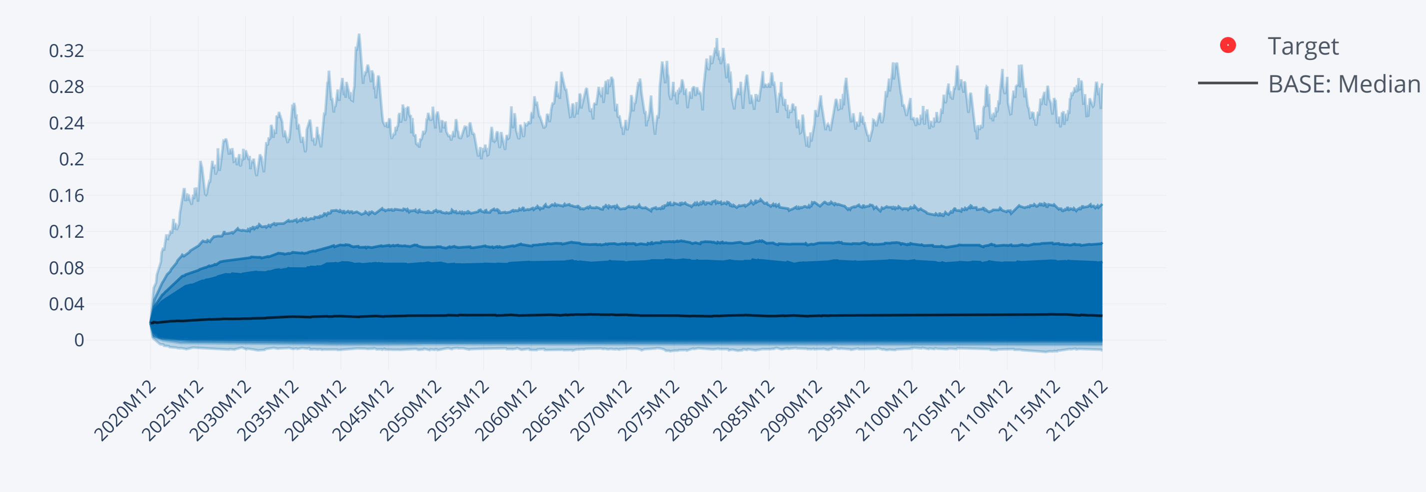
US Treasury 1 Month Yield - Spot

Conning | Risk Solutions

Dec 2004 - Higher Targets

Validation Report

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

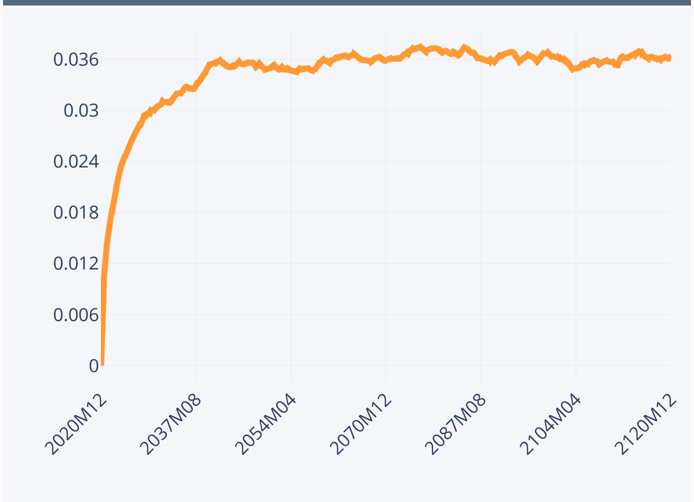


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

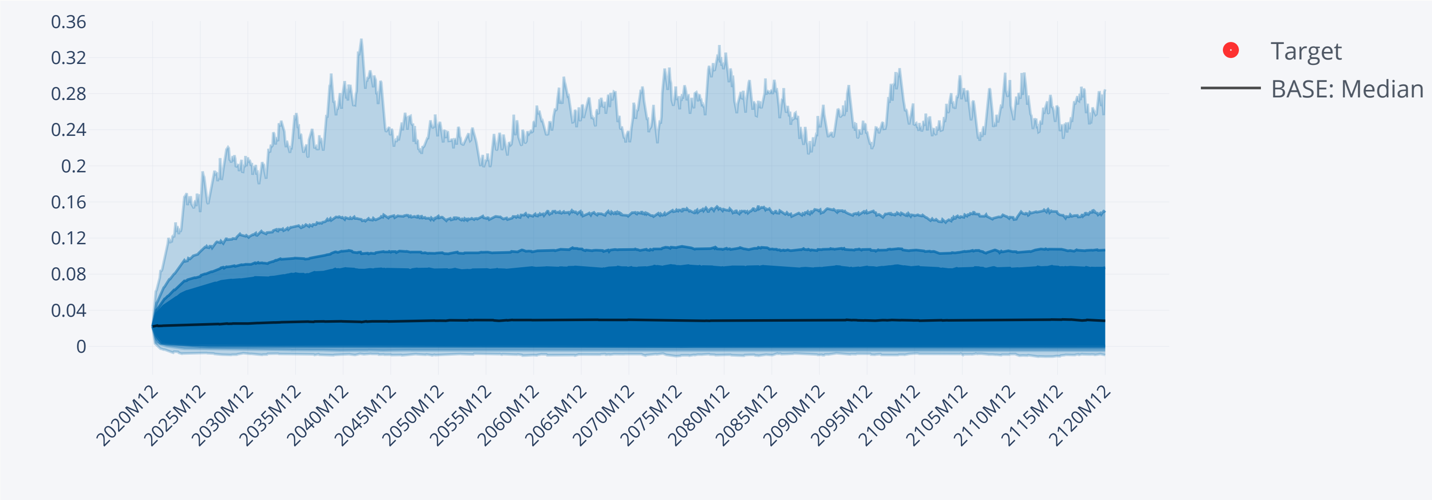
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0207	0.0353
std	0.0142	0.0351
min	-0.0045	-0.0097
1%	0.0004	-0.0049
5%	0.0022	-0.0020
10%	0.0032	-0.0001
50%	0.0194	0.0270
90%	0.0401	0.0849
95%	0.0462	0.1026
99%	0.0585	0.1436
max	0.0825	0.2474

Cross Sectional Volatility Over Time : BASE



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

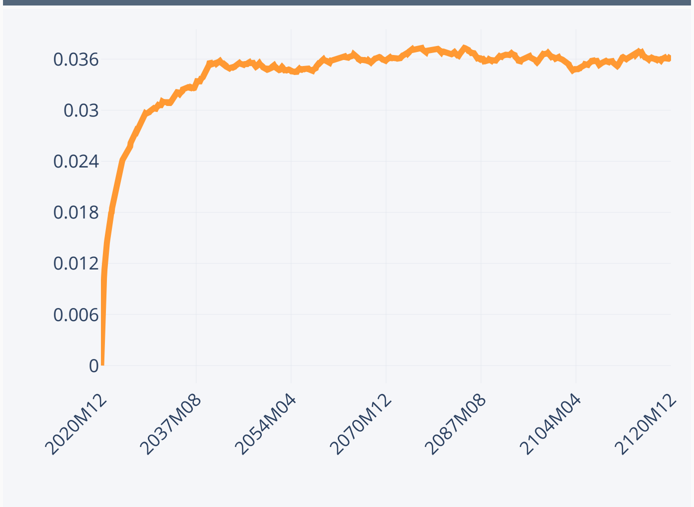


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

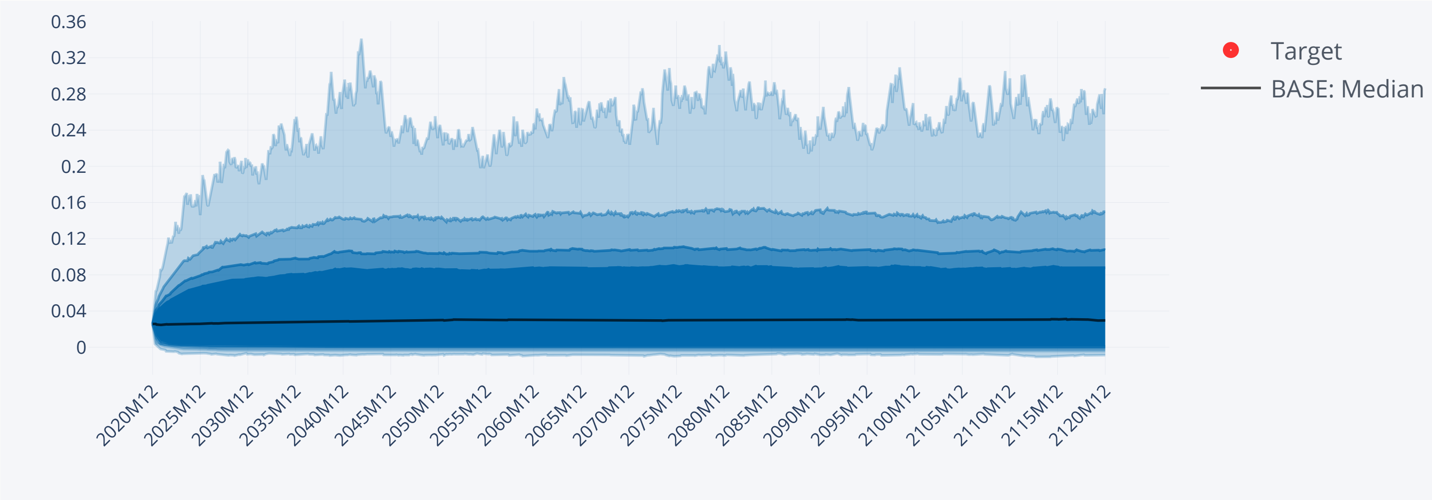
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0236	0.0363
std	0.0144	0.0351
min	-0.0035	-0.0088
1%	0.0012	-0.0044
5%	0.0029	-0.0016
10%	0.0040	0.0004
50%	0.0227	0.0284
90%	0.0430	0.0860
95%	0.0489	0.1030
99%	0.0608	0.1444
max	0.0851	0.2443

Cross Sectional Volatility Over Time : BASE



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

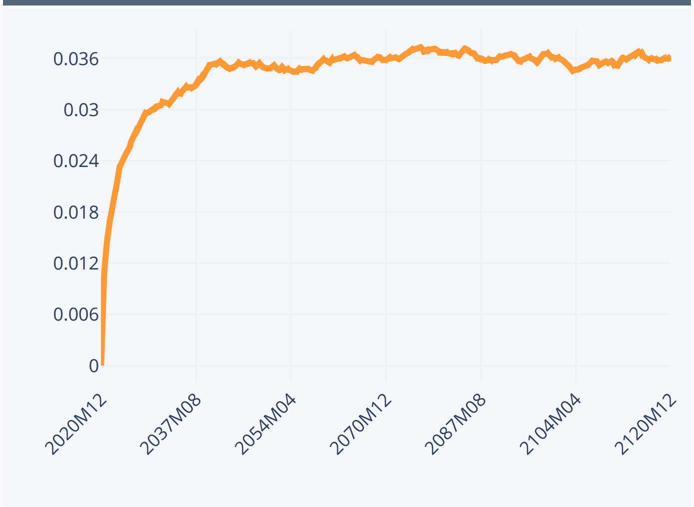


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0258	0.0372
std	0.0144	0.0350
min	-0.0028	-0.0084
1%	0.0018	-0.0039
5%	0.0035	-0.0012
10%	0.0066	0.0007
50%	0.0250	0.0297
90%	0.0451	0.0865
95%	0.0508	0.1035
99%	0.0625	0.1437
max	0.0865	0.2416

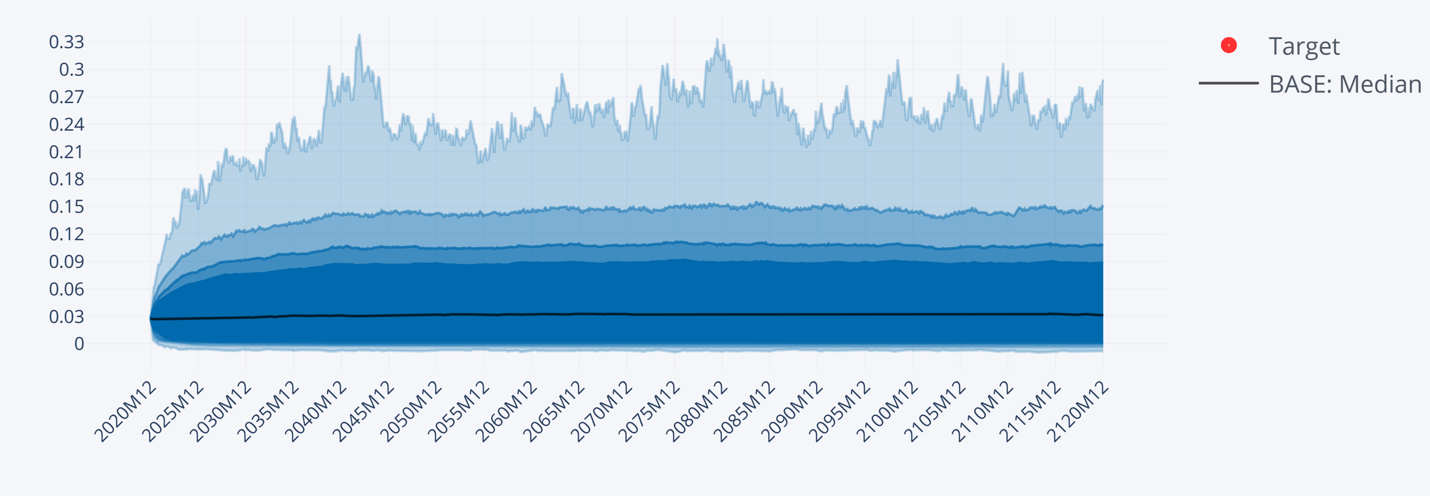
Cross Sectional Volatility Over Time : BASE



US Treasury 1 Year Yield - Spot
Conning | Risk Solutions

Dec 2004 - Higher Targets
Validation Report

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

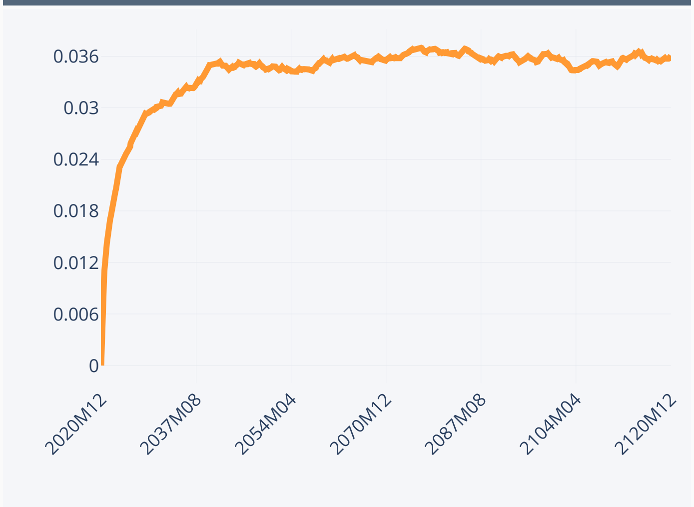


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0281	0.0385
std	0.0143	0.0348
min	-0.0020	-0.0078
1%	0.0025	-0.0033
5%	0.0047	-0.0006
10%	0.0097	0.0013
50%	0.0275	0.0314
90%	0.0471	0.0871
95%	0.0525	0.1041
99%	0.0642	0.1440
max	0.0872	0.2381

