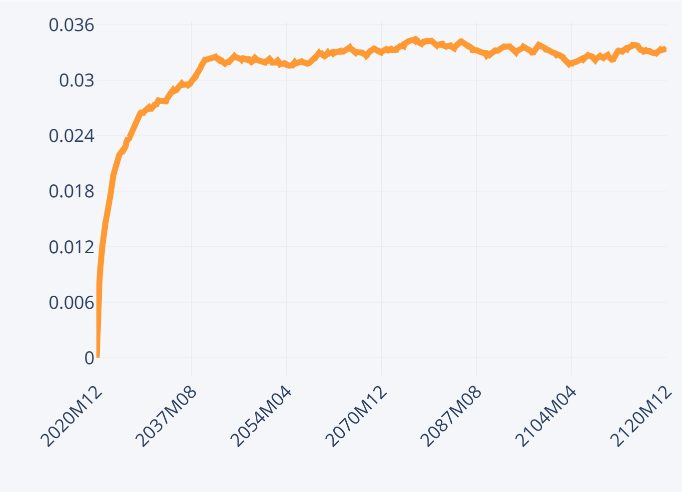


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

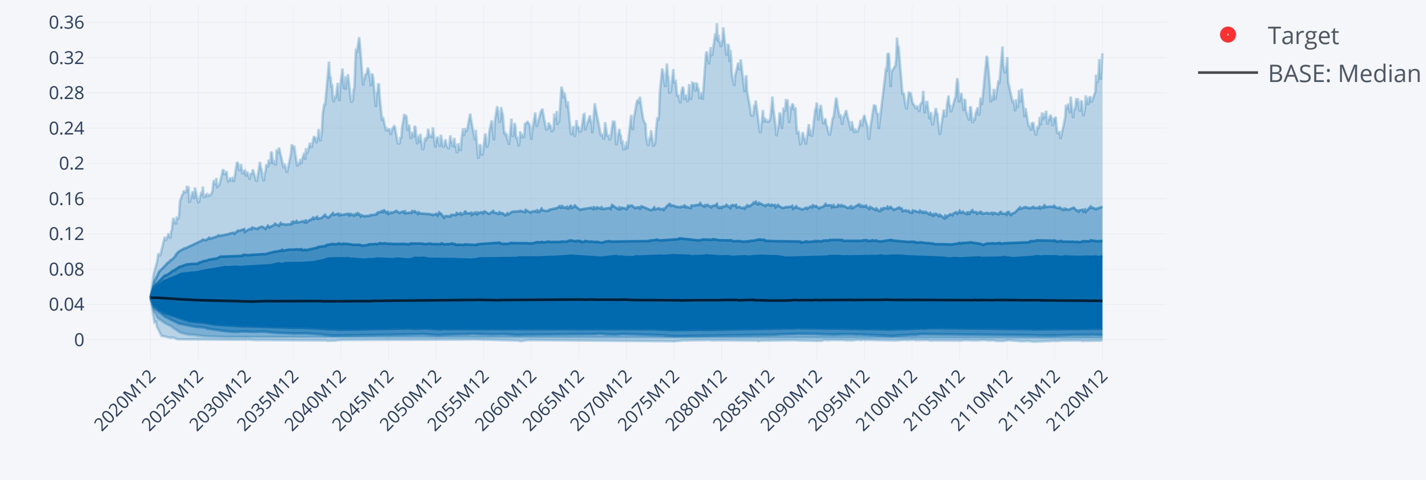
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0478	0.0485
std	0.0121	0.0321
min	0.0039	-0.0017
1%	0.0220	0.0018
5%	0.0288	0.0038
10%	0.0328	0.0104
50%	0.0473	0.0437
90%	0.0637	0.0925
95%	0.0683	0.1077
99%	0.0784	0.1429
max	0.0962	0.2279

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : US Treasury 9 Year Yield - Coupon

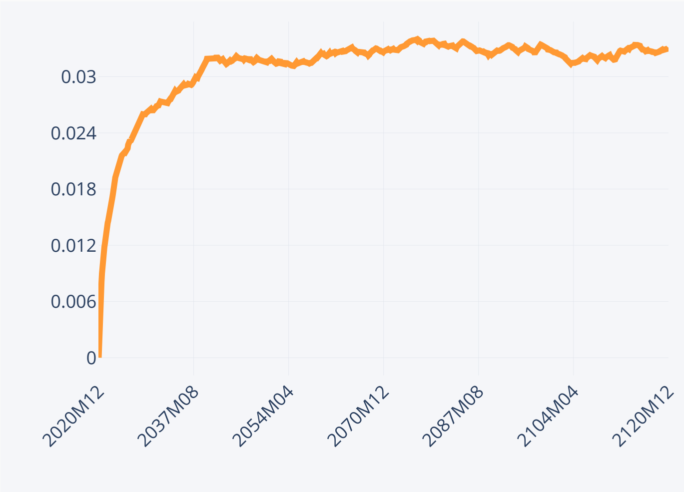


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0479	0.0493
std	0.0118	0.0317
min	0.0050	-0.0012
1%	0.0227	0.0023
5%	0.0295	0.0050
10%	0.0333	0.0121
50%	0.0475	0.0446
90%	0.0635	0.0929
95%	0.0681	0.1078
99%	0.0779	0.1426
max	0.0949	0.2262

Cross Sectional Volatility Over Time : BASE



US Treasury 10 Year Yield - Coupon
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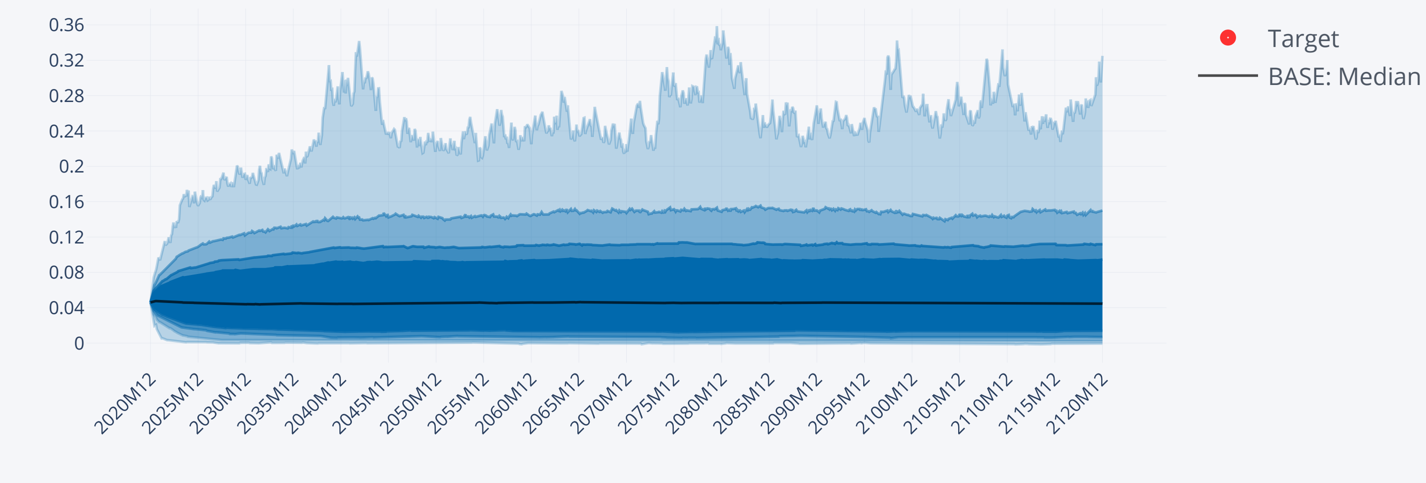
Simulated Data in Percentiles : US Treasury 10 Year Yield - Coupon

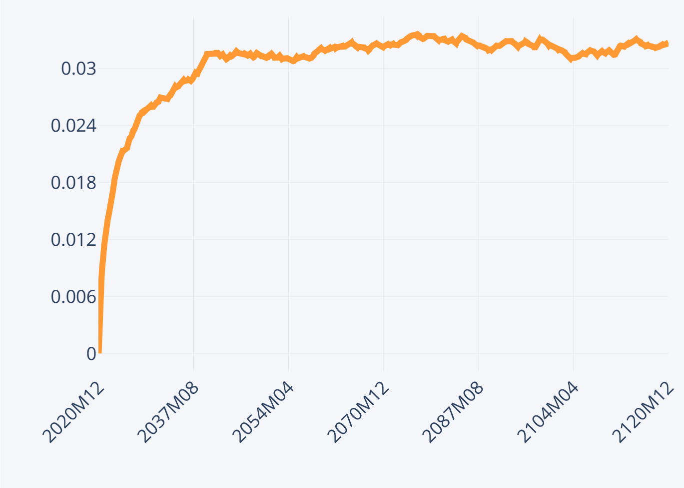


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0482	0.0500
std	0.0115	0.0313
min	0.0064	-0.0007
1%	0.0236	0.0026
5%	0.0302	0.0066
10%	0.0339	0.0134
50%	0.0477	0.0454
90%	0.0634	0.0930
95%	0.0679	0.1078
99%	0.0774	0.1422
max	0.0937	0.2246

Cross Sectional Volatility Over Time : BASE



US Treasury 11 Year Yield - Coupon
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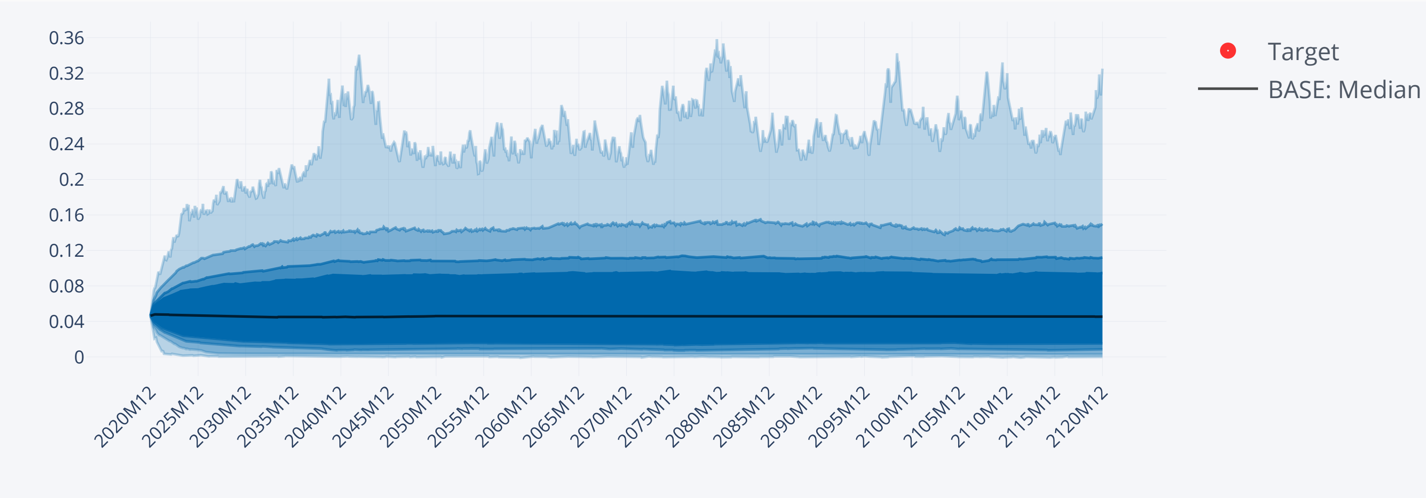
Simulated Data in Percentiles : US Treasury 11 Year Yield - Coupon

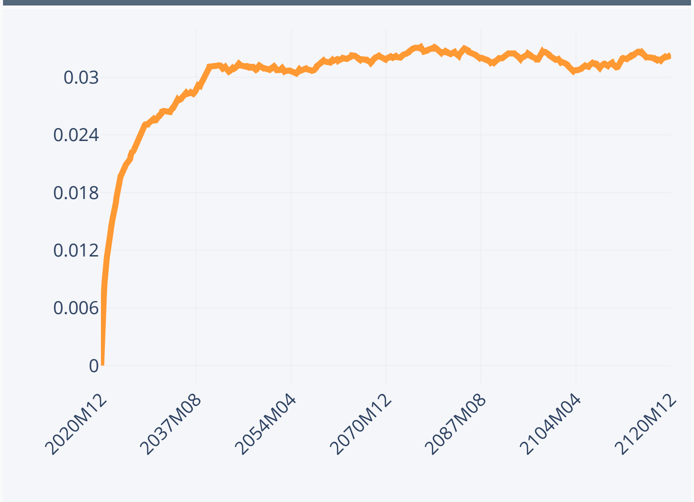


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

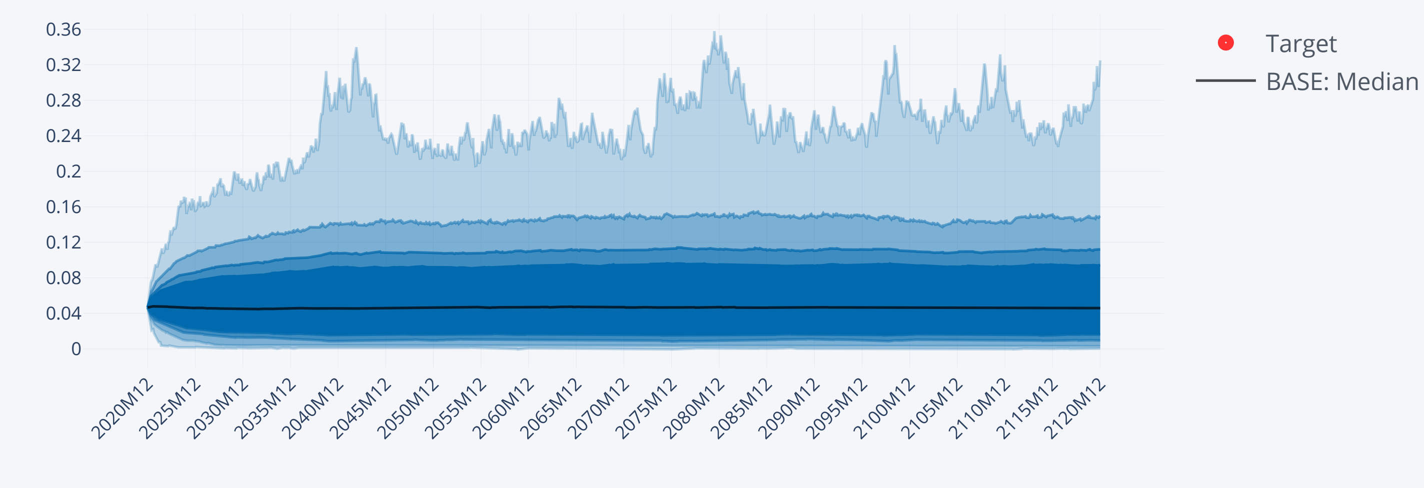
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0484	0.0506
std	0.0113	0.0310
min	0.0076	-0.0002
1%	0.0244	0.0030
5%	0.0308	0.0080
10%	0.0344	0.0148
50%	0.0479	0.0460
90%	0.0632	0.0931
95%	0.0677	0.1079
99%	0.0770	0.1419
max	0.0927	0.2233

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : US Treasury 12 Year Yield - Coupon

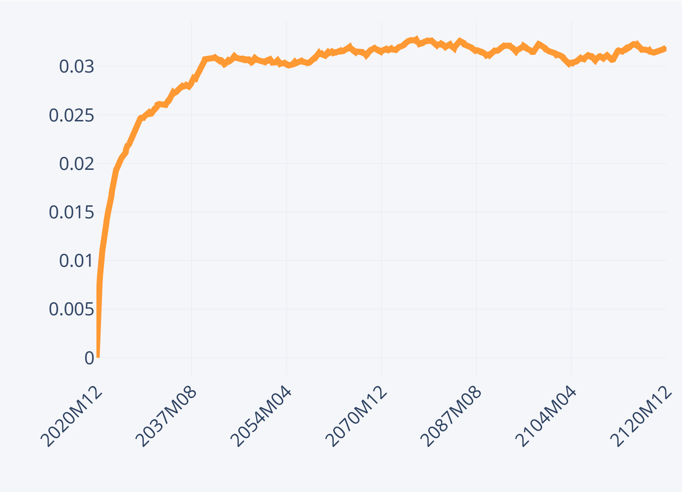


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

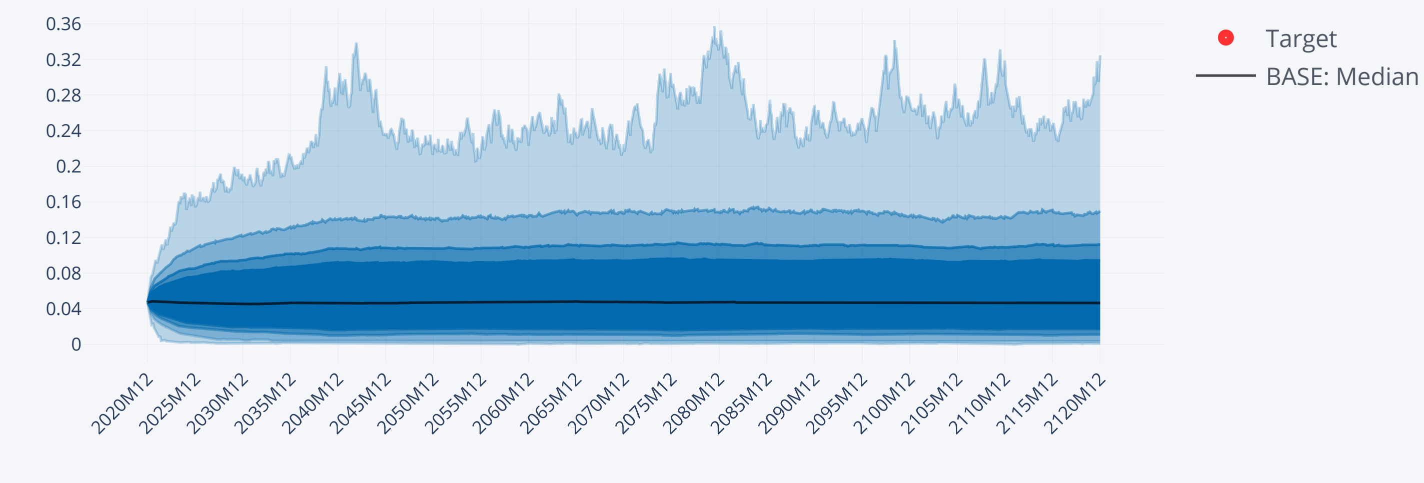
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0485	0.0511
std	0.0111	0.0306
min	0.0087	0.0002
1%	0.0250	0.0033
5%	0.0313	0.0093
10%	0.0349	0.0158
50%	0.0480	0.0465
90%	0.0631	0.0931
95%	0.0675	0.1079
99%	0.0767	0.1415
max	0.0918	0.2220

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : US Treasury 13 Year Yield - Coupon

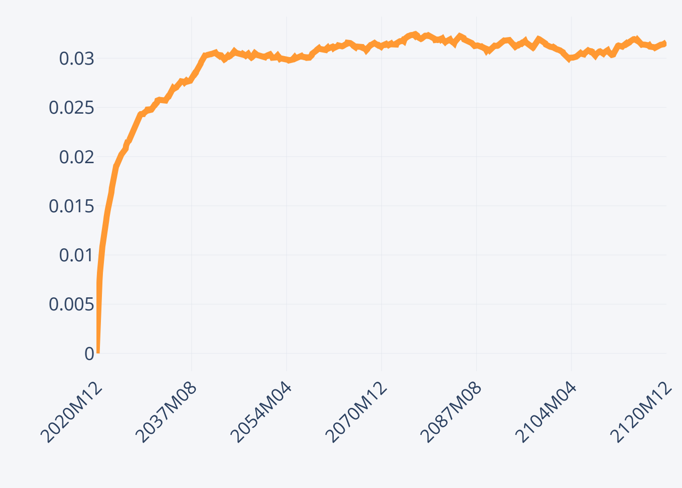


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0487	0.0516
std	0.0109	0.0303
min	0.0097	0.0006
1%	0.0256	0.0036
5%	0.0318	0.0104
10%	0.0352	0.0168
50%	0.0481	0.0469
90%	0.0629	0.0930
95%	0.0673	0.1078
99%	0.0763	0.1411
max	0.0910	0.2210

Cross Sectional Volatility Over Time : BASE



US Treasury 14 Year Yield - Coupon
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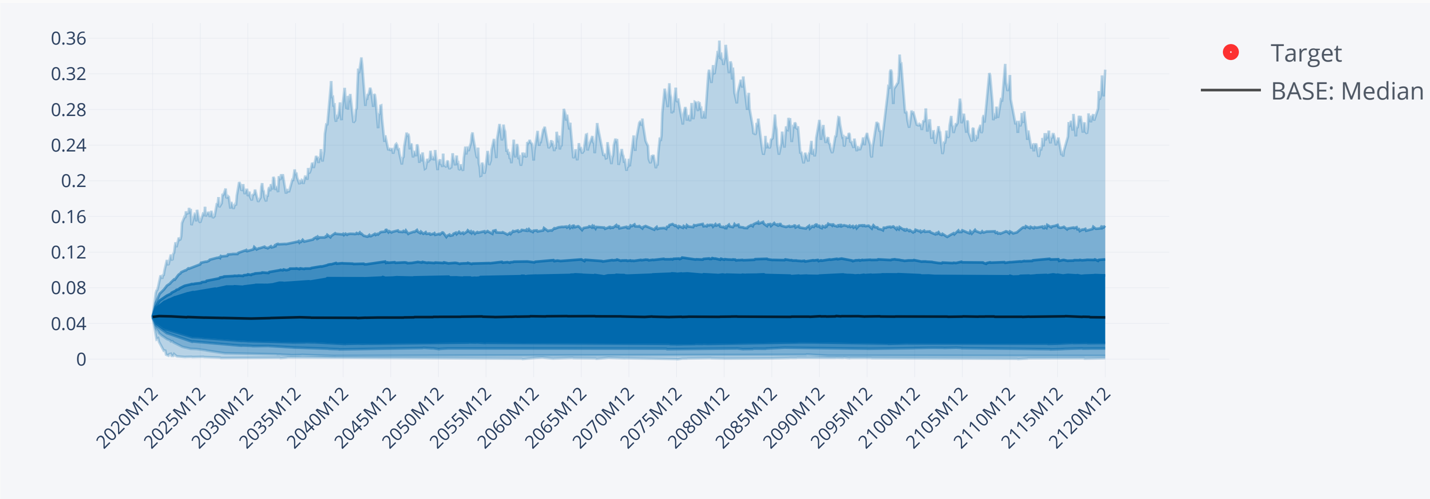
Simulated Data in Percentiles : US Treasury 14 Year Yield - Coupon

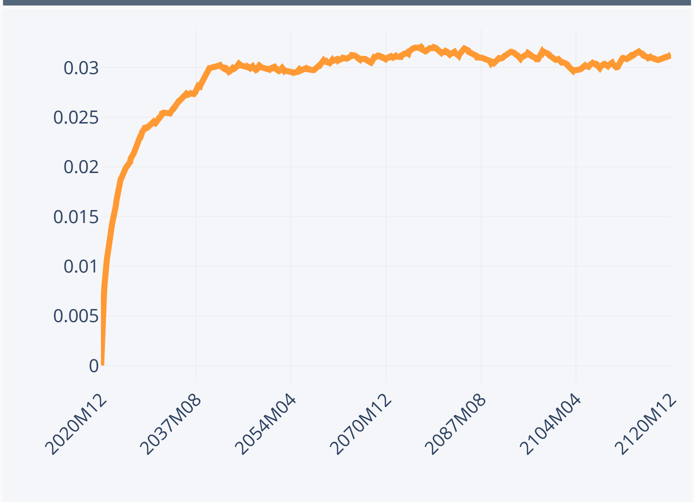


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

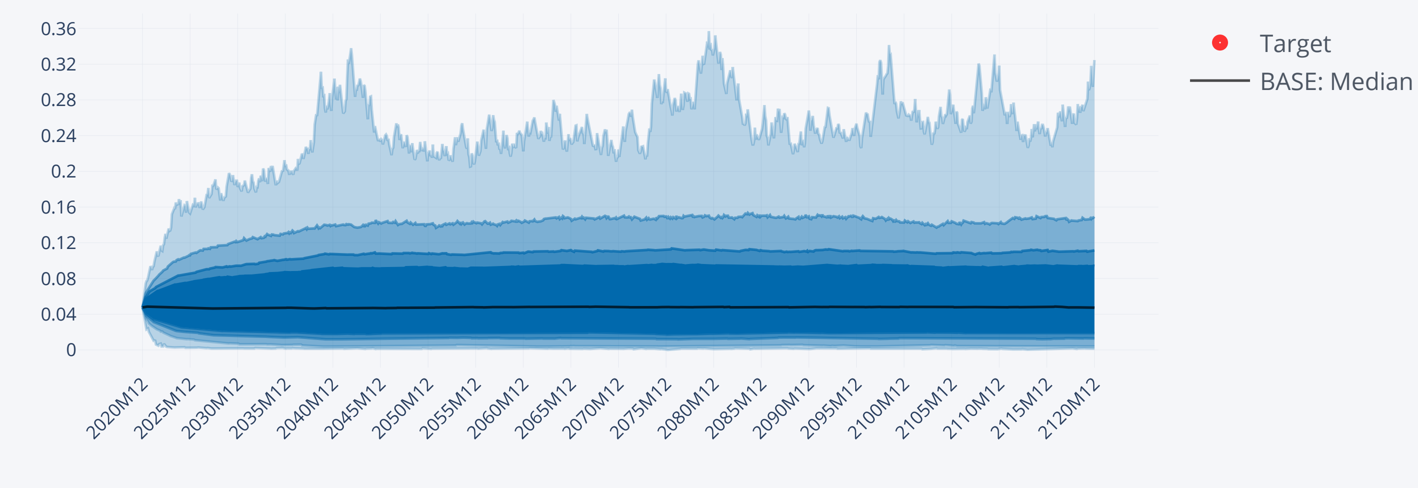
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0488	0.0519
std	0.0107	0.0300
min	0.0107	0.0009
1%	0.0261	0.0039
5%	0.0322	0.0115
10%	0.0356	0.0177
50%	0.0482	0.0474
90%	0.0628	0.0929
95%	0.0671	0.1076
99%	0.0759	0.1411
max	0.0902	0.2200

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : US Treasury 15 Year Yield - Coupon

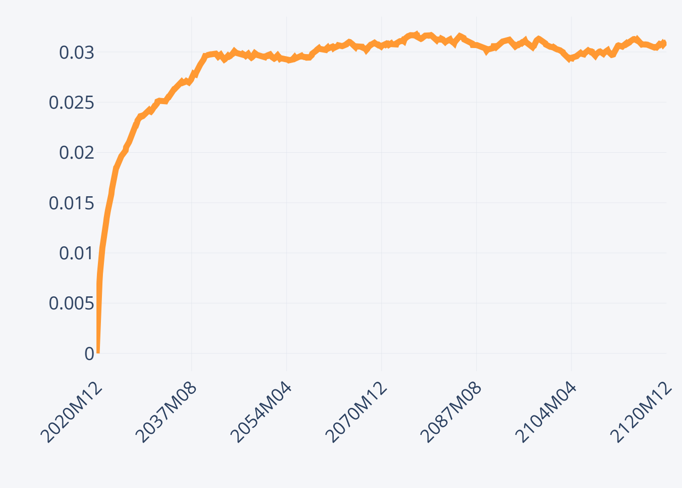


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

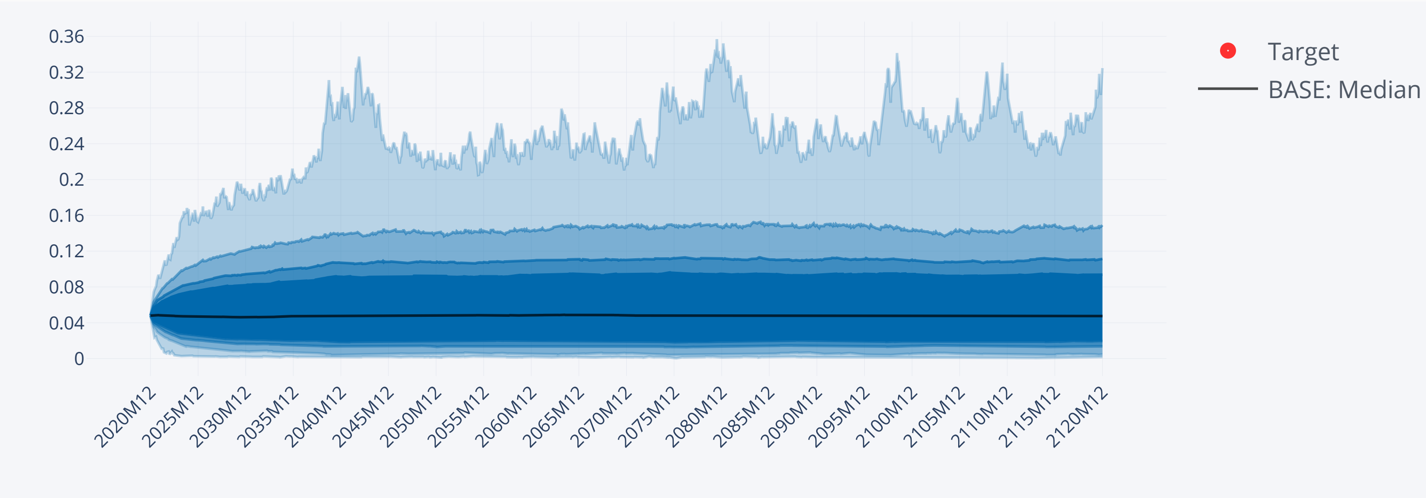
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0489	0.0523
std	0.0105	0.0297
min	0.0115	0.0013
1%	0.0267	0.0046
5%	0.0326	0.0124
10%	0.0359	0.0185
50%	0.0483	0.0477
90%	0.0626	0.0928
95%	0.0669	0.1075
99%	0.0757	0.1406
max	0.0895	0.2192

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : US Treasury 16 Year Yield - Coupon

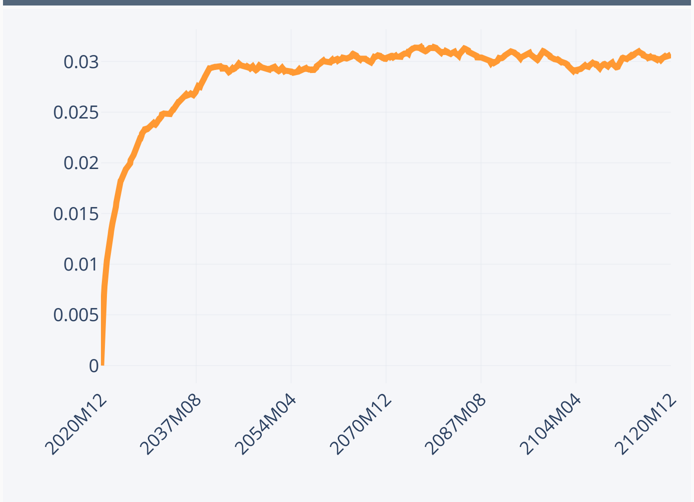


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0490	0.0526
std	0.0104	0.0294
min	0.0123	0.0016
1%	0.0272	0.0056
5%	0.0329	0.0132
10%	0.0362	0.0192
50%	0.0484	0.0479
90%	0.0625	0.0928
95%	0.0667	0.1073
99%	0.0754	0.1403
max	0.0892	0.2184

Cross Sectional Volatility Over Time : BASE



US Treasury 17 Year Yield - Coupon

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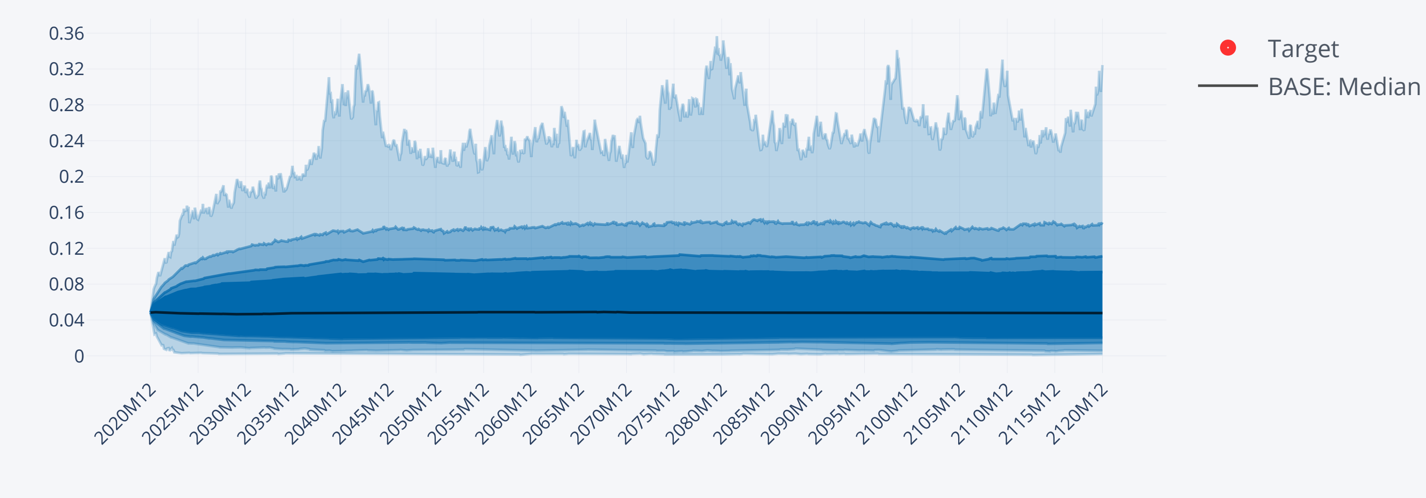
Simulated Data in Percentiles : US Treasury 17 Year Yield - Coupon

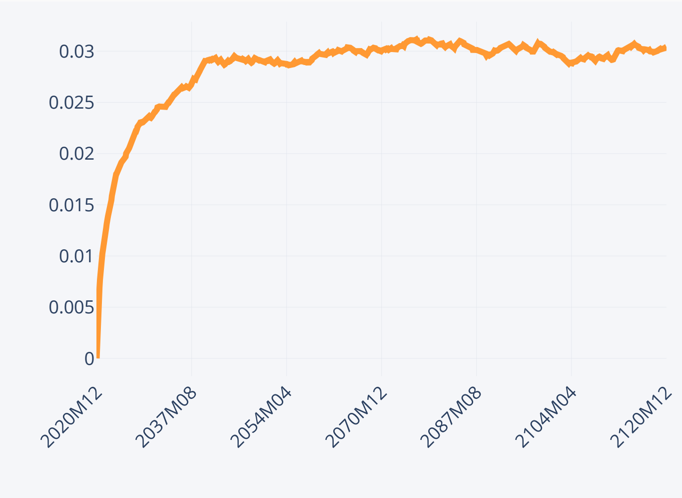


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

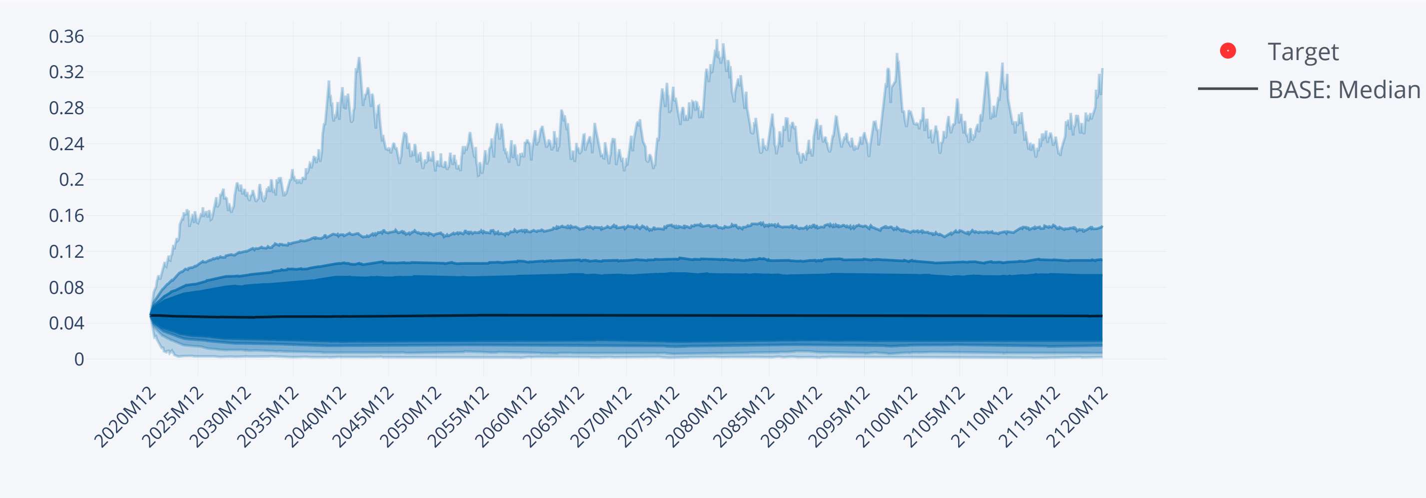
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0490	0.0528
std	0.0102	0.0291
min	0.0131	0.0018
1%	0.0276	0.0066
5%	0.0332	0.0140
10%	0.0364	0.0199
50%	0.0485	0.0481
90%	0.0623	0.0927
95%	0.0666	0.1071
99%	0.0751	0.1399
max	0.0889	0.2177

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : US Treasury 18 Year Yield - Coupon