Cross Sectional Volatility Over Time : BASE



US Treasury 2 Year Yield - Spot

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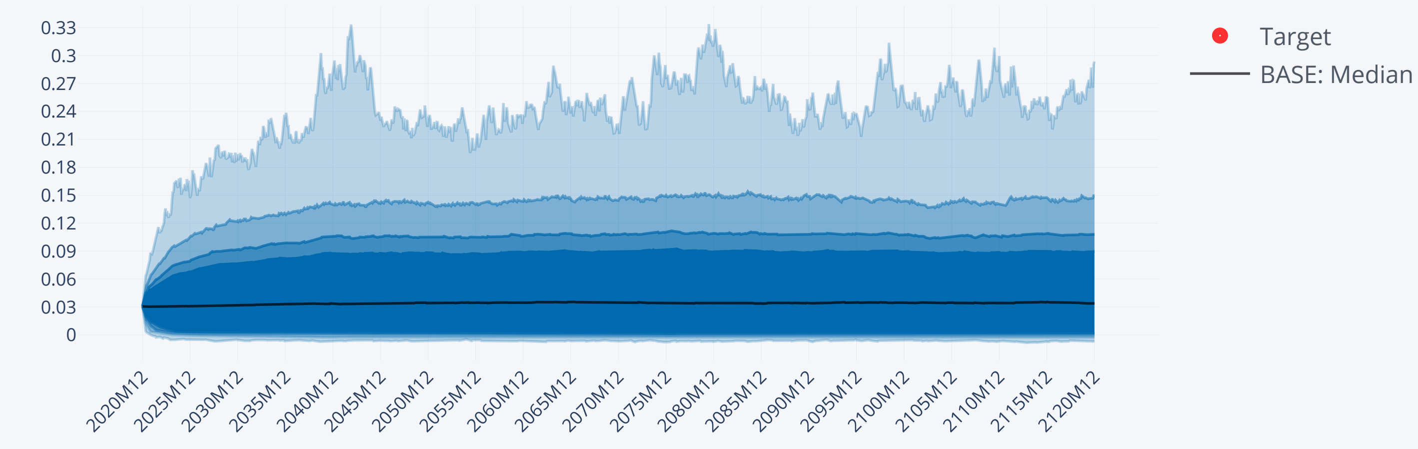
Dec 2004 - Higher Targets

Validation Report

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

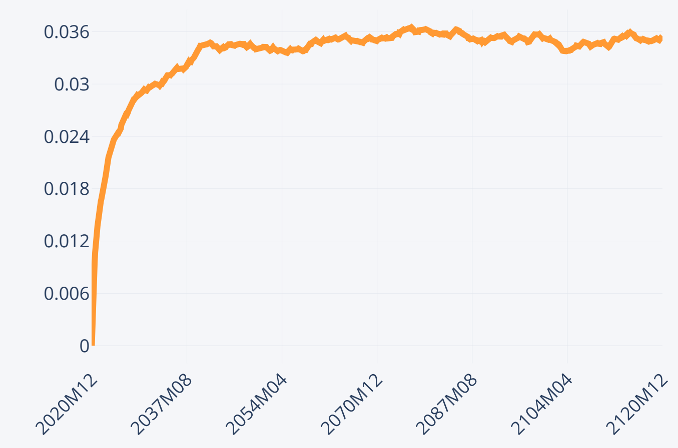


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0310	0.0404
std	0.0138	0.0342
min	-0.0010	-0.0067
1%	0.0034	-0.0023
5%	0.0088	0.0003
10%	0.0136	0.0021
50%	0.0305	0.0342
90%	0.0491	0.0881
95%	0.0543	0.1042
99%	0.0655	0.1426
max	0.0868	0.2324

Cross Sectional Volatility Over Time : BASE



US Treasury 3 Year Yield - Spot

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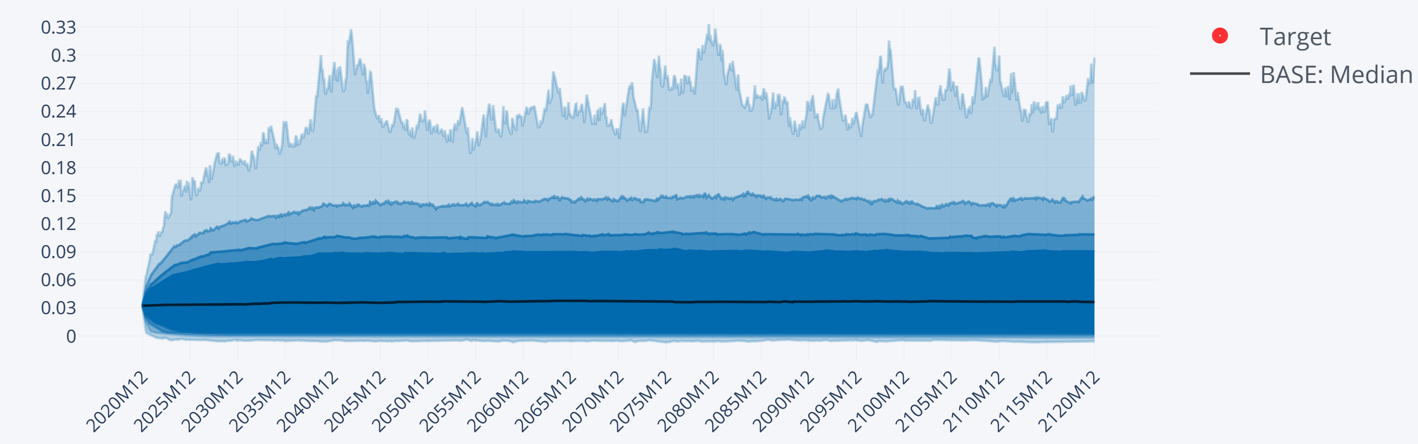
Dec 2004 - Higher Targets

Validation Report

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

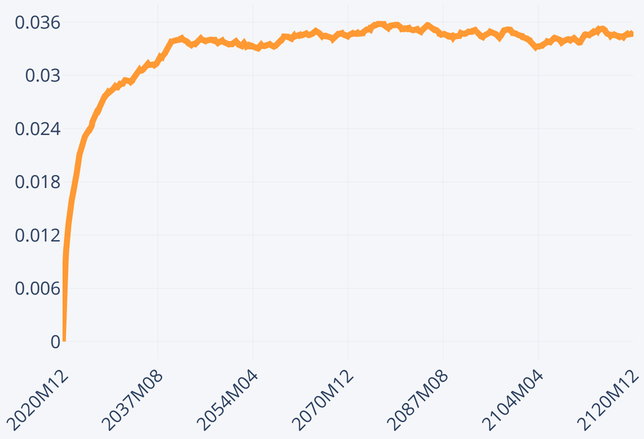


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0332	0.0422
std	0.0133	0.0337
min	-0.0001	-0.0056
1%	0.0046	-0.0014
5%	0.0122	0.0011
10%	0.0166	0.0029
50%	0.0328	0.0366
90%	0.0507	0.0889
95%	0.0556	0.1048
99%	0.0664	0.1406
max	0.0861	0.2274

Cross Sectional Volatility Over Time : BASE



US Treasury 4 Year Yield - Spot
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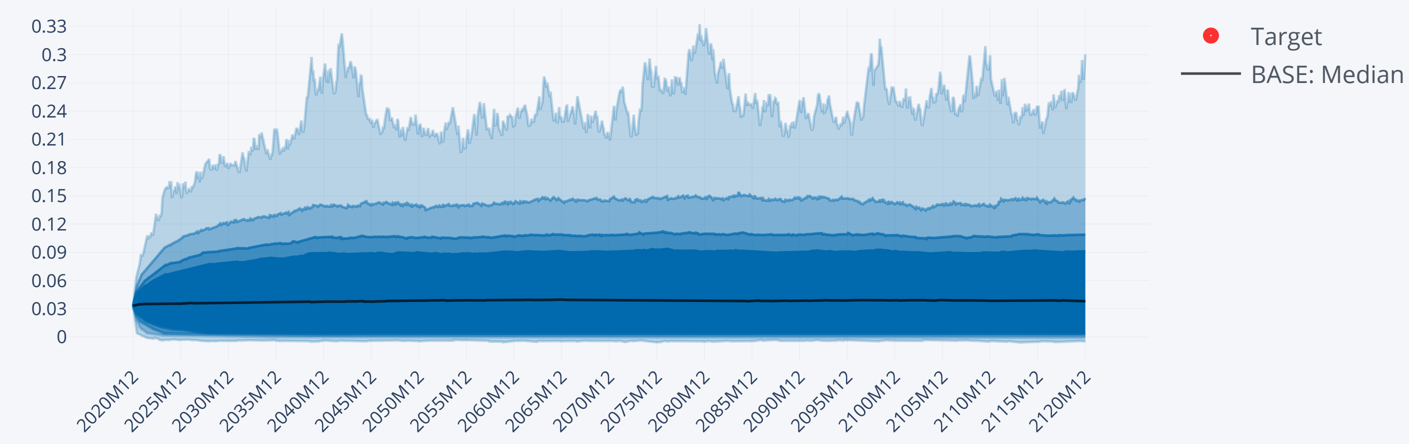
Dec 2004 - Higher Targets
Validation Report

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

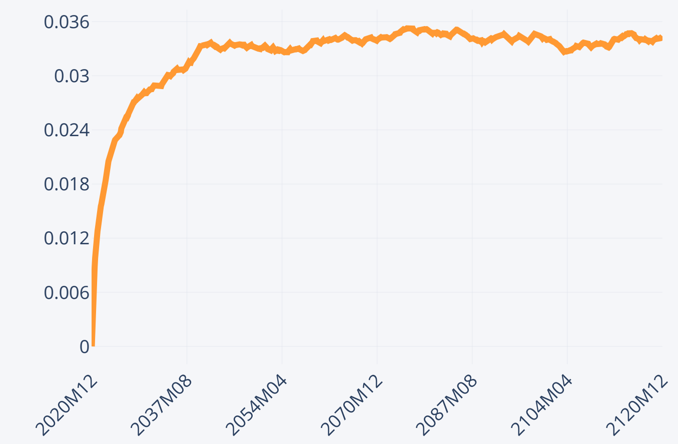


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0354	0.0437
std	0.0128	0.0332
min	0.0007	-0.0046
1%	0.0078	-0.0006
5%	0.0151	0.0018
10%	0.0194	0.0035
50%	0.0350	0.0386
90%	0.0521	0.0896
95%	0.0569	0.1051
99%	0.0673	0.1394
max	0.0857	0.2229

Cross Sectional Volatility Over Time : BASE



US Treasury 5 Year Yield - Spot

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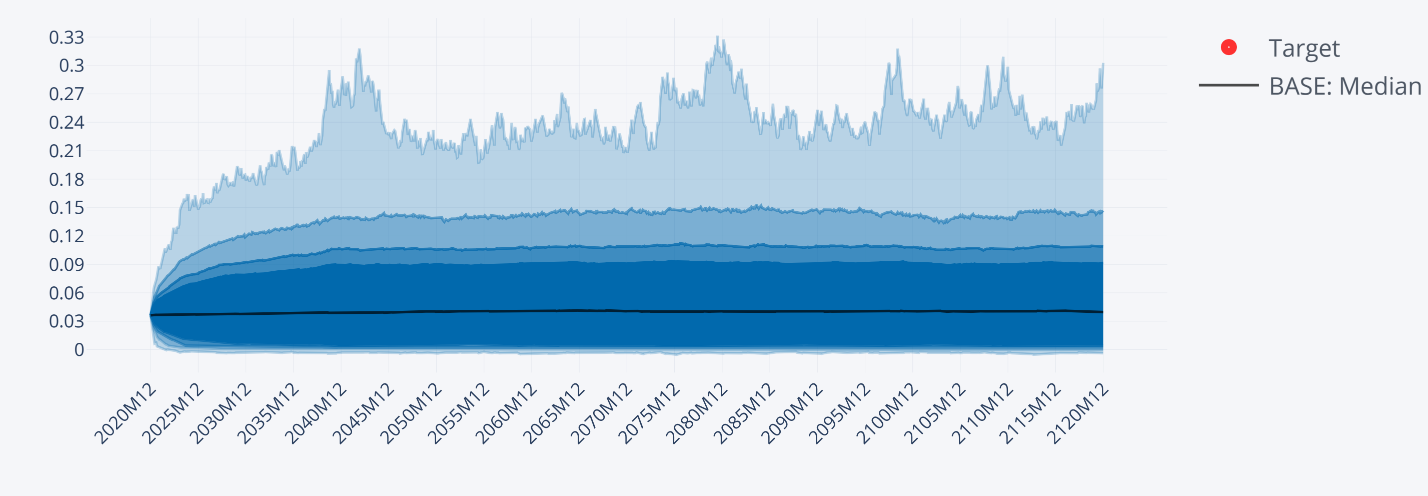
Dec 2004 - Higher Targets

Validation Report

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

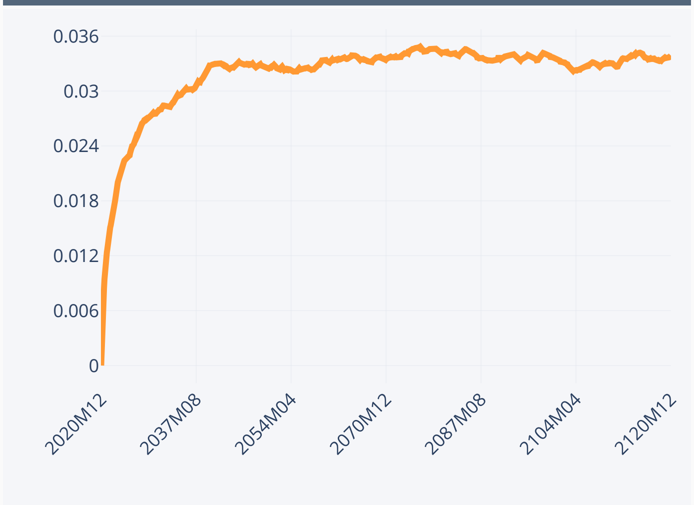


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

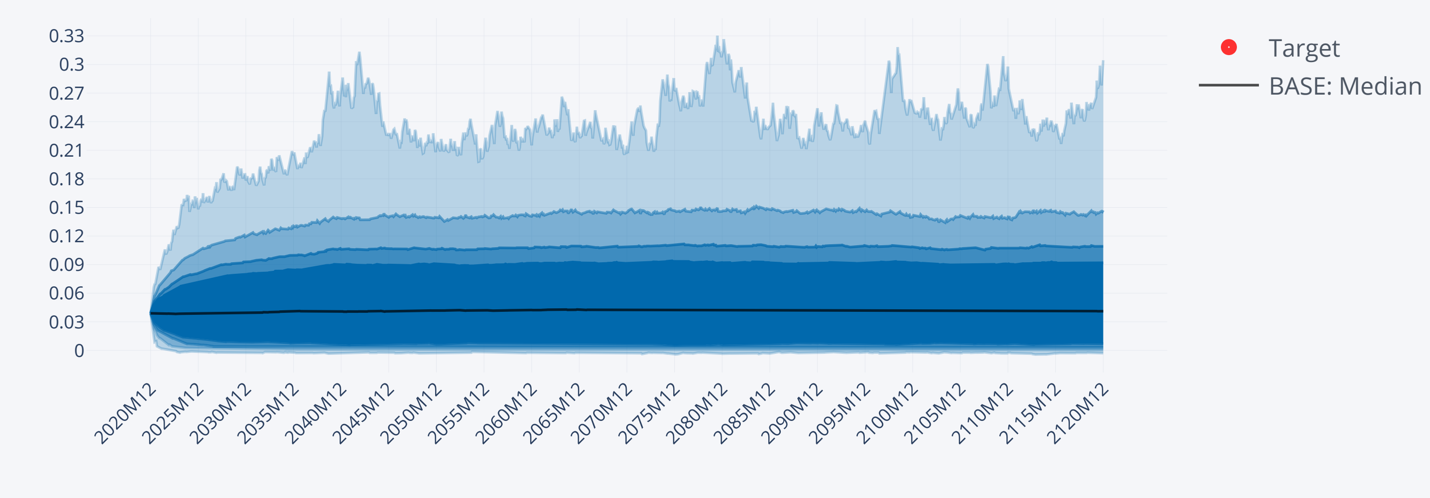
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0372	0.0452
std	0.0124	0.0327
min	0.0013	-0.0038
1%	0.0104	0.0002
5%	0.0176	0.0024
10%	0.0218	0.0044
50%	0.0368	0.0403
90%	0.0535	0.0903
95%	0.0582	0.1055
99%	0.0682	0.1389
max	0.0852	0.2188

Cross Sectional Volatility Over Time : BASE



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

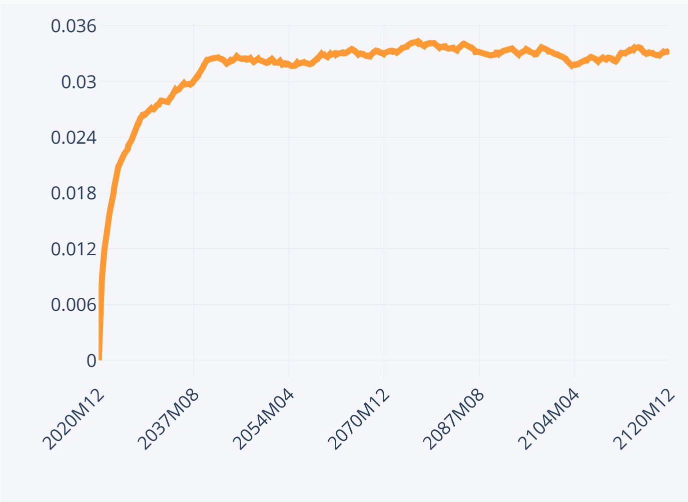


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0388	0.0464
std	0.0120	0.0322
min	0.0019	-0.0030
1%	0.0127	0.0008
5%	0.0198	0.0030
10%	0.0238	0.0066
50%	0.0384	0.0420
90%	0.0546	0.0908
95%	0.0592	0.1057
99%	0.0688	0.1391
max	0.0846	0.2151

Cross Sectional Volatility Over Time : BASE



US Treasury 7 Year Yield - Spot
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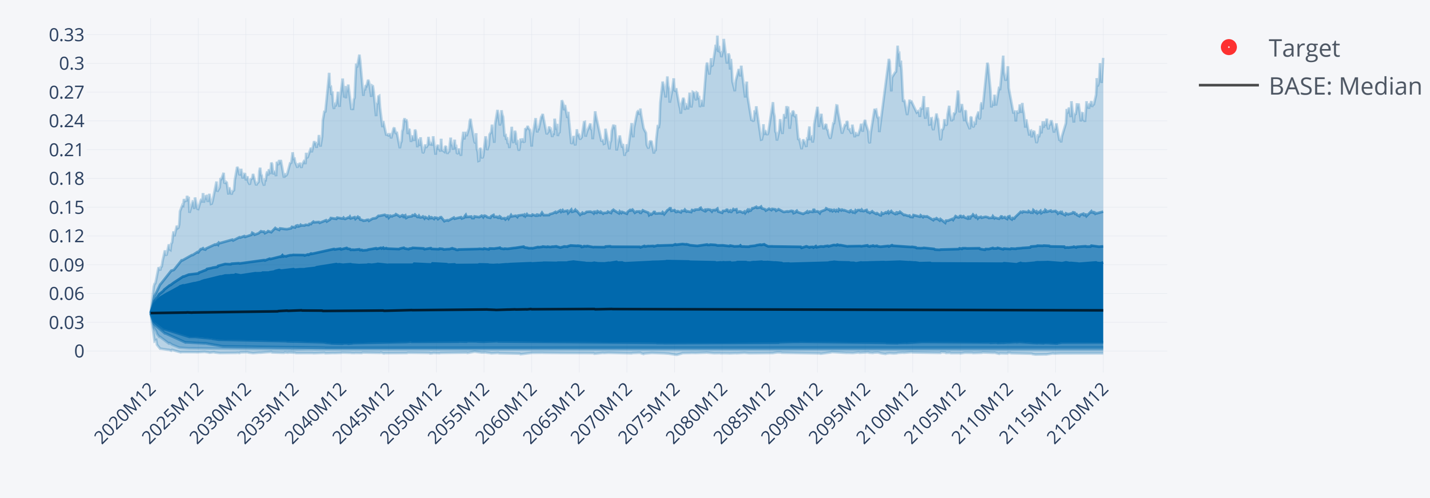
Dec 2004 - Higher Targets
Validation Report

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

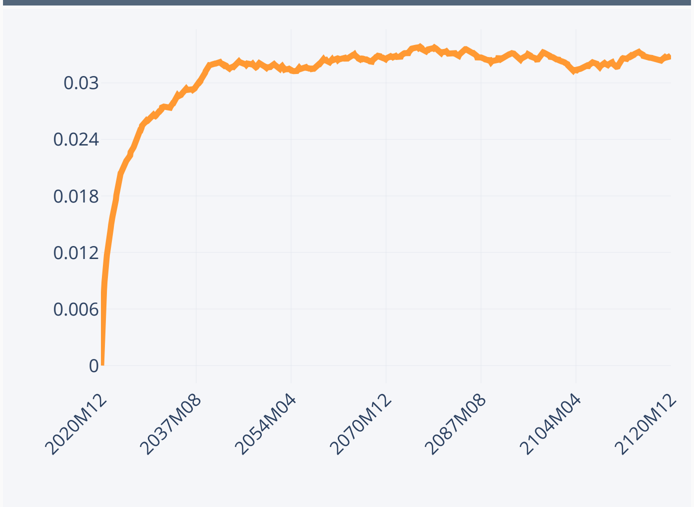


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0401	0.0476
std	0.0117	0.0318
min	0.0024	-0.0023
1%	0.0147	0.0014
5%	0.0216	0.0034
10%	0.0255	0.0089
50%	0.0397	0.0432
90%	0.0554	0.0913
95%	0.0600	0.1059
99%	0.0693	0.1389
max	0.0840	0.2116

Cross Sectional Volatility Over Time : BASE



US Treasury 8 Year Yield - Spot
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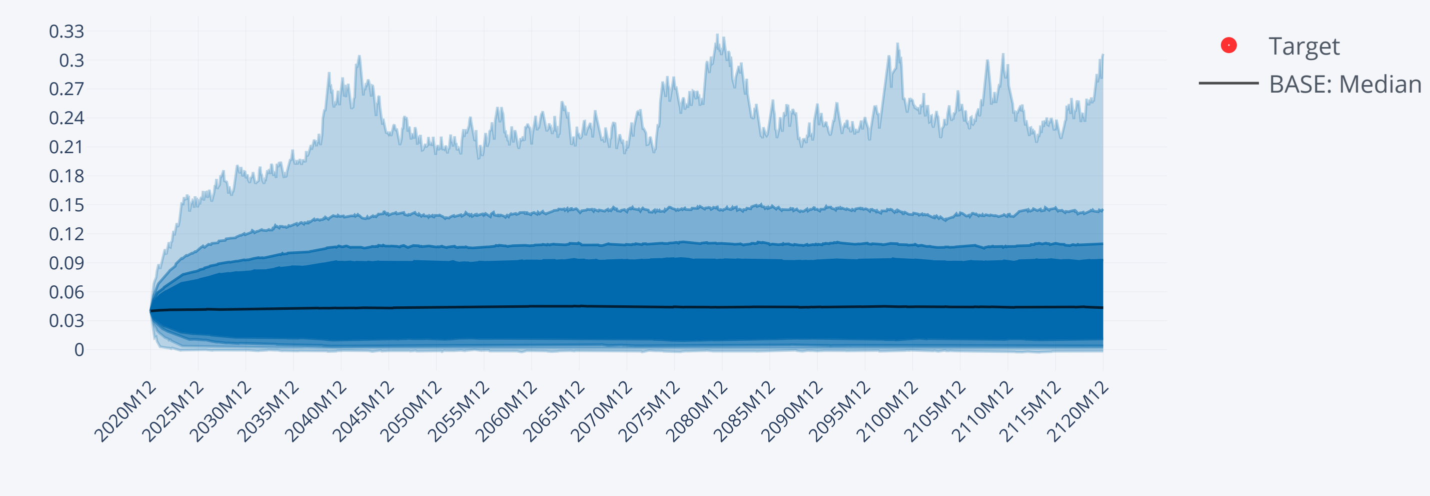
Dec 2004 - Higher Targets
Validation Report

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

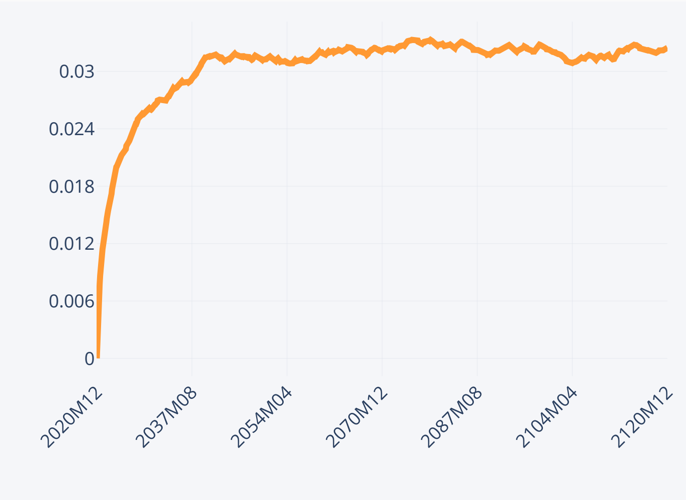


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0413	0.0486
std	0.0114	0.0314
min	0.0029	-0.0017
1%	0.0165	0.0019
5%	0.0233	0.0039
10%	0.0271	0.0108
50%	0.0408	0.0443
90%	0.0562	0.0918
95%	0.0607	0.1063
99%	0.0698	0.1385
max	0.0838	0.2084

Cross Sectional Volatility Over Time : BASE



US Treasury 9 Year Yield - Spot
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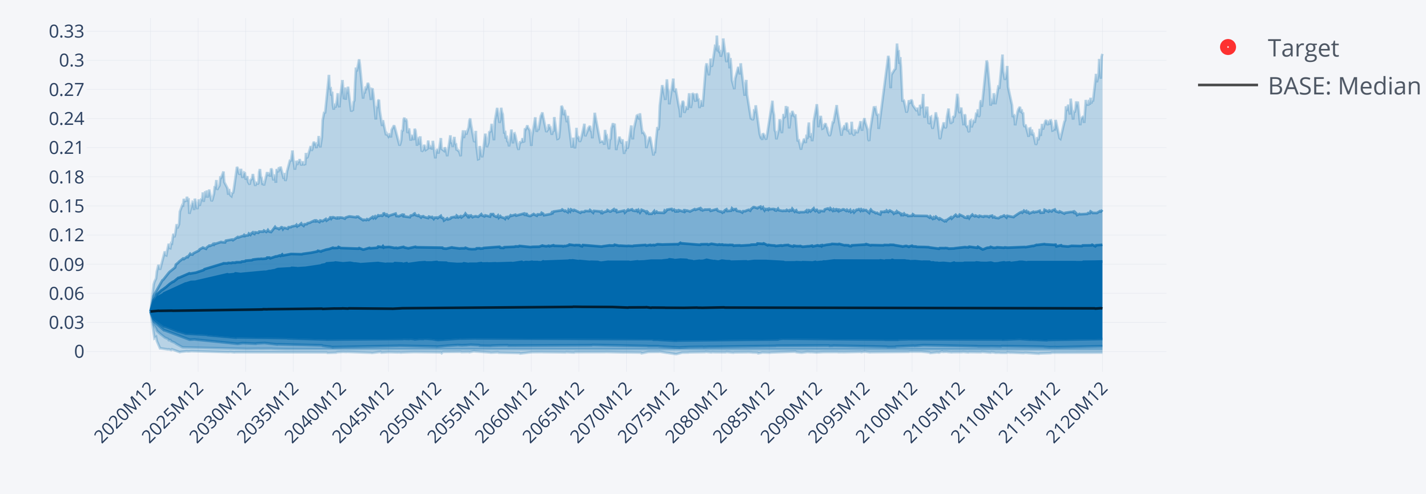
Dec 2004 - Higher Targets
Validation Report

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

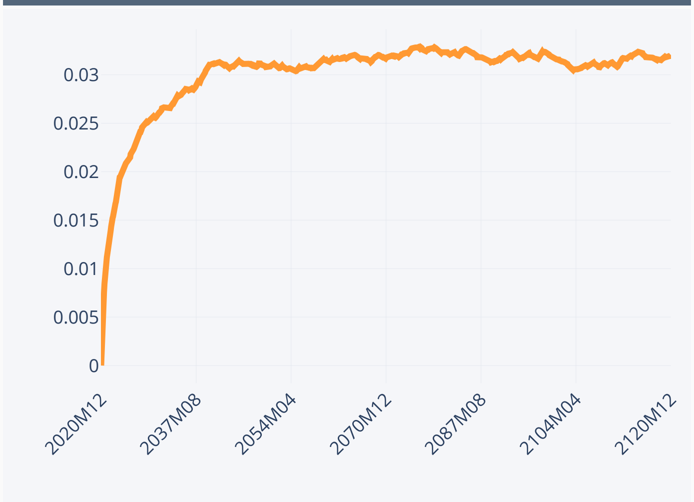


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

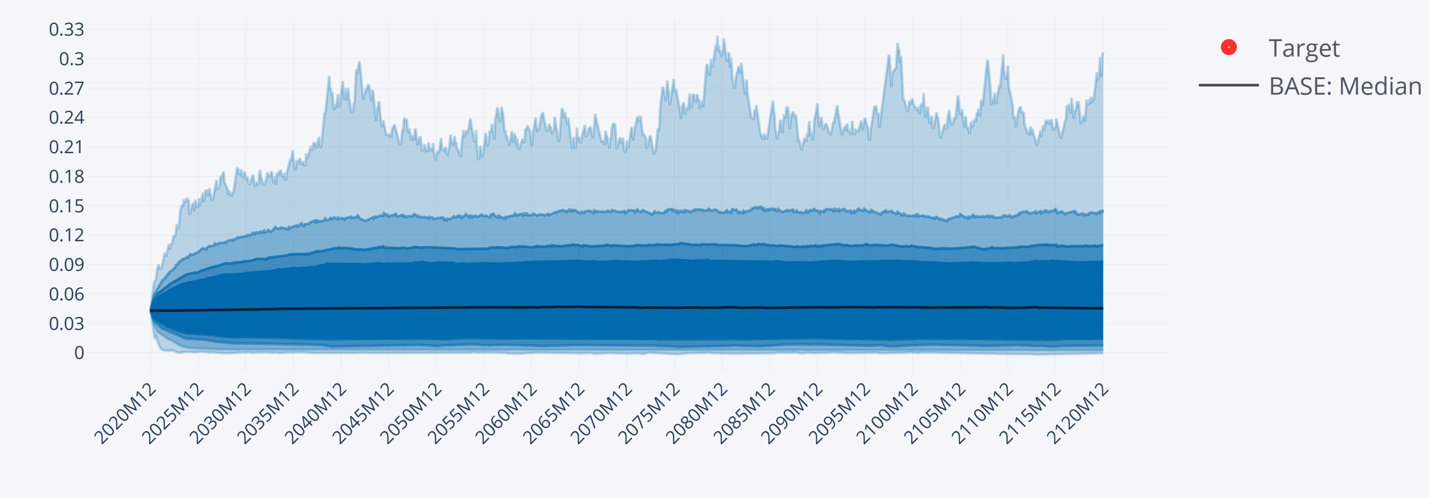
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0424	0.0495
std	0.0112	0.0310
min	0.0033	-0.0012
1%	0.0183	0.0023
5%	0.0248	0.0052
10%	0.0285	0.0125
50%	0.0420	0.0453
90%	0.0569	0.0921
95%	0.0614	0.1065
99%	0.0702	0.1383
max	0.0843	0.2053

Cross Sectional Volatility Over Time : BASE



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

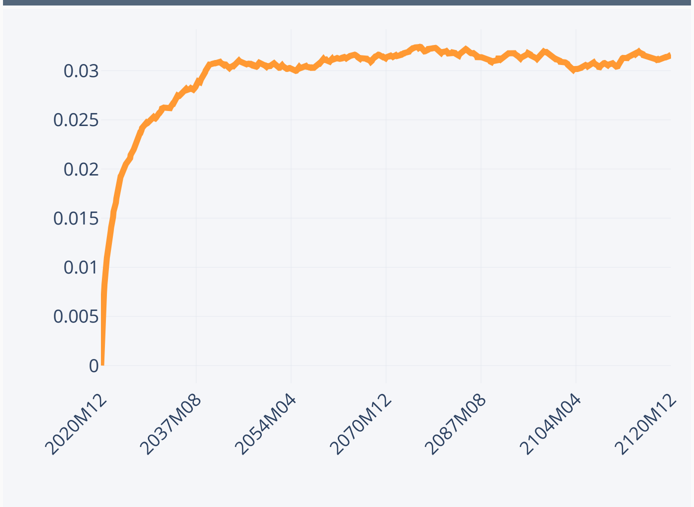


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0434	0.0502
std	0.0110	0.0306
min	0.0037	-0.0007
1%	0.0198	0.0027
5%	0.0262	0.0069
10%	0.0298	0.0140
50%	0.0430	0.0461
90%	0.0576	0.0922
95%	0.0619	0.1066
99%	0.0706	0.1382
max	0.0848	0.2025