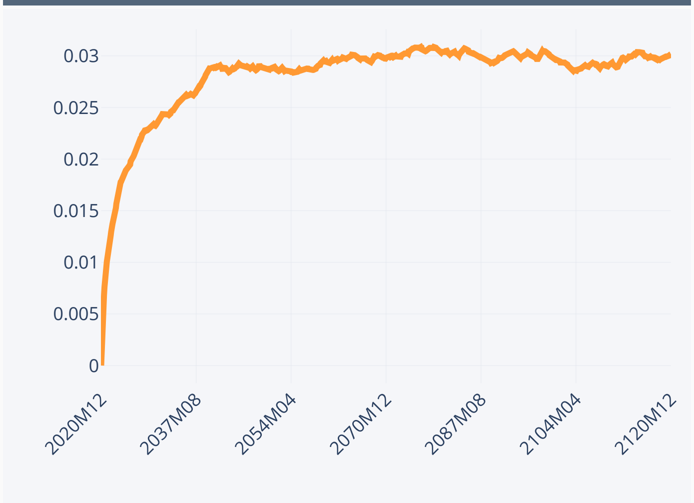


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

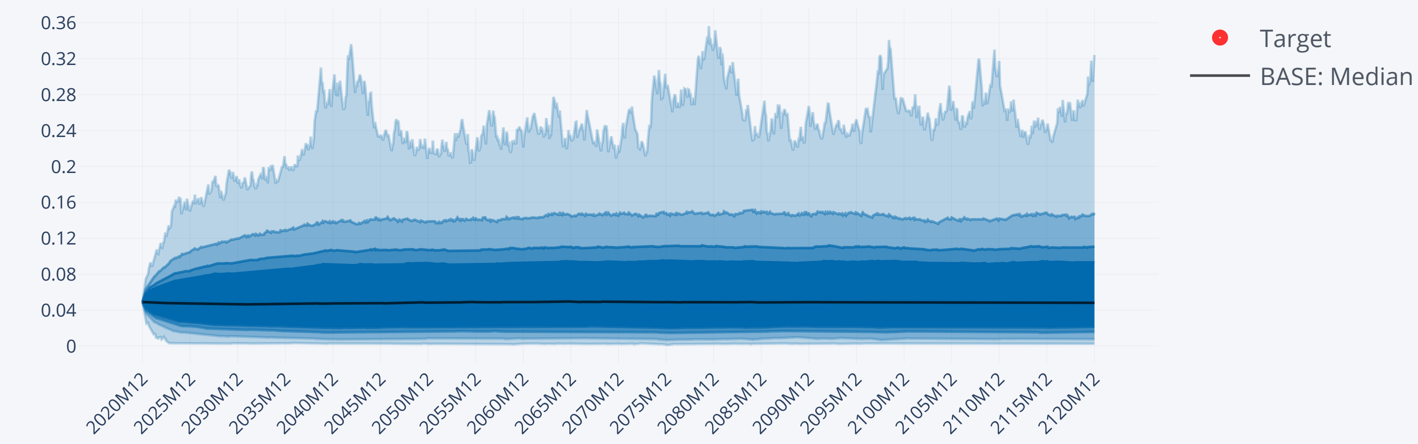
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0491	0.0530
std	0.0101	0.0288
min	0.0137	0.0021
1%	0.0279	0.0075
5%	0.0335	0.0147
10%	0.0366	0.0205
50%	0.0485	0.0484
90%	0.0622	0.0925
95%	0.0664	0.1069
99%	0.0749	0.1398
max	0.0886	0.2171

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : US Treasury 19 Year Yield - Coupon

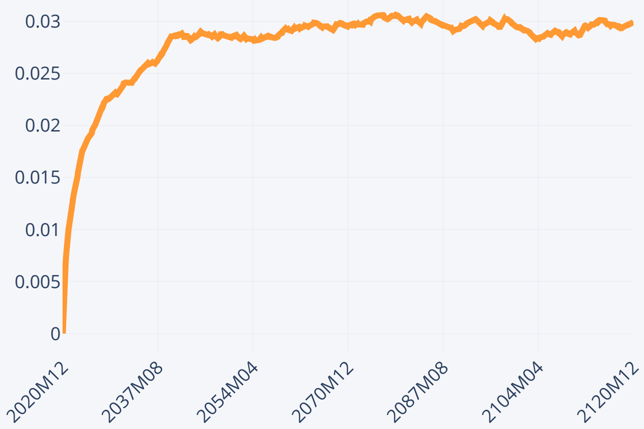


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0491	0.0531
std	0.0100	0.0286
min	0.0143	0.0023
1%	0.0282	0.0082
5%	0.0337	0.0153
10%	0.0368	0.0210
50%	0.0486	0.0485
90%	0.0621	0.0924
95%	0.0662	0.1066
99%	0.0746	0.1394
max	0.0883	0.2165

Cross Sectional Volatility Over Time : BASE



US Treasury 20 Year Yield - Coupon
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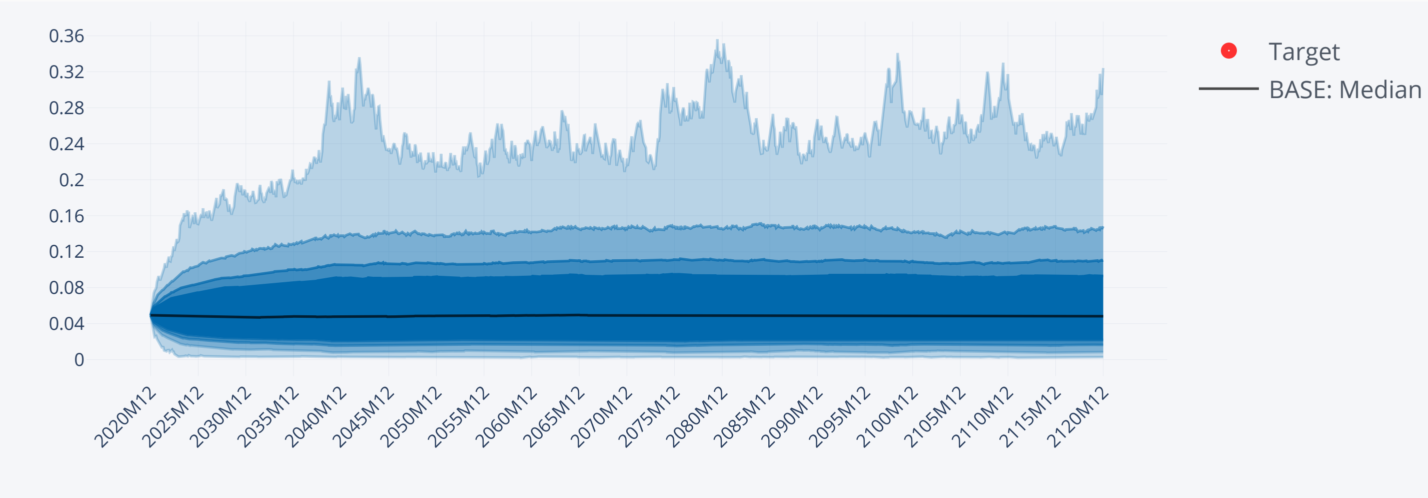
Simulated Data in Percentiles : US Treasury 20 Year Yield - Coupon

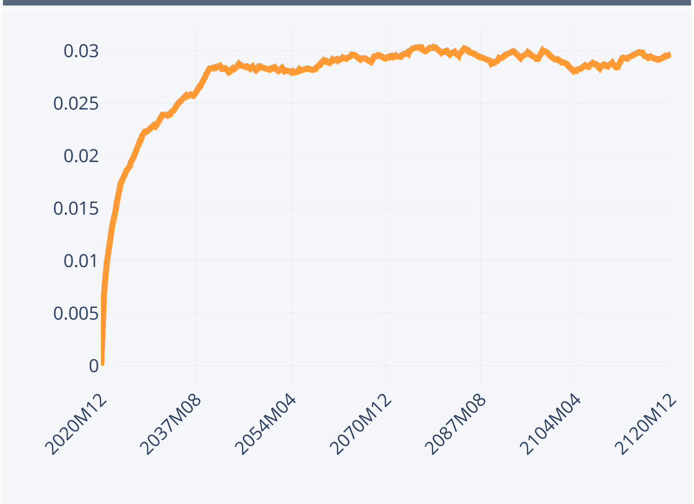


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

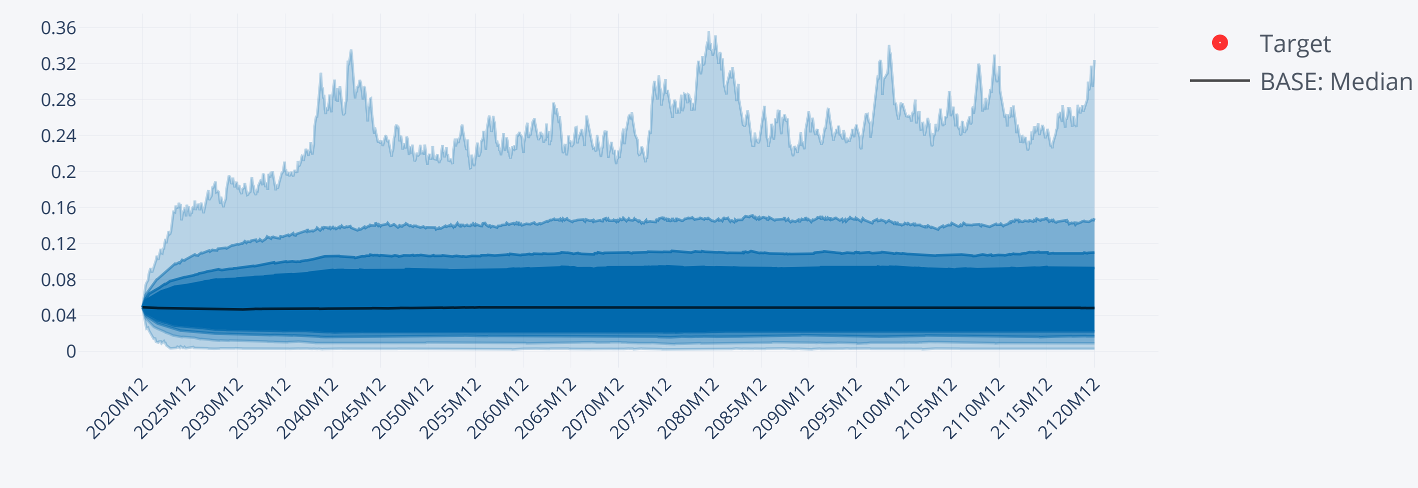
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0491	0.0533
std	0.0099	0.0284
min	0.0149	0.0025
1%	0.0285	0.0090
5%	0.0339	0.0159
10%	0.0369	0.0215
50%	0.0485	0.0486
90%	0.0619	0.0921
95%	0.0660	0.1064
99%	0.0743	0.1389
max	0.0880	0.2160

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : US Treasury 21 Year Yield - Coupon

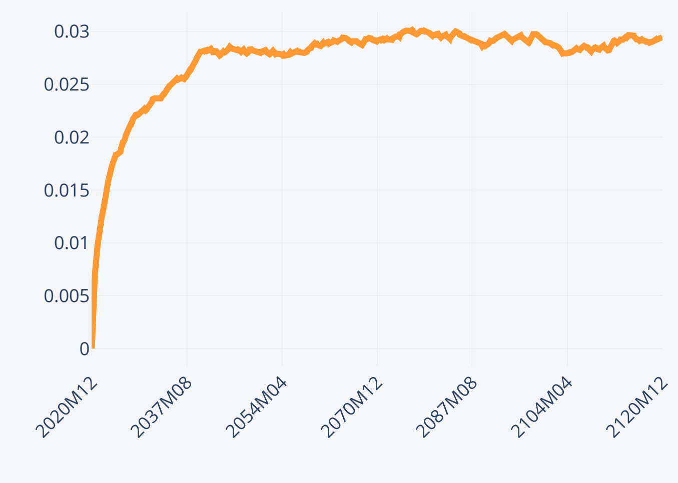


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

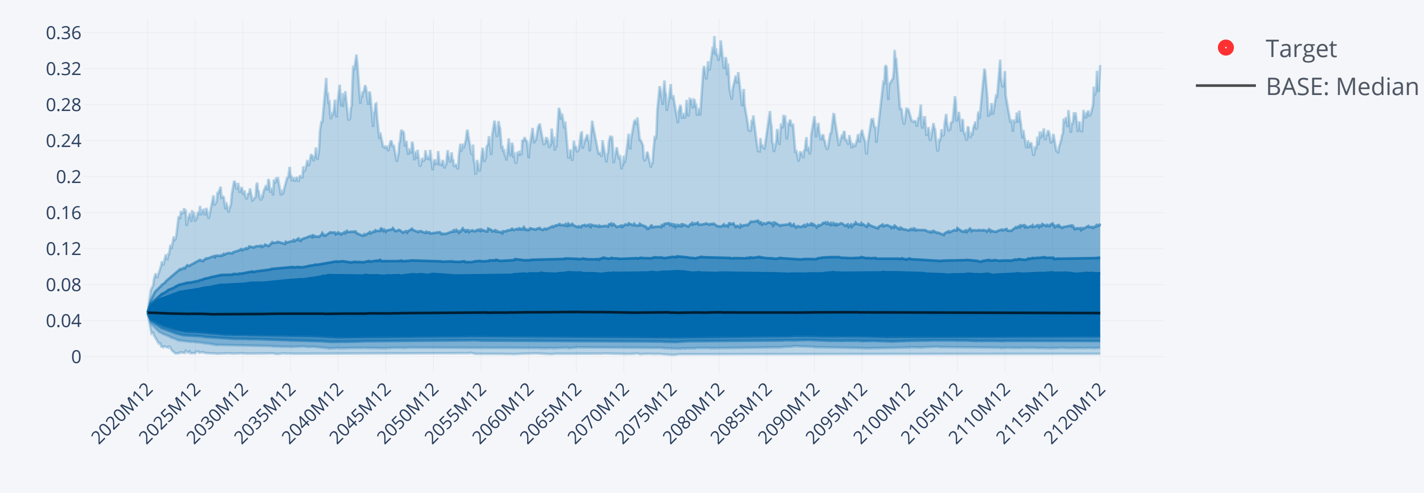
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0490	0.0534
std	0.0098	0.0281
min	0.0154	0.0027
1%	0.0287	0.0096
5%	0.0341	0.0165
10%	0.0371	0.0219
50%	0.0485	0.0487
90%	0.0617	0.0920
95%	0.0658	0.1061
99%	0.0740	0.1385
max	0.0877	0.2155

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : US Treasury 22 Year Yield - Coupon

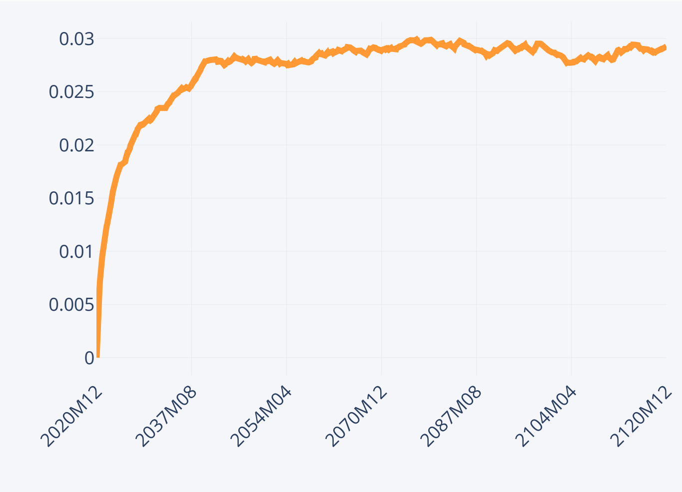


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0490	0.0535
std	0.0097	0.0279
min	0.0159	0.0029
1%	0.0289	0.0103
5%	0.0342	0.0169
10%	0.0372	0.0222
50%	0.0484	0.0488
90%	0.0616	0.0918
95%	0.0656	0.1059
99%	0.0737	0.1382
max	0.0874	0.2150

Cross Sectional Volatility Over Time : BASE



US Treasury 23 Year Yield - Coupon
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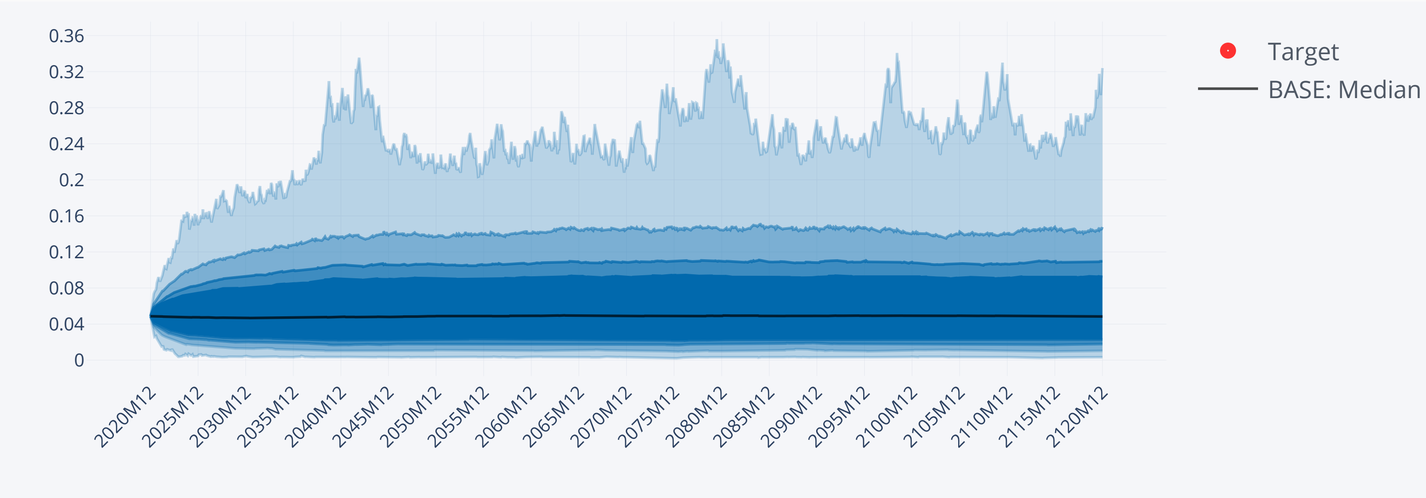
Simulated Data in Percentiles : US Treasury 23 Year Yield - Coupon

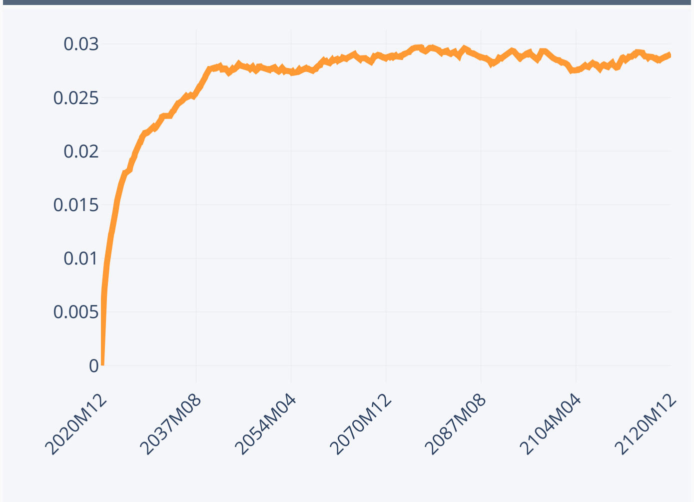


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0490	0.0535
std	0.0096	0.0277
min	0.0163	0.0031
1%	0.0291	0.0109
5%	0.0343	0.0173
10%	0.0372	0.0226
50%	0.0484	0.0489
90%	0.0614	0.0917
95%	0.0654	0.1057
99%	0.0734	0.1379
max	0.0871	0.2146

Cross Sectional Volatility Over Time : BASE



US Treasury 24 Year Yield - Coupon

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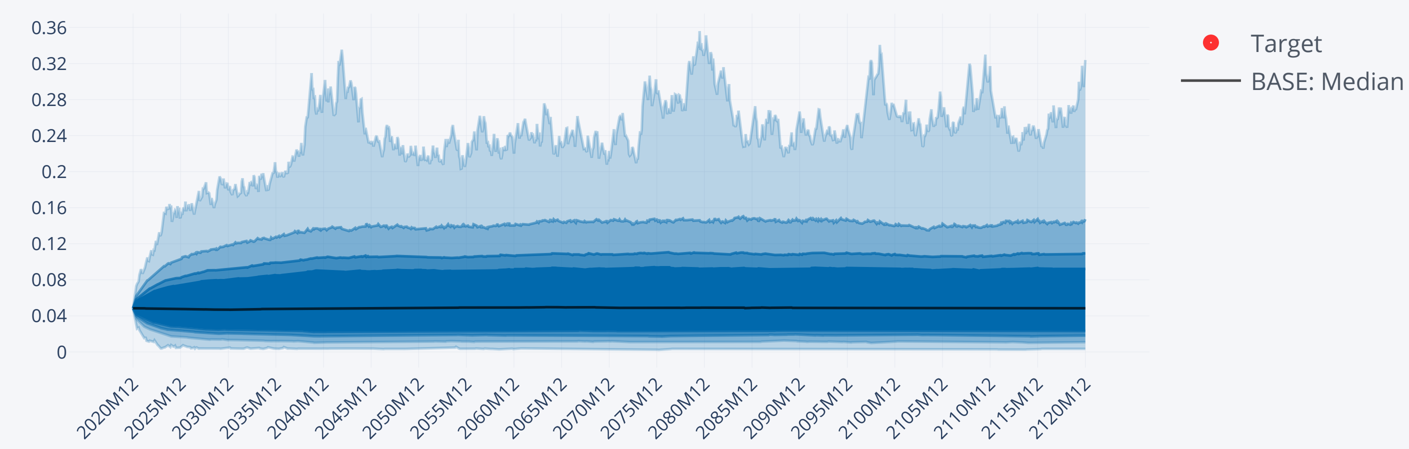
Simulated Data in Percentiles : US Treasury 24 Year Yield - Coupon

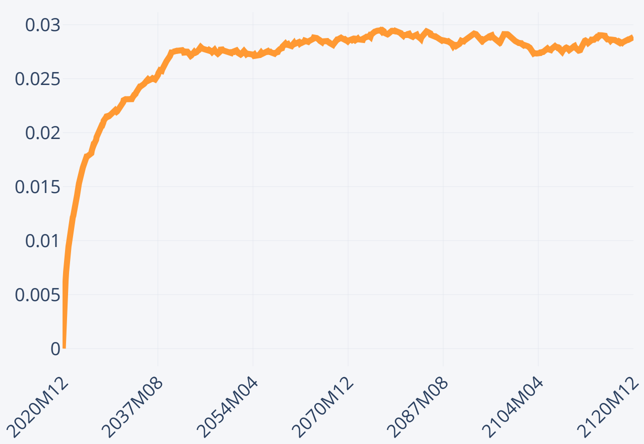


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0489	0.0536
std	0.0095	0.0275
min	0.0167	0.0033
1%	0.0293	0.0115
5%	0.0344	0.0177
10%	0.0373	0.0229
50%	0.0483	0.0489
90%	0.0613	0.0914
95%	0.0652	0.1054
99%	0.0732	0.1375
max	0.0868	0.2143

Cross Sectional Volatility Over Time : BASE



US Treasury 25 Year Yield - Coupon
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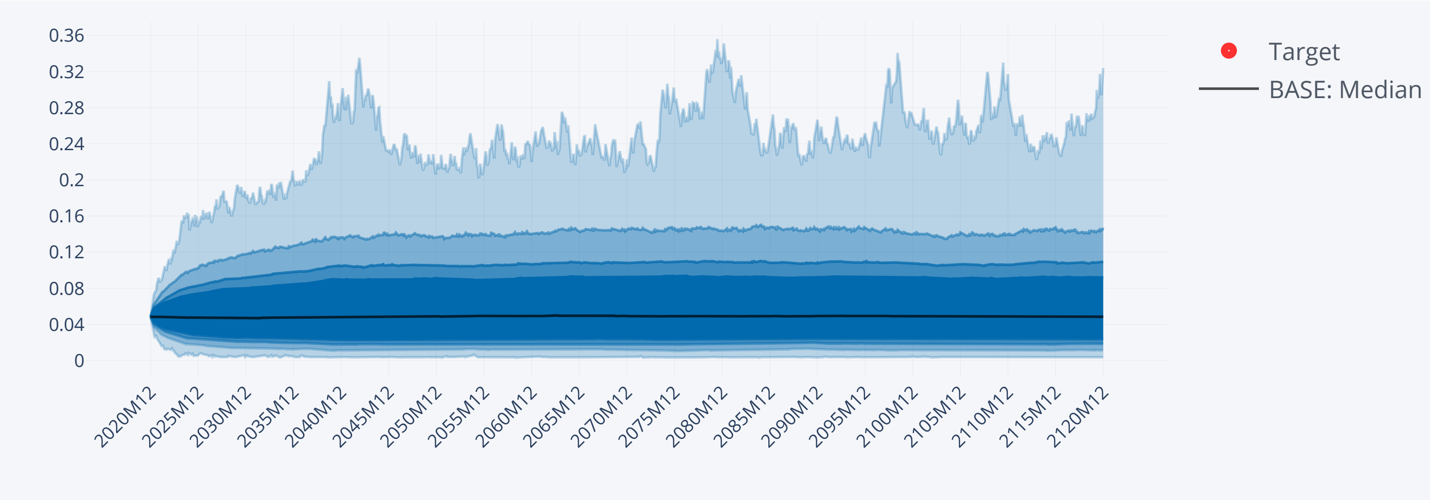
Simulated Data in Percentiles : US Treasury 25 Year Yield - Coupon

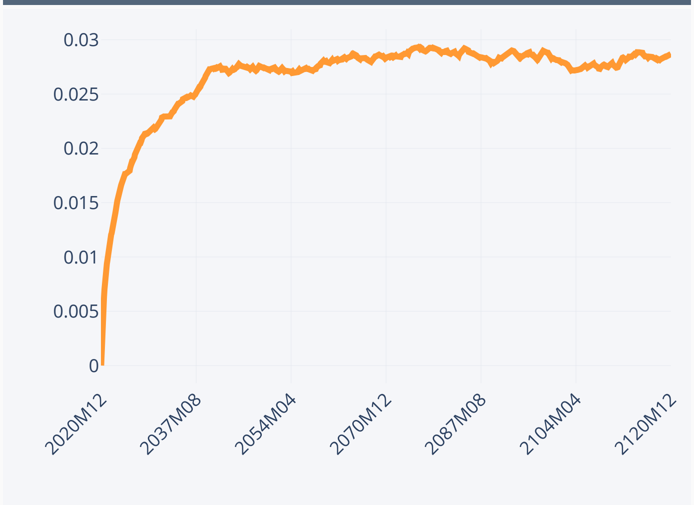


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0488	0.0536
std	0.0094	0.0274
min	0.0171	0.0034
1%	0.0294	0.0119
5%	0.0345	0.0181
10%	0.0373	0.0232
50%	0.0483	0.0489
90%	0.0611	0.0912
95%	0.0650	0.1051
99%	0.0729	0.1370
max	0.0865	0.2139

Cross Sectional Volatility Over Time : BASE



US Treasury 26 Year Yield - Coupon
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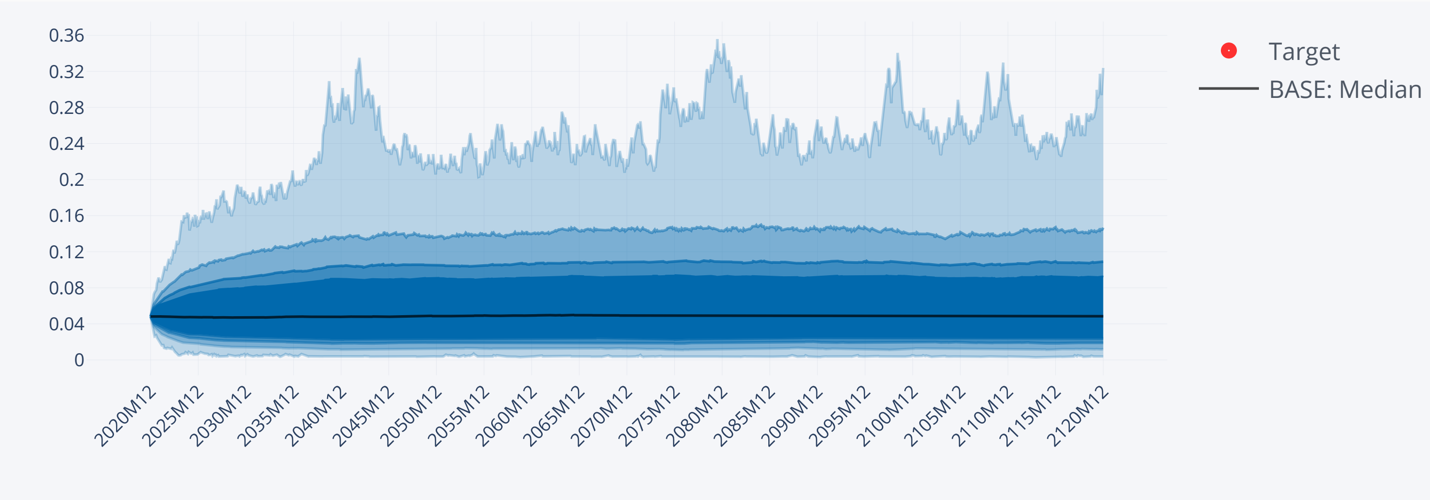
Simulated Data in Percentiles : US Treasury 26 Year Yield - Coupon

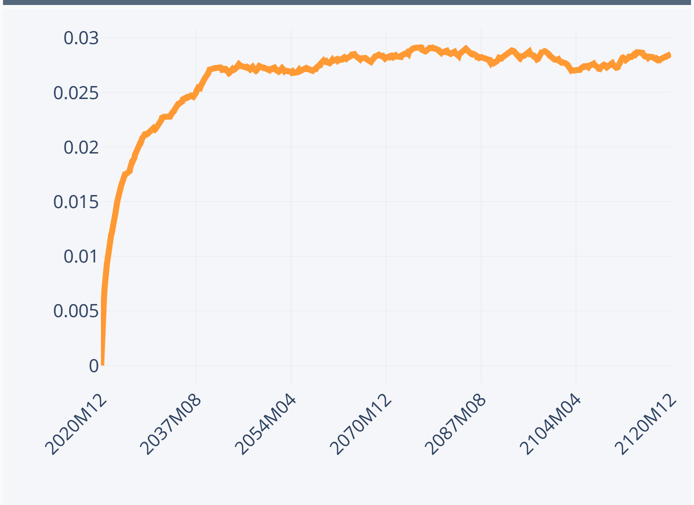


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

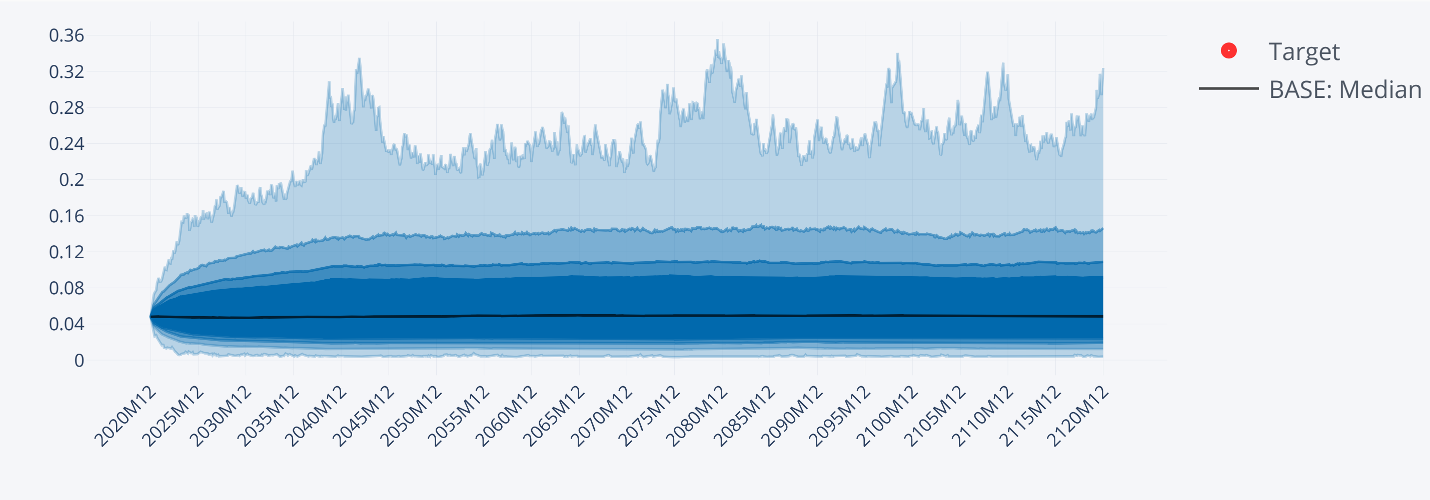
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0488	0.0536
std	0.0093	0.0272
min	0.0174	0.0036
1%	0.0296	0.0124
5%	0.0346	0.0185
10%	0.0374	0.0235
50%	0.0482	0.0489
90%	0.0609	0.0910
95%	0.0647	0.1048
99%	0.0727	0.1368
max	0.0863	0.2136

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : US Treasury 27 Year Yield - Coupon

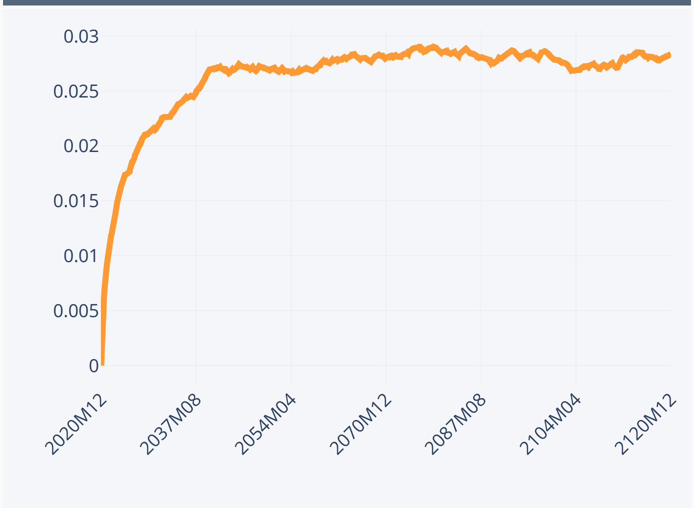


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0487	0.0536
std	0.0092	0.0270
min	0.0177	0.0037
1%	0.0297	0.0129
5%	0.0346	0.0188
10%	0.0374	0.0238
50%	0.0481	0.0489
90%	0.0607	0.0908
95%	0.0646	0.1045
99%	0.0725	0.1366
max	0.0860	0.2133

Cross Sectional Volatility Over Time : BASE



US Treasury 28 Year Yield - Coupon
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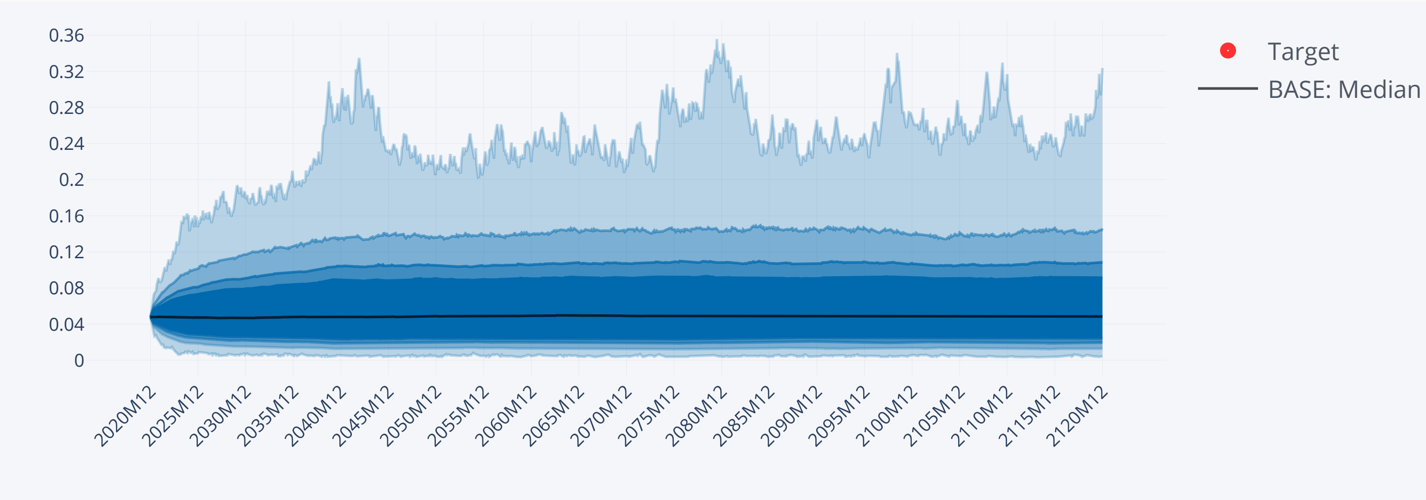
Simulated Data in Percentiles : US Treasury 28 Year Yield - Coupon

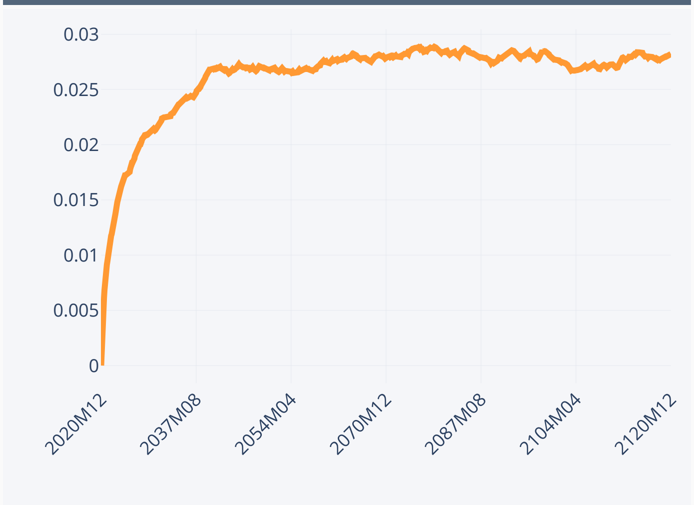


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

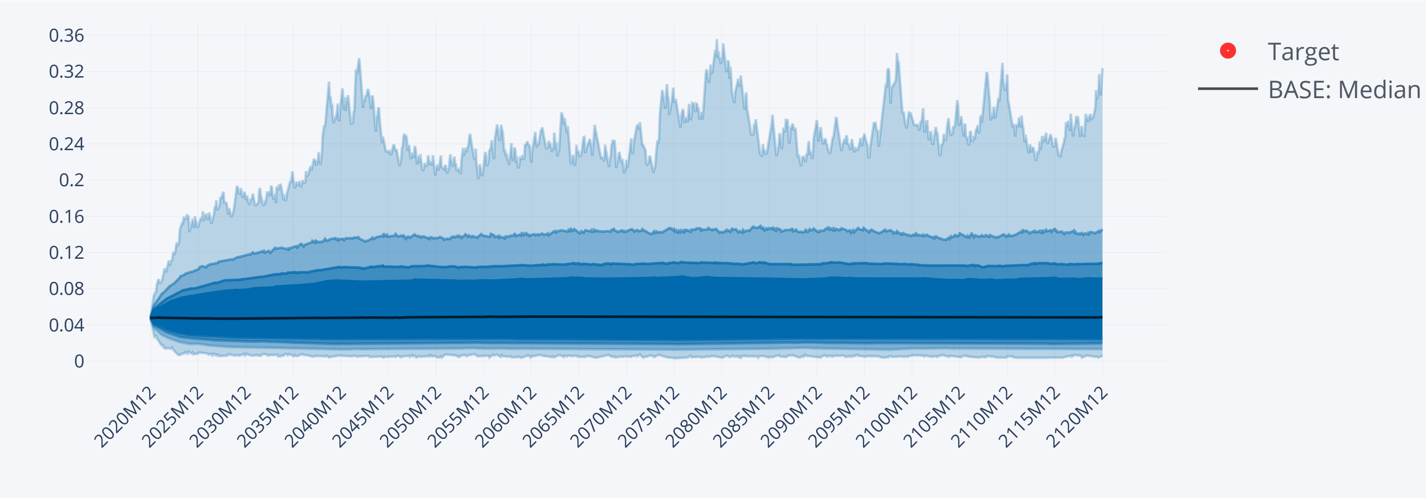
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0486	0.0536
std	0.0091	0.0269
min	0.0180	0.0039
1%	0.0298	0.0133
5%	0.0347	0.0191
10%	0.0374	0.0240
50%	0.0480	0.0488
90%	0.0606	0.0906
95%	0.0644	0.1044
99%	0.0723	0.1363
max	0.0857	0.2130