Cross Sectional Volatility Over Time : BASE



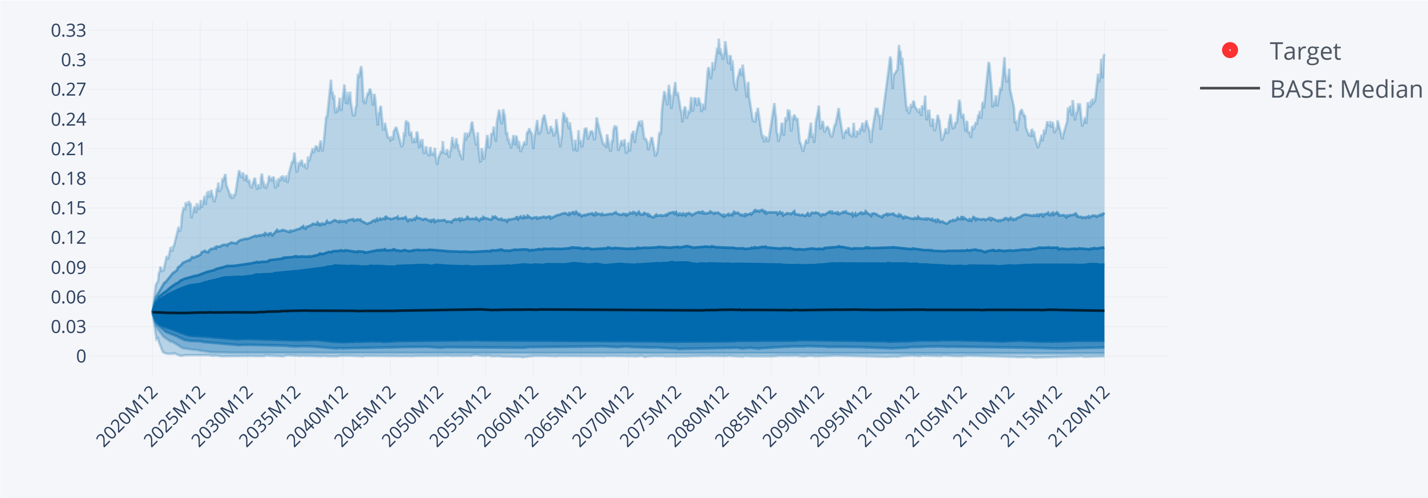
US Treasury 11 Year Yield - Spot

Conning | Risk Solutions

Dec 2004 - Higher Targets

Validation Report

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

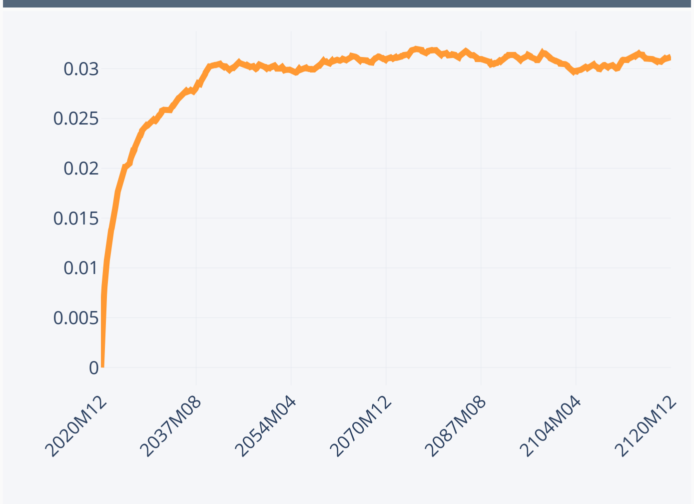


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0442	0.0509
std	0.0108	0.0302
min	0.0044	-0.0002
1%	0.0210	0.0031
5%	0.0274	0.0084
10%	0.0309	0.0153
50%	0.0438	0.0468
90%	0.0582	0.0924
95%	0.0624	0.1066
99%	0.0710	0.1377
max	0.0854	0.1997

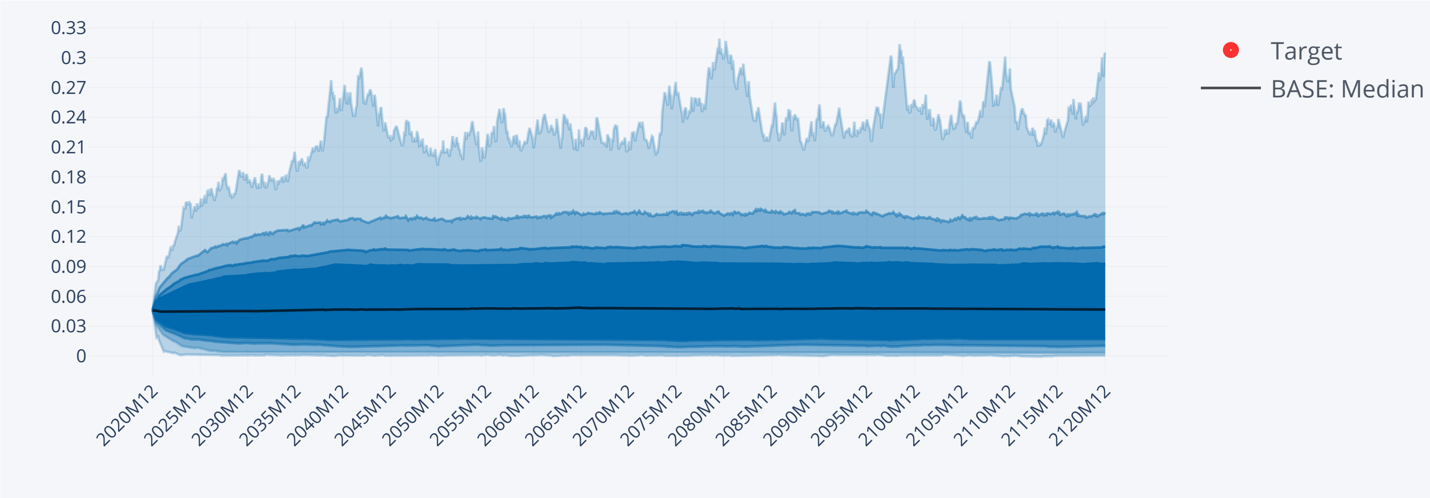
Cross Sectional Volatility Over Time : BASE



US Treasury 12 Year Yield - Spot
Conning | Risk Solutions

Dec 2004 - Higher Targets
Validation Report

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

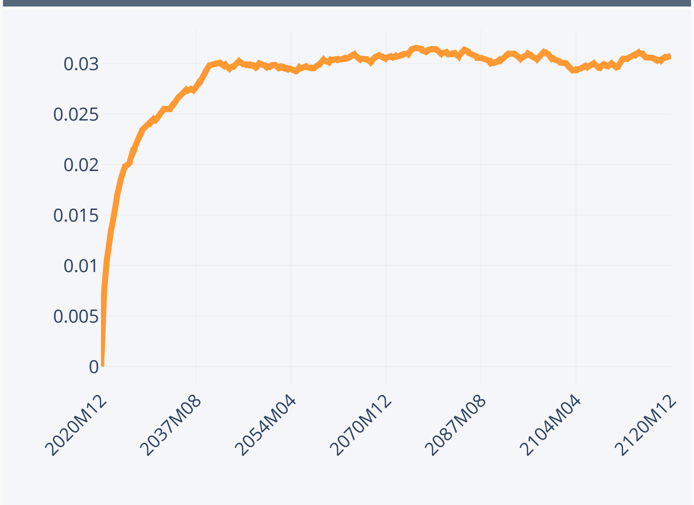


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0450	0.0515
std	0.0106	0.0298
min	0.0060	0.0002
1%	0.0222	0.0034
5%	0.0284	0.0097
10%	0.0318	0.0165
50%	0.0446	0.0475
90%	0.0587	0.0926
95%	0.0629	0.1065
99%	0.0712	0.1373
max	0.0858	0.1970

Cross Sectional Volatility Over Time : BASE



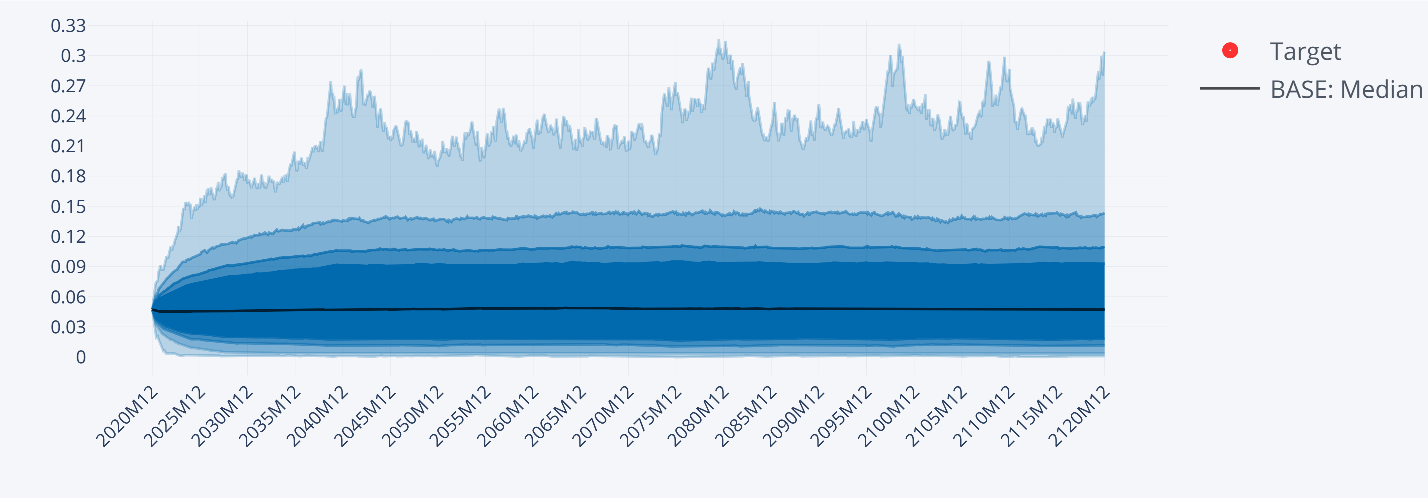
US Treasury 13 Year Yield - Spot

Conning | Risk Solutions

Dec 2004 - Higher Targets

Validation Report

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

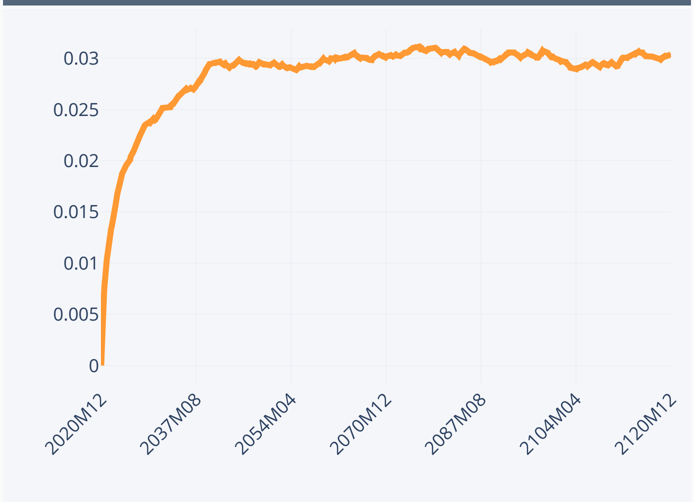


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0456	0.0520
std	0.0104	0.0294
min	0.0074	0.0006
1%	0.0233	0.0037
5%	0.0293	0.0109
10%	0.0327	0.0176
50%	0.0452	0.0480
90%	0.0591	0.0927
95%	0.0632	0.1063
99%	0.0716	0.1367
max	0.0861	0.1945

Cross Sectional Volatility Over Time : BASE



US Treasury 14 Year Yield - Spot

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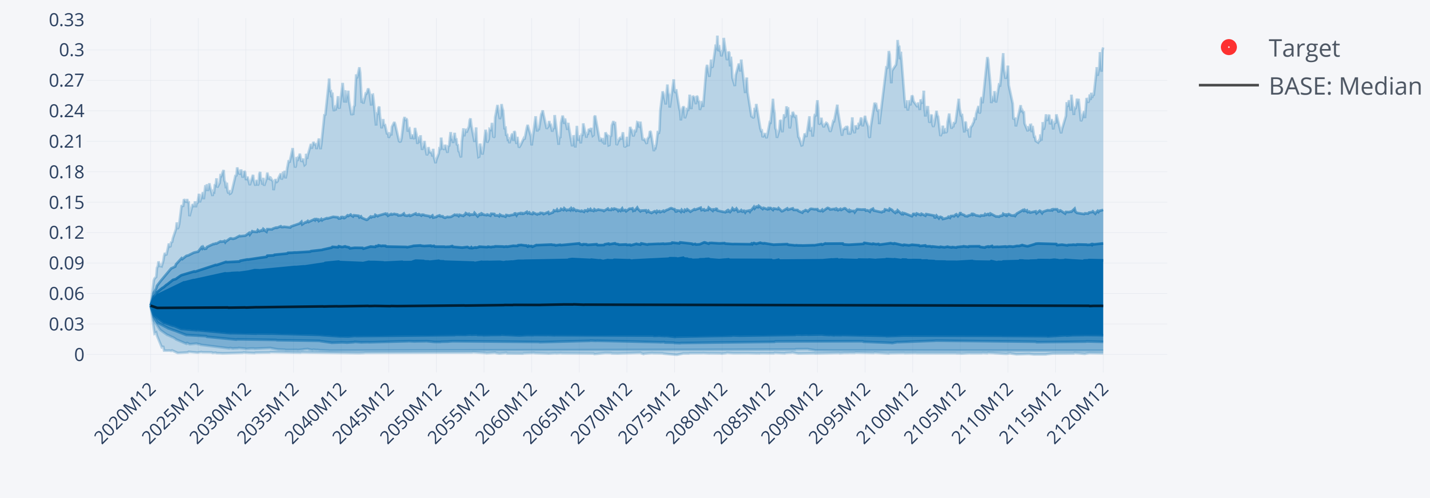
Dec 2004 - Higher Targets

Validation Report

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

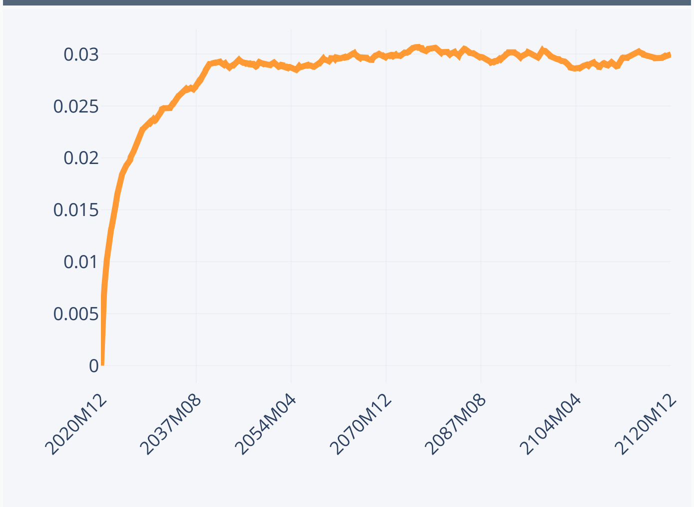


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

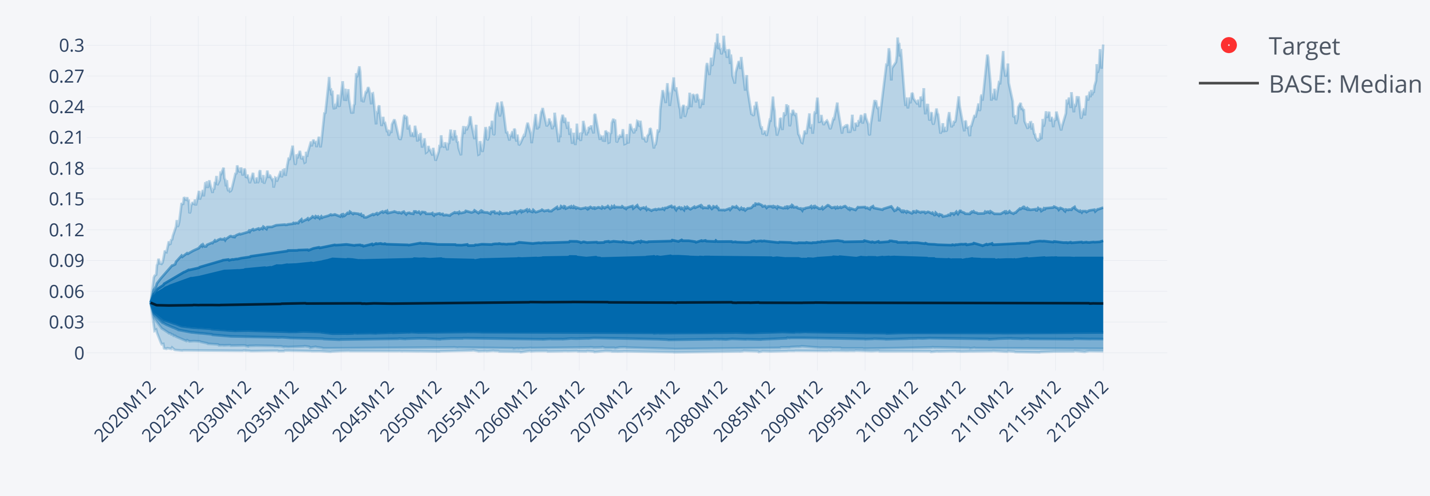
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0462	0.0525
std	0.0102	0.0291
min	0.0087	0.0010
1%	0.0242	0.0039
5%	0.0302	0.0121
10%	0.0334	0.0186
50%	0.0457	0.0485
90%	0.0594	0.0927
95%	0.0635	0.1061
99%	0.0717	0.1355
max	0.0863	0.1920

Cross Sectional Volatility Over Time : BASE



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

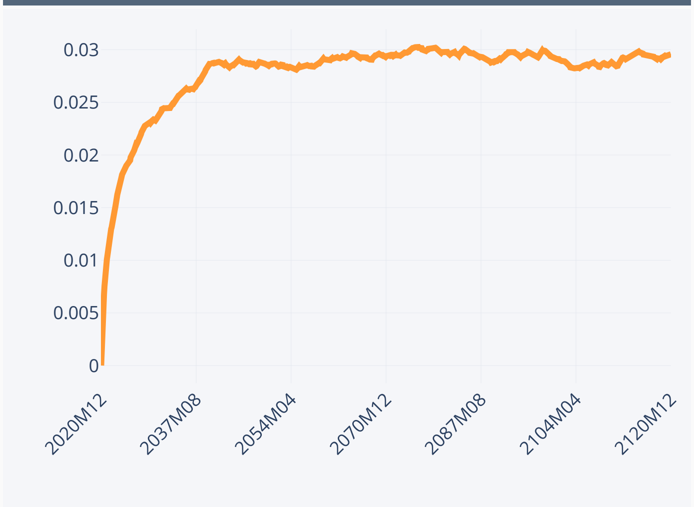


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0466	0.0528
std	0.0101	0.0287
min	0.0100	0.0013
1%	0.0249	0.0048
5%	0.0309	0.0131
10%	0.0341	0.0195
50%	0.0462	0.0489
90%	0.0597	0.0925
95%	0.0636	0.1059
99%	0.0717	0.1351
max	0.0864	0.1895

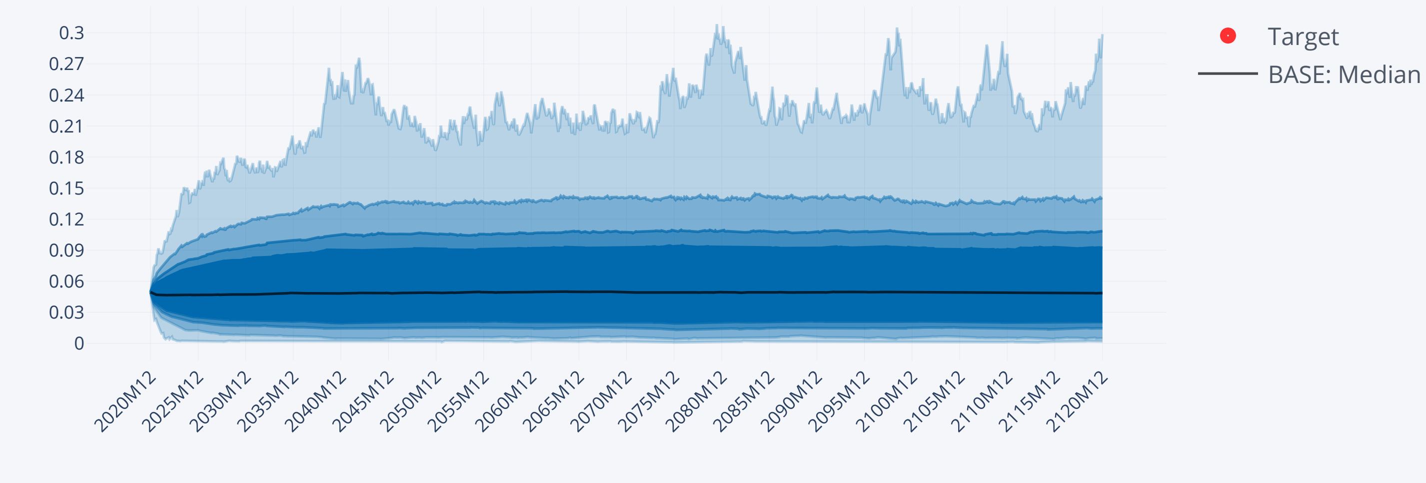
Cross Sectional Volatility Over Time : BASE



US Treasury 16 Year Yield - Spot
Conning | Risk Solutions

Dec 2004 - Higher Targets
Validation Report

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

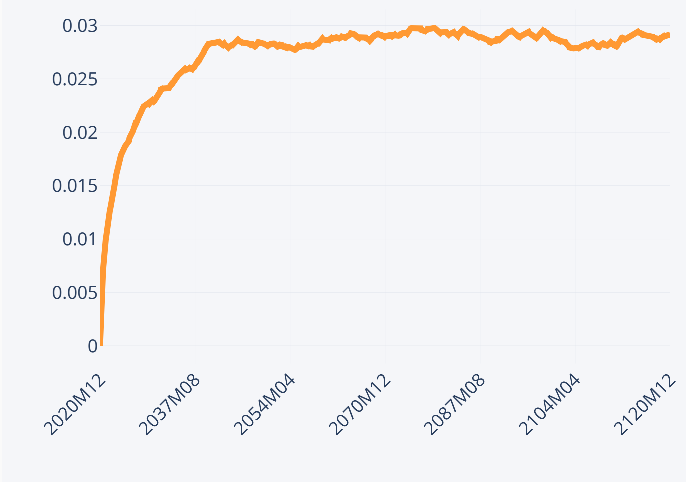


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0470	0.0531
std	0.0099	0.0283
min	0.0111	0.0016
1%	0.0256	0.0059
5%	0.0316	0.0141
10%	0.0346	0.0204
50%	0.0465	0.0493
90%	0.0599	0.0923
95%	0.0637	0.1057
99%	0.0717	0.1345
max	0.0864	0.1871

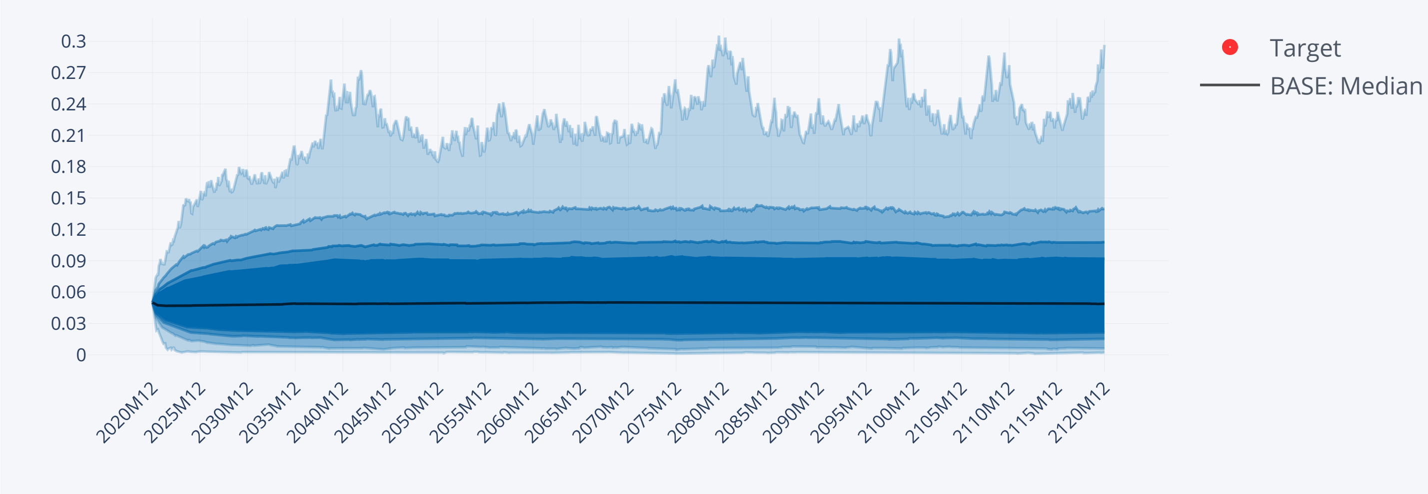
Cross Sectional Volatility Over Time : BASE



US Treasury 17 Year Yield - Spot
Conning | Risk Solutions

Dec 2004 - Higher Targets
Validation Report

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

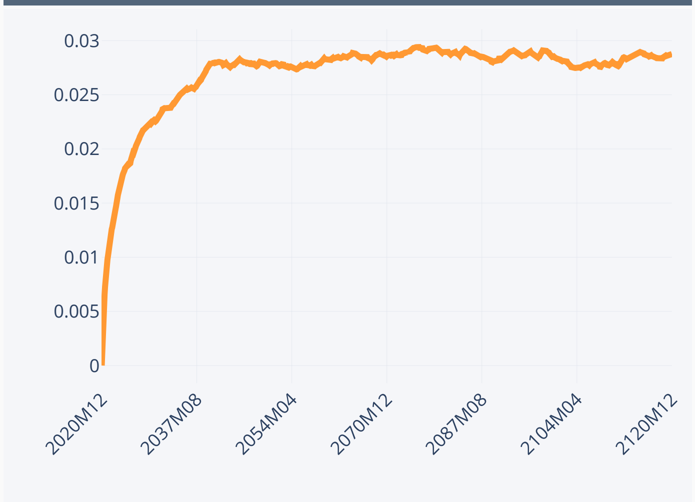


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

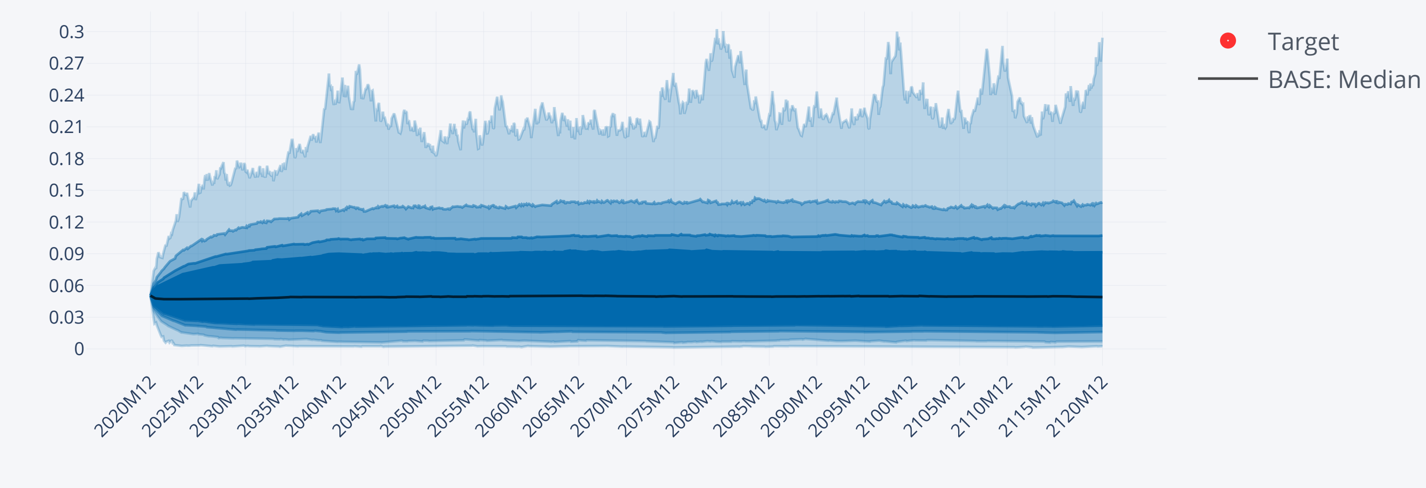
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0474	0.0534
std	0.0098	0.0279
min	0.0121	0.0019
1%	0.0262	0.0069
5%	0.0321	0.0149
10%	0.0352	0.0210
50%	0.0469	0.0496
90%	0.0600	0.0920
95%	0.0638	0.1053
99%	0.0717	0.1339
max	0.0863	0.1848

Cross Sectional Volatility Over Time : BASE



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

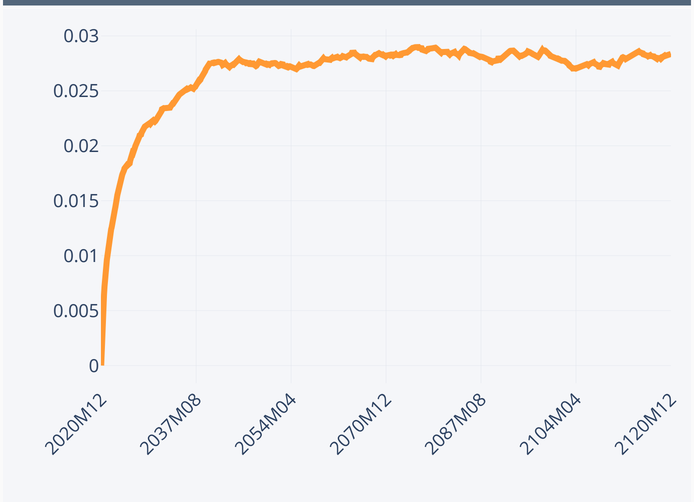


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0476	0.0535
std	0.0096	0.0275
min	0.0130	0.0021
1%	0.0269	0.0078
5%	0.0326	0.0157
10%	0.0357	0.0217
50%	0.0472	0.0498
90%	0.0601	0.0916
95%	0.0639	0.1048
99%	0.0716	0.1331
max	0.0862	0.1824

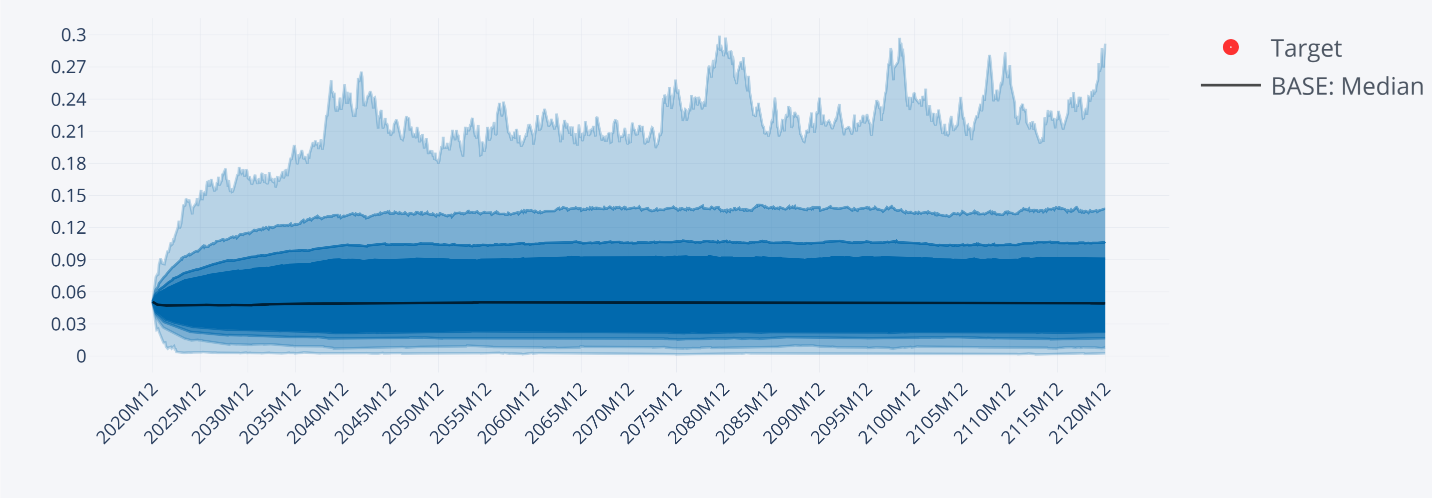
Cross Sectional Volatility Over Time : BASE