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : US Treasury 29 Year Yield - Coupon

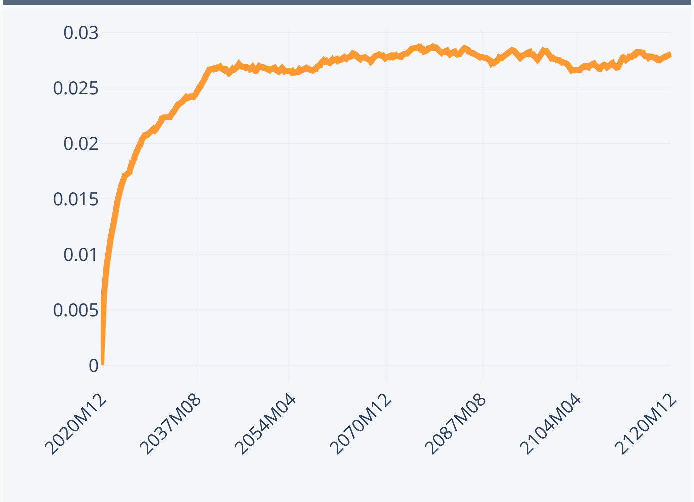


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

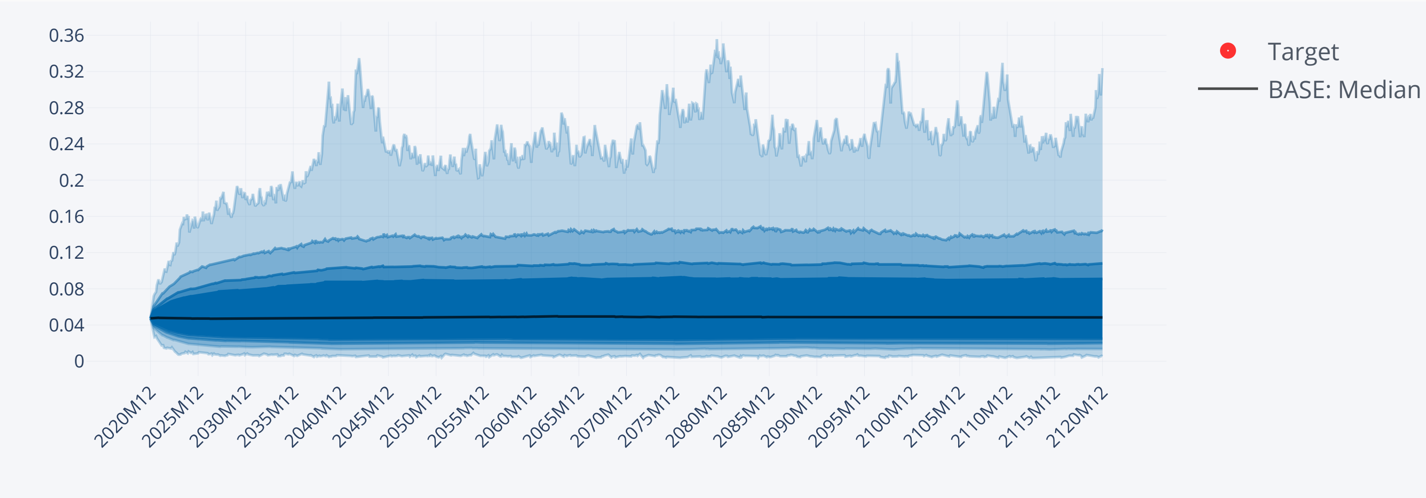
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0485	0.0536
std	0.0091	0.0267
min	0.0183	0.0044
1%	0.0299	0.0136
5%	0.0347	0.0194
10%	0.0374	0.0243
50%	0.0480	0.0488
90%	0.0604	0.0904
95%	0.0642	0.1042
99%	0.0721	0.1361
max	0.0854	0.2128

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : US Treasury 30 Year Yield - Coupon

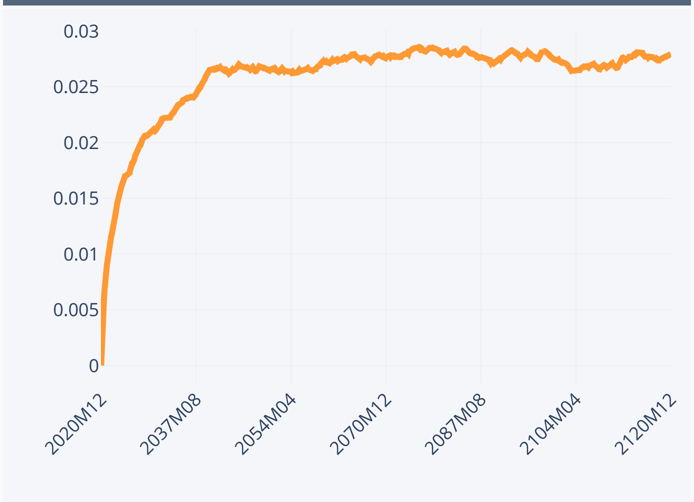


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

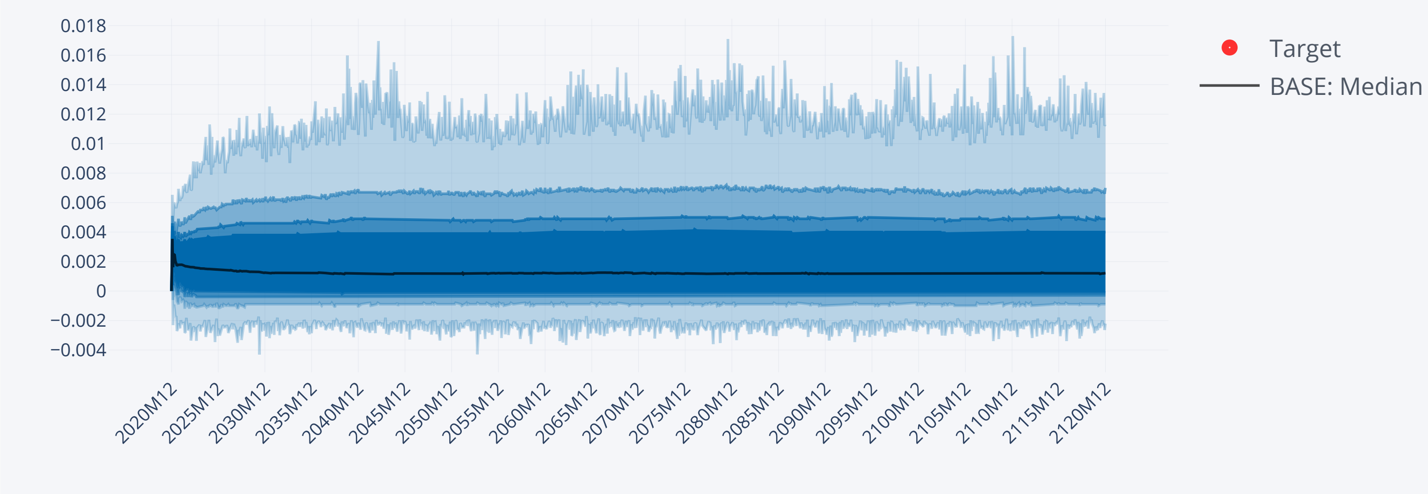
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0485	0.0536
std	0.0090	0.0266
min	0.0186	0.0050
1%	0.0300	0.0140
5%	0.0348	0.0197
10%	0.0374	0.0245
50%	0.0479	0.0488
90%	0.0602	0.0903
95%	0.0640	0.1039
99%	0.0718	0.1360
max	0.0852	0.2125

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Money Market Price

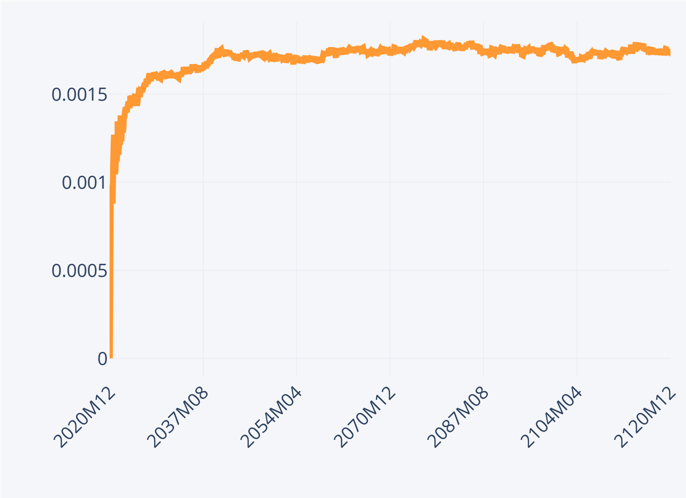


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

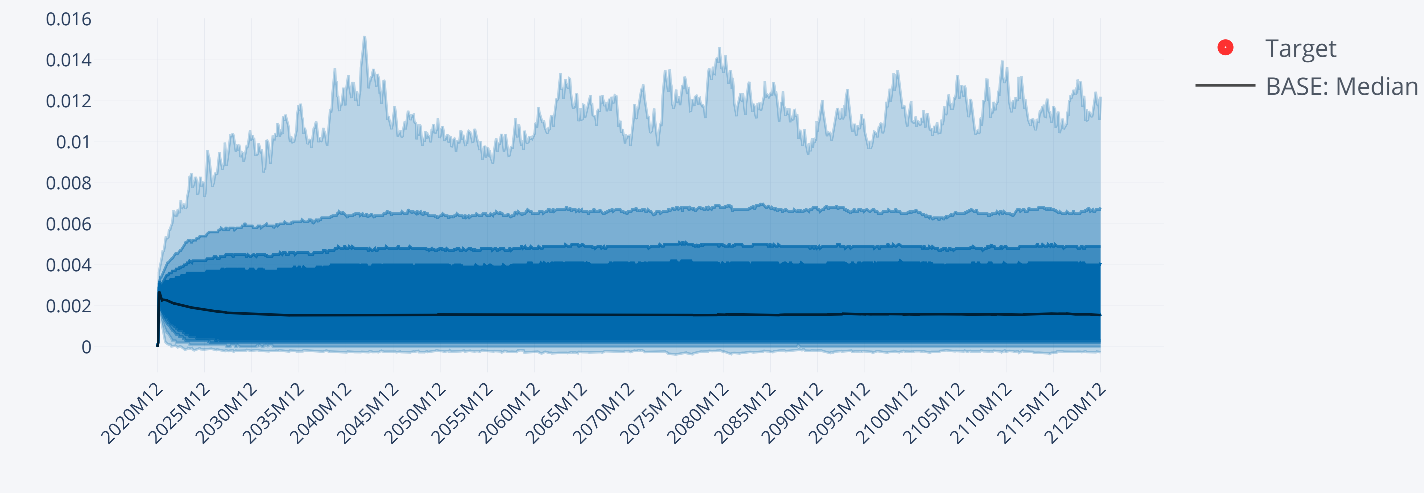
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0018	0.0016
std	0.0011	0.0017
min	-0.0020	-0.0031
1%	-0.0005	-0.0009
5%	0.0002	-0.0003
10%	0.0005	-0.0001
50%	0.0018	0.0012
90%	0.0032	0.0039
95%	0.0036	0.0049
99%	0.0045	0.0067
max	0.0064	0.0105

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Money Market Income

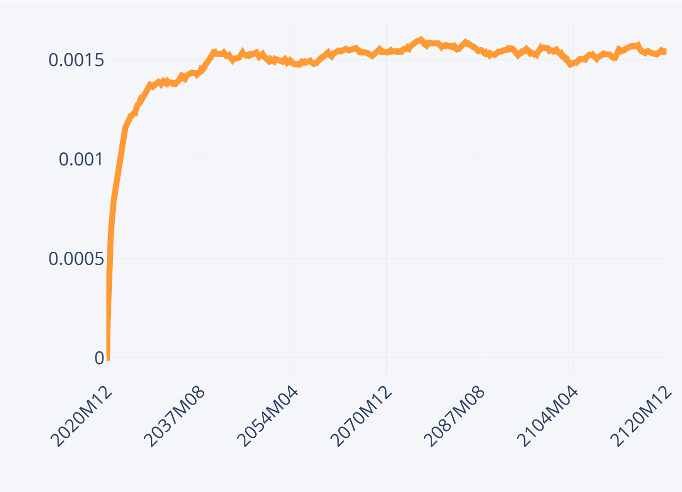


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0023	0.0019
std	0.0007	0.0015
min	0.0002	-0.0002
1%	0.0007	0.0000
5%	0.0012	0.0002
10%	0.0014	0.0003
50%	0.0023	0.0016
90%	0.0032	0.0040
95%	0.0035	0.0048
99%	0.0041	0.0064
max	0.0053	0.0103

Cross Sectional Volatility Over Time : BASE



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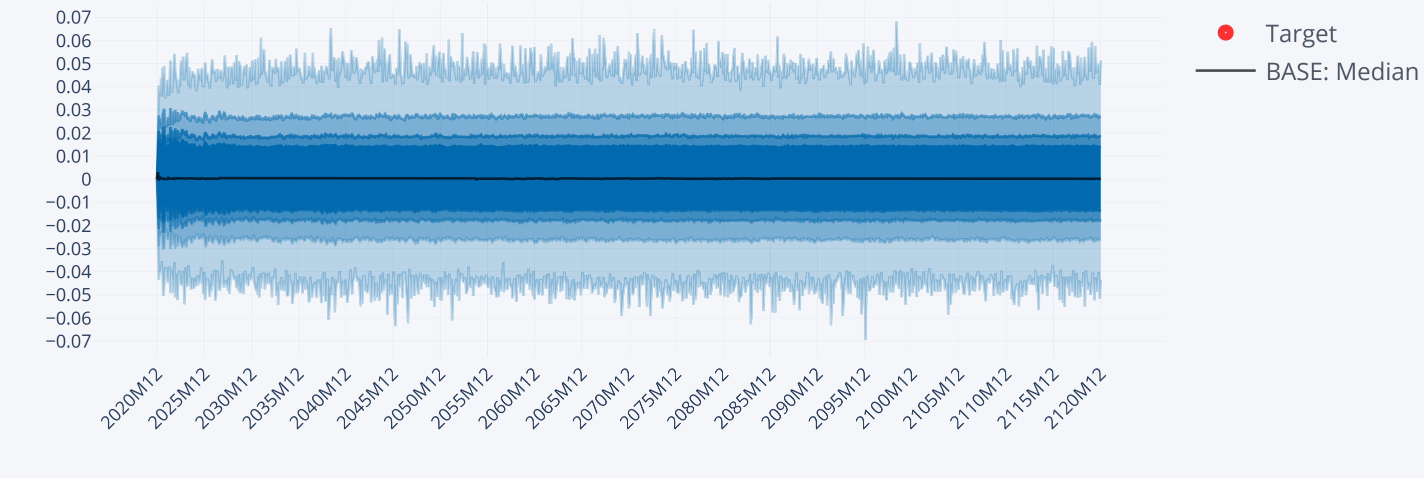
Simulated Data in Percentiles : Short Govt Bonds Price

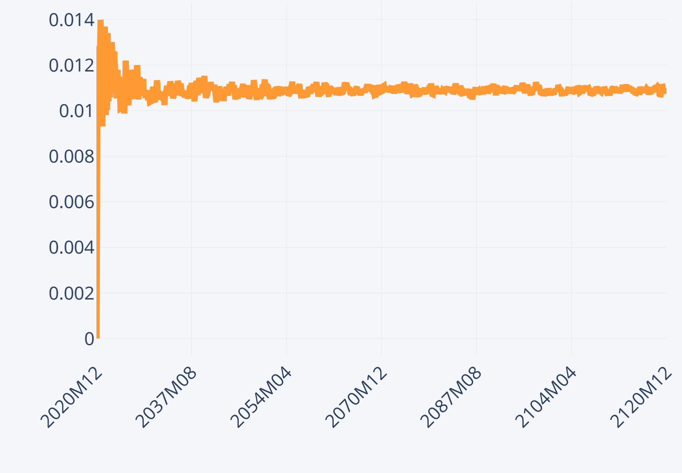


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

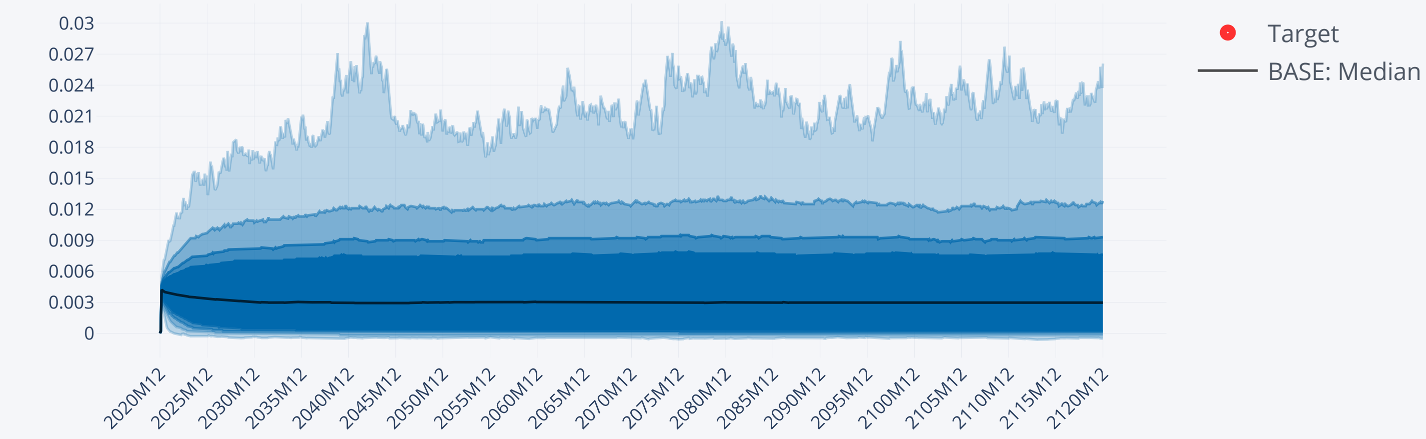
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0002	0.0004
std	0.0093	0.0111
min	-0.0388	-0.0522
1%	-0.0214	-0.0267
5%	-0.0152	-0.0178
10%	-0.0115	-0.0137
50%	0.0001	0.0003
90%	0.0120	0.0146
95%	0.0158	0.0192
99%	0.0226	0.0282
max	0.0386	0.0437

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Short Govt Bonds Income

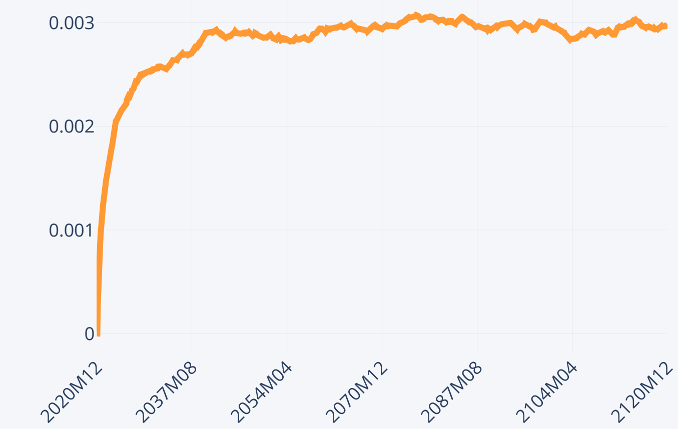


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0039	0.0035
std	0.0012	0.0029
min	0.0002	-0.0005
1%	0.0013	-0.0001
5%	0.0019	0.0001
10%	0.0023	0.0002
50%	0.0038	0.0030
90%	0.0055	0.0075
95%	0.0059	0.0089
99%	0.0069	0.0121
max	0.0089	0.0195

Cross Sectional Volatility Over Time : BASE



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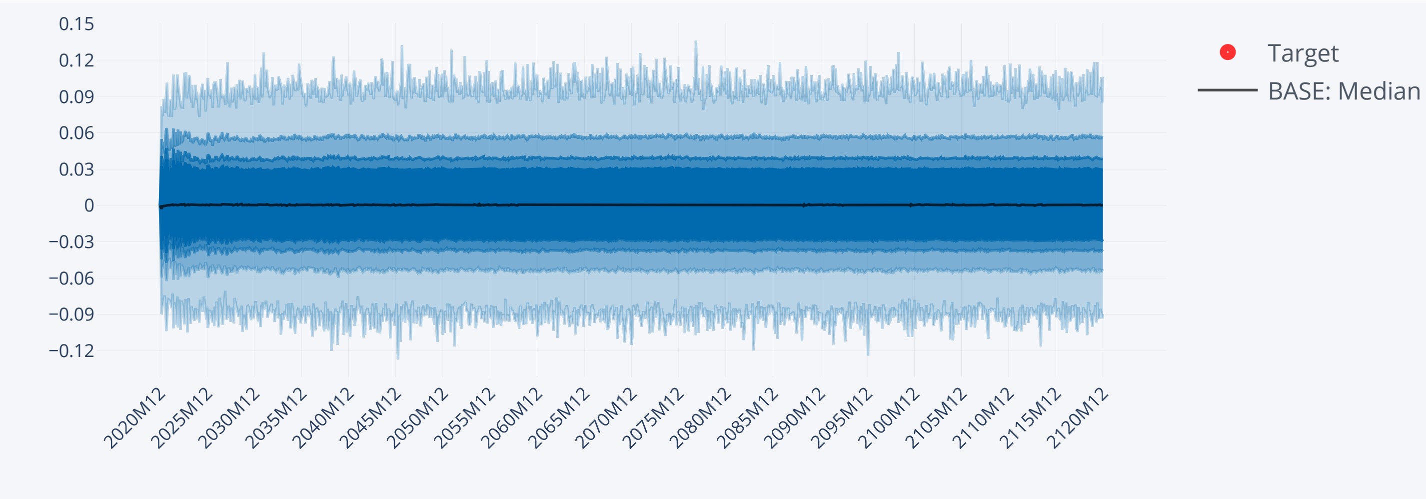
Simulated Data in Percentiles : Int Govt Bonds Price

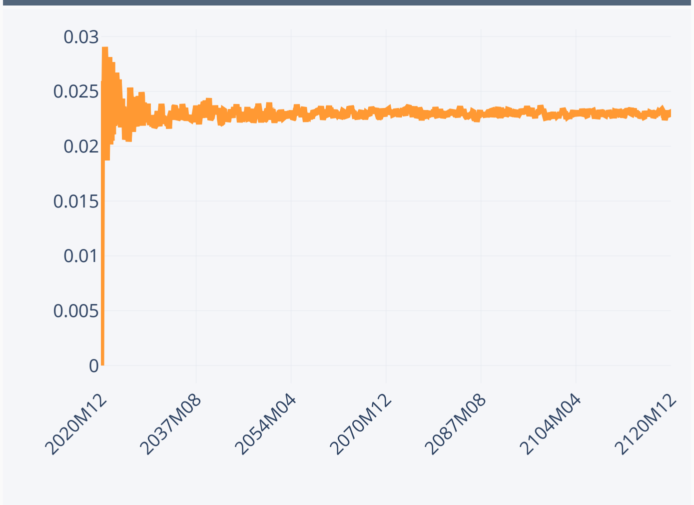


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0002	0.0007
std	0.0187	0.0233
min	-0.0783	-0.1070
1%	-0.0434	-0.0543
5%	-0.0306	-0.0373
10%	-0.0233	-0.0287
50%	0.0001	0.0005
90%	0.0239	0.0305
95%	0.0316	0.0402
99%	0.0453	0.0577
max	0.0803	0.0892

Cross Sectional Volatility Over Time : BASE



Int Govt Bonds Income

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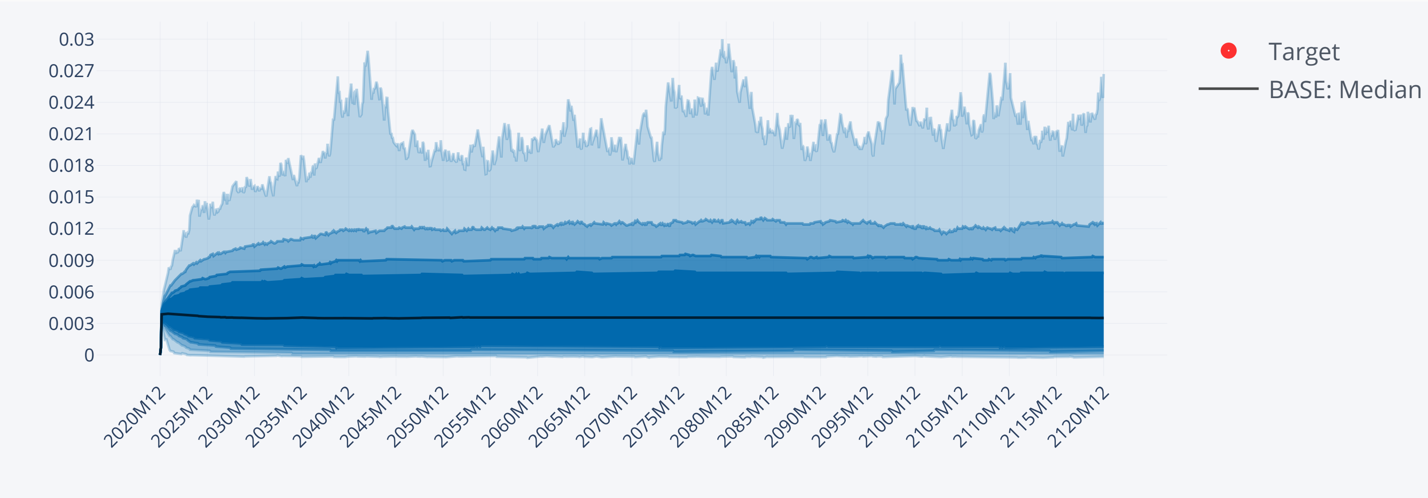
Simulated Data in Percentiles : Int Govt Bonds Income

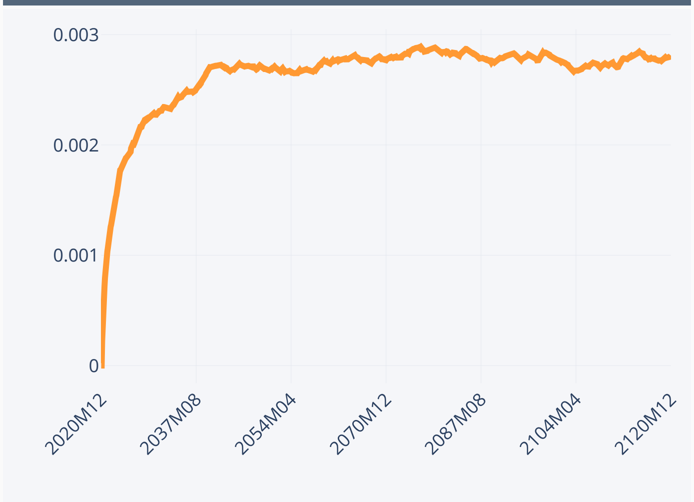


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0039	0.0040
std	0.0010	0.0027
min	0.0005	-0.0002
1%	0.0018	0.0001
5%	0.0023	0.0004
10%	0.0027	0.0008
50%	0.0039	0.0036
90%	0.0053	0.0077
95%	0.0057	0.0090
99%	0.0065	0.0119
max	0.0082	0.0184

Cross Sectional Volatility Over Time : BASE



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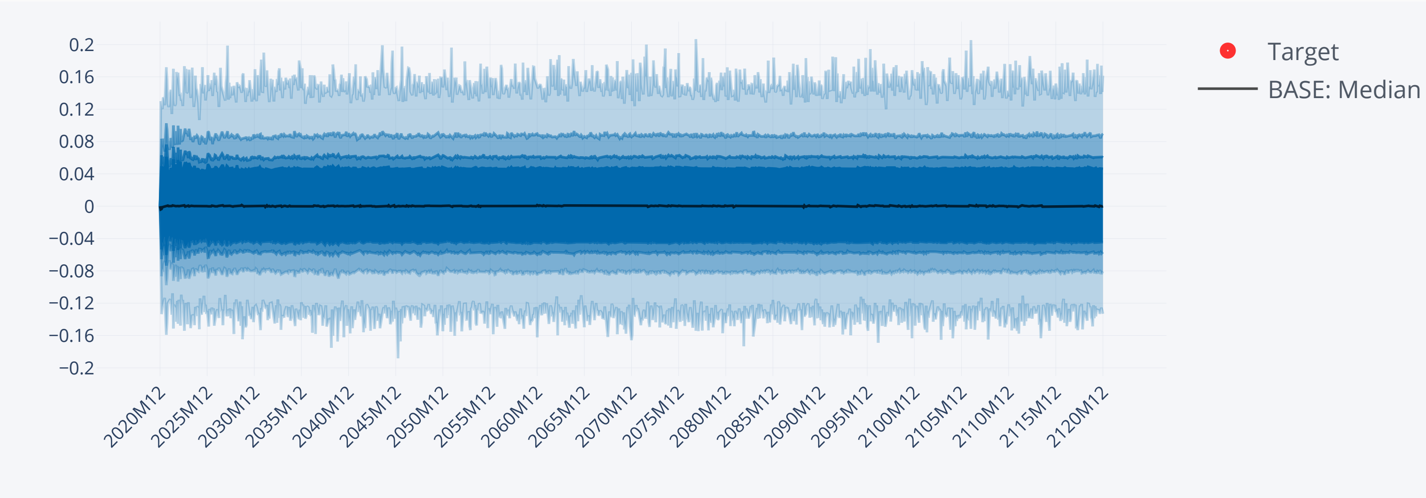
Simulated Data in Percentiles : Long Govt Bonds Price

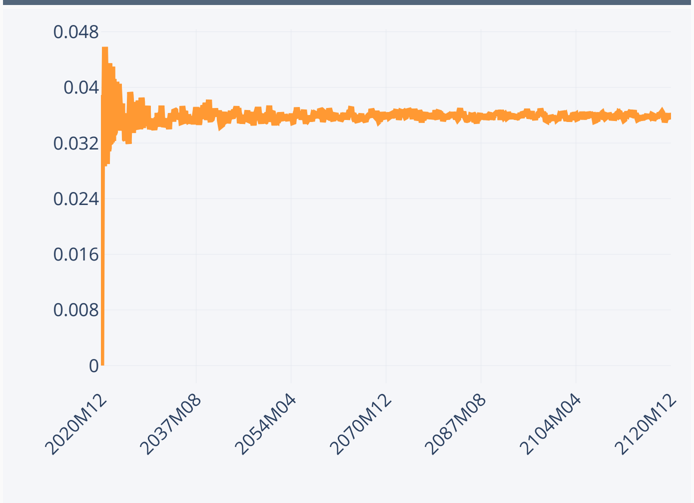


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0000	0.0011
std	0.0290	0.0363
min	-0.1193	-0.1545
1%	-0.0670	-0.0823
5%	-0.0466	-0.0568
10%	-0.0365	-0.0441
50%	-0.0003	0.0006
90%	0.0371	0.0481
95%	0.0487	0.0628
99%	0.0697	0.0878
max	0.1262	0.1471

Cross Sectional Volatility Over Time : BASE



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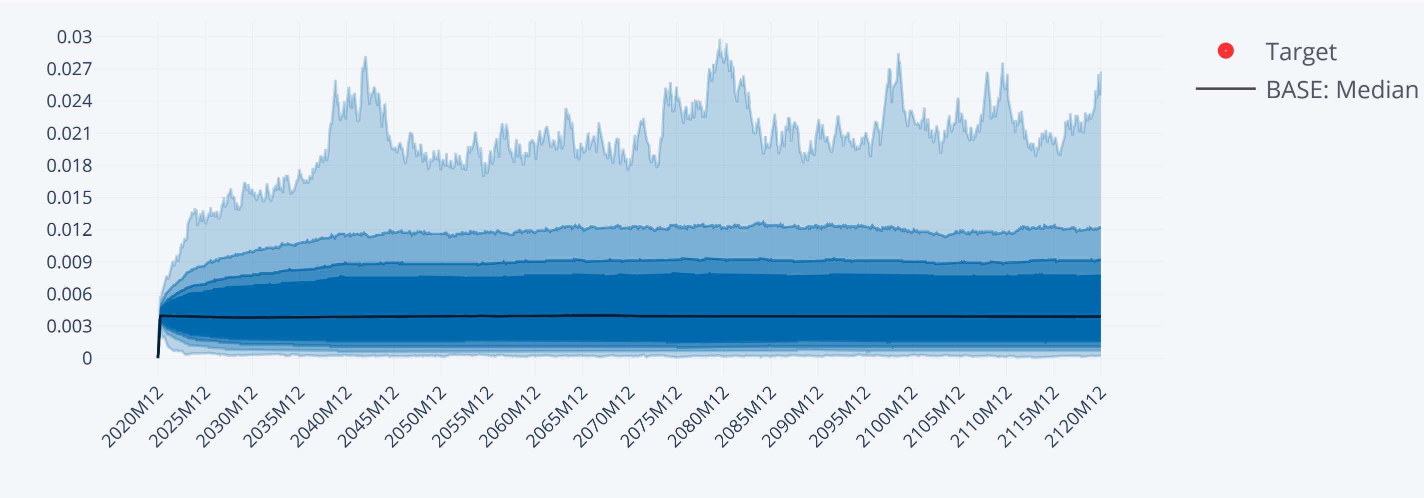
Simulated Data in Percentiles : Long Govt Bonds Income

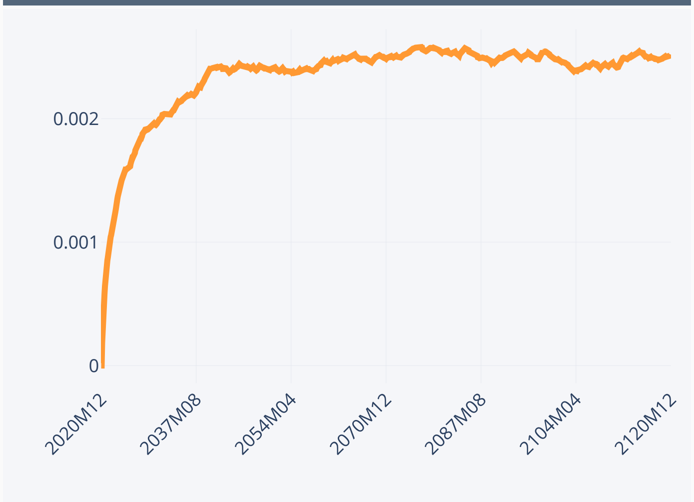


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0040	0.0043
std	0.0008	0.0024
min	0.0011	0.0002
1%	0.0022	0.0007
5%	0.0027	0.0011
10%	0.0030	0.0016
50%	0.0040	0.0039
90%	0.0051	0.0076
95%	0.0055	0.0088
99%	0.0062	0.0116
max	0.0076	0.0175

Cross Sectional Volatility Over Time : BASE



Short Inv Corp Bonds Price

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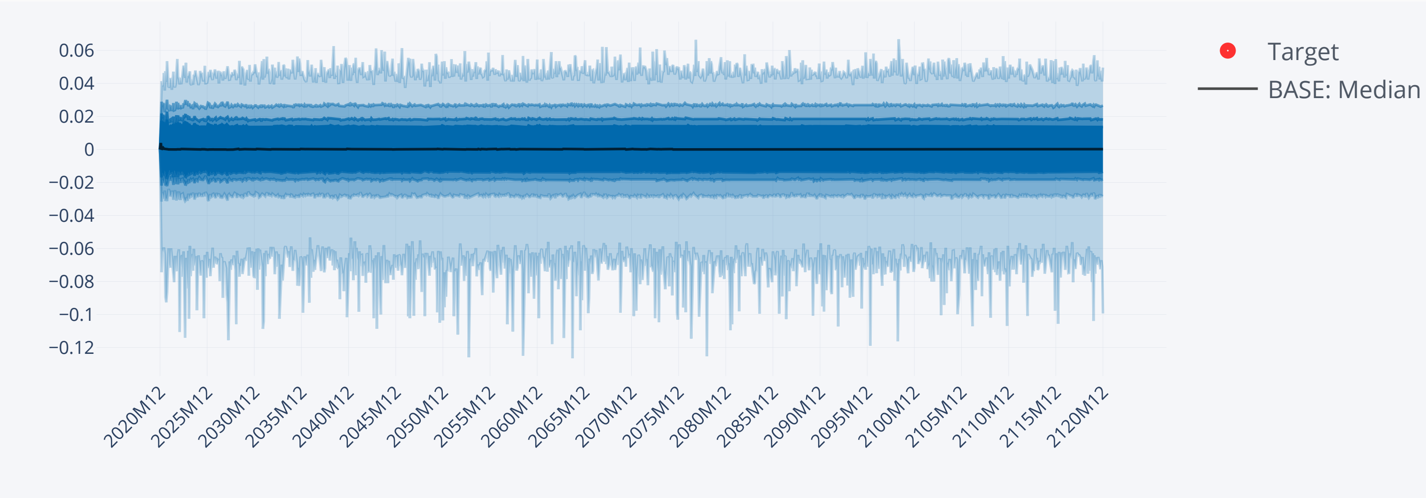
Simulated Data in Percentiles : Short Inv Corp Bonds Price