US Treasury 19 Year Yield - Spot
Conning | Risk Solutions

Dec 2004 - Higher Targets
Validation Report

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

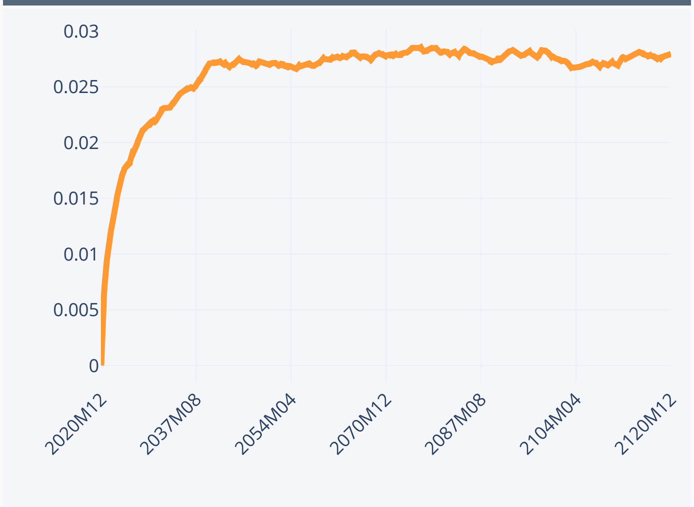


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0478	0.0537
std	0.0095	0.0271
min	0.0139	0.0024
1%	0.0274	0.0087
5%	0.0330	0.0164
10%	0.0360	0.0223
50%	0.0474	0.0499
90%	0.0601	0.0912
95%	0.0639	0.1043
99%	0.0714	0.1322
max	0.0860	0.1801

Cross Sectional Volatility Over Time : BASE



US Treasury 20 Year Yield - Spot

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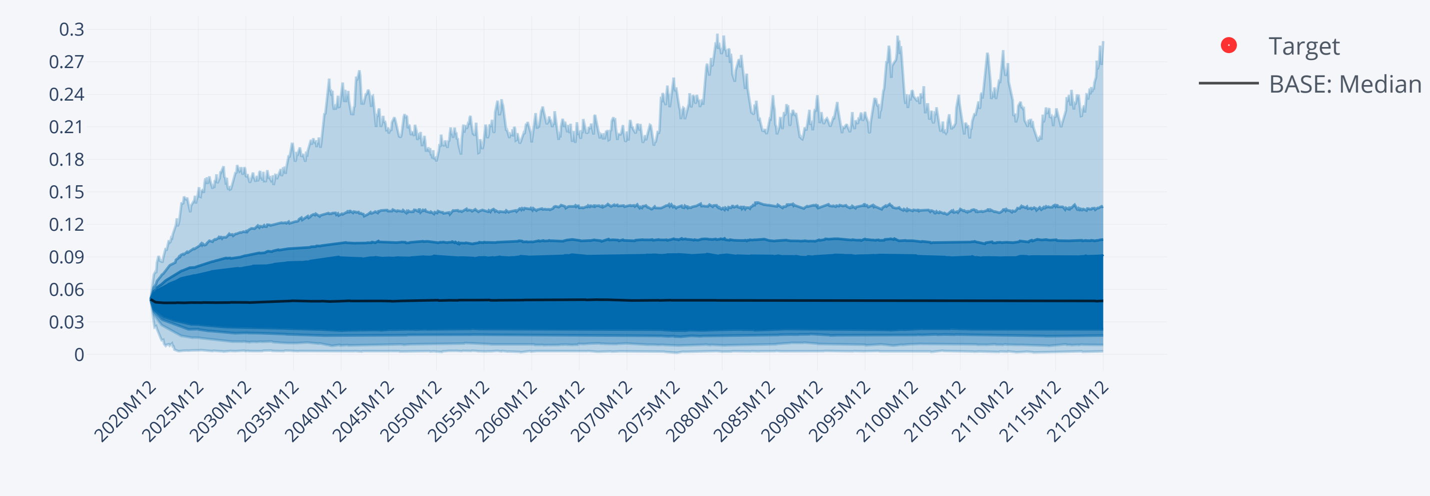
Dec 2004 - Higher Targets

Validation Report

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

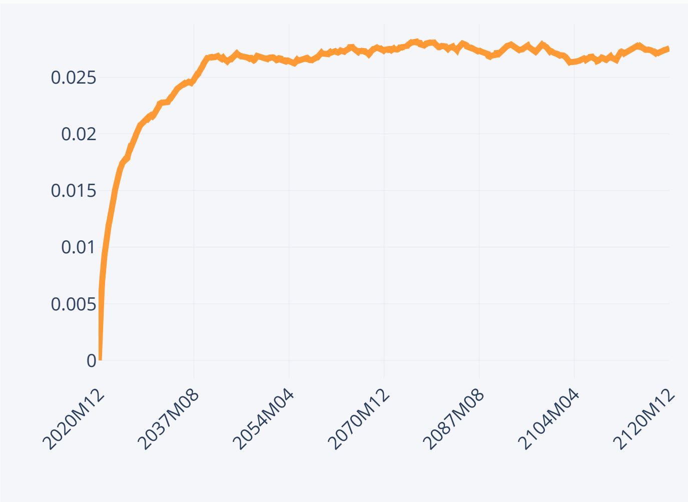


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0480	0.0537
std	0.0093	0.0267
min	0.0147	0.0026
1%	0.0279	0.0095
5%	0.0334	0.0170
10%	0.0364	0.0229
50%	0.0476	0.0501
90%	0.0601	0.0908
95%	0.0638	0.1038
99%	0.0712	0.1310
max	0.0857	0.1782

Cross Sectional Volatility Over Time : BASE



US Treasury 21 Year Yield - Spot

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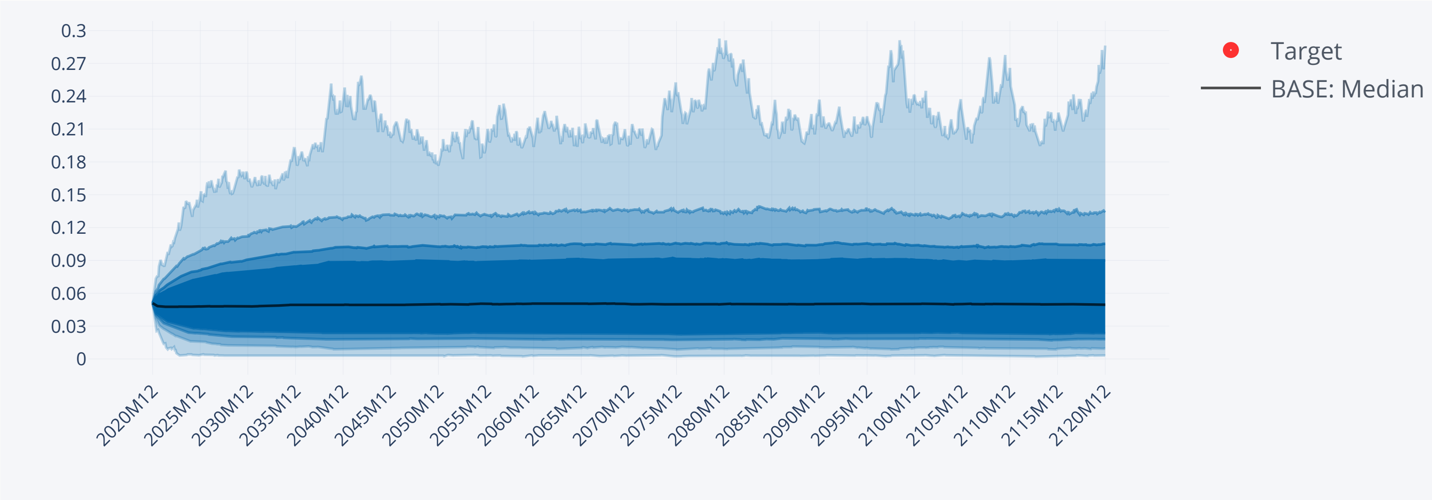
Dec 2004 - Higher Targets

Validation Report

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.

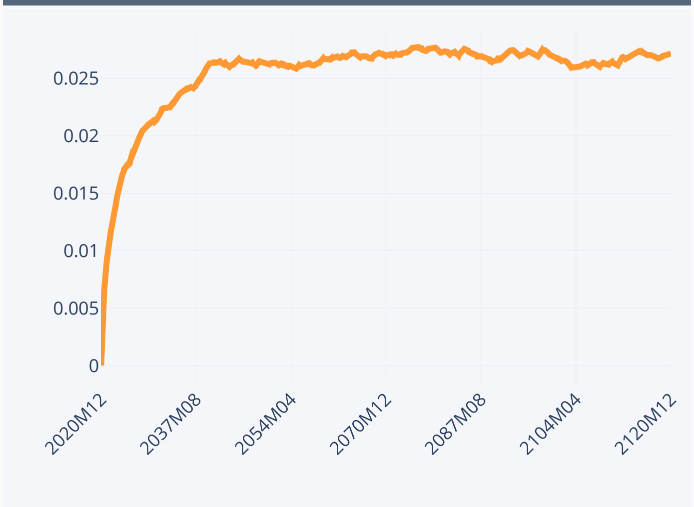
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max

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

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0481	0.0538
std	0.0092	0.0264
min	0.0154	0.0028
1%	0.0283	0.0103
5%	0.0338	0.0176
10%	0.0367	0.0233
50%	0.0477	0.0501
90%	0.0600	0.0902
95%	0.0638	0.1031
99%	0.0711	0.1301
max	0.0853	0.1766

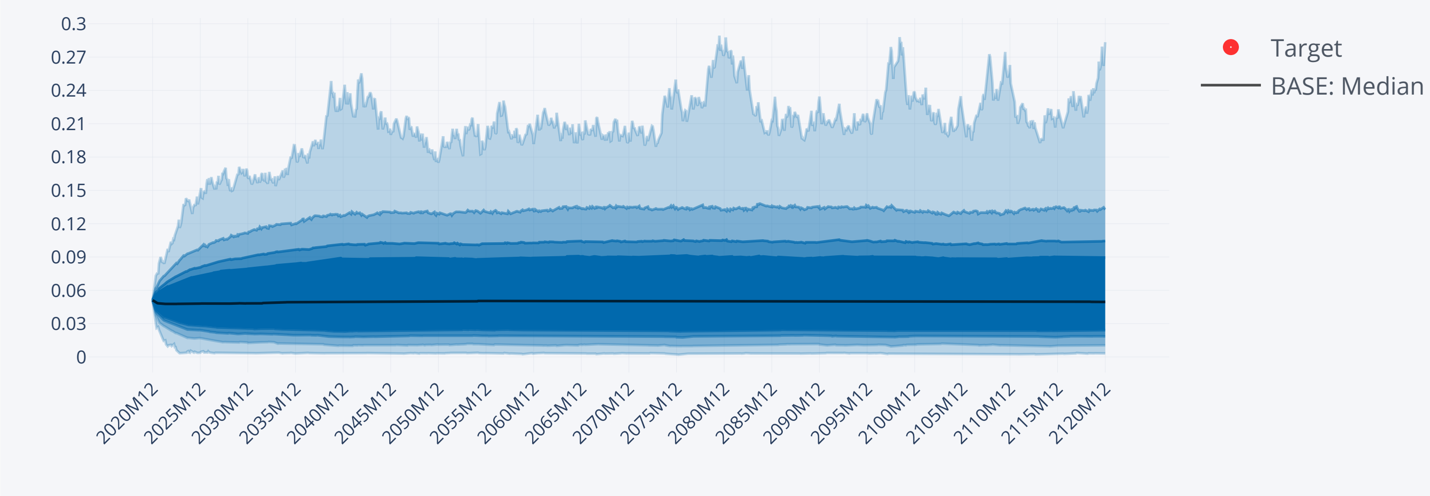
Cross Sectional Volatility Over Time : BASE



US Treasury 22 Year Yield - Spot
Conning | Risk Solutions

Dec 2004 - Higher Targets
Validation Report

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

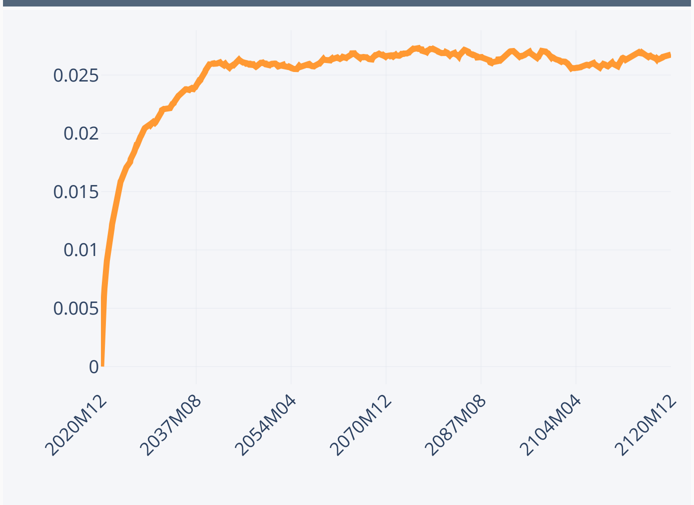


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0482	0.0538
std	0.0091	0.0260
min	0.0161	0.0030
1%	0.0287	0.0110
5%	0.0341	0.0181
10%	0.0369	0.0238
50%	0.0478	0.0502
90%	0.0599	0.0897
95%	0.0636	0.1024
99%	0.0709	0.1292
max	0.0849	0.1750

Cross Sectional Volatility Over Time : BASE



US Treasury 23 Year Yield - Spot

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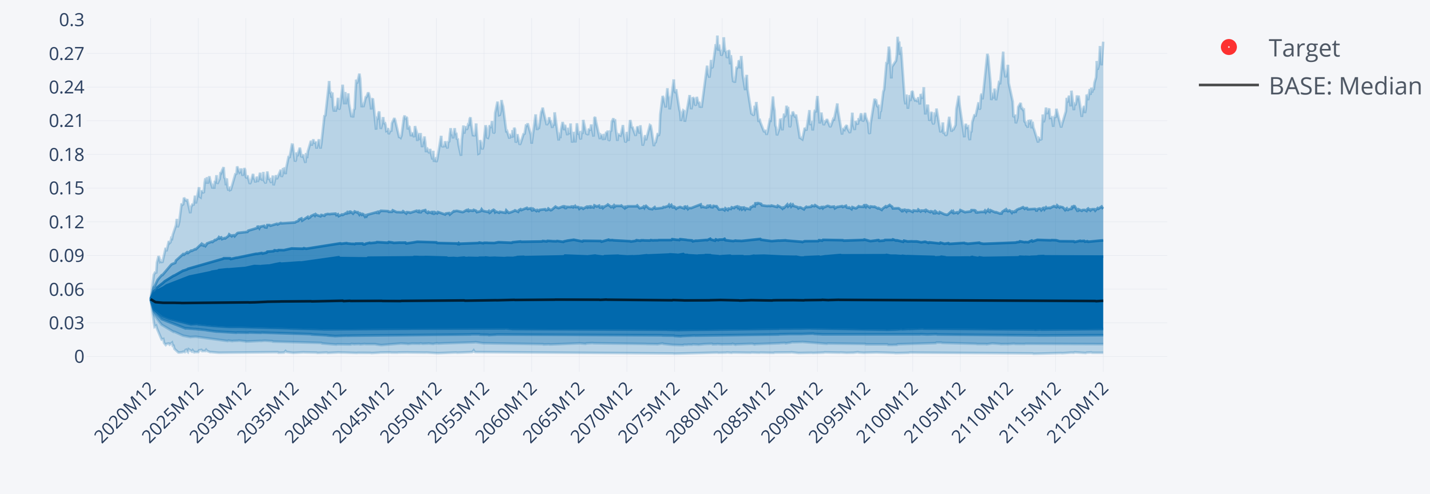
Dec 2004 - Higher Targets

Validation Report

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

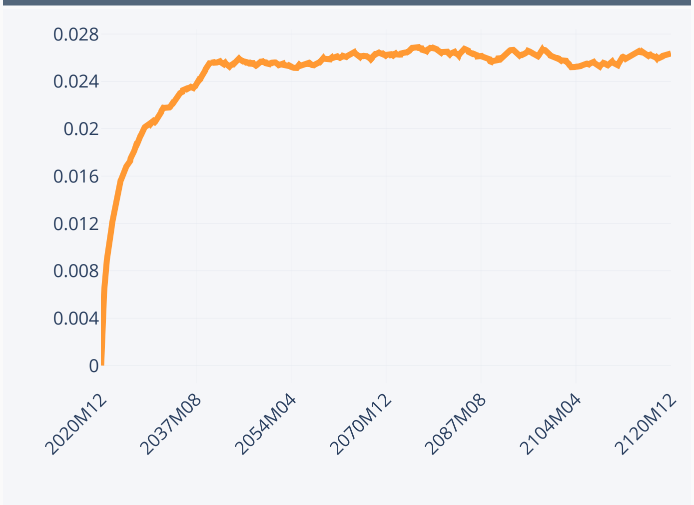


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

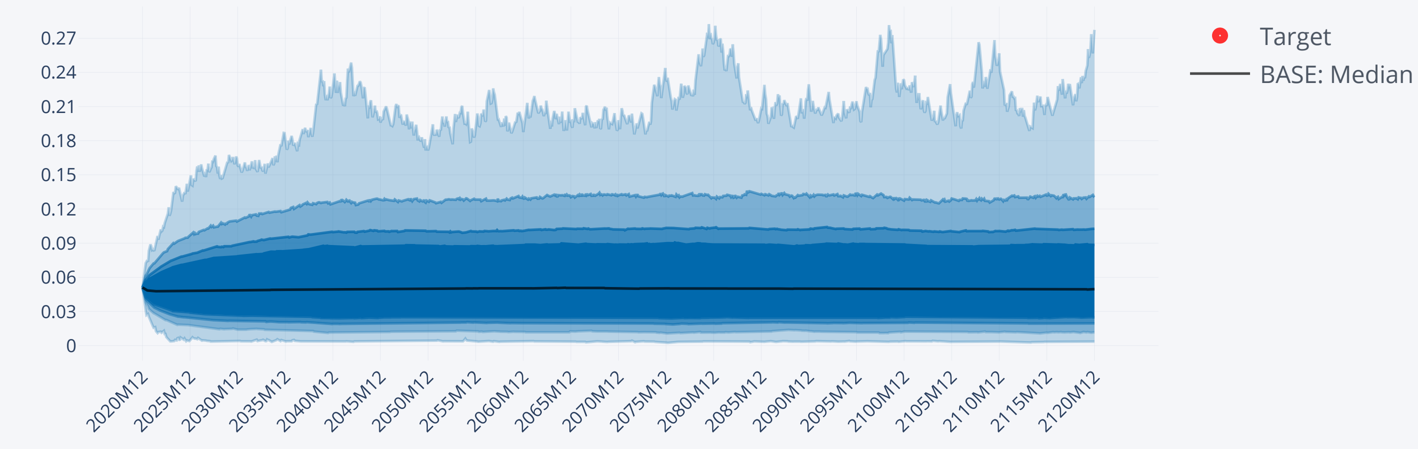
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0483	0.0538
std	0.0089	0.0256
min	0.0167	0.0032
1%	0.0291	0.0117
5%	0.0343	0.0187
10%	0.0372	0.0242
50%	0.0478	0.0502
90%	0.0598	0.0891
95%	0.0635	0.1017
99%	0.0707	0.1282
max	0.0845	0.1733

Cross Sectional Volatility Over Time : BASE



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

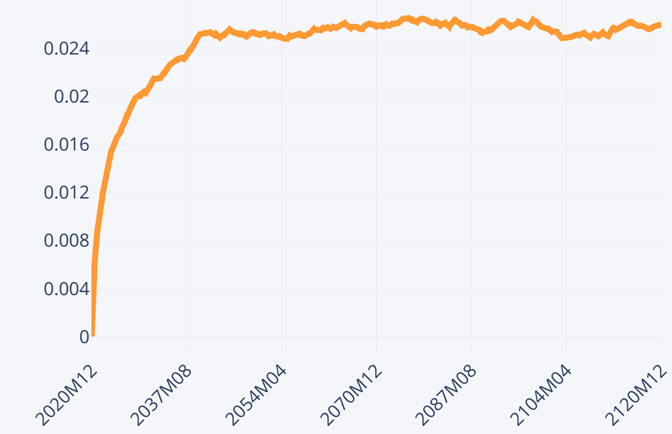


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

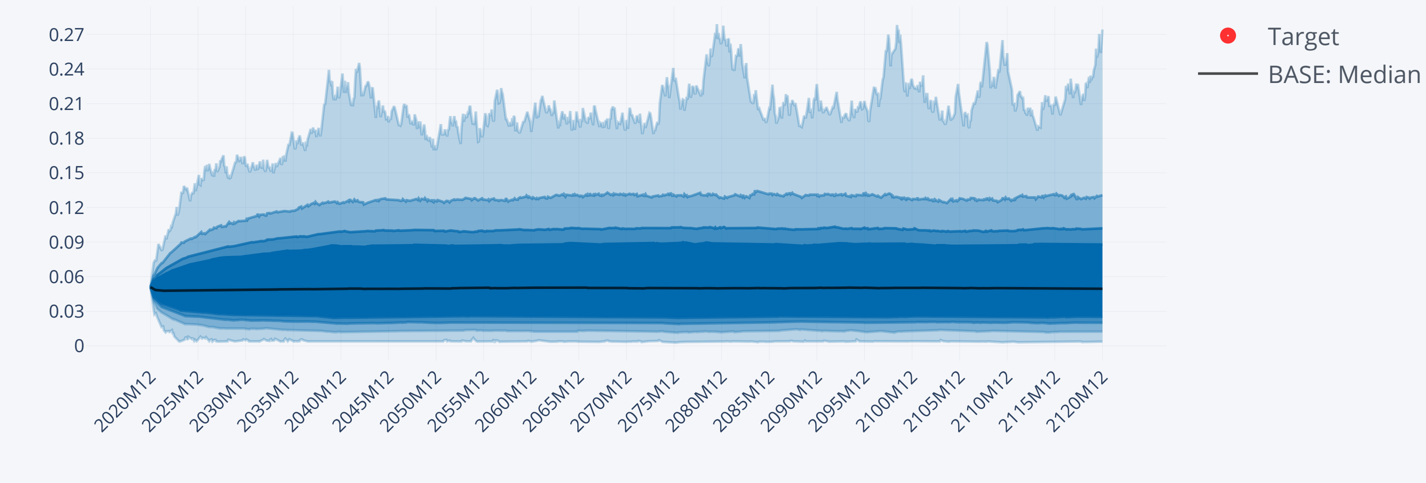
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0483	0.0537
std	0.0088	0.0252
min	0.0173	0.0034
1%	0.0295	0.0123
5%	0.0346	0.0192
10%	0.0373	0.0246
50%	0.0479	0.0502
90%	0.0596	0.0886
95%	0.0633	0.1008
99%	0.0703	0.1270
max	0.0840	0.1715

Cross Sectional Volatility Over Time : BASE



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

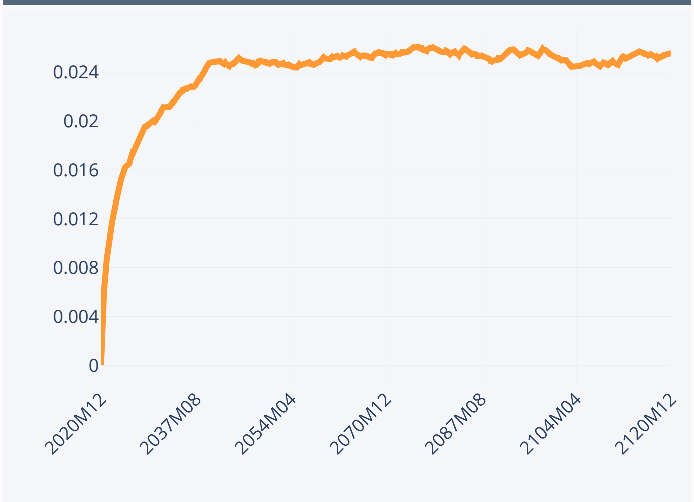


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0483	0.0536
std	0.0087	0.0248
min	0.0179	0.0036
1%	0.0298	0.0129
5%	0.0348	0.0197
10%	0.0375	0.0250
50%	0.0479	0.0502
90%	0.0594	0.0880
95%	0.0630	0.0999
99%	0.0700	0.1259
max	0.0835	0.1698

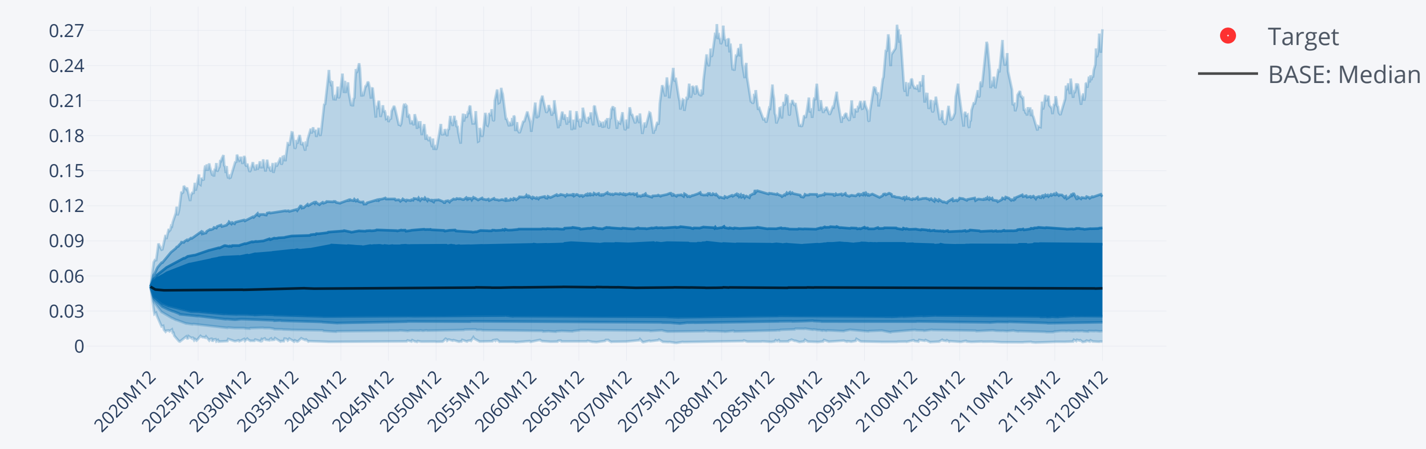
Cross Sectional Volatility Over Time : BASE



US Treasury 26 Year Yield - Spot
Conning | Risk Solutions

Dec 2004 - Higher Targets
Validation Report

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

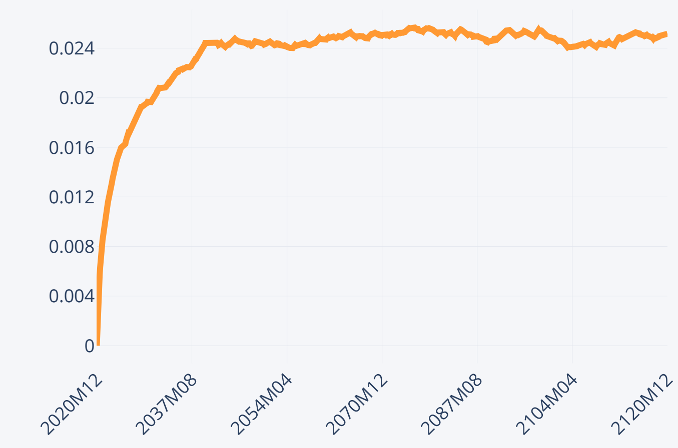


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

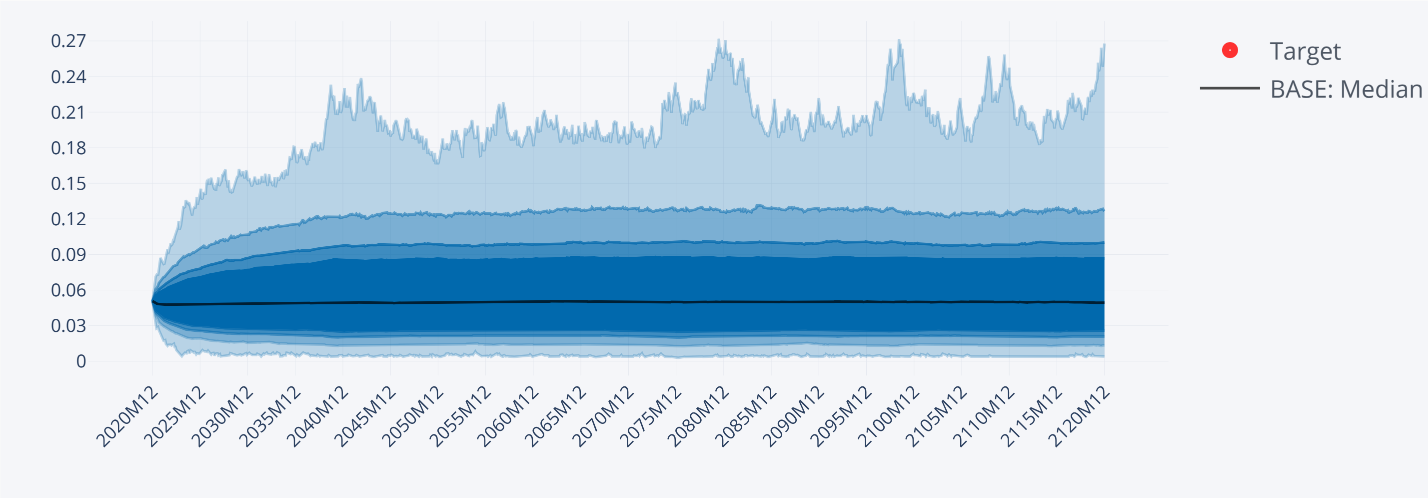
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0483	0.0535
std	0.0085	0.0244
min	0.0184	0.0037
1%	0.0300	0.0135
5%	0.0350	0.0201
10%	0.0377	0.0253
50%	0.0479	0.0501
90%	0.0592	0.0873
95%	0.0628	0.0991
99%	0.0696	0.1248
max	0.0830	0.1680

Cross Sectional Volatility Over Time : BASE



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

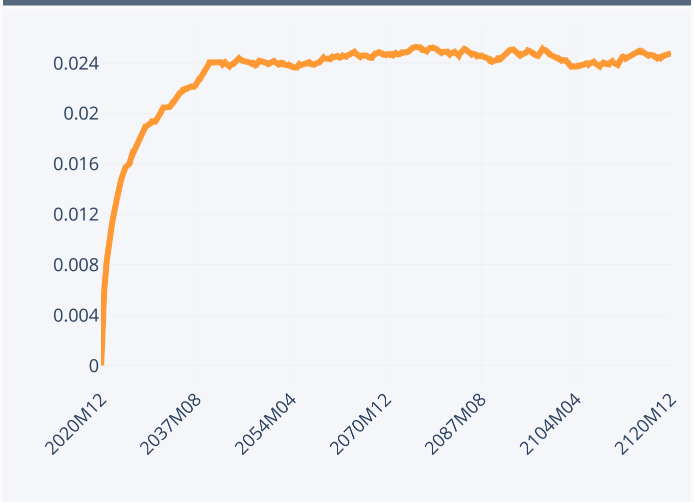


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

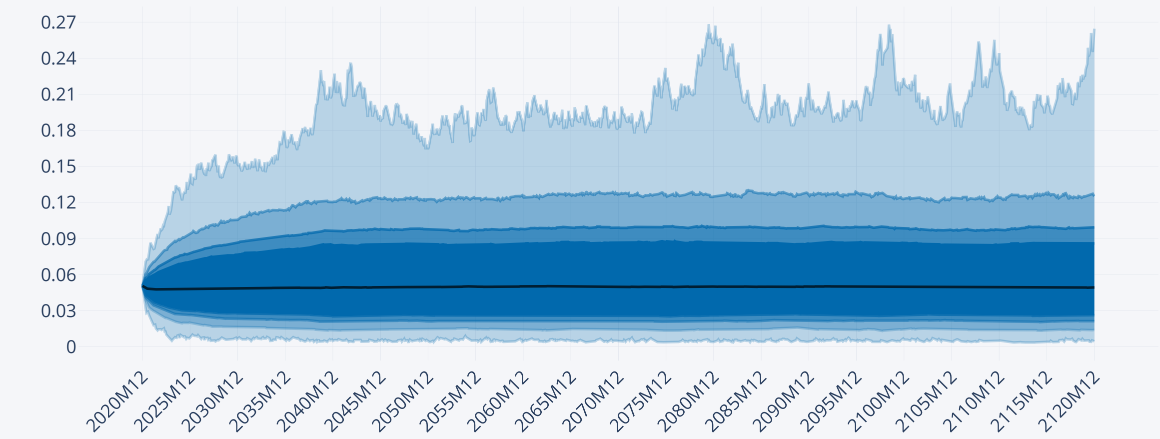
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0482	0.0534
std	0.0084	0.0241
min	0.0189	0.0039
1%	0.0302	0.0141
5%	0.0352	0.0206
10%	0.0378	0.0256
50%	0.0478	0.0500
90%	0.0590	0.0867
95%	0.0625	0.0982
99%	0.0692	0.1233
max	0.0825	0.1661