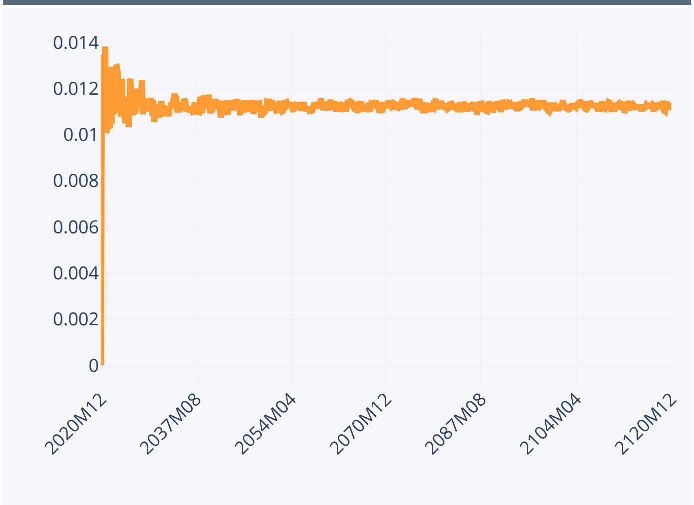


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	-0.0001	0.0001
std	0.0101	0.0114
min	-0.0696	-0.1036
1%	-0.0251	-0.0279
5%	-0.0161	-0.0183
10%	-0.0124	-0.0138
50%	-0.0000	0.0001
90%	0.0125	0.0143
95%	0.0162	0.0189
99%	0.0233	0.0275
max	0.0381	0.0449

Cross Sectional Volatility Over Time : BASE



Short Inv Corp Bonds Income

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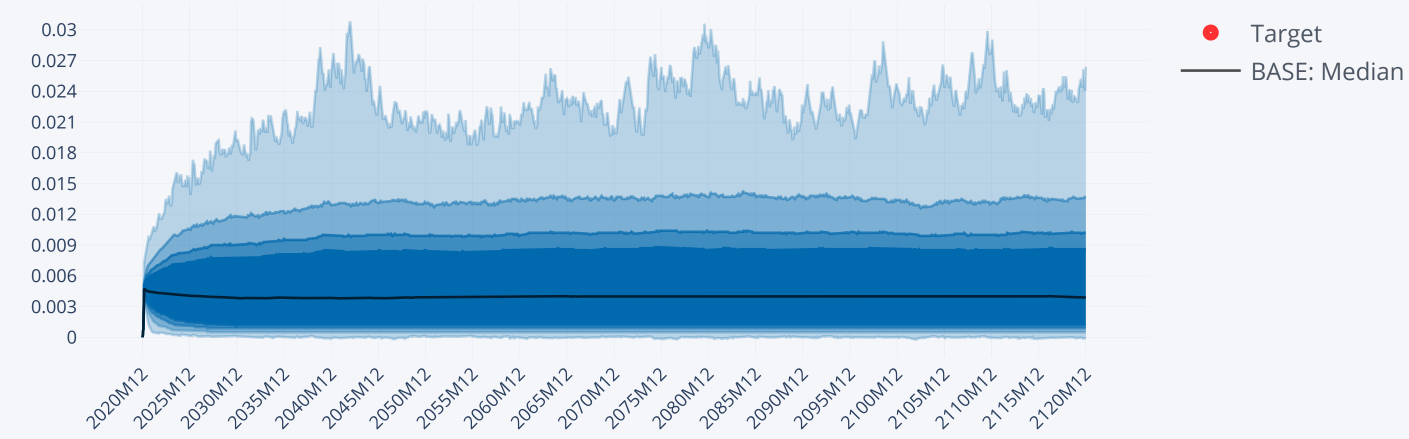
Simulated Data in Percentiles : Short Inv Corp Bonds Income

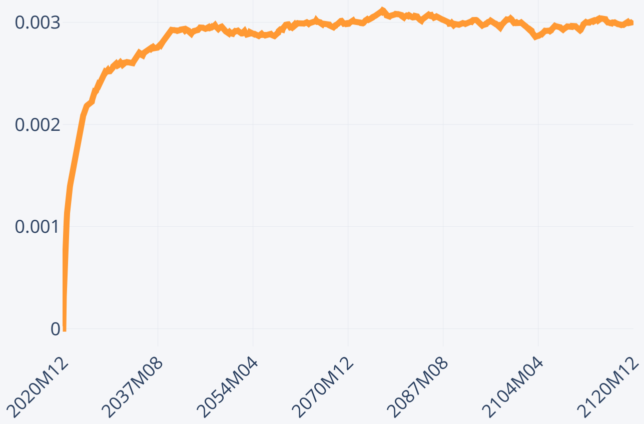


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

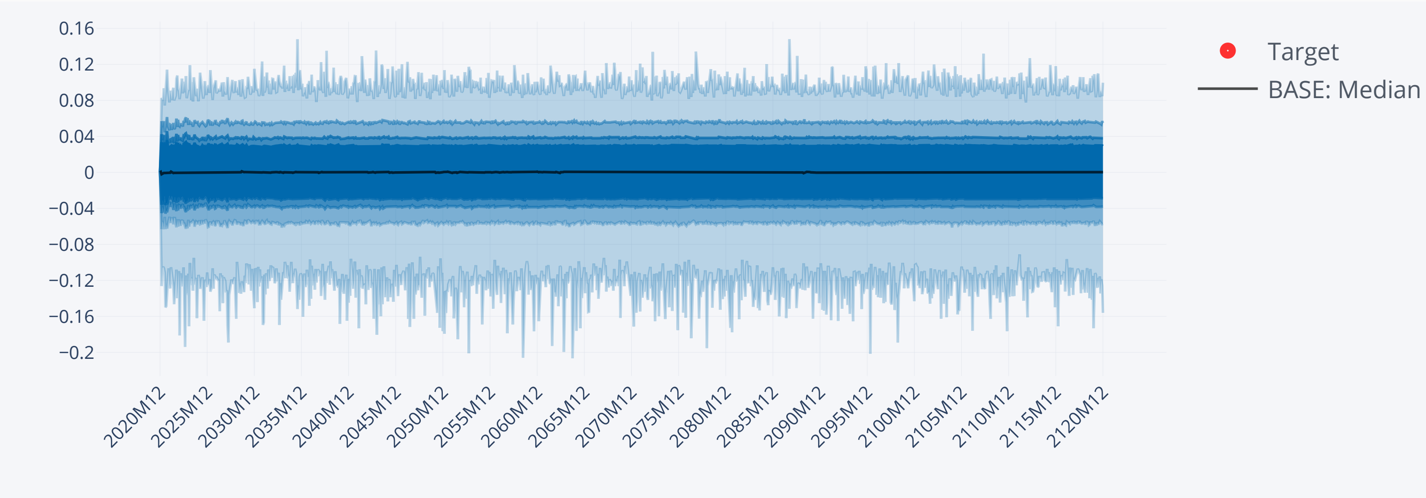
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0044	0.0044
std	0.0013	0.0029
min	0.0006	0.0001
1%	0.0017	0.0005
5%	0.0024	0.0008
10%	0.0029	0.0011
50%	0.0044	0.0039
90%	0.0061	0.0085
95%	0.0066	0.0099
99%	0.0076	0.0131
max	0.0100	0.0220

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Int Inv Corp Bonds Price

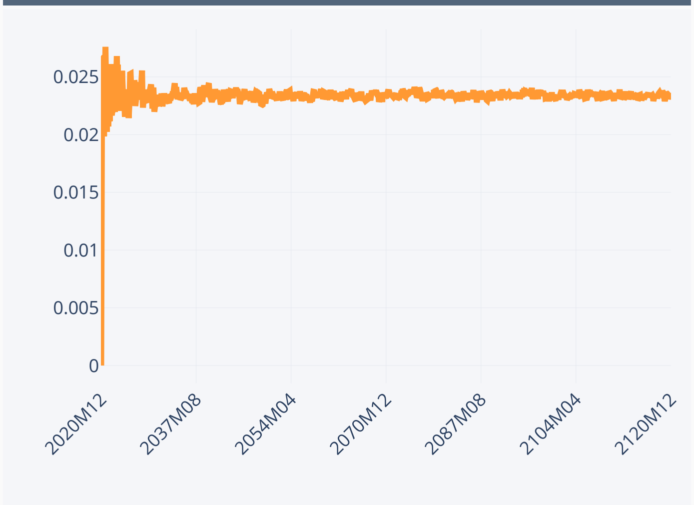


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	-0.0006	0.0001
std	0.0202	0.0237
min	-0.1240	-0.1762
1%	-0.0494	-0.0567
5%	-0.0327	-0.0381
10%	-0.0256	-0.0292
50%	-0.0006	0.0002
90%	0.0249	0.0303
95%	0.0327	0.0391
99%	0.0468	0.0563
max	0.0778	0.0931

Cross Sectional Volatility Over Time : BASE



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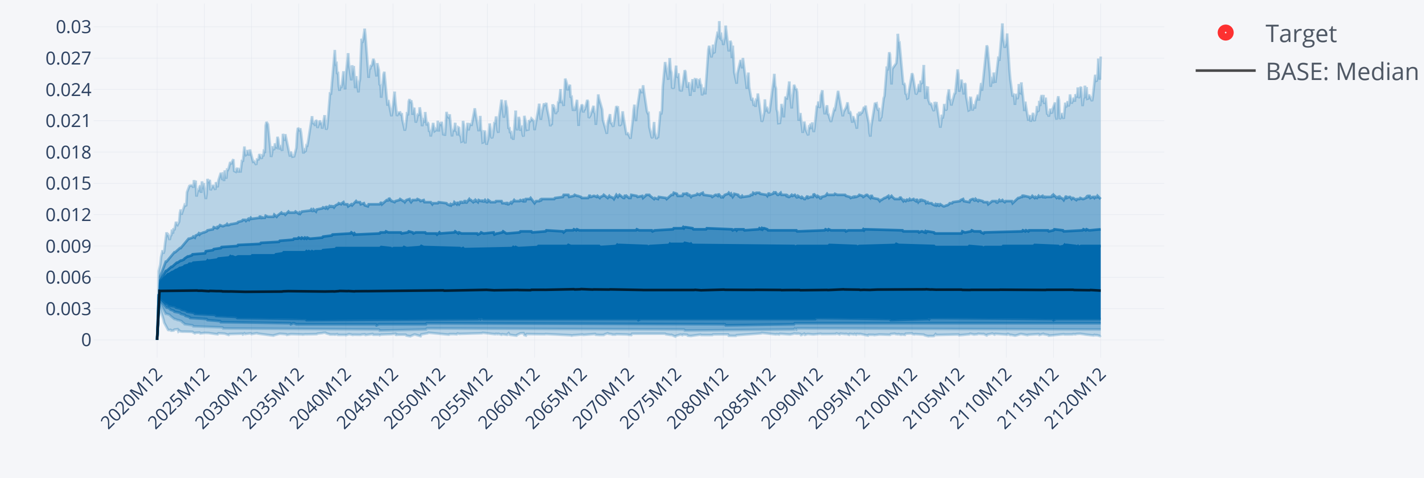
Simulated Data in Percentiles : Int Inv Corp Bonds Income

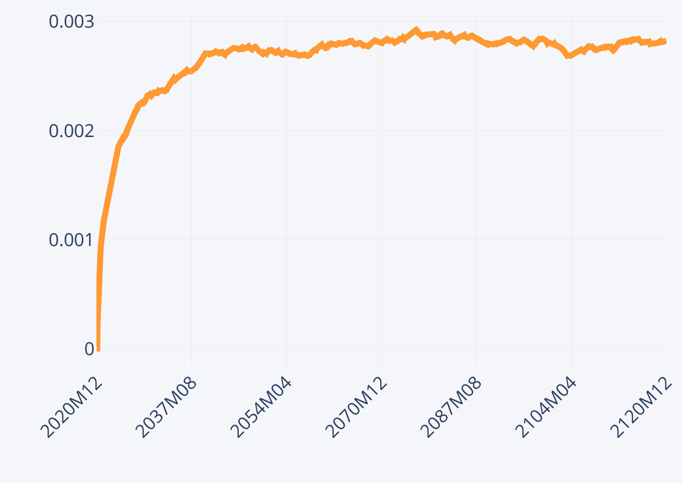


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

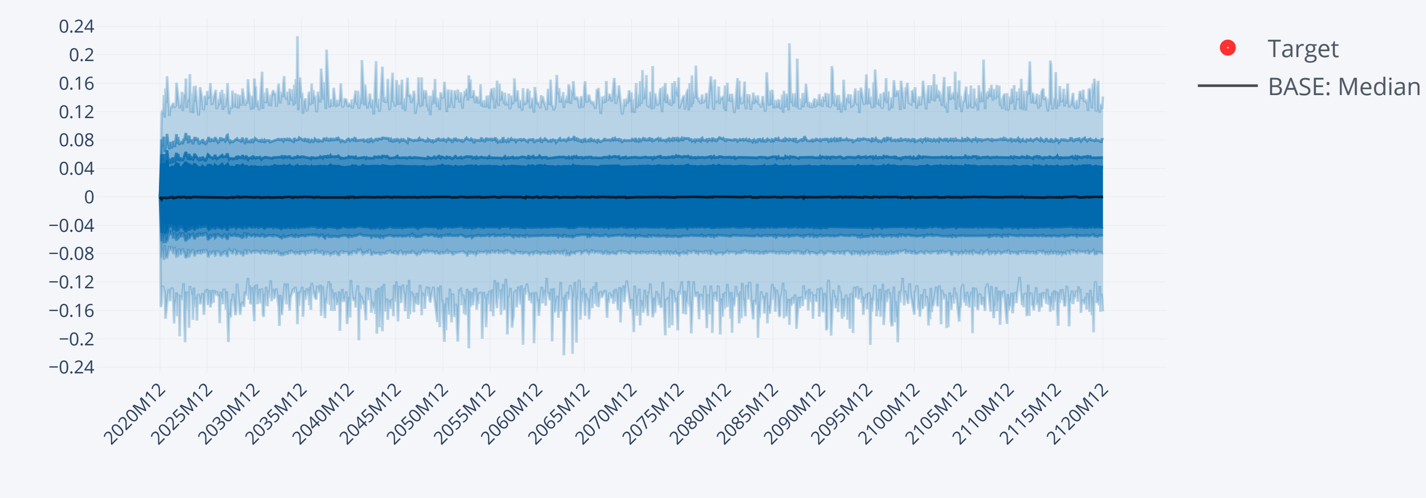
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0048	0.0052
std	0.0011	0.0027
min	0.0010	0.0006
1%	0.0025	0.0010
5%	0.0031	0.0015
10%	0.0035	0.0019
50%	0.0047	0.0047
90%	0.0062	0.0089
95%	0.0066	0.0102
99%	0.0075	0.0132
max	0.0103	0.0207

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Long Inv Corp Bonds Price

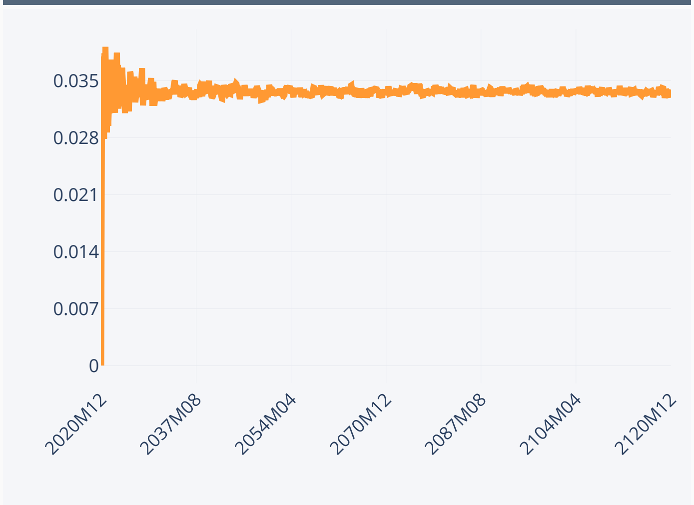


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

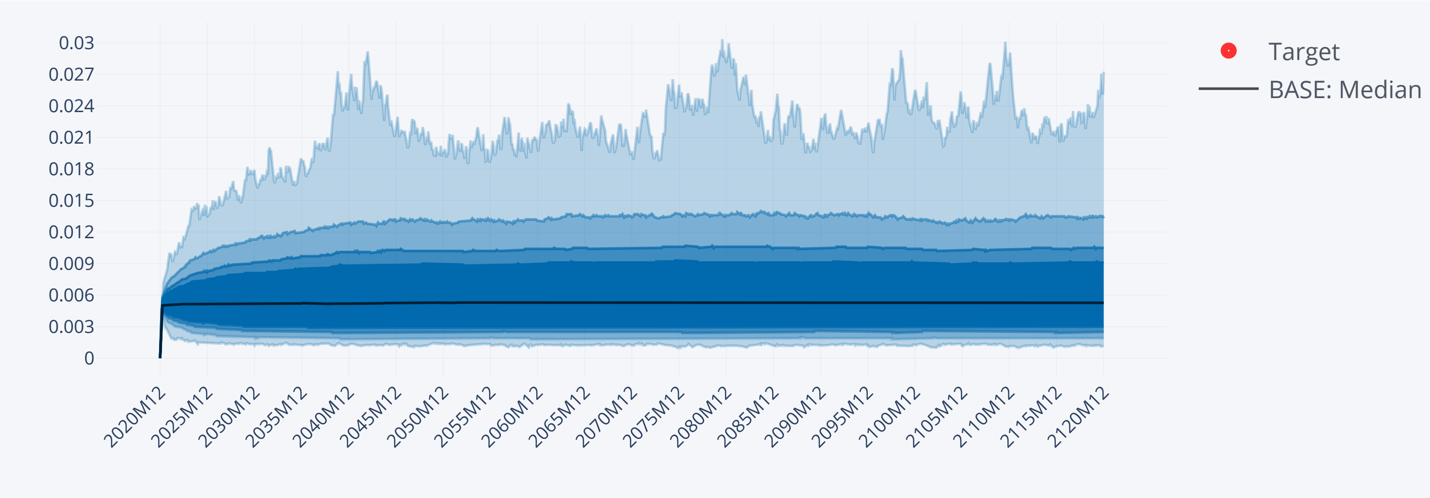
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	-0.0011	0.0000
std	0.0287	0.0339
min	-0.1398	-0.1953
1%	-0.0695	-0.0790
5%	-0.0474	-0.0545
10%	-0.0369	-0.0423
50%	-0.0011	-0.0004
90%	0.0357	0.0438
95%	0.0468	0.0560
99%	0.0671	0.0804
max	0.1141	0.1416

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Long Inv Corp Bonds Income

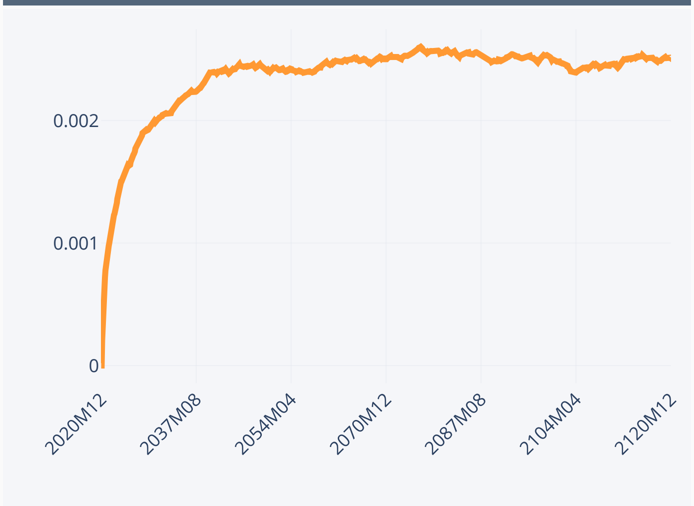


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

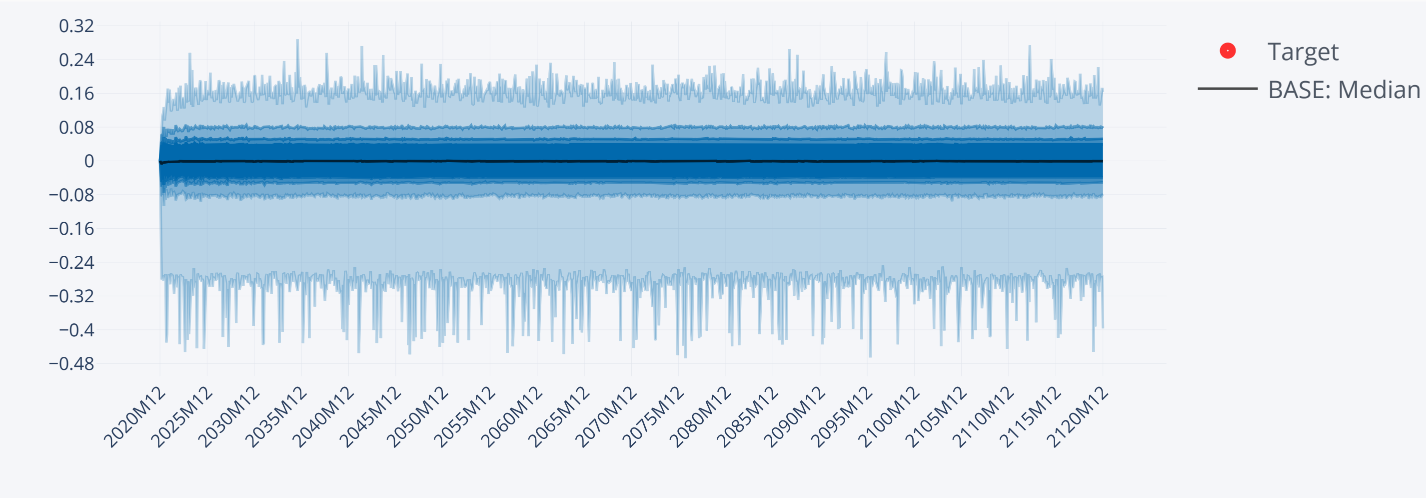
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0052	0.0057
std	0.0009	0.0024
min	0.0020	0.0014
1%	0.0033	0.0019
5%	0.0038	0.0024
10%	0.0041	0.0029
50%	0.0051	0.0053
90%	0.0063	0.0090
95%	0.0067	0.0102
99%	0.0074	0.0128
max	0.0100	0.0196

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : High Yield Corp Bonds Price

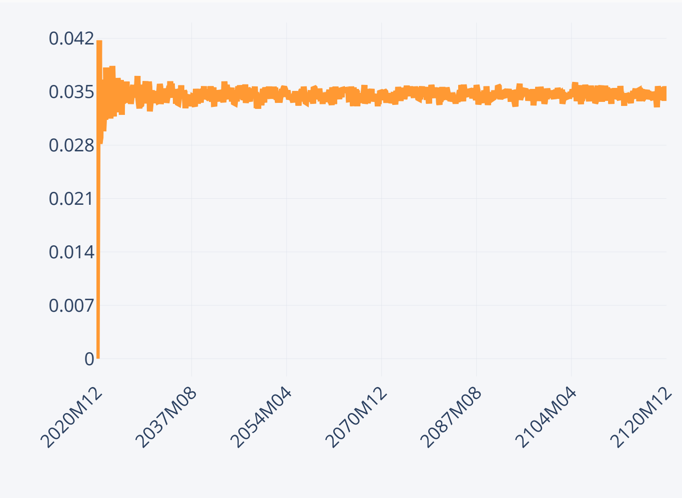


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

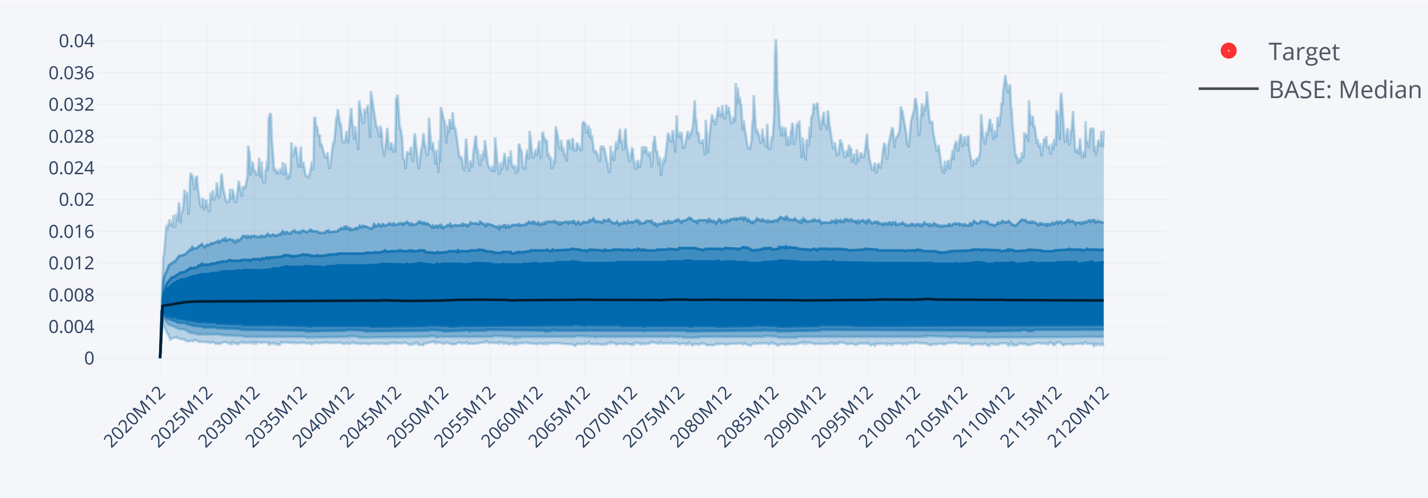
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	-0.0031	-0.0012
std	0.0327	0.0348
min	-0.2772	-0.4306
1%	-0.0755	-0.0810
5%	-0.0490	-0.0520
10%	-0.0378	-0.0394
50%	-0.0024	-0.0009
90%	0.0337	0.0386
95%	0.0453	0.0522
99%	0.0686	0.0781
max	0.1690	0.1550

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : High Yield Corp Bonds Income

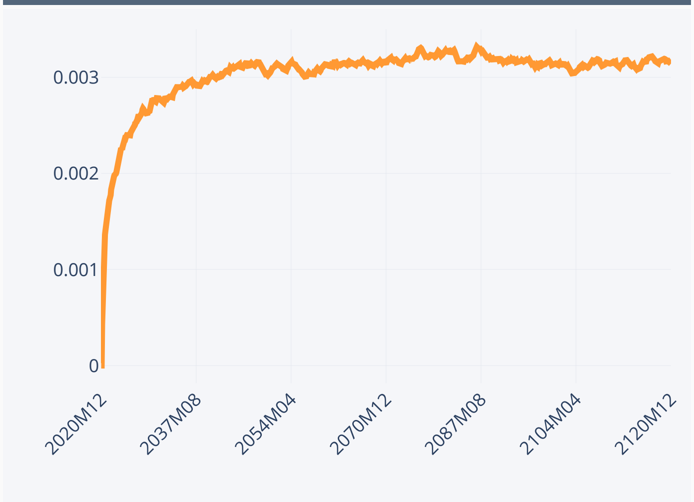


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

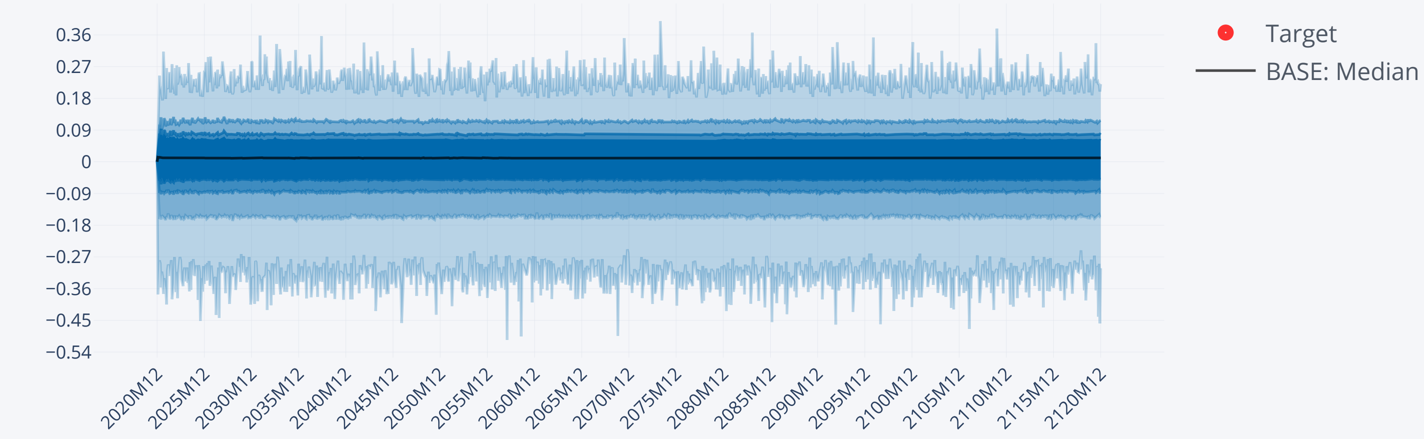
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0070	0.0077
std	0.0016	0.0031
min	0.0024	0.0018
1%	0.0041	0.0027
5%	0.0049	0.0034
10%	0.0052	0.0041
50%	0.0068	0.0073
90%	0.0091	0.0119
95%	0.0099	0.0134
99%	0.0118	0.0164
max	0.0175	0.0305

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Small Cap Price

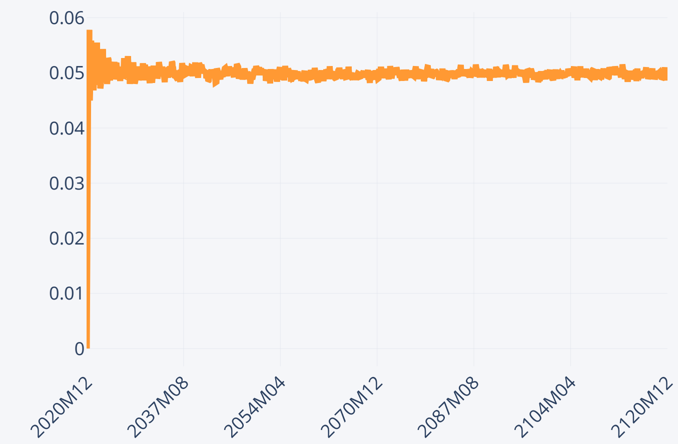


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

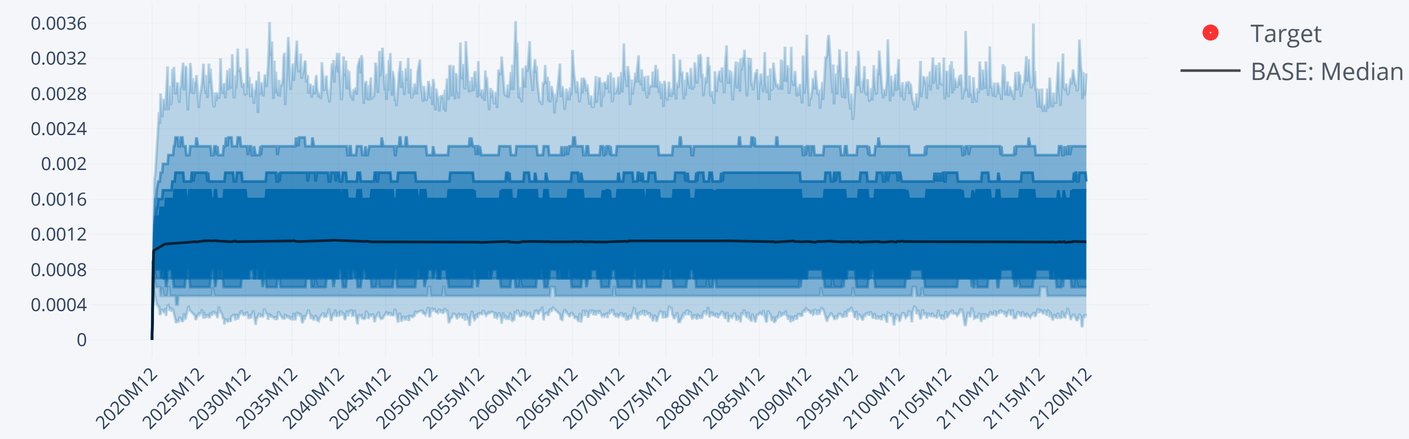
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0073	0.0065
std	0.0494	0.0507
min	-0.4051	-0.3303
1%	-0.1553	-0.1587
5%	-0.0803	-0.0856
10%	-0.0484	-0.0514
50%	0.0111	0.0107
90%	0.0624	0.0615
95%	0.0770	0.0790
99%	0.1103	0.1133
max	0.2660	0.2608

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Small Cap Income

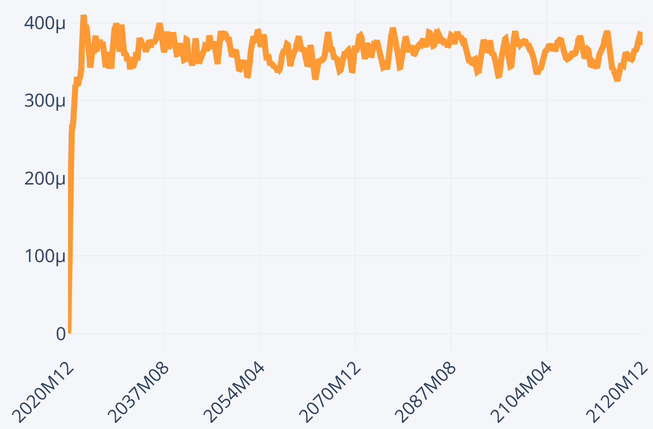


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0011	0.0012
std	0.0003	0.0003
min	0.0004	0.0004
1%	0.0005	0.0005
5%	0.0007	0.0007
10%	0.0007	0.0008
50%	0.0011	0.0011
90%	0.0015	0.0016
95%	0.0016	0.0018
99%	0.0019	0.0021
max	0.0026	0.0027

Cross Sectional Volatility Over Time : BASE



Mid Cap Price

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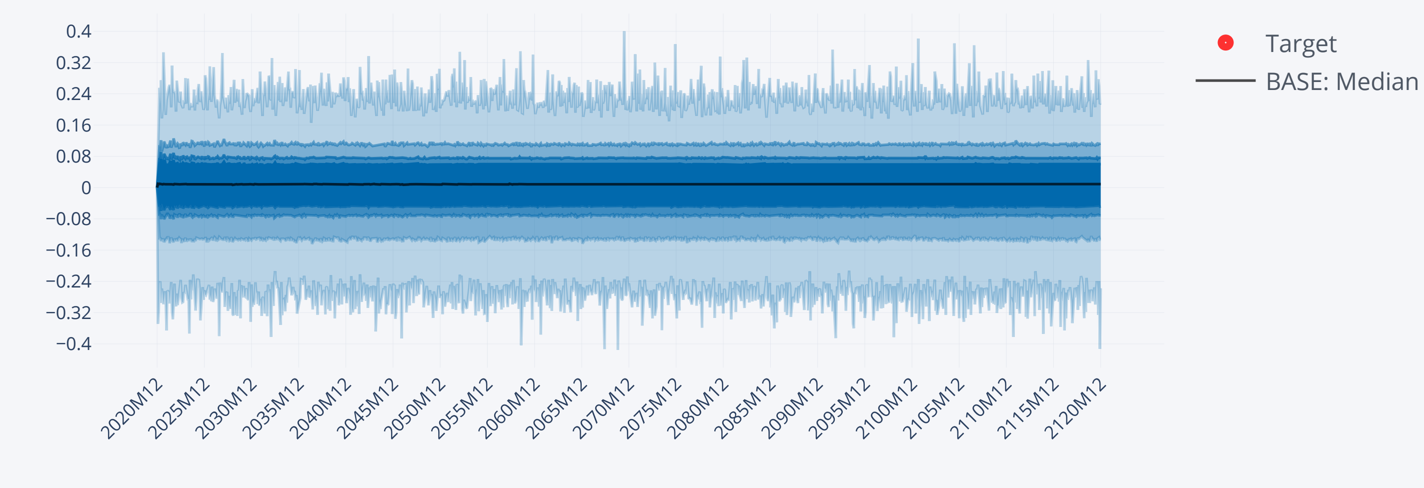
Simulated Data in Percentiles : Mid Cap Price

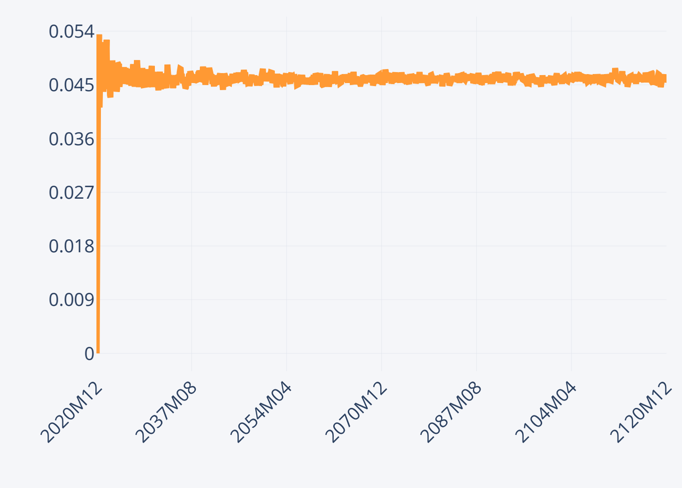


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

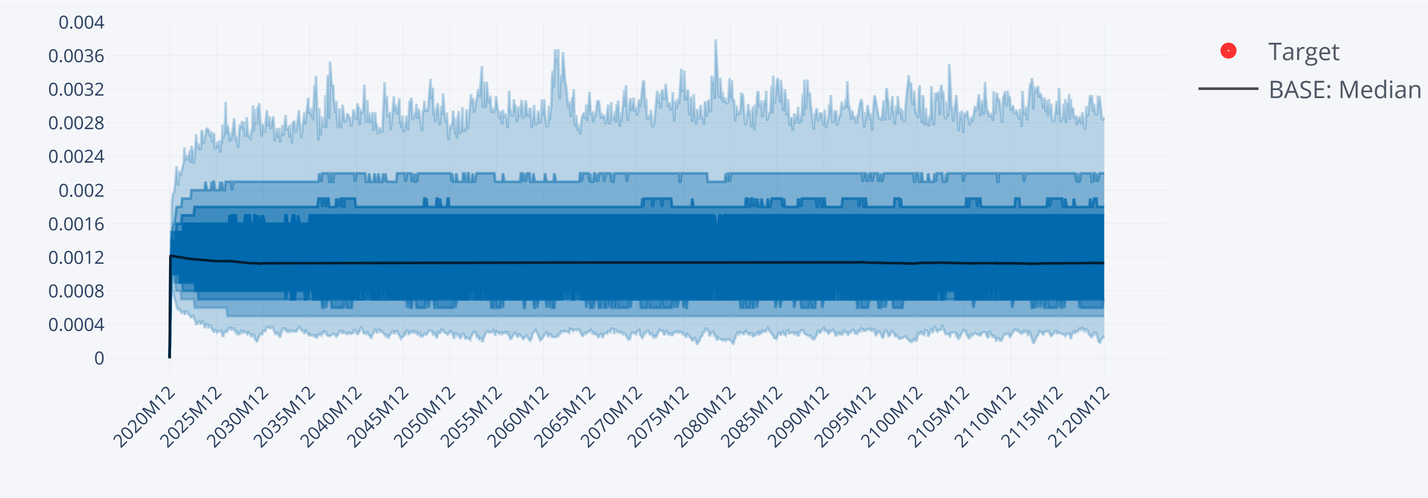
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0062	0.0062
std	0.0445	0.0464
min	-0.3657	-0.2822
1%	-0.1301	-0.1334
5%	-0.0693	-0.0718
10%	-0.0464	-0.0492
50%	0.0085	0.0085
90%	0.0576	0.0593
95%	0.0718	0.0754
99%	0.1045	0.1111
max	0.2234	0.2031

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Mid Cap Income

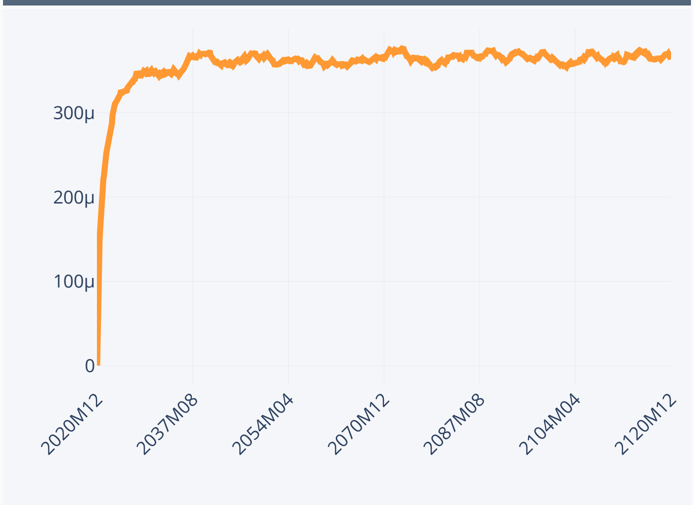


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

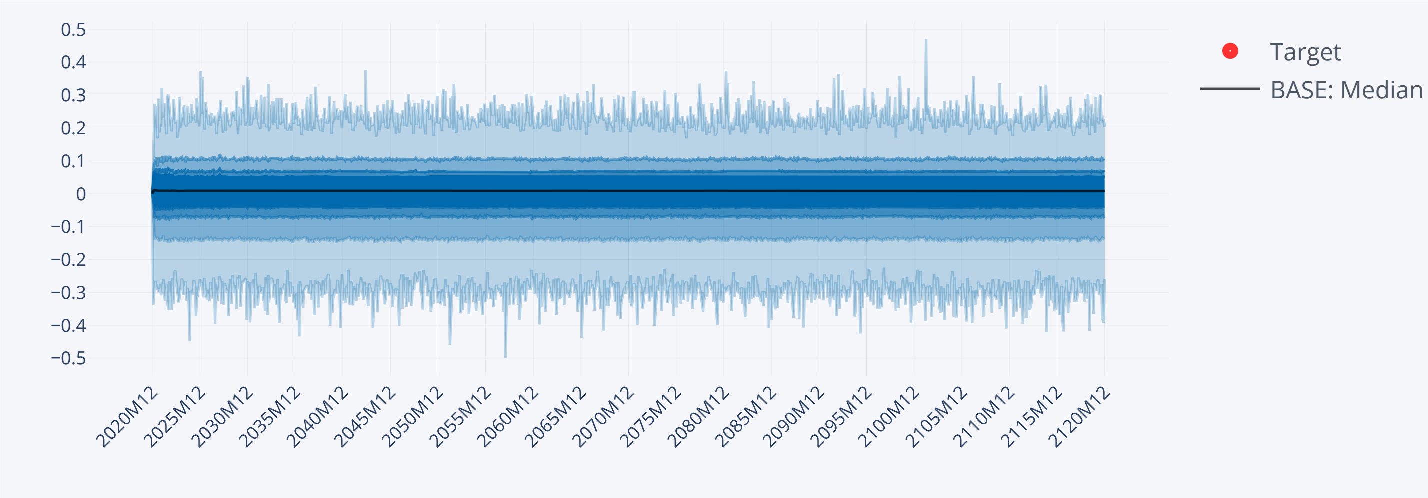
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0012	0.0012
std	0.0002	0.0004
min	0.0006	0.0003
1%	0.0008	0.0005
5%	0.0009	0.0006
10%	0.0010	0.0007
50%	0.0012	0.0011
90%	0.0015	0.0017
95%	0.0016	0.0018
99%	0.0018	0.0022
max	0.0022	0.0028

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Large Cap Price

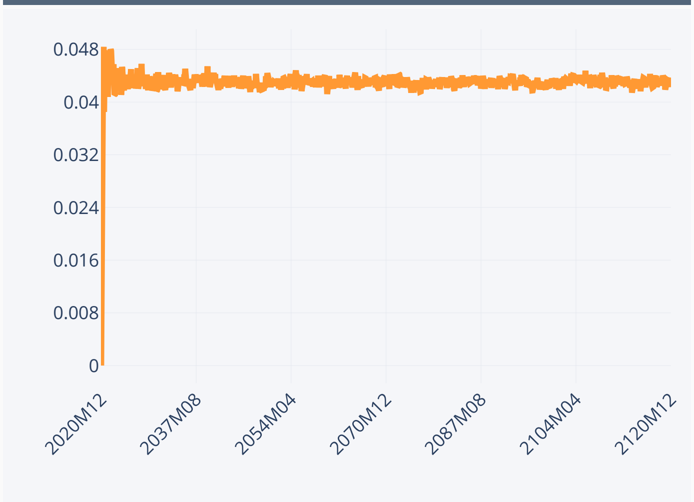


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0066	0.0056
std	0.0444	0.0433
min	-0.2855	-0.3310
1%	-0.1356	-0.1392
5%	-0.0690	-0.0696
10%	-0.0419	-0.0414
50%	0.0089	0.0086
90%	0.0566	0.0514
95%	0.0711	0.0676
99%	0.1060	0.1028
max	0.3205	0.2220

Cross Sectional Volatility Over Time : BASE



Large Cap Income
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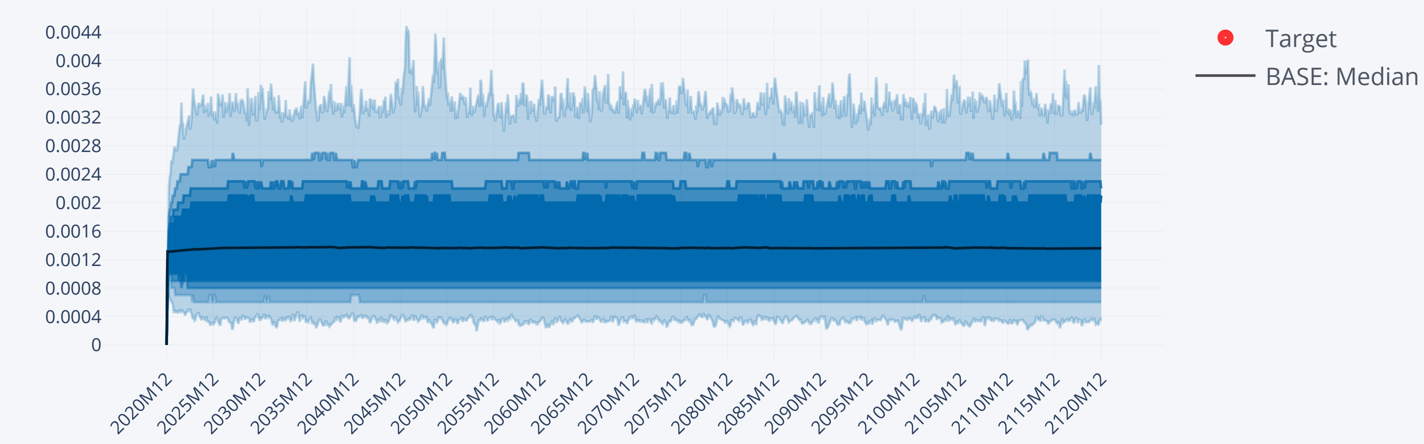
Simulated Data in Percentiles : Large Cap Income

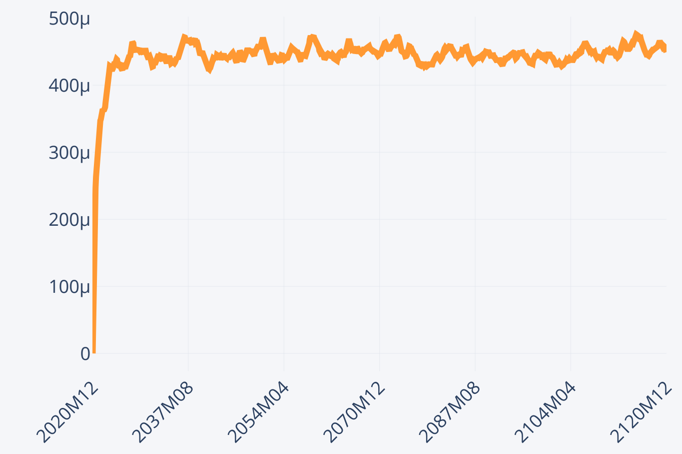


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

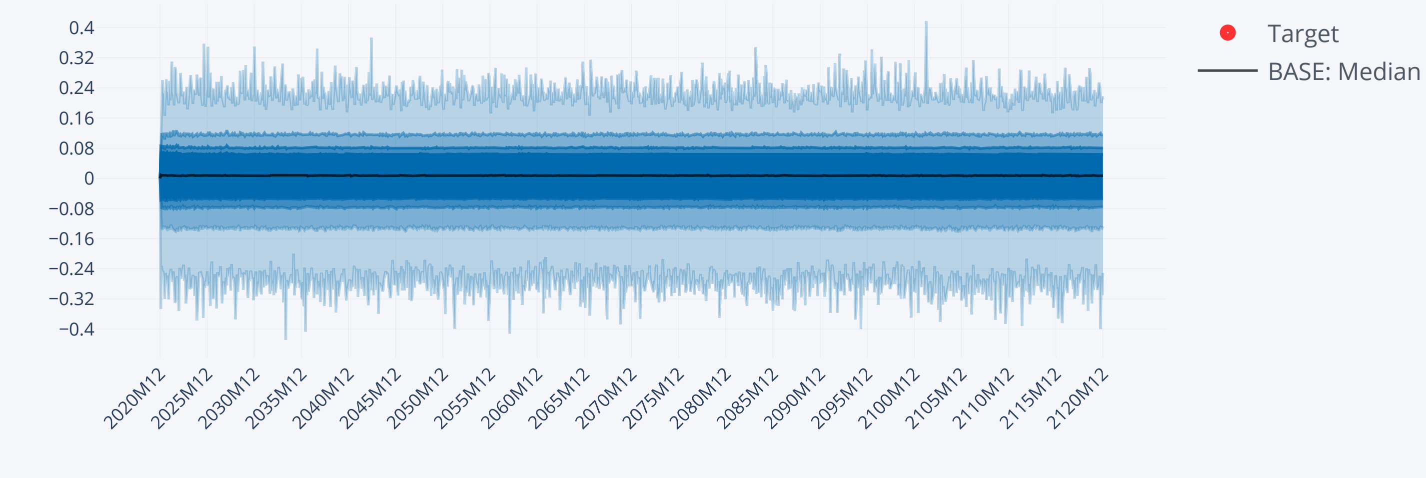
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0014	0.0014
std	0.0003	0.0005
min	0.0004	0.0003
1%	0.0007	0.0006
5%	0.0009	0.0008
10%	0.0010	0.0009
50%	0.0013	0.0014
90%	0.0018	0.0021
95%	0.0019	0.0023
99%	0.0022	0.0026
max	0.0028	0.0035

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : International Diversified Equity Price

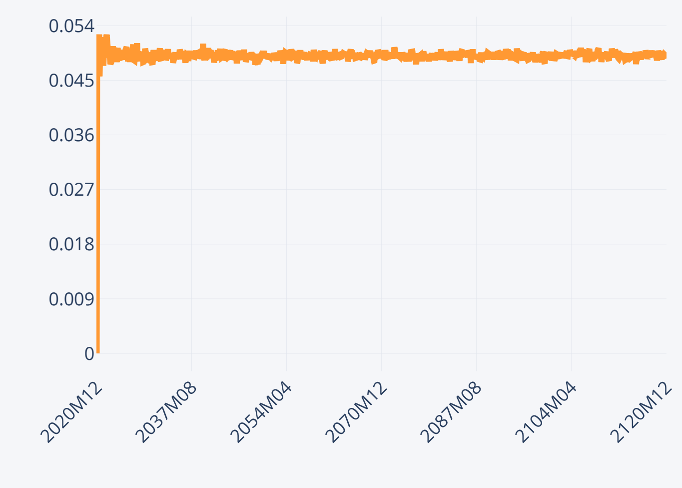


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0063	0.0047
std	0.0500	0.0494
min	-0.2608	-0.2915
1%	-0.1317	-0.1360
5%	-0.0784	-0.0779
10%	-0.0550	-0.0553
50%	0.0084	0.0072
90%	0.0659	0.0634
95%	0.0827	0.0812
99%	0.1181	0.1163
max	0.2585	0.2022

Cross Sectional Volatility Over Time : BASE



International Diversified Equity Income
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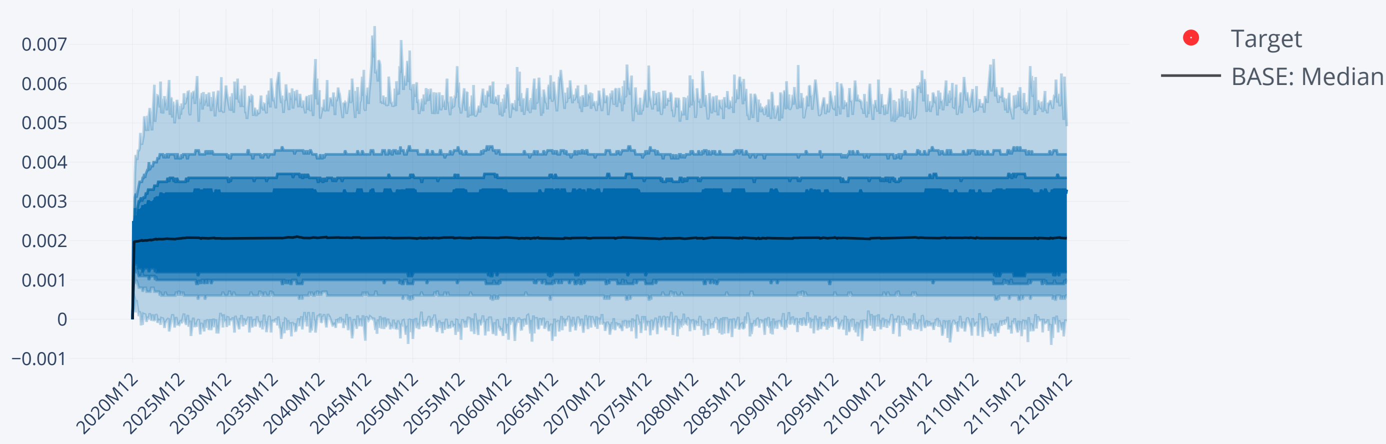
Simulated Data in Percentiles : International Diversified Equity Income

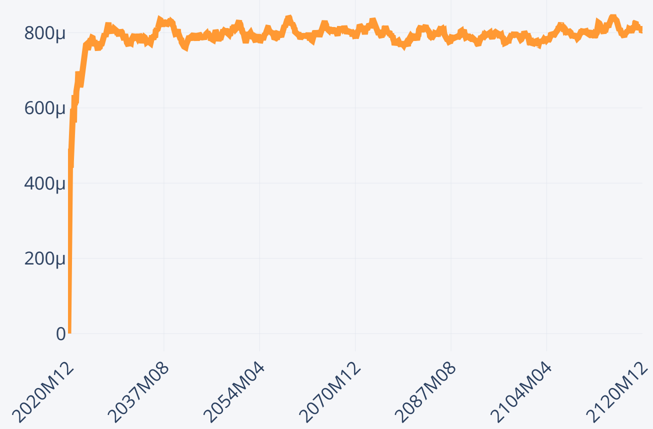


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0020	0.0021
std	0.0006	0.0008
min	0.0001	-0.0005
1%	0.0008	0.0005
5%	0.0012	0.0009
10%	0.0013	0.0012
50%	0.0020	0.0021
90%	0.0028	0.0033
95%	0.0030	0.0037
99%	0.0035	0.0043
max	0.0044	0.0053

Cross Sectional Volatility Over Time : BASE



Aggressive US Equity Price
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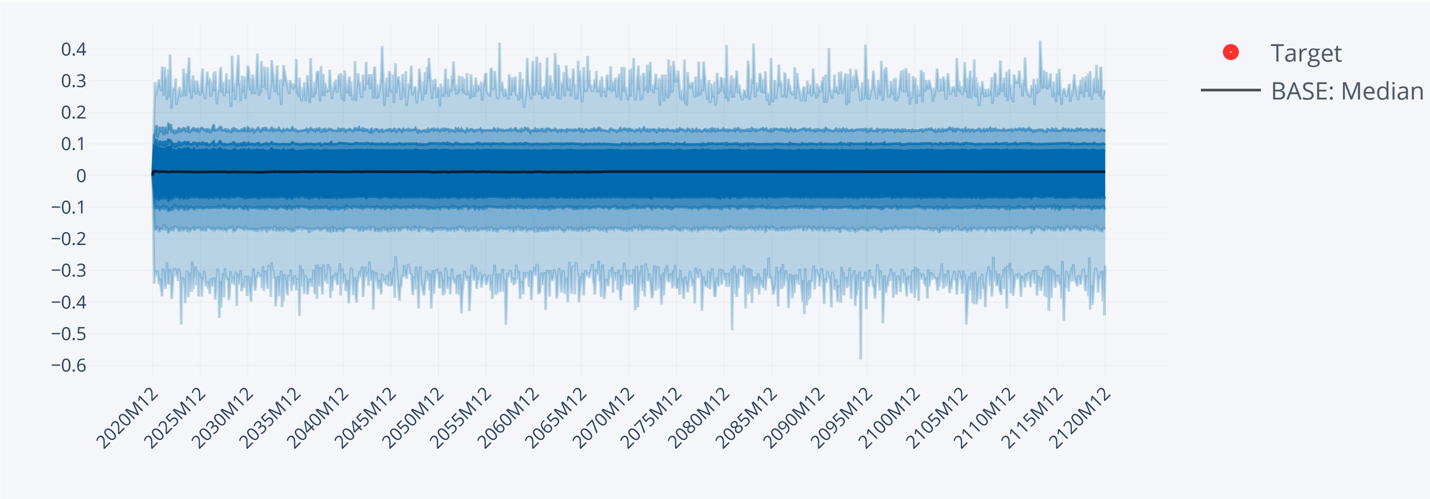
Simulated Data in Percentiles : Aggressive US Equity Price

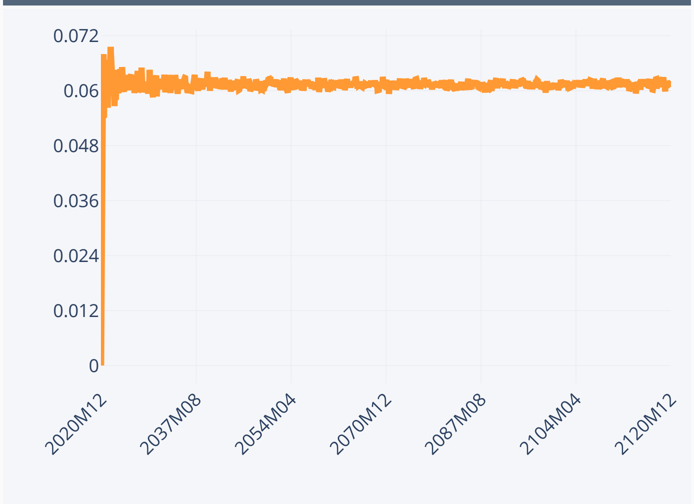


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

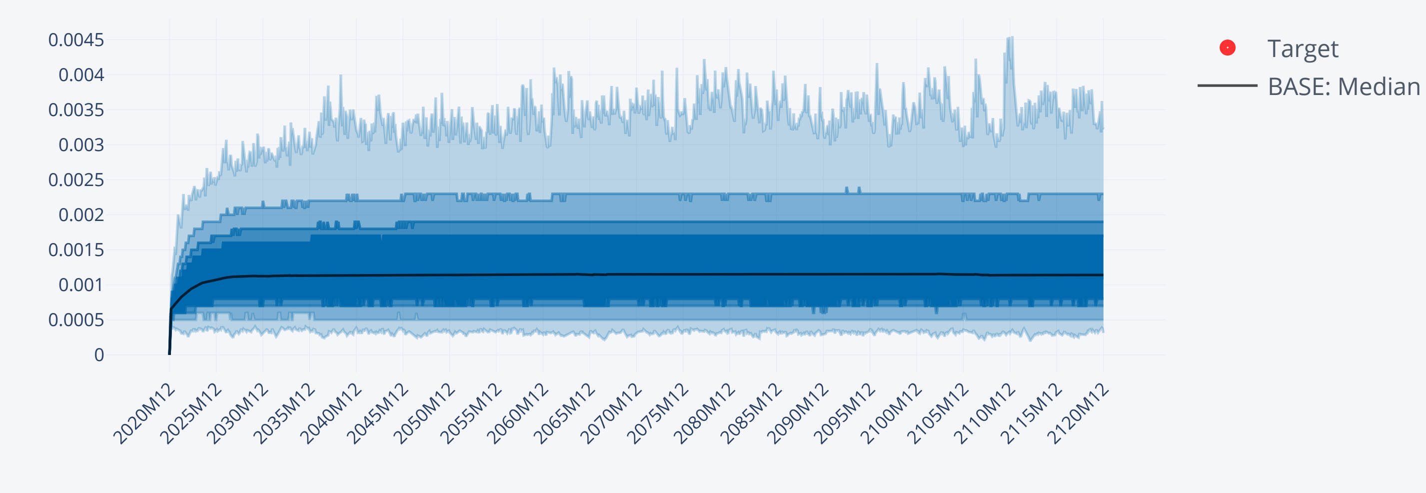
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0081	0.0079
std	0.0622	0.0620
min	-0.3816	-0.3065
1%	-0.1677	-0.1678
5%	-0.0991	-0.1018
10%	-0.0689	-0.0695
50%	0.0115	0.0116
90%	0.0825	0.0799
95%	0.1018	0.1018
99%	0.1414	0.1445
max	0.3449	0.2762

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Aggressive US Equity Income

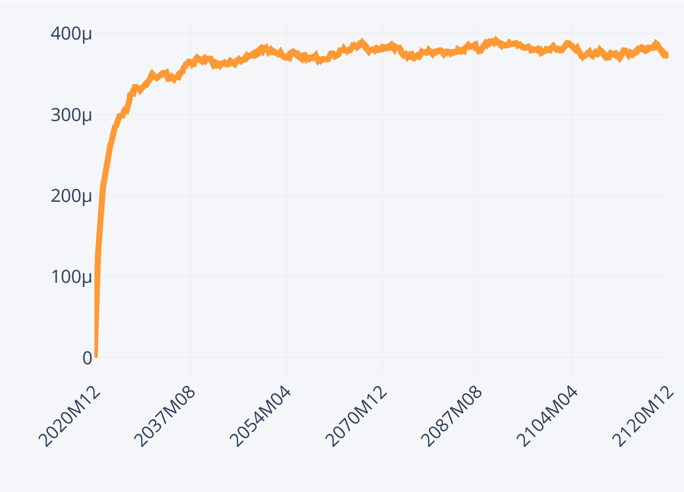


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

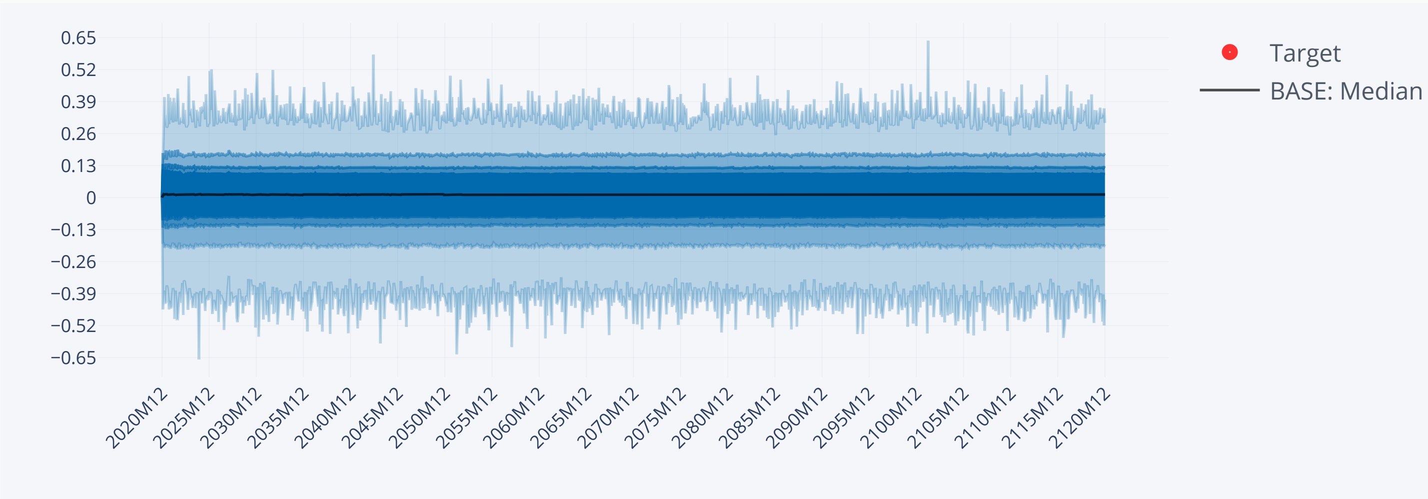
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0008	0.0012
std	0.0002	0.0004
min	0.0004	0.0003
1%	0.0005	0.0005
5%	0.0006	0.0007
10%	0.0006	0.0007
50%	0.0008	0.0011
90%	0.0010	0.0017
95%	0.0011	0.0019
99%	0.0013	0.0023
max	0.0020	0.0032

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Aggressive Foreign Equity Price

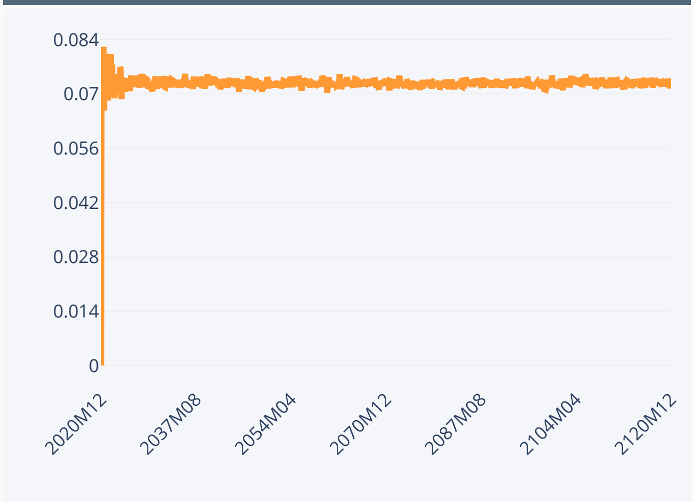


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0113	0.0080
std	0.0767	0.0728
min	-0.4431	-0.4064
1%	-0.1915	-0.2014
5%	-0.1167	-0.1143
10%	-0.0832	-0.0794
50%	0.0135	0.0110
90%	0.1043	0.0943
95%	0.1317	0.1223
99%	0.1836	0.1714
max	0.3429	0.3078

Cross Sectional Volatility Over Time : BASE



Aggressive Foreign Equity Income

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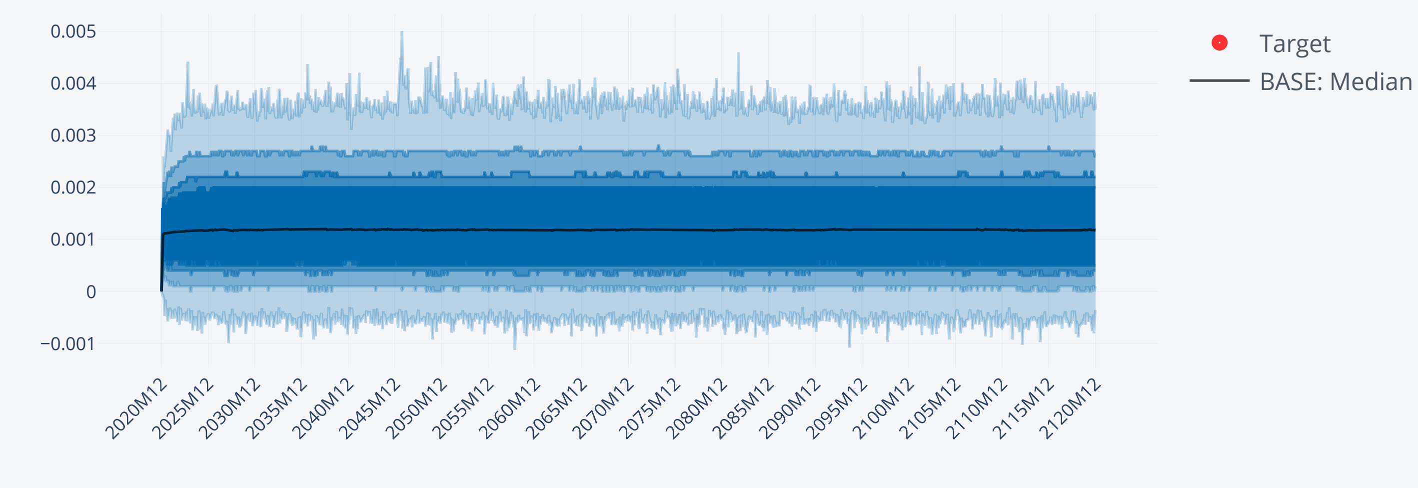
Simulated Data in Percentiles : Aggressive Foreign Equity Income

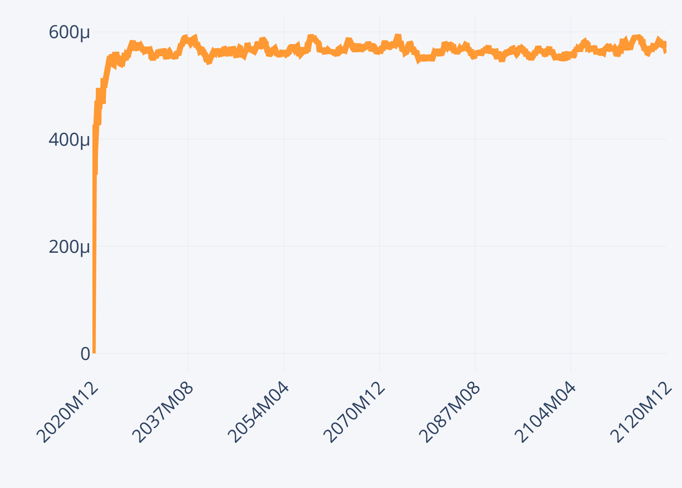


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

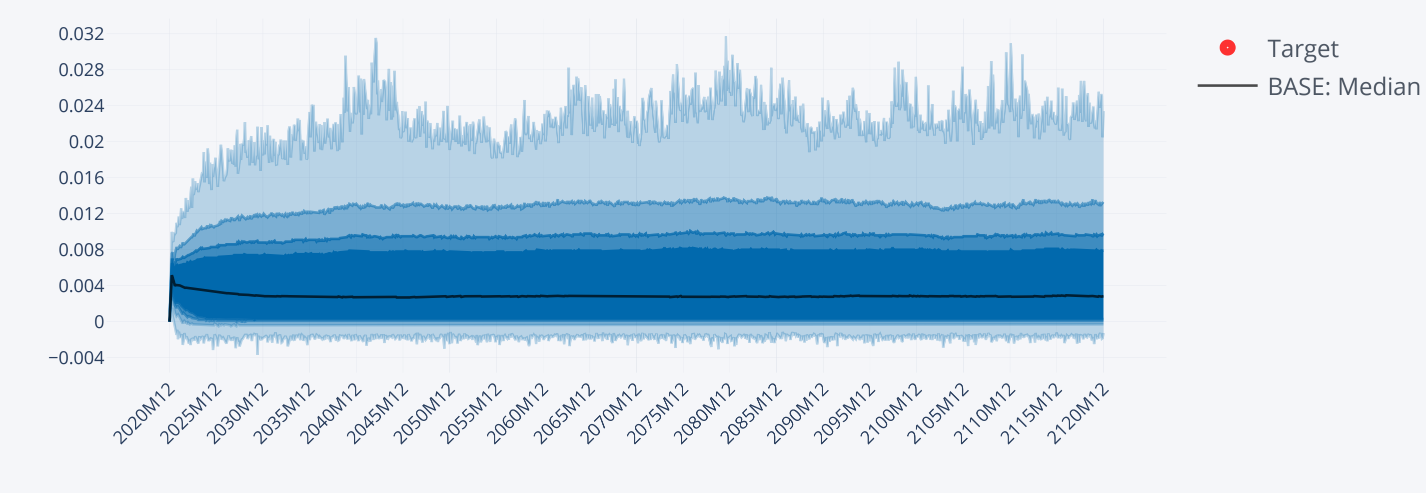
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0012	0.0012
std	0.0004	0.0006
min	-0.0004	-0.0004
1%	0.0002	0.0001
5%	0.0005	0.0004
10%	0.0006	0.0005
50%	0.0011	0.0012
90%	0.0017	0.0020
95%	0.0019	0.0022
99%	0.0022	0.0027
max	0.0027	0.0036

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Money Market Total Return

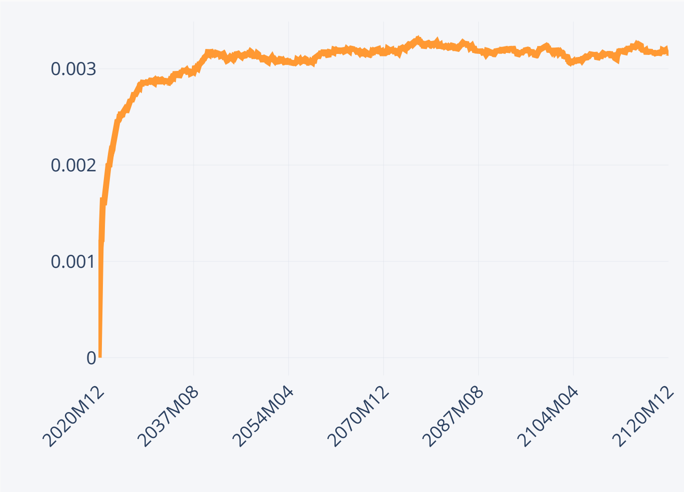


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0041	0.0034
std	0.0016	0.0031
min	-0.0011	-0.0025
1%	0.0006	-0.0003
5%	0.0015	0.0001
10%	0.0021	0.0002
50%	0.0041	0.0028
90%	0.0063	0.0078
95%	0.0069	0.0094
99%	0.0082	0.0128
max	0.0117	0.0191

Cross Sectional Volatility Over Time : BASE



Money Market Cumulative Return

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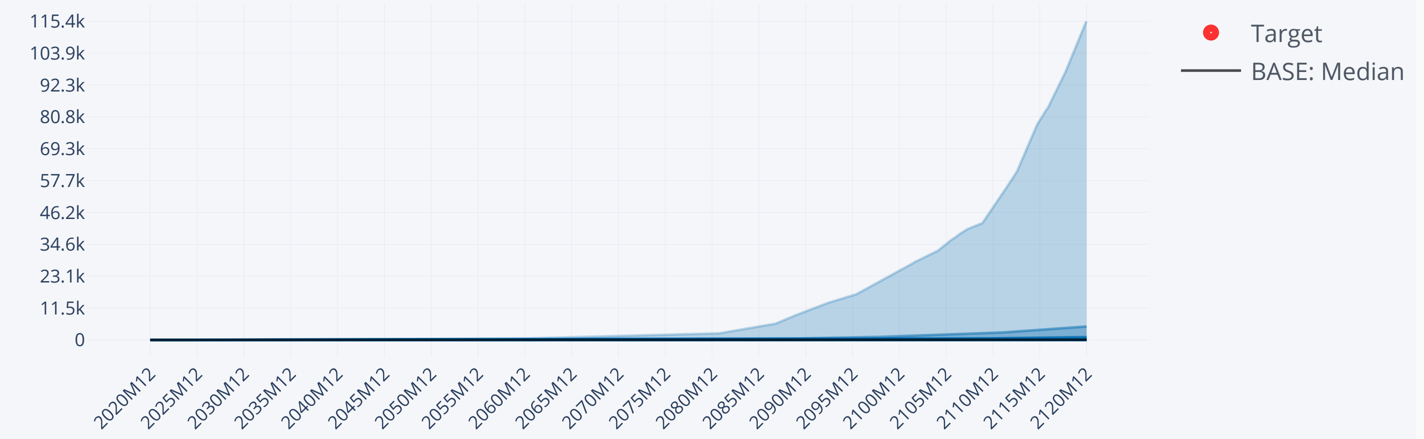
Simulated Data in Percentiles : Money Market Cumulative Return

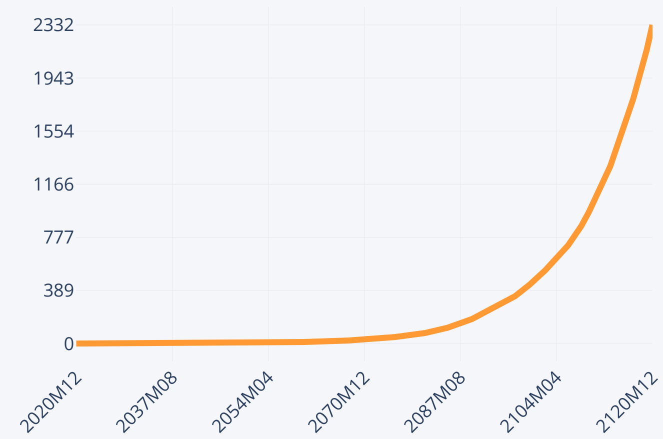


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

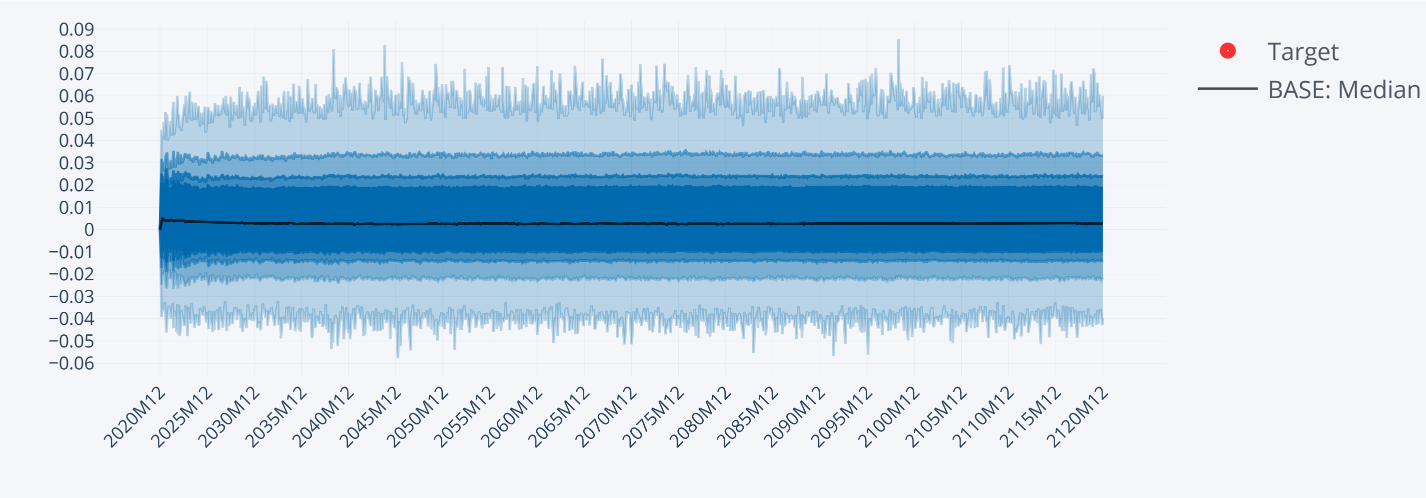
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0525	3.4147
std	0.0073	4.2665
min	0.0274	0.0422
1%	0.0364	0.2970
5%	0.0409	0.5007
10%	0.0431	0.6800
50%	0.0523	2.1702
90%	0.0619	7.2537
95%	0.0648	10.3452
99%	0.0699	20.1631
max	0.0819	124.6874

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Short Govt Bonds Total Return

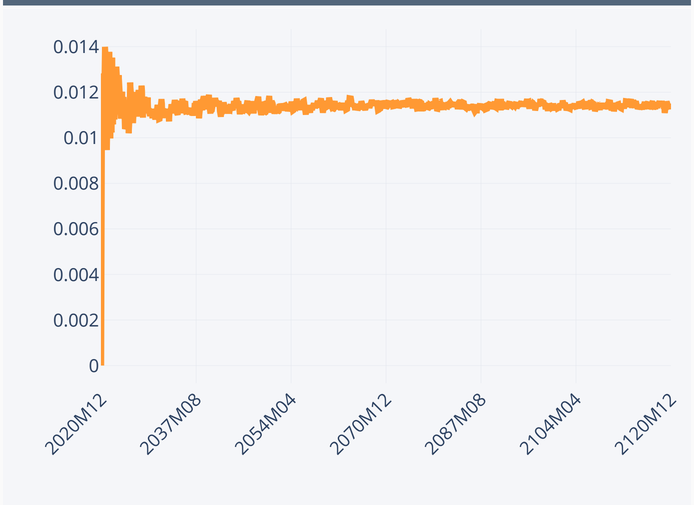


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0040	0.0039
std	0.0095	0.0115
min	-0.0349	-0.0437
1%	-0.0178	-0.0227
5%	-0.0114	-0.0140
10%	-0.0080	-0.0101
50%	0.0040	0.0026
90%	0.0159	0.0191
95%	0.0199	0.0246
99%	0.0271	0.0341
max	0.0451	0.0572

Cross Sectional Volatility Over Time : BASE



Short Govt Bonds Cumulative Return

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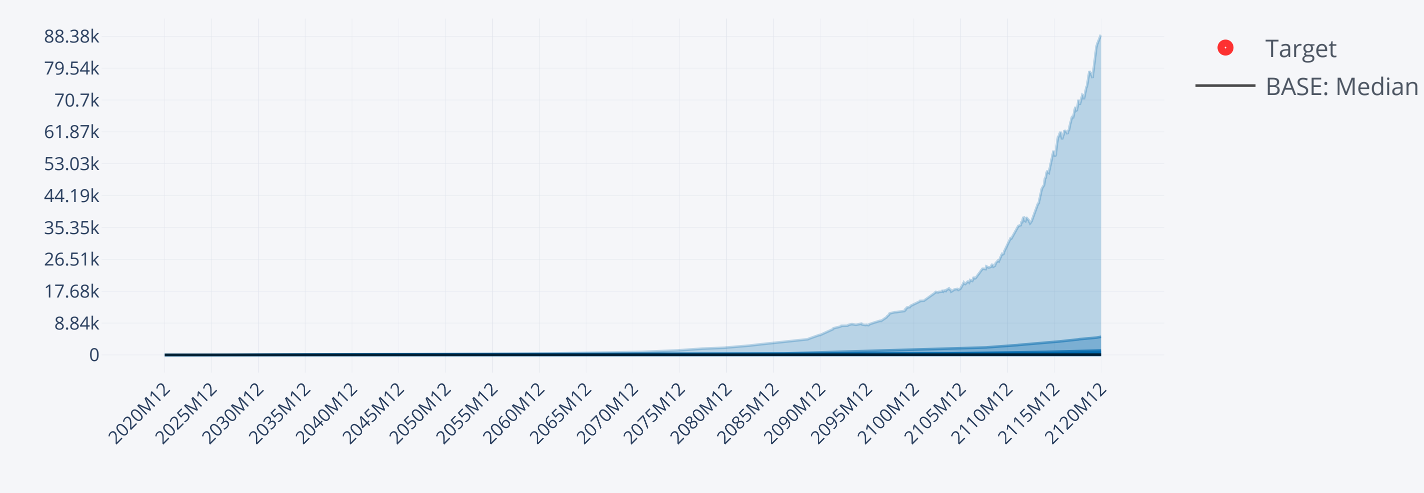
Simulated Data in Percentiles : Short Govt Bonds Cumulative Return

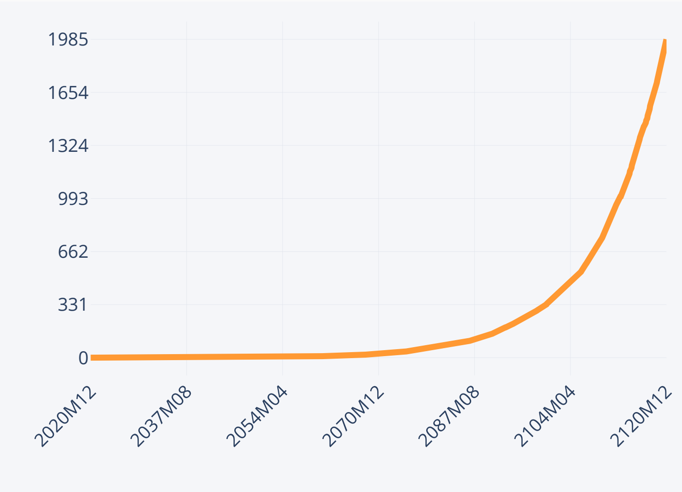


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0502	3.4986
std	0.0319	3.2569
min	-0.0690	0.2532
1%	-0.0249	0.5589
5%	-0.0024	0.8383
10%	0.0093	1.0538
50%	0.0501	2.6076
90%	0.0907	6.7337
95%	0.1025	9.1041
99%	0.1231	16.2383
max	0.1612	73.0524

Cross Sectional Volatility Over Time : BASE



Int Govt Bonds Total Return

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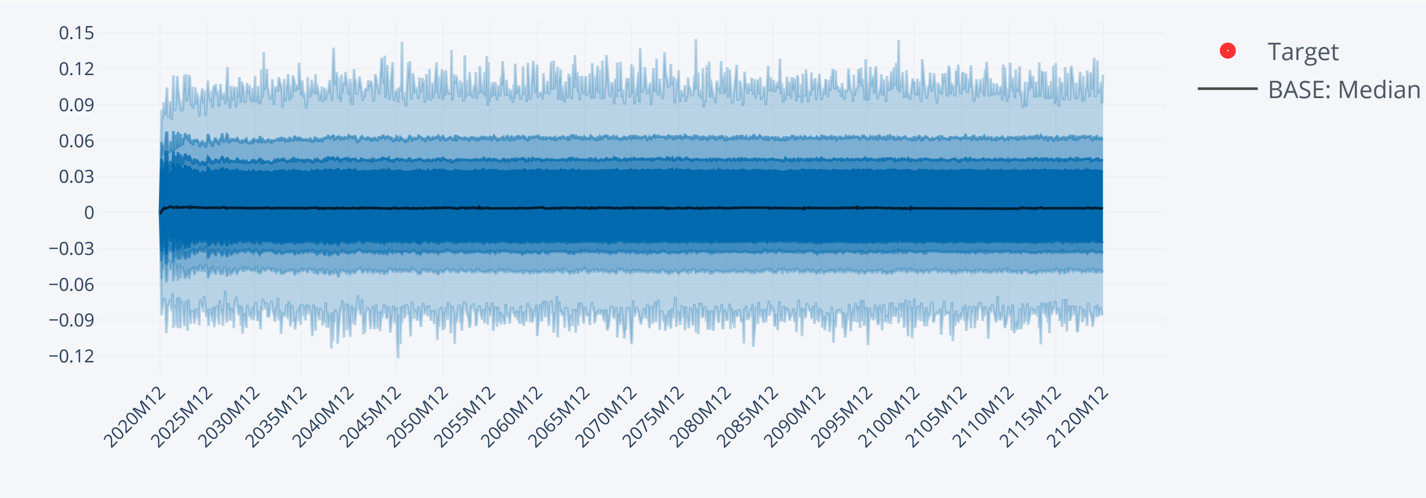
Simulated Data in Percentiles : Int Govt Bonds Total Return

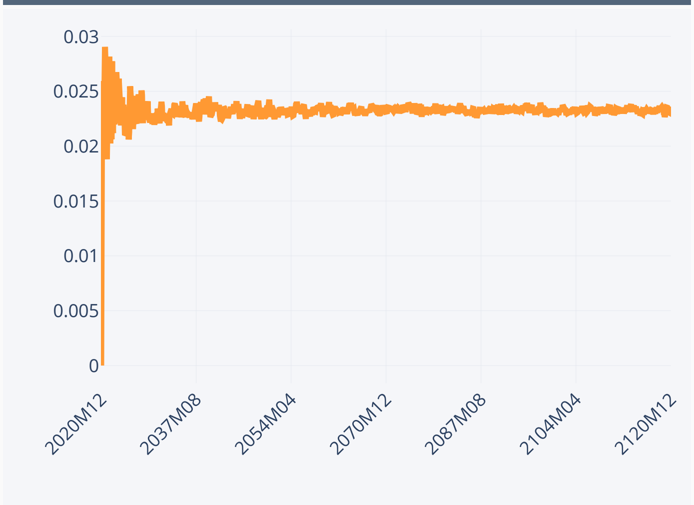


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0041	0.0047
std	0.0188	0.0235
min	-0.0744	-0.0984
1%	-0.0395	-0.0499
5%	-0.0267	-0.0330
10%	-0.0193	-0.0245
50%	0.0041	0.0037
90%	0.0280	0.0353
95%	0.0357	0.0454
99%	0.0497	0.0636
max	0.0864	0.0941

Cross Sectional Volatility Over Time : BASE



Int Govt Bonds Cumulative Return
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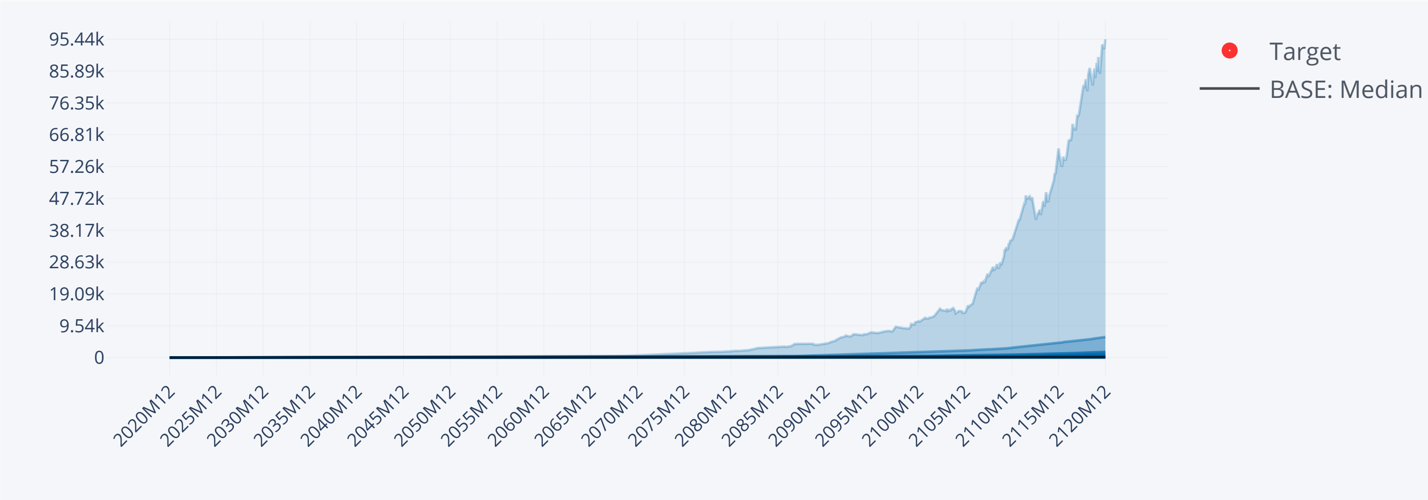
Simulated Data in Percentiles : Int Govt Bonds Cumulative Return

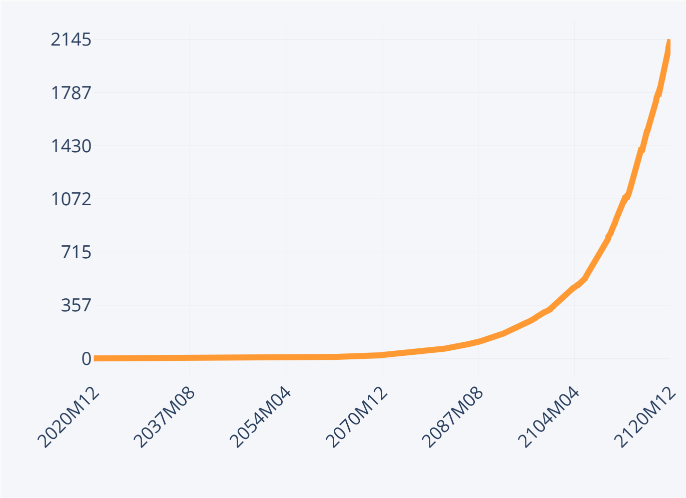


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

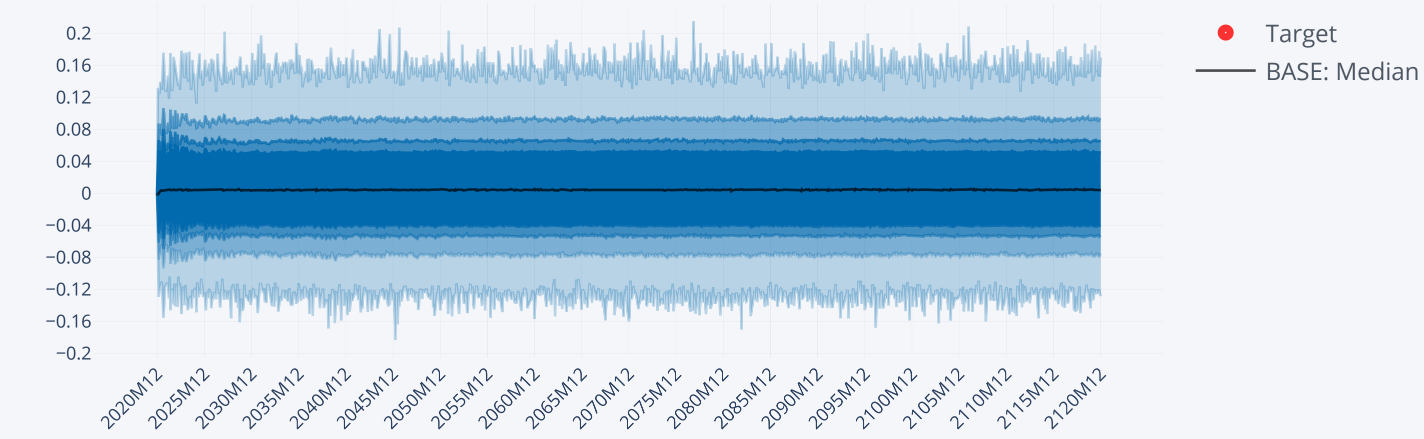
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0384	3.8970
std	0.0720	2.6891
min	-0.2004	0.5582
1%	-0.1235	1.0296
5%	-0.0766	1.4128
10%	-0.0532	1.6642
50%	0.0367	3.1974
90%	0.1308	6.7419
95%	0.1594	8.5339
99%	0.2078	14.2962
max	0.3512	45.6867

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Long Govt Bonds Total Return

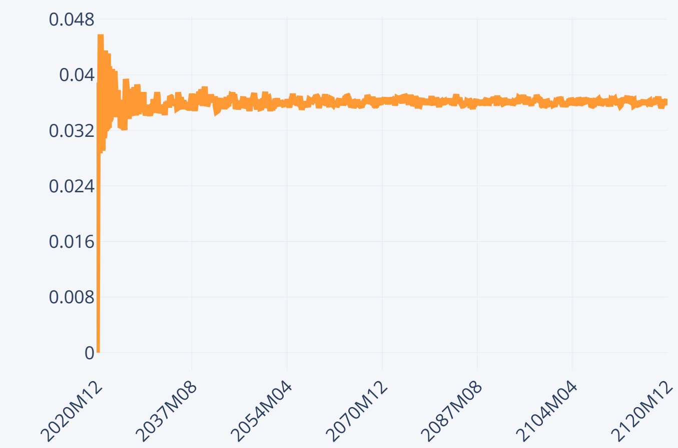


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0041	0.0054
std	0.0291	0.0364
min	-0.1152	-0.1461
1%	-0.0633	-0.0781
5%	-0.0425	-0.0526
10%	-0.0327	-0.0400
50%	0.0037	0.0048
90%	0.0413	0.0527
95%	0.0530	0.0676
99%	0.0743	0.0942
max	0.1319	0.1510

Cross Sectional Volatility Over Time : BASE



Long Govt Bonds Cumulative Return
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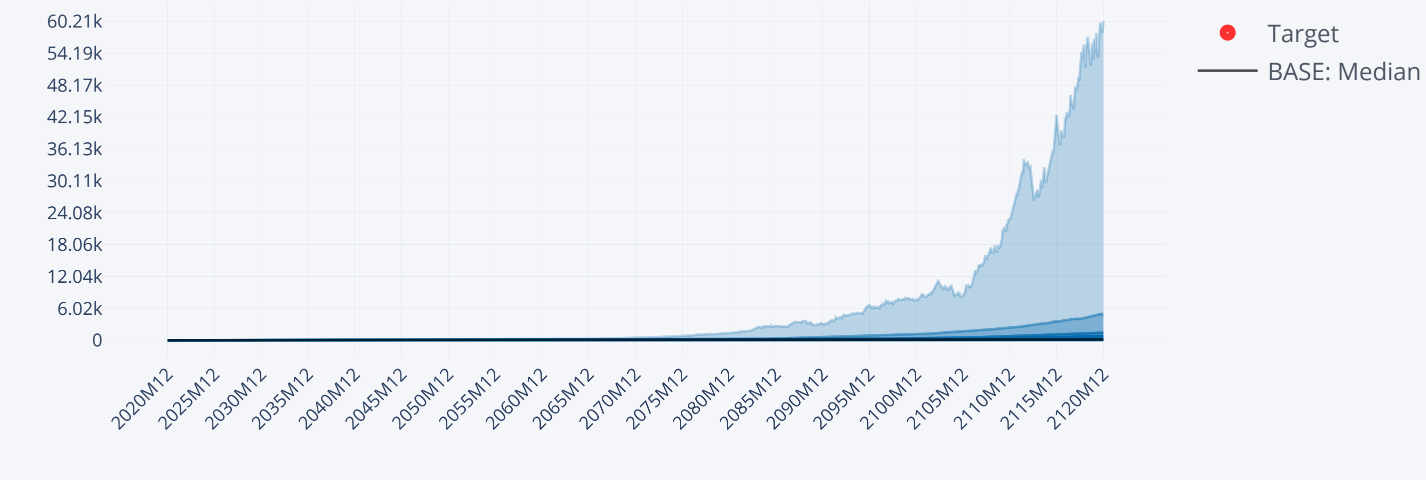
Sept 2023 - Academy Calibration Validation Report

Simulated Data in Percentiles : Long Govt Bonds Cumulative Return

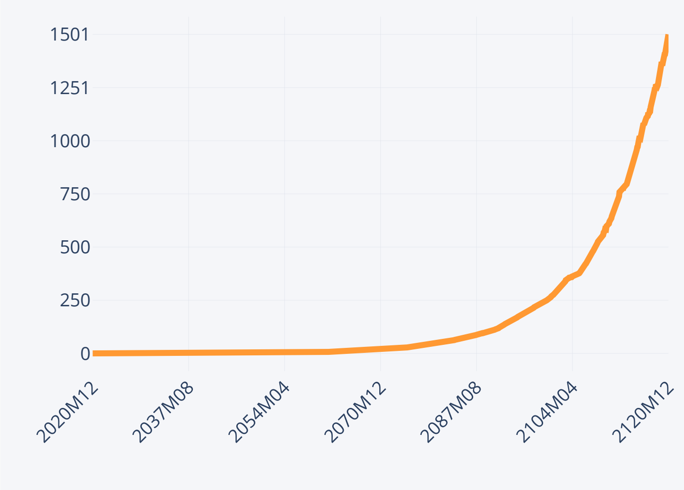


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0378	3.7132
std	0.1153	2.1262
min	-0.2914	0.5542
1%	-0.2053	1.1422
5%	-0.1418	1.5577
10%	-0.1055	1.8294
50%	0.0326	3.2251
90%	0.1875	6.0694
95%	0.2357	7.4577
99%	0.3280	11.5329
max	0.6239	33.6735

Cross Sectional Volatility Over Time : BASE



Short Inv Corp Bonds Total Return
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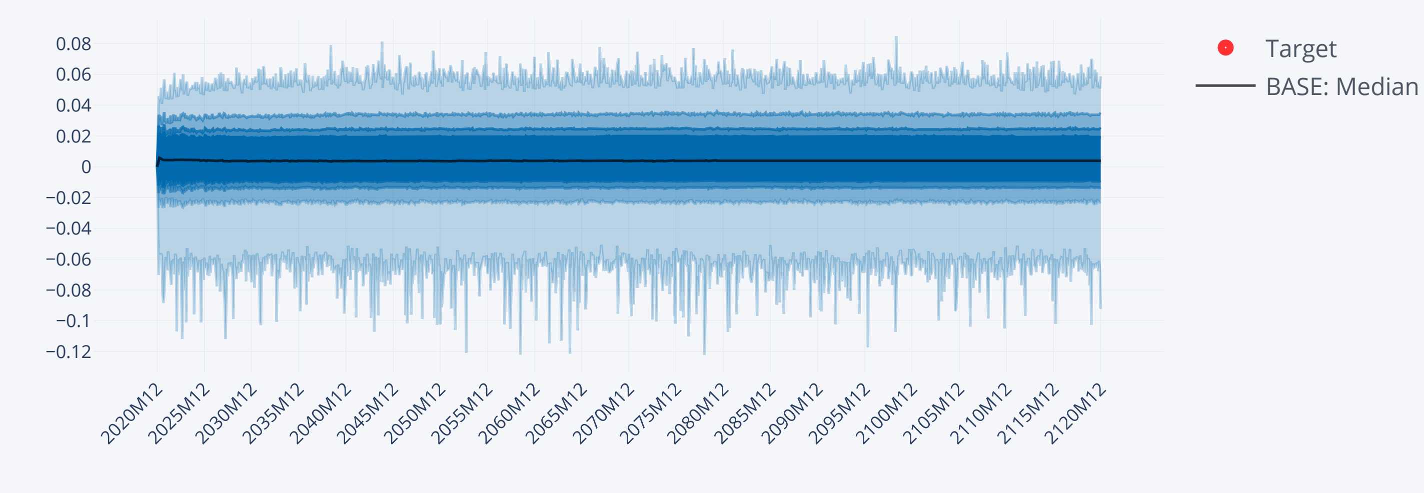
Sept 2023 - Academy Calibration Validation Report

Simulated Data in Percentiles : Short Inv Corp Bonds Total Return

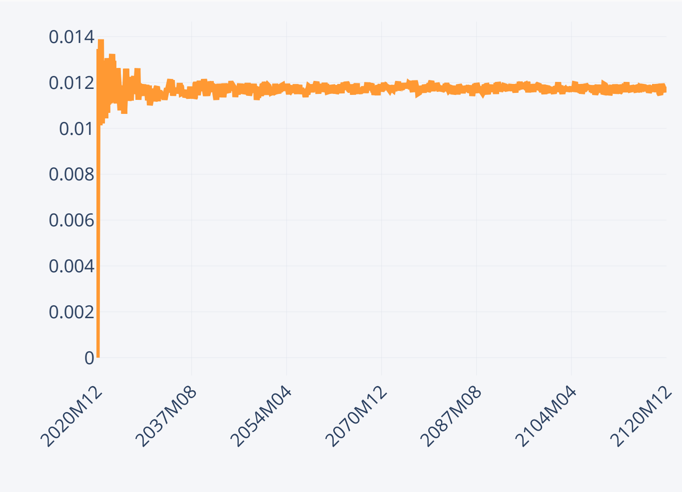


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0043	0.0045
std	0.0103	0.0119
min	-0.0640	-0.1023
1%	-0.0211	-0.0232
5%	-0.0119	-0.0137
10%	-0.0081	-0.0094
50%	0.0042	0.0038
90%	0.0169	0.0197
95%	0.0211	0.0249
99%	0.0283	0.0344
max	0.0450	0.0571

Cross Sectional Volatility Over Time : BASE



Short Inv Corp Bonds Cumulative Return

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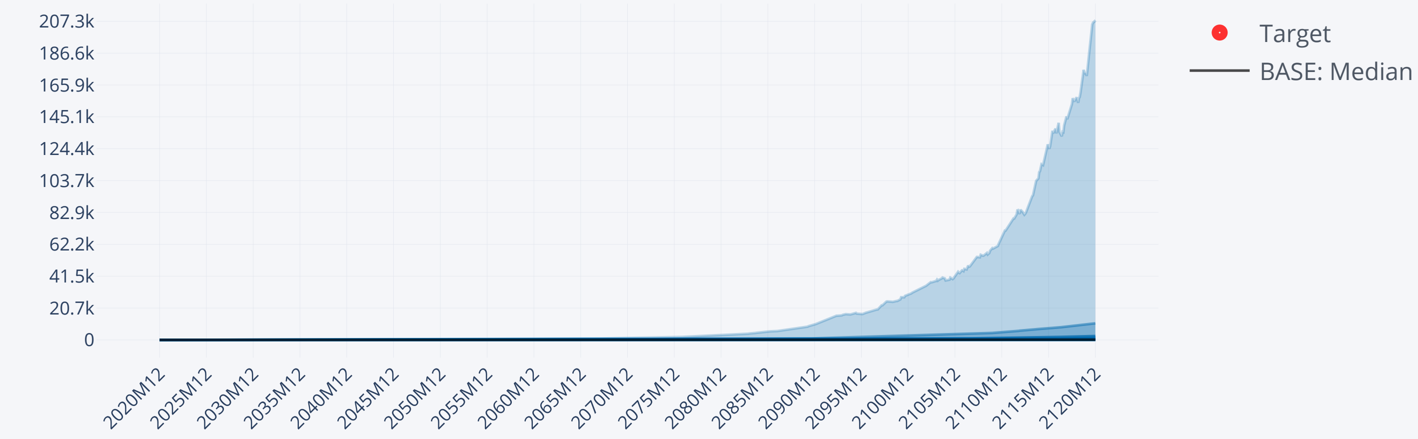
Sept 2023 - Academy Calibration Validation Report

Simulated Data in Percentiles : Short Inv Corp Bonds Cumulative Return

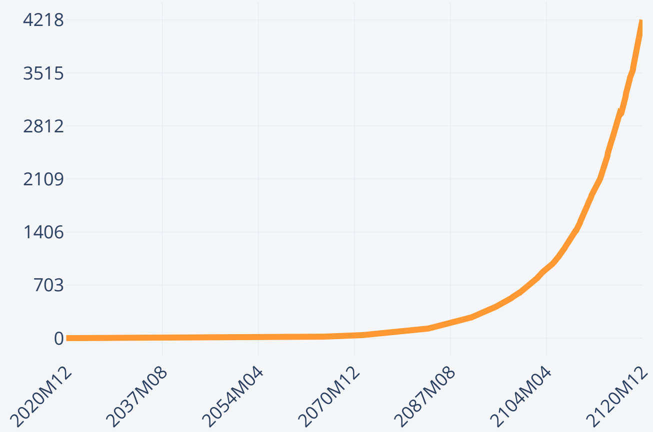


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0565	4.4949
std	0.0334	3.9863
min	-0.0843	0.5356
1%	-0.0232	0.8997
5%	0.0004	1.2409
10%	0.0135	1.5013
50%	0.0570	3.4162
90%	0.0984	8.4879
95%	0.1103	11.3268
99%	0.1310	19.9392
max	0.1743	91.6148

Cross Sectional Volatility Over Time : BASE



Int Inv Corp Bonds Total Return
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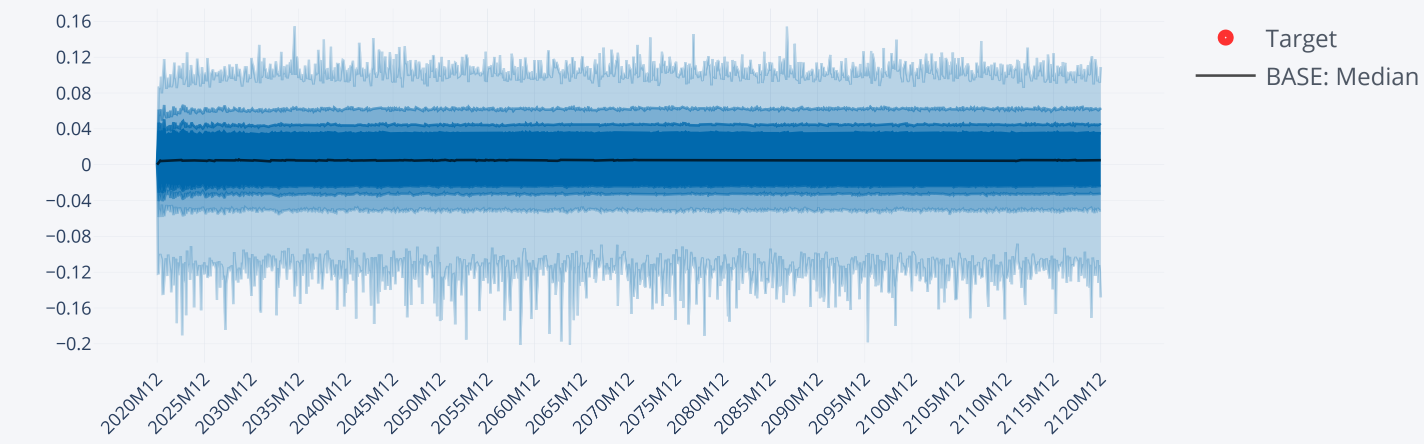
Sept 2023 - Academy
Calibration
Validation Report

Simulated Data in Percentiles : Int Inv Corp Bonds Total Return

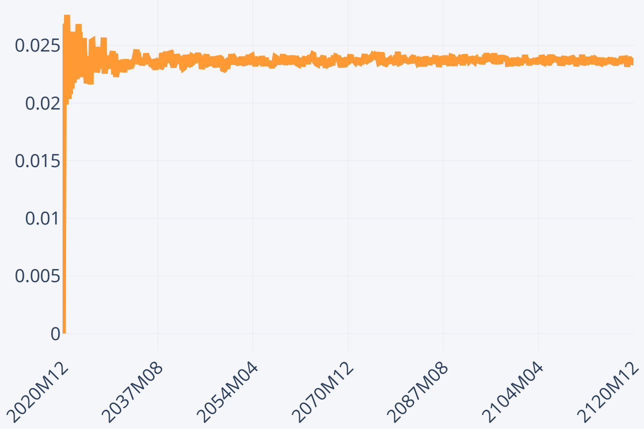


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0042	0.0053
std	0.0204	0.0239
min	-0.1188	-0.1746
1%	-0.0450	-0.0515
5%	-0.0281	-0.0326
10%	-0.0209	-0.0240
50%	0.0041	0.0048
90%	0.0300	0.0359
95%	0.0378	0.0454
99%	0.0519	0.0626
max	0.0846	0.0982

Cross Sectional Volatility Over Time : BASE



Int Inv Corp Bonds Cumulative Return

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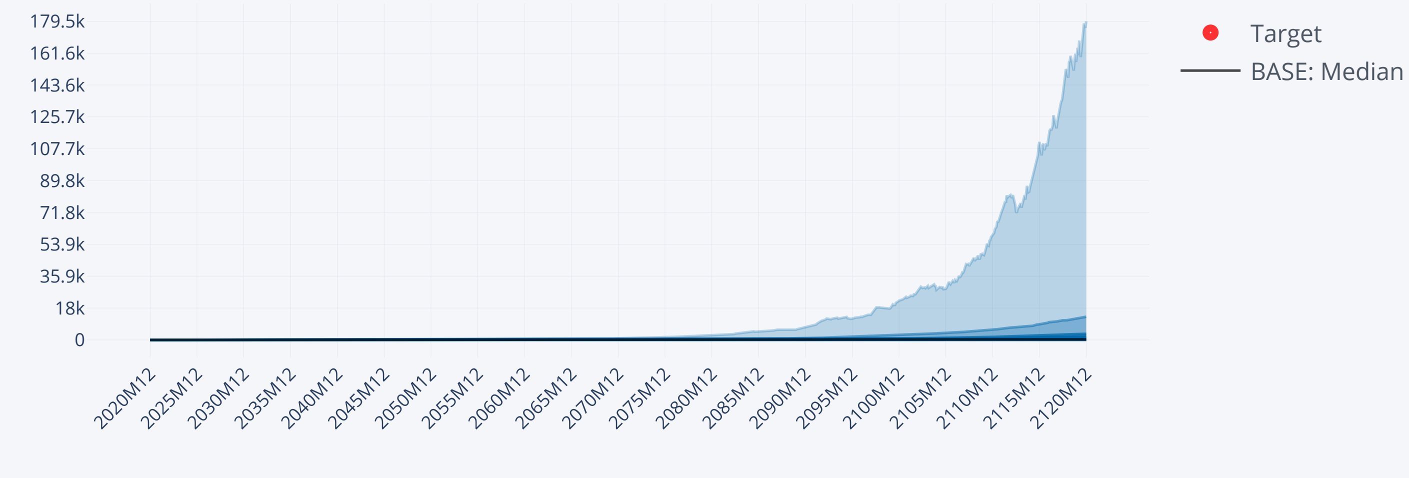
Simulated Data in Percentiles : Int Inv Corp Bonds Cumulative Return

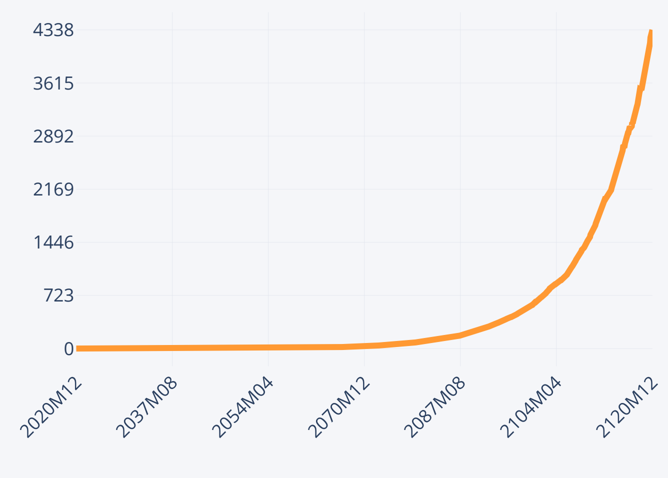


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

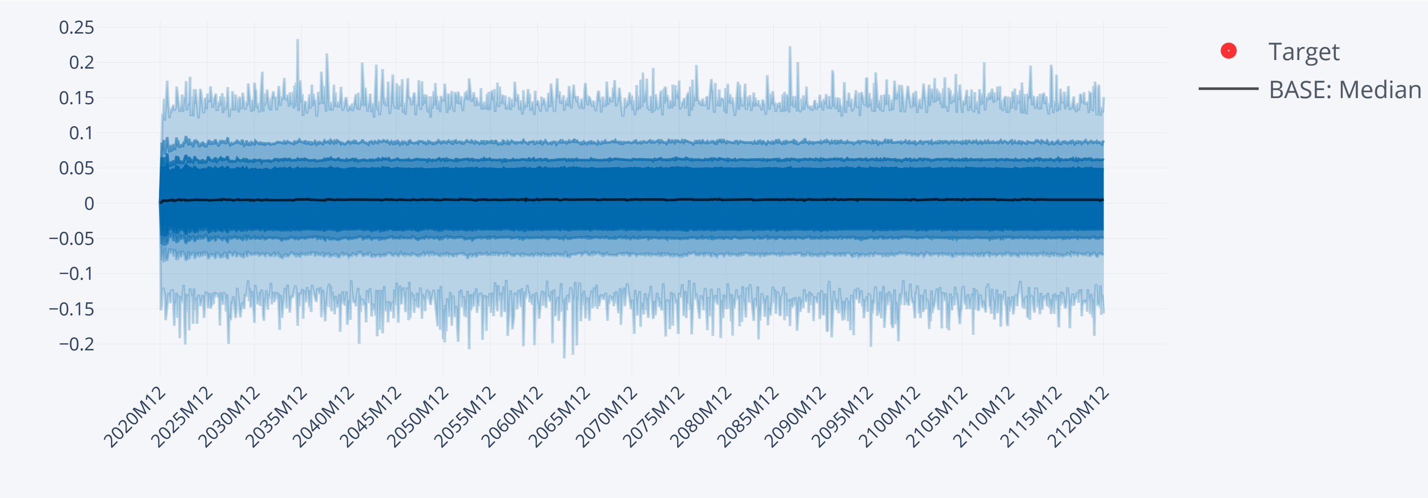
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0442	4.9002
std	0.0744	3.2698
min	-0.2404	0.7412
1%	-0.1254	1.3528
5%	-0.0758	1.8519
10%	-0.0509	2.1802
50%	0.0426	4.0751
90%	0.1393	8.3851
95%	0.1676	10.5876
99%	0.2198	17.4728
max	0.3793	57.4888

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Long Inv Corp Bonds Total Return

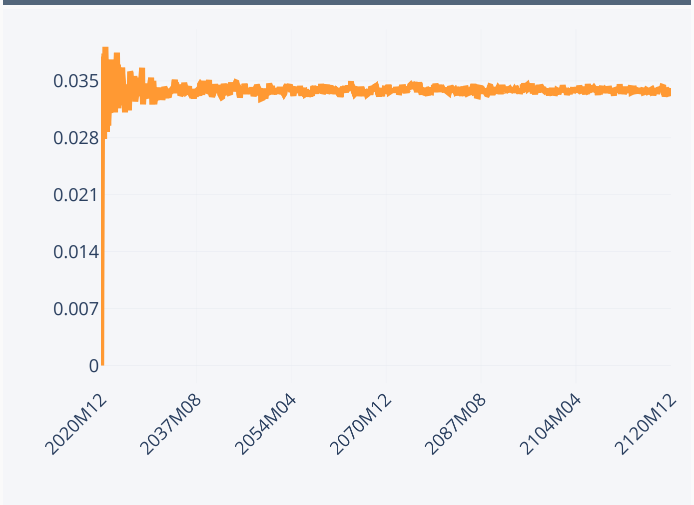


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0041	0.0057
std	0.0287	0.0340
min	-0.1341	-0.1928
1%	-0.0642	-0.0730
5%	-0.0421	-0.0494
10%	-0.0317	-0.0369
50%	0.0038	0.0051
90%	0.0409	0.0497
95%	0.0520	0.0623
99%	0.0723	0.0871
max	0.1208	0.1468

Cross Sectional Volatility Over Time : BASE



Long Inv Corp Bonds Cumulative Return

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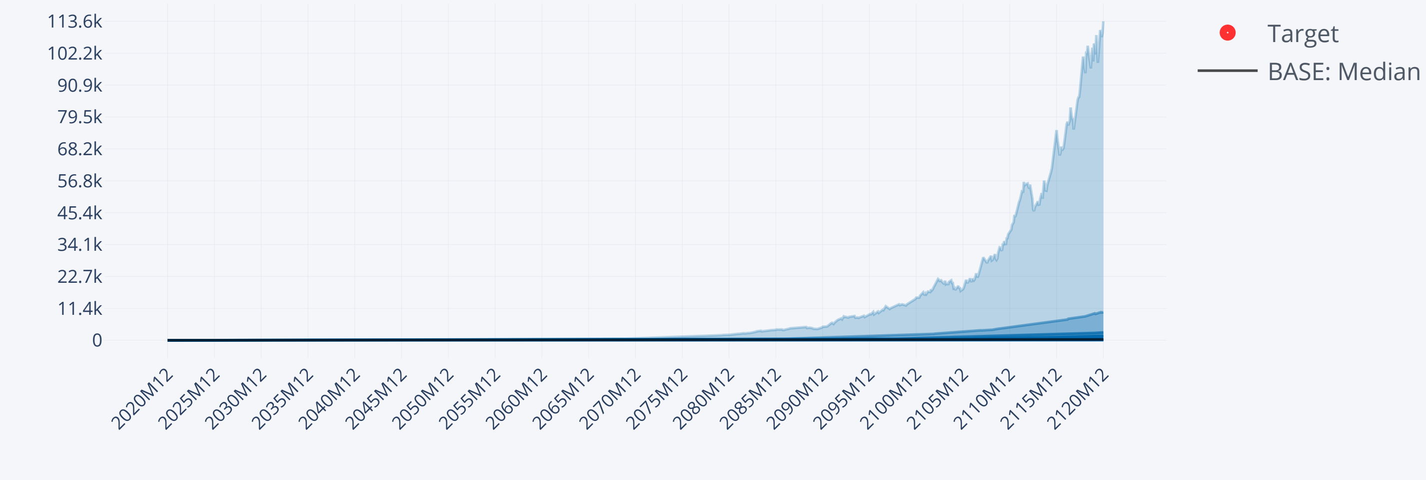
Simulated Data in Percentiles : Long Inv Corp Bonds Cumulative Return

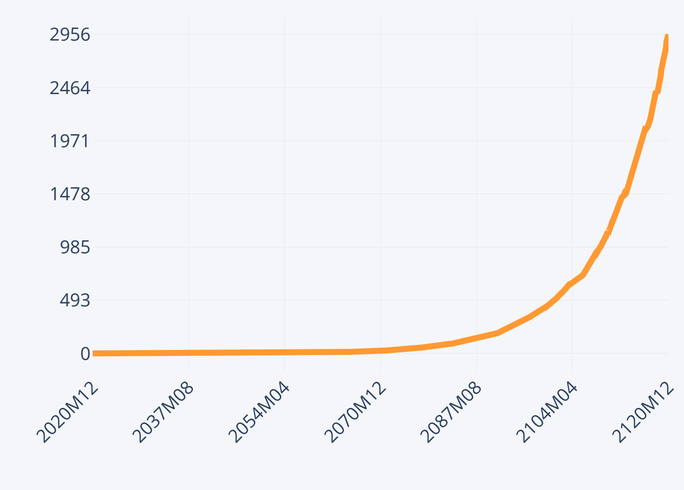


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0404	4.5972
std	0.1094	2.5955
min	-0.3472	0.6724
1%	-0.1982	1.4692
5%	-0.1317	1.9968
10%	-0.0974	2.3275
50%	0.0363	3.9796
90%	0.1822	7.4759
95%	0.2270	9.2136
99%	0.3141	14.3243
max	0.6200	40.2172

Cross Sectional Volatility Over Time : BASE



High Yield Corp Bonds Total Return
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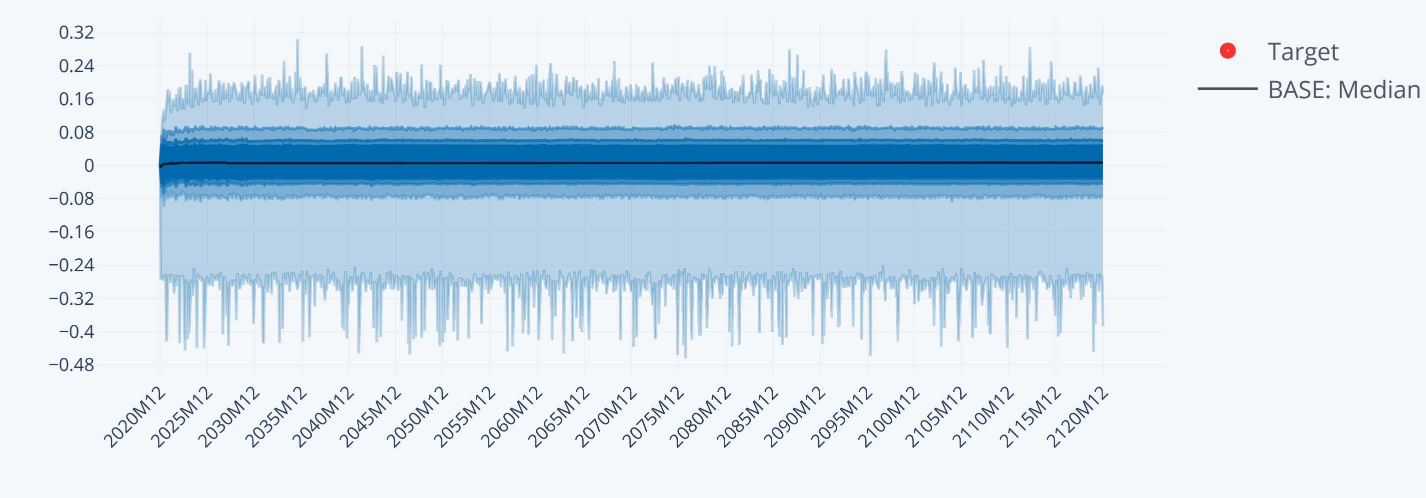
Calibration
Validation Report

Simulated Data in Percentiles : High Yield Corp Bonds Total Return

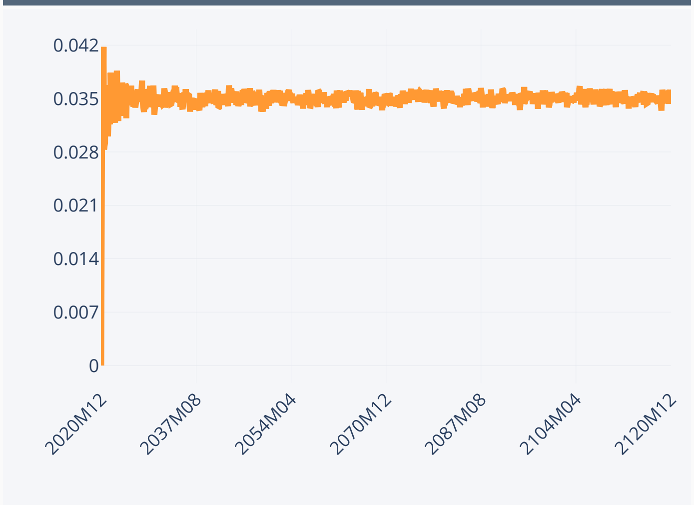


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0040	0.0065
std	0.0329	0.0352
min	-0.2690	-0.4262
1%	-0.0683	-0.0731
5%	-0.0421	-0.0443
10%	-0.0310	-0.0320
50%	0.0045	0.0065
90%	0.0415	0.0475
95%	0.0531	0.0612
99%	0.0776	0.0882
max	0.1788	0.1601

Cross Sectional Volatility Over Time : BASE



High Yield Corp Bonds Cumulative Return
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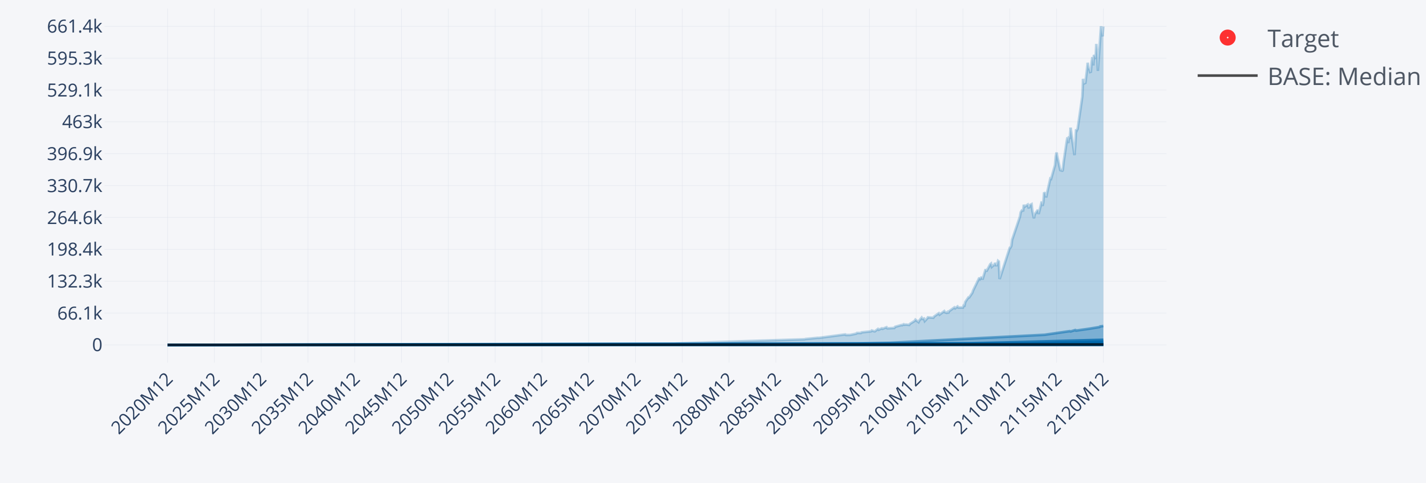
Simulated Data in Percentiles : High Yield Corp Bonds Cumulative Return

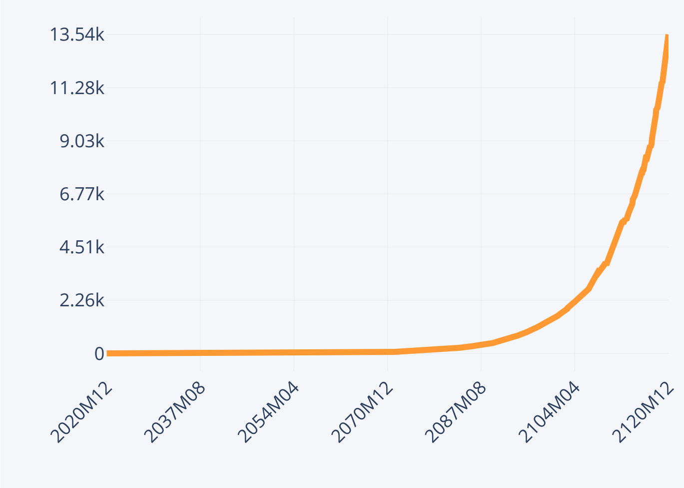


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

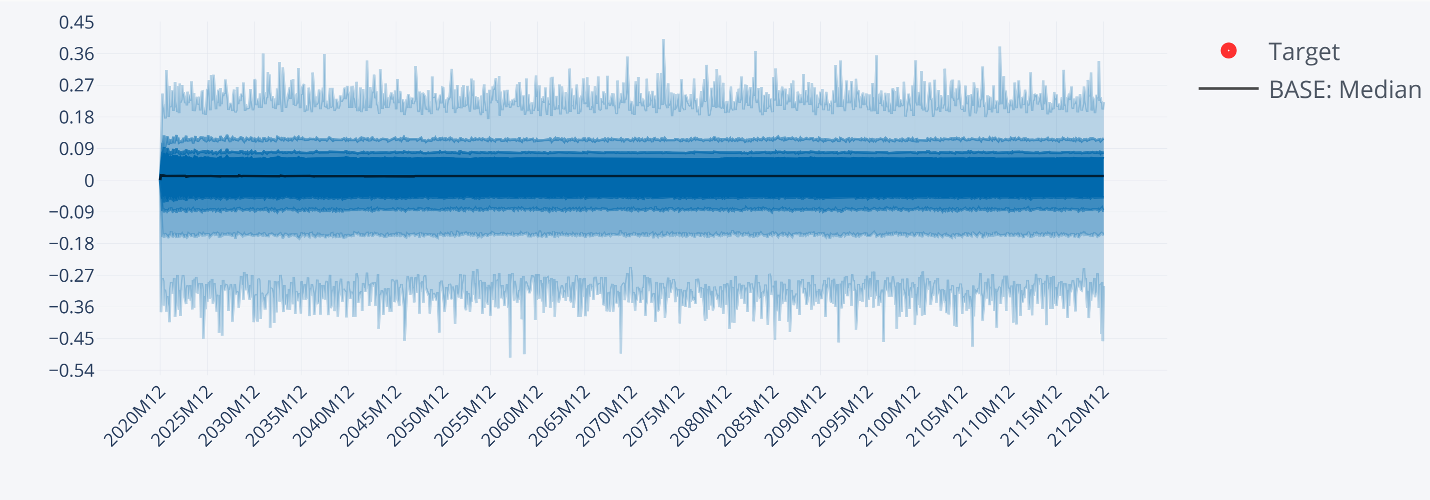
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0170	6.9688
std	0.0908	4.7594
min	-0.4060	0.4897
1%	-0.2171	1.7567
5%	-0.1408	2.5121
10%	-0.1001	2.9633
50%	0.0218	5.7337
90%	0.1292	12.2903
95%	0.1570	15.4631
99%	0.2117	24.5524
max	0.3808	94.9345

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Small Cap Total Return

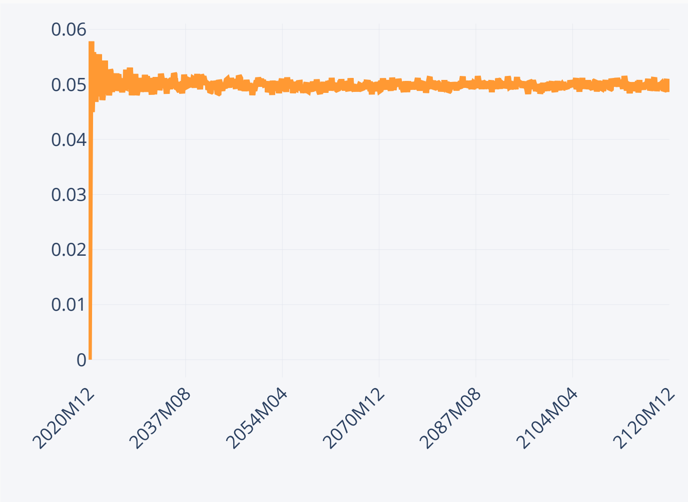


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

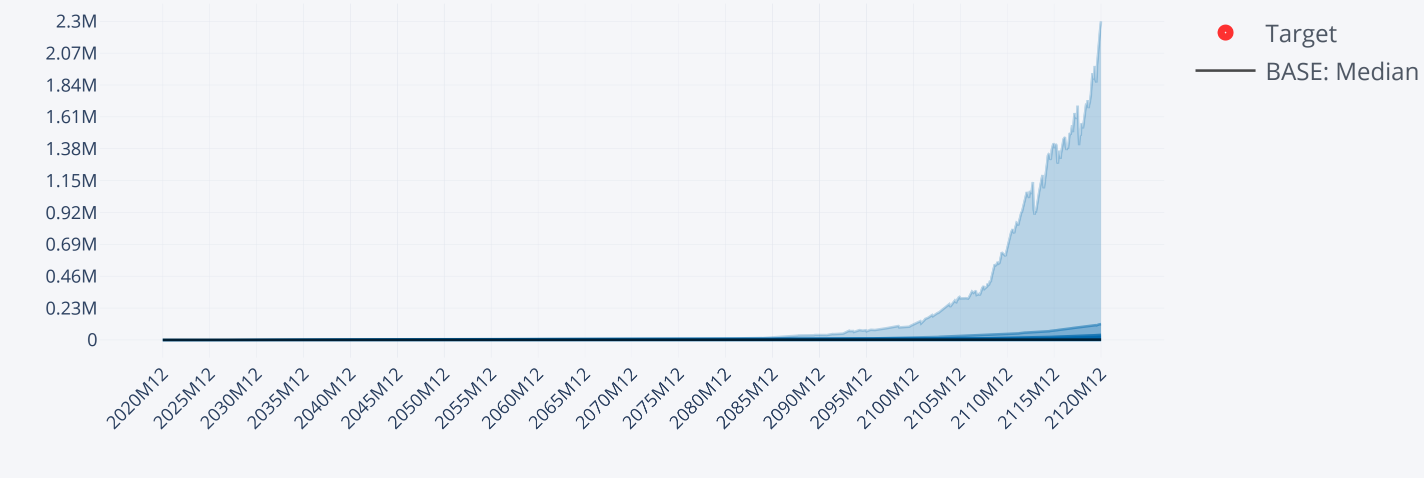
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0084	0.0077
std	0.0494	0.0507
min	-0.4037	-0.3286
1%	-0.1543	-0.1574
5%	-0.0790	-0.0842
10%	-0.0473	-0.0502
50%	0.0122	0.0118
90%	0.0636	0.0627
95%	0.0782	0.0802
99%	0.1117	0.1149
max	0.2679	0.2625

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Small Cap Cumulative Return

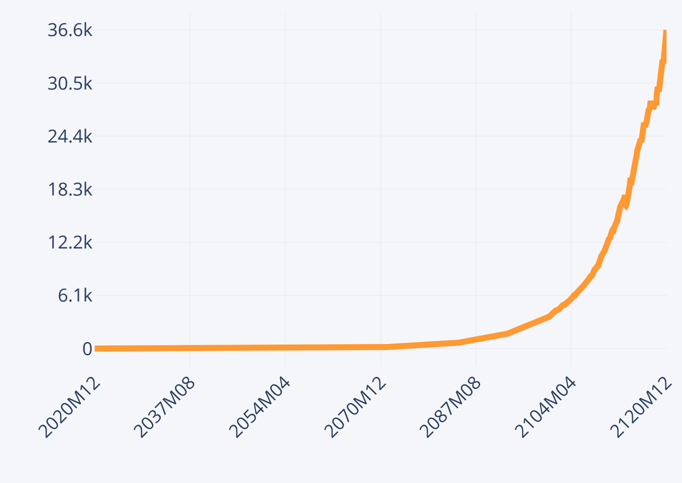


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.1002	13.9421
std	0.1895	15.2631
min	-0.5459	-0.9319
1%	-0.3367	-0.2754
5%	-0.2112	0.6657
10%	-0.1502	1.6251
50%	0.1047	9.2212
90%	0.3381	31.4803
95%	0.4076	42.4146
99%	0.5425	75.1607
max	0.8385	182.6275

Cross Sectional Volatility Over Time : BASE



Mid Cap Total Return
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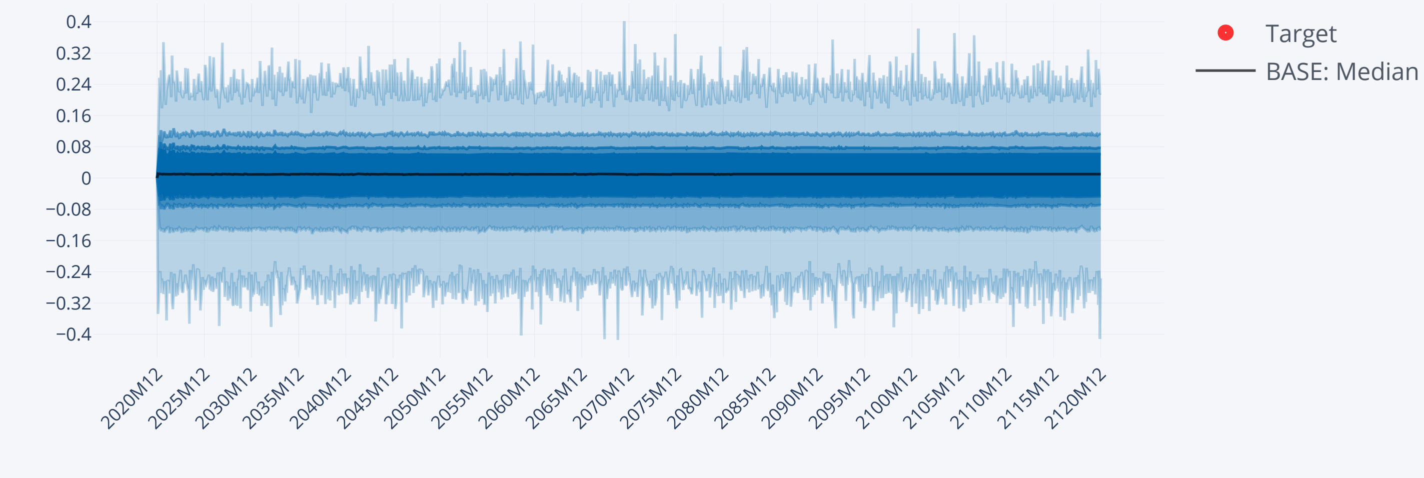
Simulated Data in Percentiles : Mid Cap Total Return

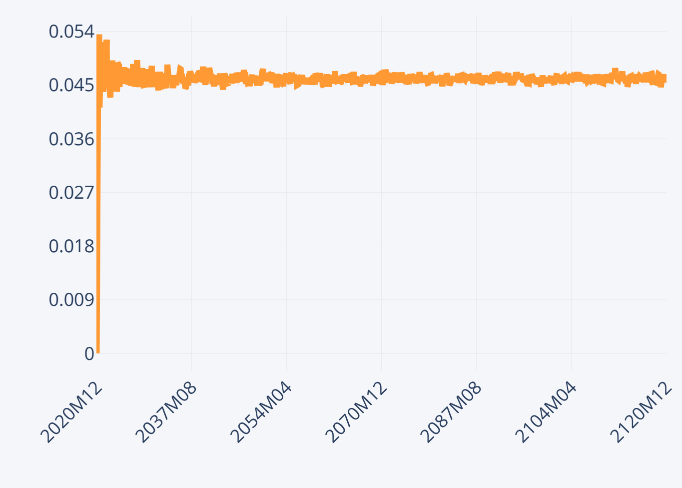


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

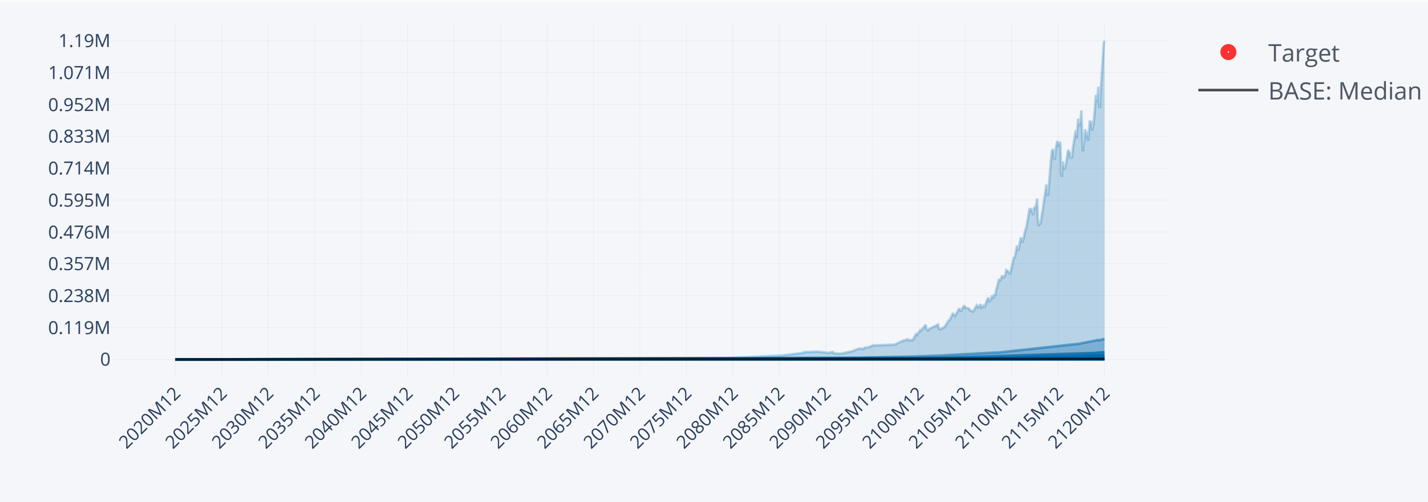
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0074	0.0074
std	0.0445	0.0464
min	-0.3644	-0.2802
1%	-0.1292	-0.1320
5%	-0.0681	-0.0705
10%	-0.0452	-0.0480
50%	0.0098	0.0097
90%	0.0590	0.0607
95%	0.0730	0.0769
99%	0.1058	0.1120
max	0.2252	0.2044

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Mid Cap Cumulative Return

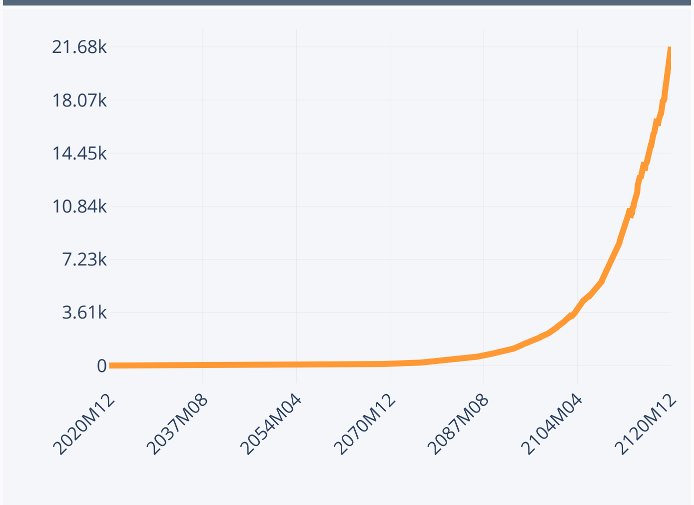


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

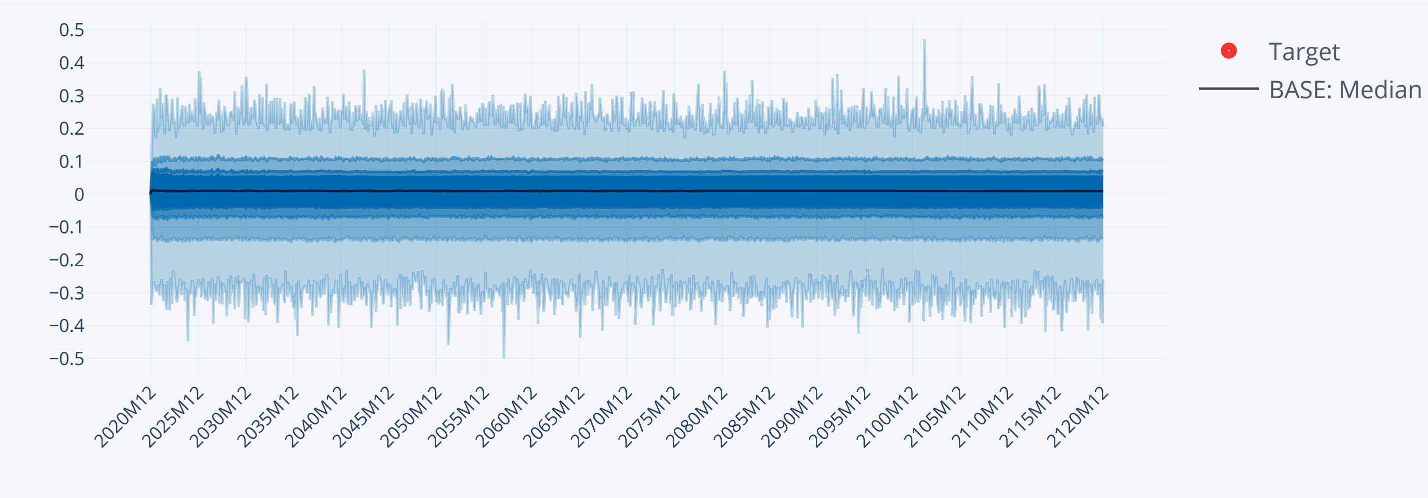
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0956	12.8594
std	0.1734	13.0559
min	-0.4735	-0.9109
1%	-0.2919	-0.0301
5%	-0.1832	1.0789
10%	-0.1254	2.0078
50%	0.0934	9.0076
90%	0.3166	28.4068
95%	0.3832	37.9846
99%	0.5191	63.2070
max	0.8825	167.3038

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Large Cap Total Return

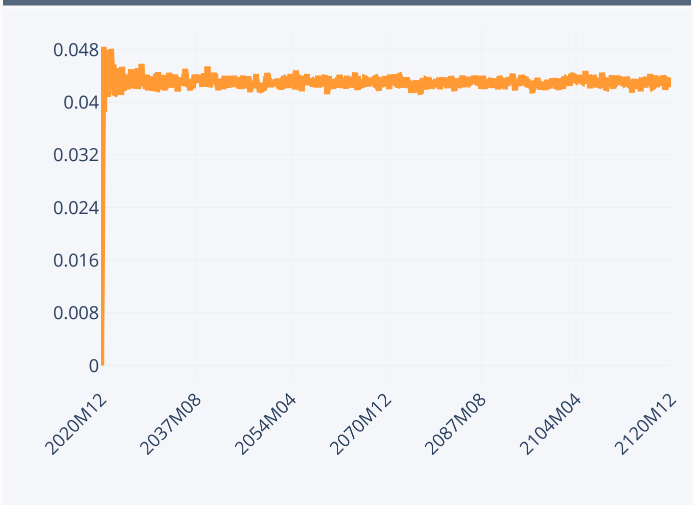


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0079	0.0070
std	0.0444	0.0433
min	-0.2837	-0.3288
1%	-0.1345	-0.1376
5%	-0.0678	-0.0681
10%	-0.0406	-0.0399
50%	0.0102	0.0100
90%	0.0579	0.0530
95%	0.0725	0.0691
99%	0.1074	0.1041
max	0.3228	0.2239

Cross Sectional Volatility Over Time : BASE



Large Cap Cumulative Return

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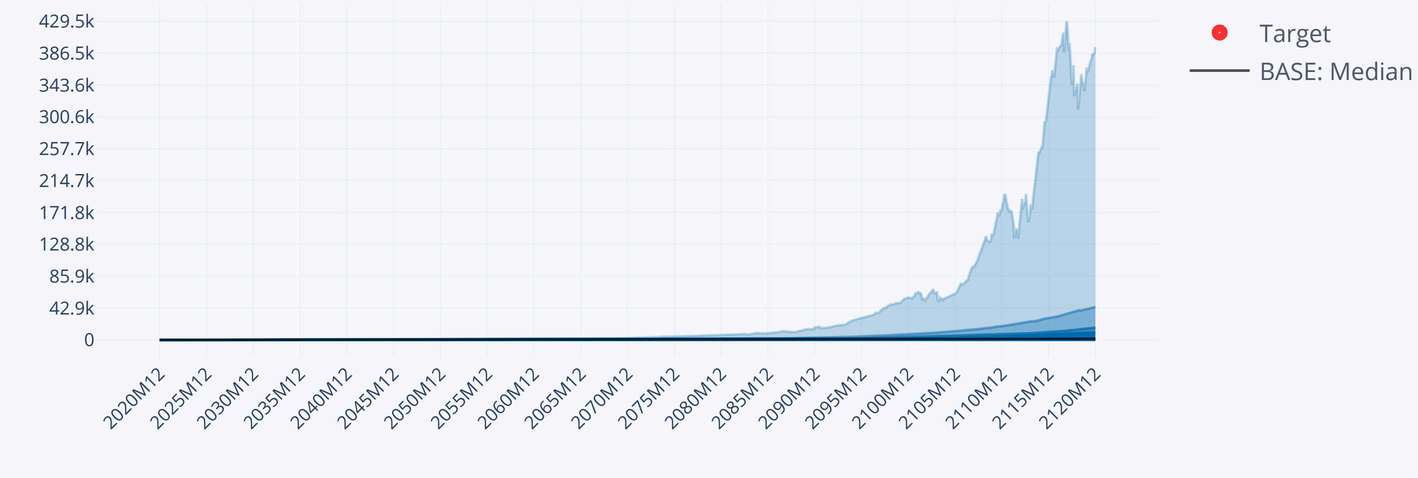
Simulated Data in Percentiles : Large Cap Cumulative Return

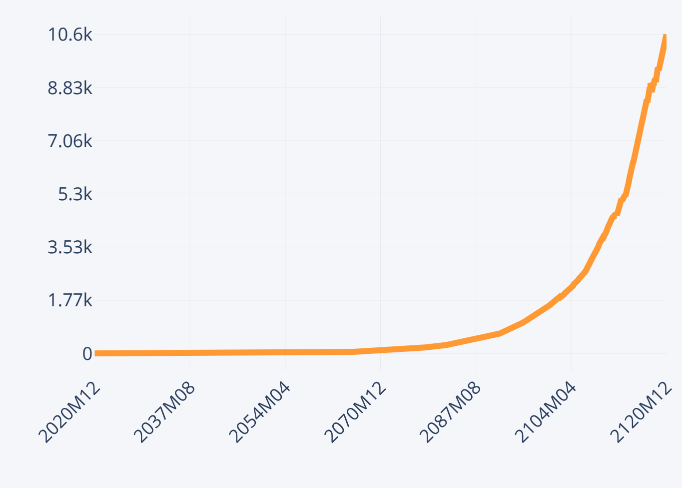


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

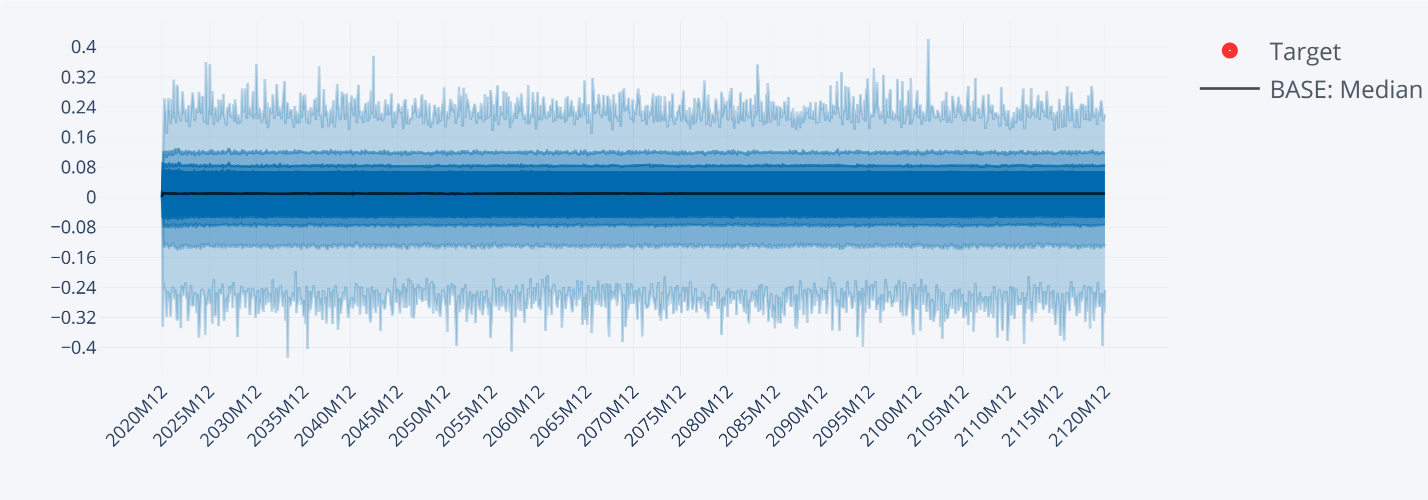
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0943	11.2532
std	0.1627	10.6085
min	-0.5068	-0.8309
1%	-0.2958	-0.0633
5%	-0.1796	1.0279
10%	-0.1180	1.9331
50%	0.0996	8.2779
90%	0.2953	24.0784
95%	0.3561	31.5262
99%	0.4698	49.5599
max	0.8170	119.0677

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : International Diversified Equity Total Return

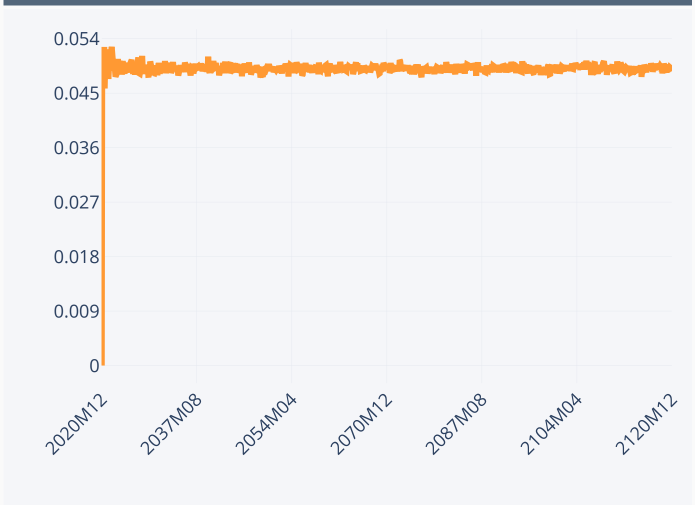


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

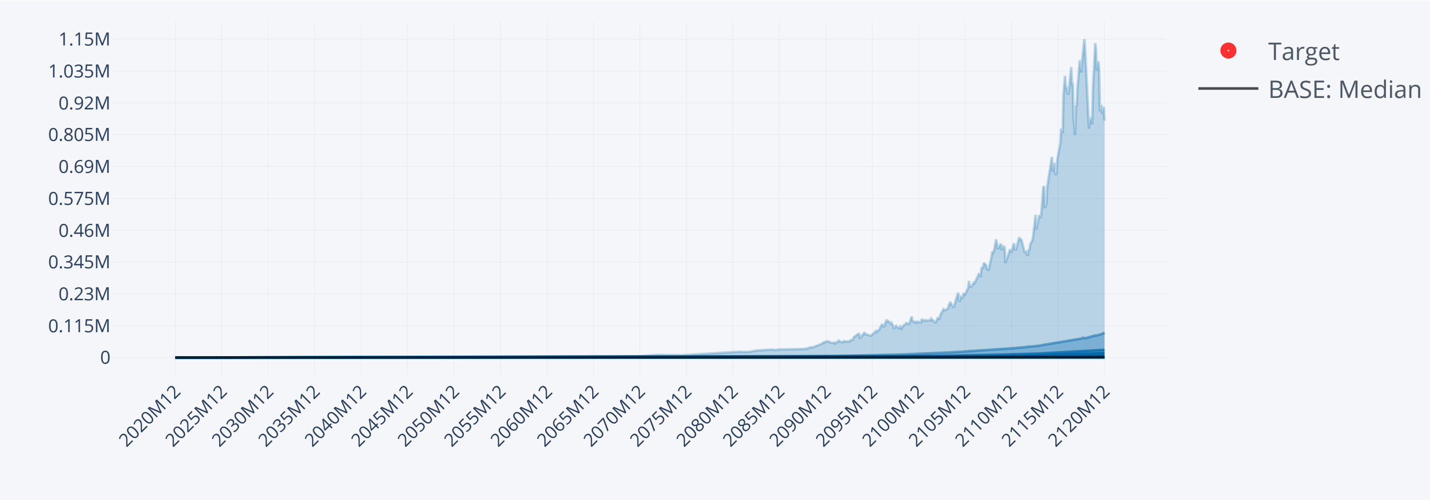
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0083	0.0069
std	0.0501	0.0494
min	-0.2587	-0.2881
1%	-0.1294	-0.1338
5%	-0.0768	-0.0758
10%	-0.0530	-0.0531
50%	0.0103	0.0093
90%	0.0682	0.0653
95%	0.0849	0.0830
99%	0.1205	0.1187
max	0.2616	0.2057

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : International Diversified Equity Cumulative Return

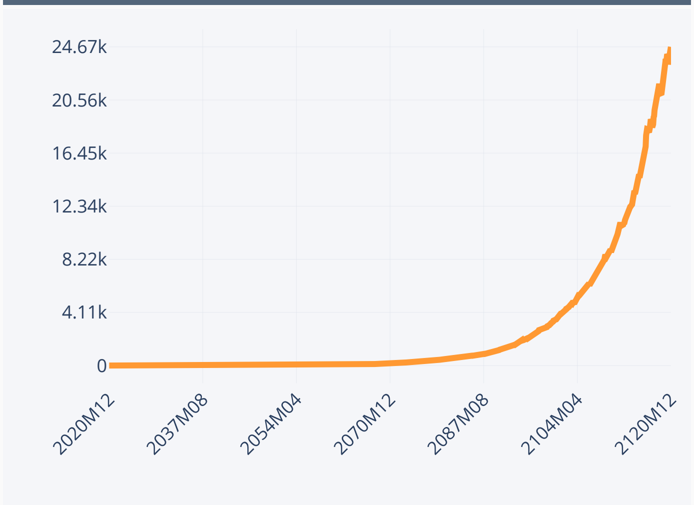


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0984	13.4106
std	0.1920	15.6582
min	-0.4832	-0.9126
1%	-0.3083	-0.0170
5%	-0.2021	0.9627
10%	-0.1431	1.8503
50%	0.0907	8.8574
90%	0.3480	29.8571
95%	0.4300	40.7841
99%	0.5785	71.9703
max	0.9585	400.2453

Cross Sectional Volatility Over Time : BASE



Aggressive US Equity Total Return

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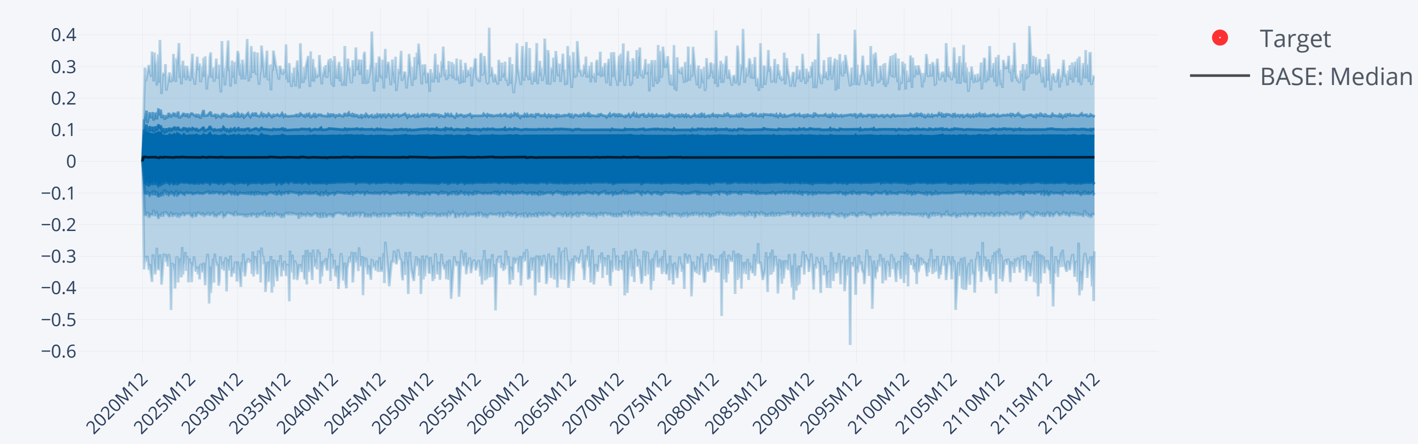
Simulated Data in Percentiles : Aggressive US Equity Total Return

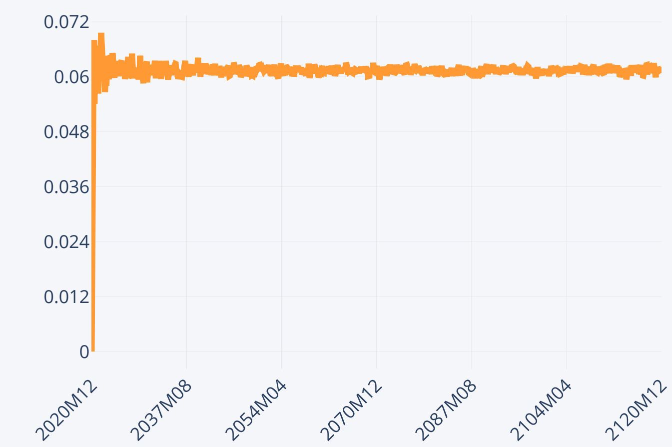


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0089	0.0090
std	0.0622	0.0620
min	-0.3805	-0.3053
1%	-0.1668	-0.1666
5%	-0.0982	-0.1004
10%	-0.0681	-0.0683
50%	0.0123	0.0127
90%	0.0834	0.0812
95%	0.1027	0.1033
99%	0.1422	0.1461
max	0.3467	0.2774

Cross Sectional Volatility Over Time : BASE



Aggressive US Equity Cumulative Return

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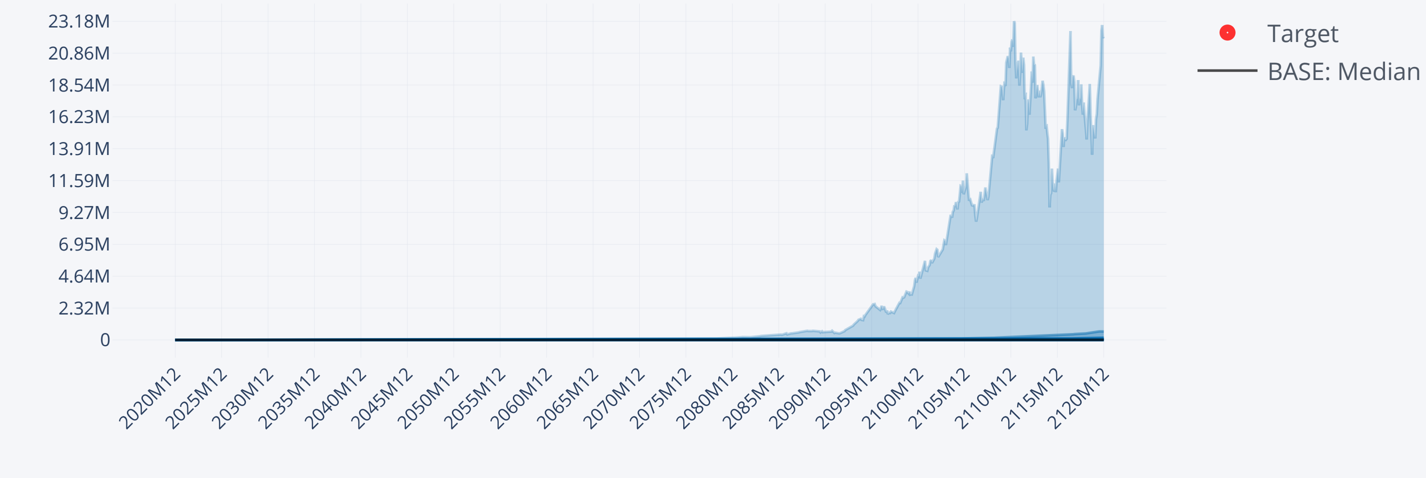
Simulated Data in Percentiles : Aggressive US Equity Cumulative Return

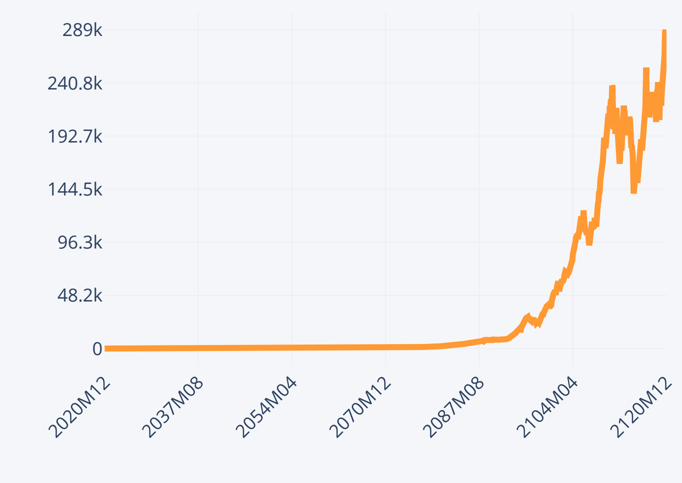


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.1185	22.7657
std	0.2337	33.3816
min	-0.5775	-0.9356
1%	-0.3674	-0.3744
5%	-0.2425	0.5880
10%	-0.1786	1.5393
50%	0.1078	11.7434
90%	0.4252	55.4969
95%	0.5238	79.3343
99%	0.7064	162.9493
max	1.2402	539.3275

Cross Sectional Volatility Over Time : BASE



Aggressive Foreign Equity Total Return
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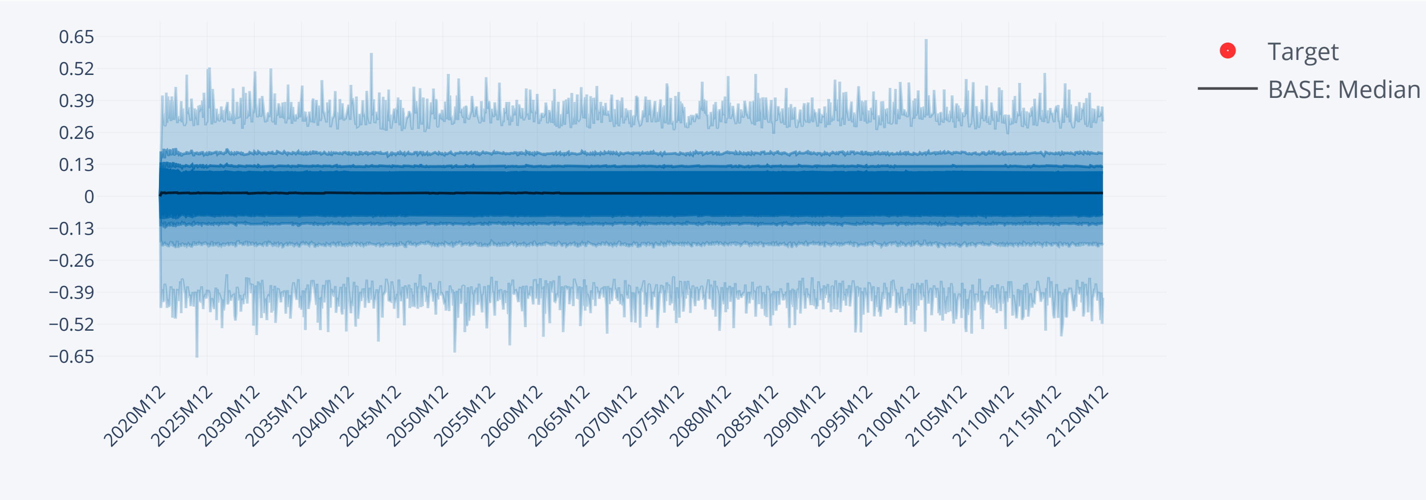
Simulated Data in Percentiles : Aggressive Foreign Equity Total Return

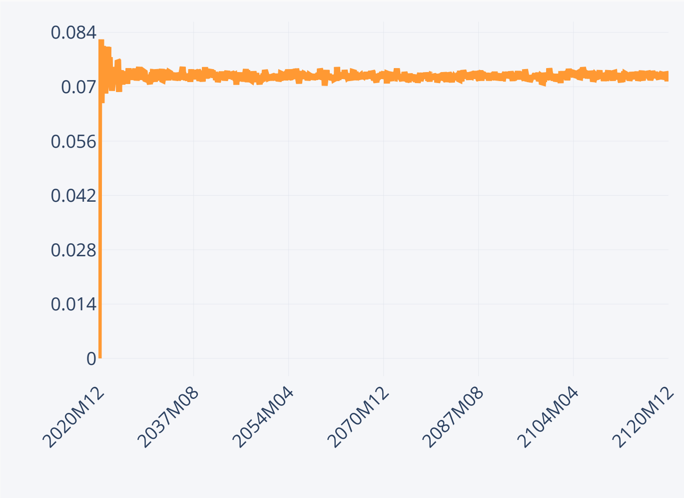


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0124	0.0092
std	0.0767	0.0728
min	-0.4423	-0.4043
1%	-0.1911	-0.1999
5%	-0.1158	-0.1126
10%	-0.0820	-0.0781
50%	0.0146	0.0122
90%	0.1057	0.0954
95%	0.1329	0.1235
99%	0.1848	0.1723
max	0.3448	0.3088

Cross Sectional Volatility Over Time : BASE



Aggressive Foreign Equity Cumulative Return

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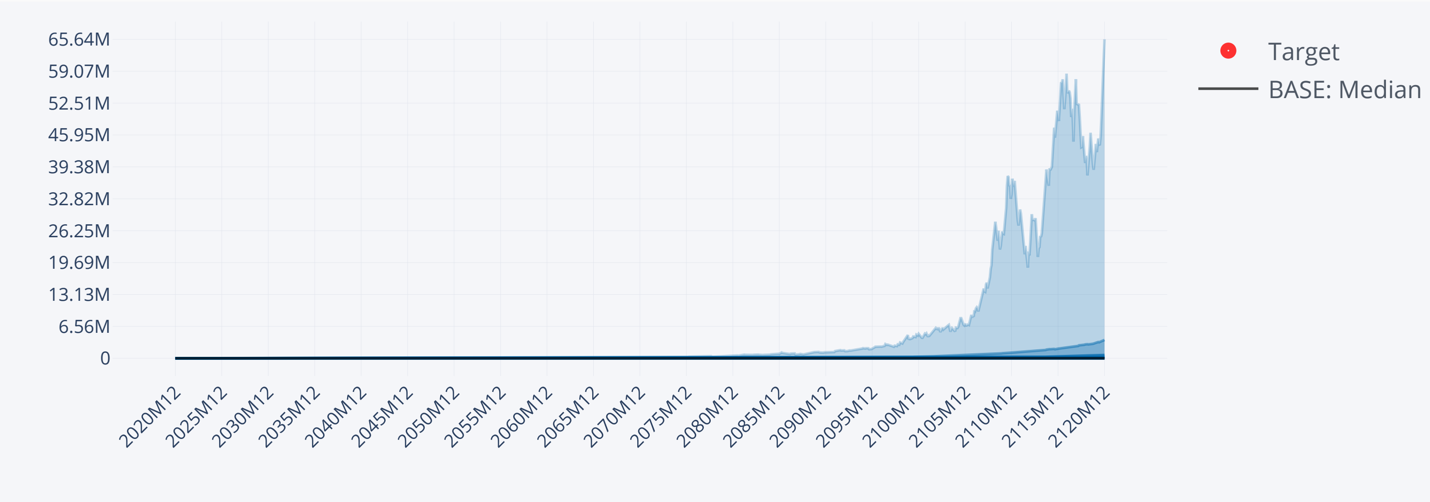
Simulated Data in Percentiles : Aggressive Foreign Equity Cumulative Return

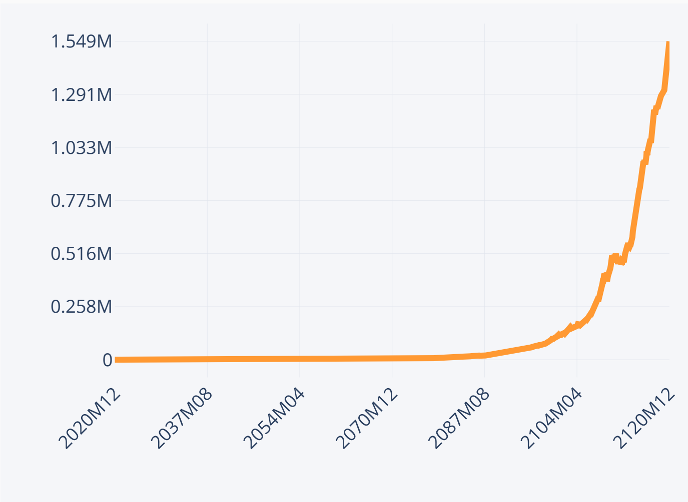


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

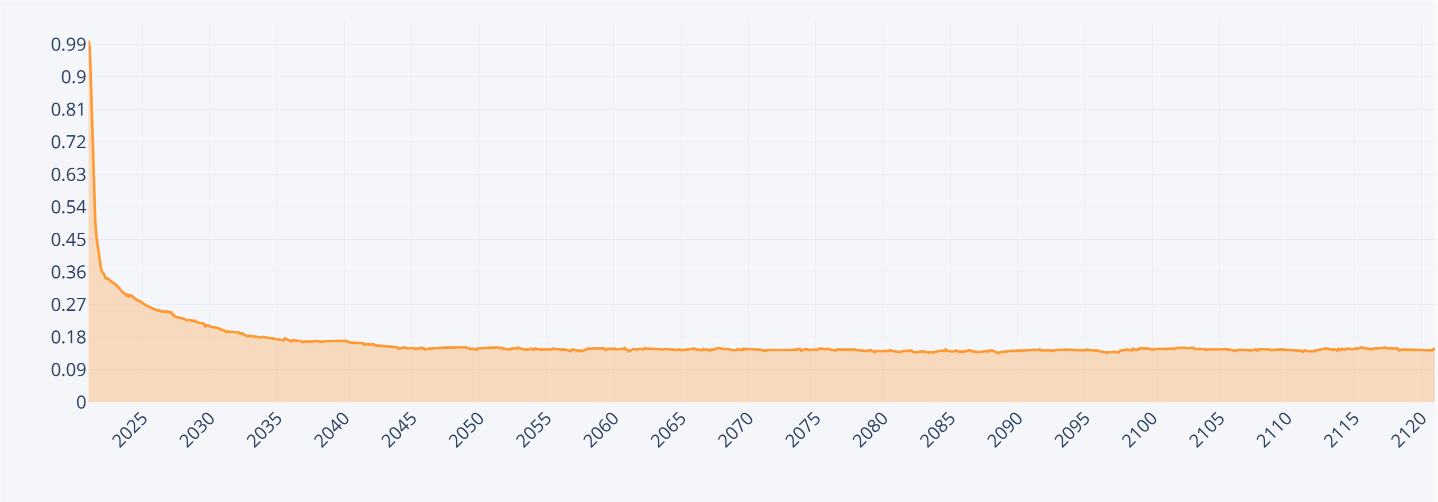
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.1436	39.4293
std	0.3015	78.6482
min	-0.6873	-0.9880
1%	-0.4633	-0.5208
5%	-0.3079	0.3228
10%	-0.2199	1.4328
50%	0.1211	15.2727
90%	0.5403	96.1733
95%	0.6794	155.5089
99%	0.9390	359.9424
max	1.6141	1648.4897

Cross Sectional Volatility Over Time : BASE

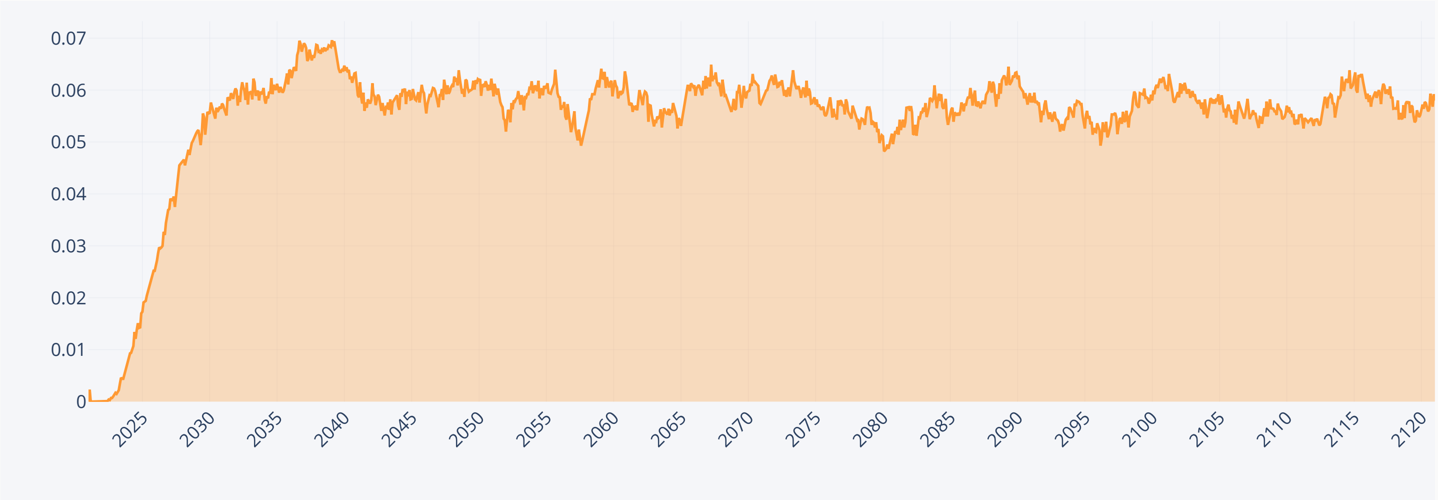


Term Structure Inversion Probability



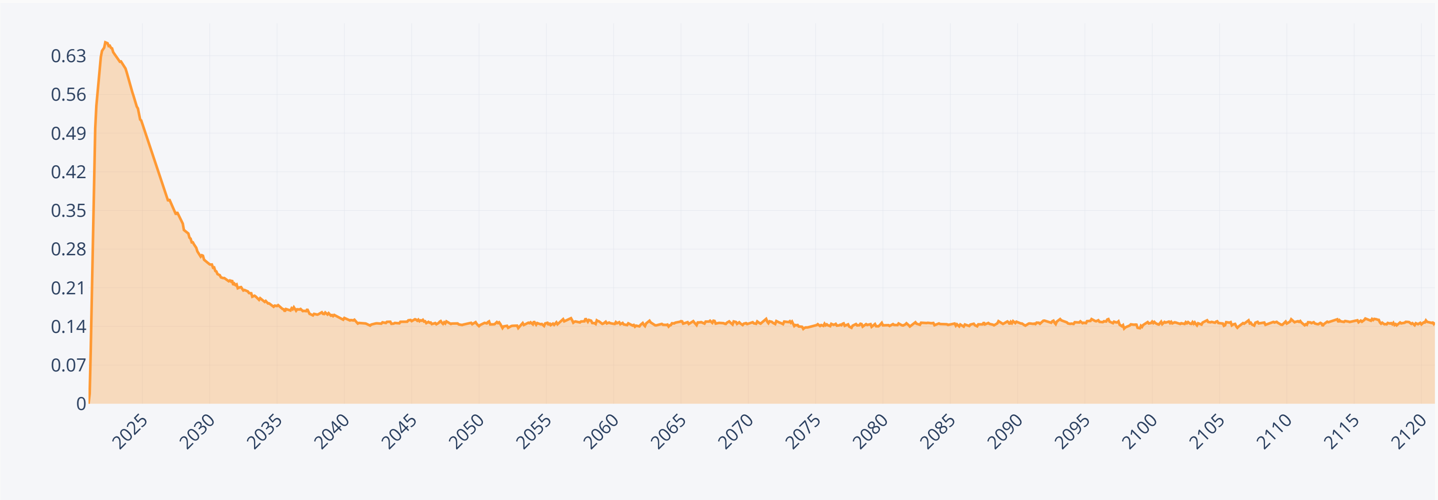
Probability that 1 Year yield is higher than 20 Year Yield.

Term Structure Hump Probability



Probability that 1 Year Yield is higher than both 1 month and 20 Year Yield.

Term Structure Bowl Probability



Probability that 1 Year Yield is lower than than both 1 month and 20 Year Yield.

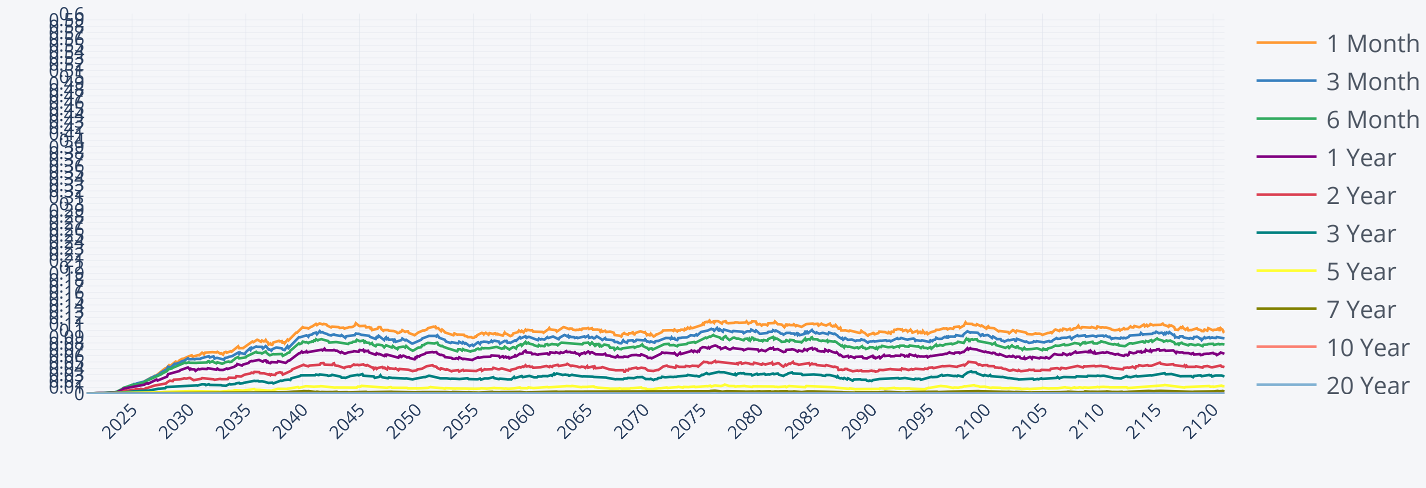
Correlation Matrix of Total Return in the 1st Simulation Year

	Aggressive Foreign Equity	Aggressive US Equity	High Yield Corp Bonds	Int Govt Bonds	Int Inv Corp Bonds	International Diversified Equity	Large Cap	Long Govt Bonds	Long Inv Corp Bonds	Mid Cap	Money Market	Short Govt Bonds	Short Inv Corp Bonds	Small Cap
Aggressive Foreign Equity	1.00	0.60	0.29	-0.01	0.13	0.75	0.76	-0.04	0.12	0.72	-0.11	0.01	0.10	0.70
Aggressive US Equity	0.60	1.00	0.37	-0.02	0.16	0.60	0.82	-0.05	0.16	0.80	-0.11	-0.01	0.12	0.82
High Yield Corp Bonds	0.29	0.37	1.00	0.70	0.90	0.30	0.39	0.66	0.88	0.39	-0.54	0.70	0.87	0.37
Int Govt Bonds	-0.01	-0.02	0.70	1.00	0.94	-0.01	-0.00	0.98	0.93	-0.00	-0.67	0.99	0.93	0.01
Int Inv Corp Bonds	0.13	0.16	0.90	0.94	1.00	0.13	0.17	0.91	0.98	0.18	-0.67	0.93	0.99	0.17
International Diversified Equity	0.75	0.60	0.30	-0.01	0.13	1.00	0.78	-0.05	0.13	0.71	-0.09	0.00	0.10	0.70
Large Cap	0.76	0.82	0.39	-0.00	0.17	0.78	1.00	-0.03	0.18	0.90	-0.12	0.01	0.13	0.90
Long Govt Bonds	-0.04	-0.05	0.66	0.98	0.91	-0.05	-0.03	1.00	0.93	-0.03	-0.62	0.93	0.88	-0.02
Long Inv Corp Bonds	0.12	0.16	0.88	0.93	0.98	0.13	0.18	0.93	1.00	0.18	-0.64	0.90	0.94	0.18
Mid Cap	0.72	0.80	0.39	-0.00	0.18	0.71	0.90	-0.03	0.18	1.00	-0.10	0.01	0.14	0.93
Money Market	-0.11	-0.11	-0.54	-0.67	-0.67	-0.09	-0.12	-0.62	-0.64	-0.10	1.00	-0.64	-0.63	-0.11
Short Govt Bonds	0.01	-0.01	0.70	0.99	0.93	0.00	0.01	0.93	0.90	0.01	-0.64	1.00	0.95	0.02
Short Inv Corp Bonds	0.10	0.12	0.87	0.93	0.99	0.10	0.13	0.88	0.94	0.14	-0.63	0.95	1.00	0.13
Small Cap	0.70	0.82	0.37	0.01	0.17	0.70	0.90	-0.02	0.18	0.93	-0.11	0.02	0.13	1.00

Correlation Matrix of Total Return in the 30th Simulation Year

	Aggressive Foreign Equity	Aggressive US Equity	High Yield Corp Bonds	Int Govt Bonds	Int Inv Corp Bonds	International Diversified Equity	Large Cap	Long Govt Bonds	Long Inv Corp Bonds	Mid Cap	Money Market	Short Govt Bonds	Short Inv Corp Bonds	Small Cap
Aggressive Foreign Equity	1.00	0.65	0.23	-0.08	0.09	0.57	0.79	-0.10	0.10	0.70	0.01	-0.05	0.04	0.69
Aggressive US Equity	0.65	1.00	0.28	-0.12	0.09	0.63	0.82	-0.14	0.11	0.82	0.01	-0.08	0.04	0.82
High Yield Corp Bonds	0.23	0.28	1.00	0.55	0.81	0.23	0.30	0.52	0.81	0.30	0.26	0.53	0.72	0.28
Int Govt Bonds	-0.08	-0.12	0.55	1.00	0.91	-0.09	-0.10	0.98	0.89	-0.11	0.38	0.93	0.87	-0.11
Int Inv Corp Bonds	0.09	0.09	0.81	0.91	1.00	0.08	0.11	0.88	0.98	0.11	0.38	0.86	0.93	0.09
International Diversified Equity	0.57	0.63	0.23	-0.09	0.08	1.00	0.76	-0.11	0.09	0.68	0.02	-0.05	0.04	0.67
Large Cap	0.79	0.82	0.30	-0.10	0.11	0.76	1.00	-0.13	0.13	0.89	0.01	-0.07	0.05	0.88
Long Govt Bonds	-0.10	-0.14	0.52	0.98	0.88	-0.11	-0.13	1.00	0.89	-0.14	0.24	0.84	0.78	-0.13
Long Inv Corp Bonds	0.10	0.11	0.81	0.89	0.98	0.09	0.13	0.89	1.00	0.12	0.26	0.79	0.85	0.11
Mid Cap	0.70	0.82	0.30	-0.11	0.11	0.68	0.89	-0.14	0.12	1.00	0.01	-0.06	0.05	0.92
Money Market	0.01	0.01	0.26	0.38	0.38	0.02	0.01	0.24	0.26	0.01	1.00	0.68	0.68	0.01
Short Govt Bonds	-0.05	-0.08	0.53	0.93	0.86	-0.05	-0.07	0.84	0.79	-0.06	0.68	1.00	0.96	-0.07
Short Inv Corp Bonds	0.04	0.04	0.72	0.87	0.93	0.04	0.05	0.78	0.85	0.05	0.68	0.96	1.00	0.04
Small Cap	0.69	0.82	0.28	-0.11	0.09	0.67	0.88	-0.13	0.11	0.92	0.01	-0.07	0.04	1.00

Negative Yields Probability



The above plot shows percent of negative yields across the scenarios for each time period.

Negative Probability Summary

	2021-12-31T00:00:00	2030-12-31T00:00:00	2040-12-31T00:00:00	2050-12-31T00:00:00
1 Month	0.0000	0.0625	0.1074	0.1033
3 Month	0.0000	0.0548	0.0955	0.0904
6 Month	0.0000	0.0489	0.0841	0.0801
1 Year	0.0000	0.0394	0.0677	0.0659
2 Year	0.0000	0.0230	0.0445	0.0436
3 Year	0.0000	0.0137	0.0285	0.0269
5 Year	0.0000	0.0042	0.0109	0.0091
7 Year	0.0000	0.0010	0.0025	0.0019
10 Year	0.0000	0.0000	0.0001	0.0002
20 Year	0.0000	0.0000	0.0000	0.0000
30 Year	0.0000	0.0000	0.0000	0.0000