Cross Sectional Volatility Over Time : BASE



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

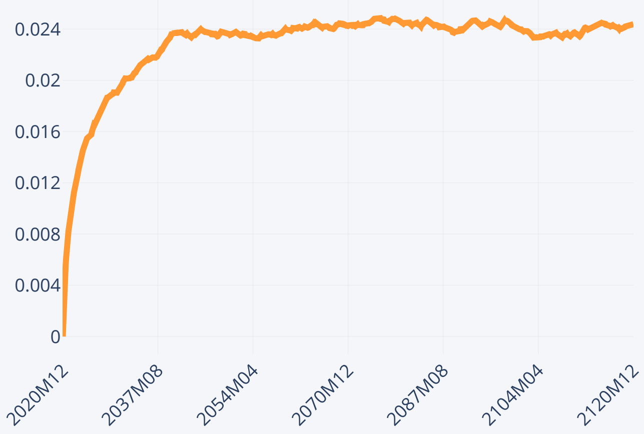


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0481	0.0532
std	0.0083	0.0237
min	0.0193	0.0041
1%	0.0305	0.0146
5%	0.0353	0.0210
10%	0.0379	0.0259
50%	0.0477	0.0499
90%	0.0587	0.0860
95%	0.0622	0.0973
99%	0.0688	0.1221
max	0.0819	0.1643

Cross Sectional Volatility Over Time : BASE



US Treasury 29 Year Yield - Spot
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Dec 2004 - Higher Targets
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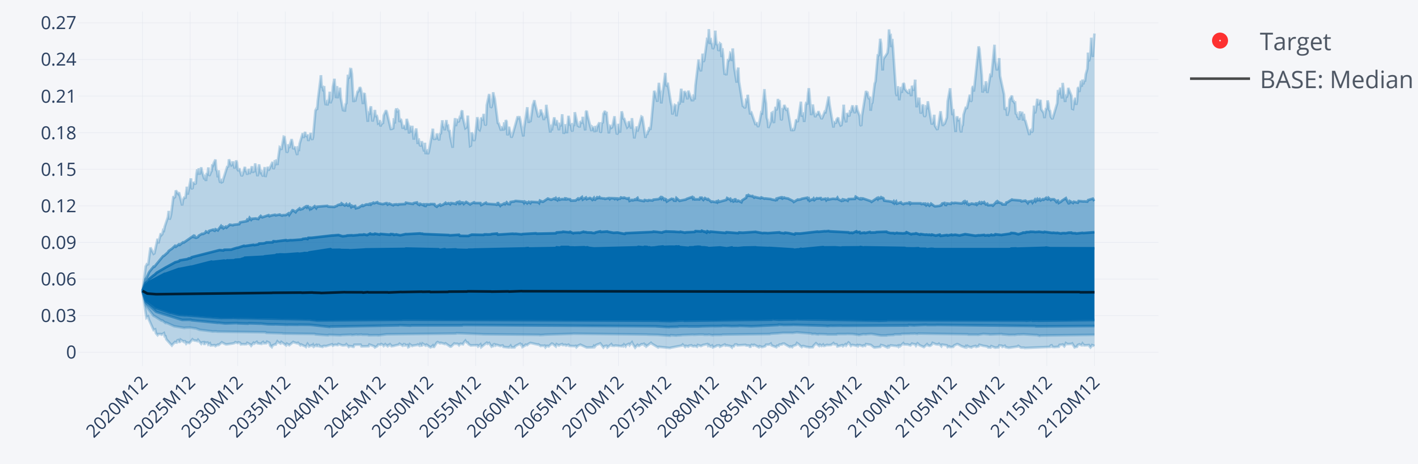
Simulated Data in Percentiles : US Treasury 29 Year Yield - Spot

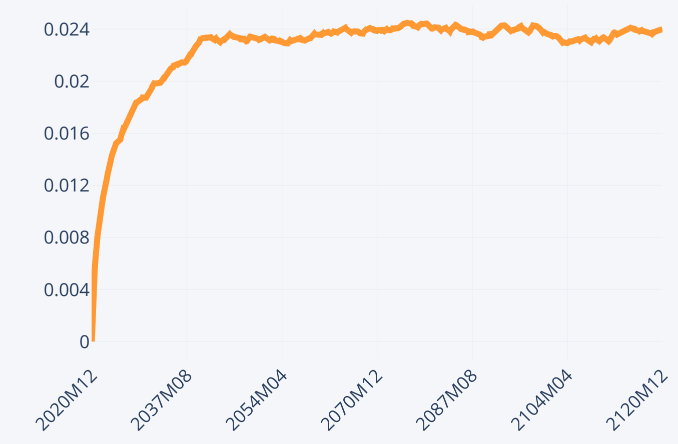


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

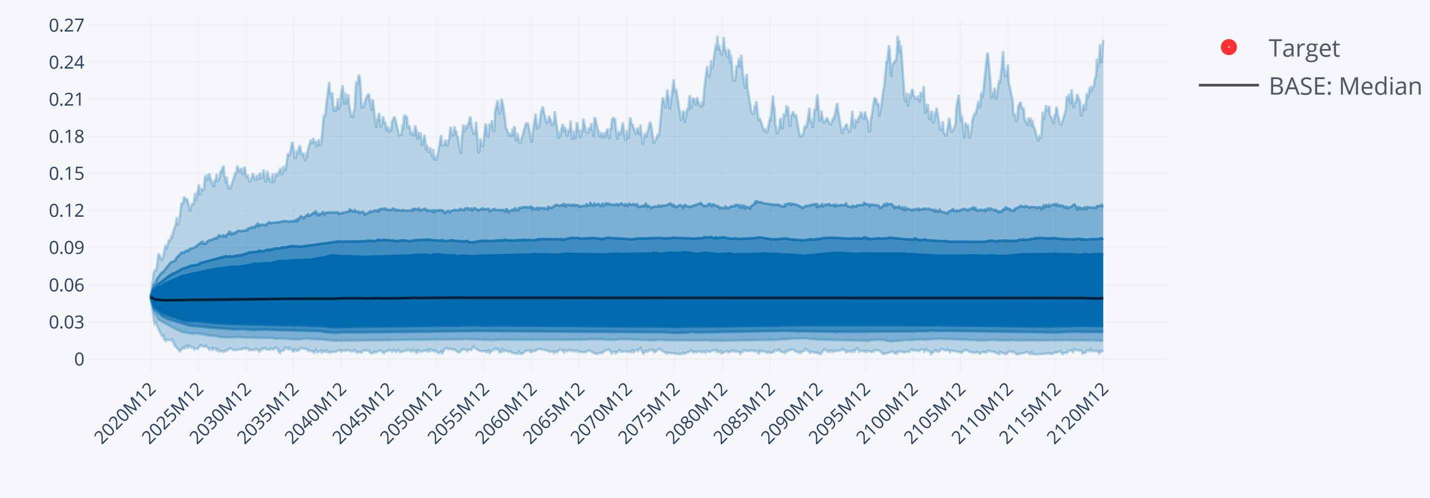
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0480	0.0531
std	0.0081	0.0233
min	0.0197	0.0048
1%	0.0307	0.0150
5%	0.0354	0.0214
10%	0.0379	0.0262
50%	0.0477	0.0498
90%	0.0585	0.0853
95%	0.0619	0.0965
99%	0.0684	0.1210
max	0.0813	0.1625

Cross Sectional Volatility Over Time : BASE



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

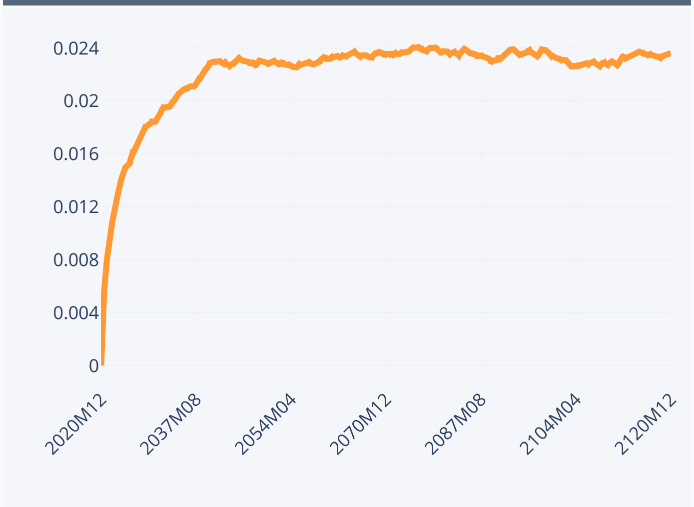


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

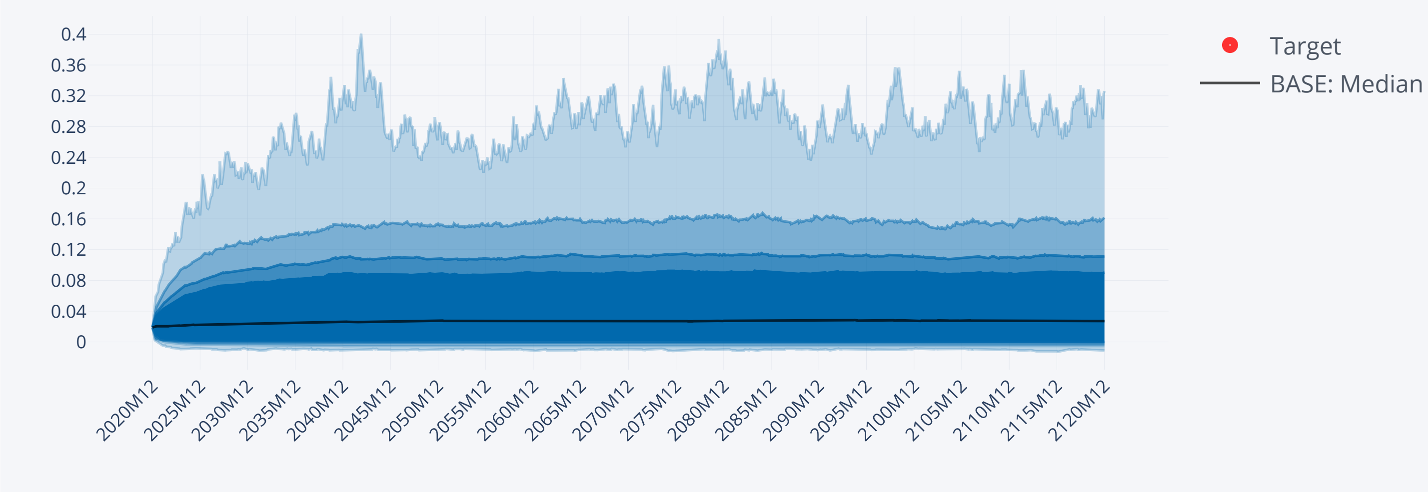
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0479	0.0529
std	0.0080	0.0229
min	0.0201	0.0054
1%	0.0309	0.0156
5%	0.0355	0.0217
10%	0.0380	0.0265
50%	0.0476	0.0496
90%	0.0582	0.0846
95%	0.0616	0.0956
99%	0.0680	0.1199
max	0.0807	0.1606

Cross Sectional Volatility Over Time : BASE



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

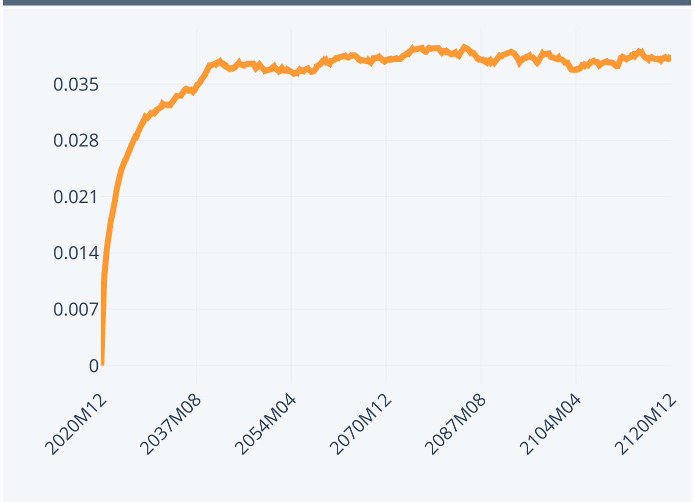


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

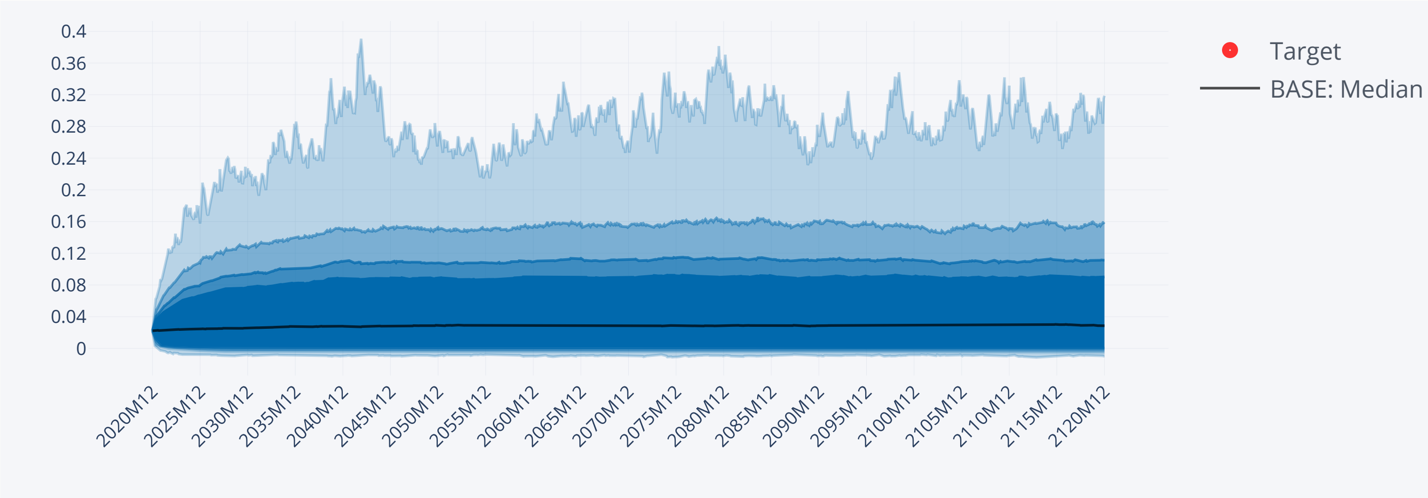
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0210	0.0365
std	0.0145	0.0370
min	-0.0045	-0.0097
1%	0.0004	-0.0049
5%	0.0022	-0.0020
10%	0.0032	-0.0001
50%	0.0196	0.0273
90%	0.0409	0.0884
95%	0.0472	0.1077
99%	0.0601	0.1537
max	0.0857	0.2790

Cross Sectional Volatility Over Time : BASE



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

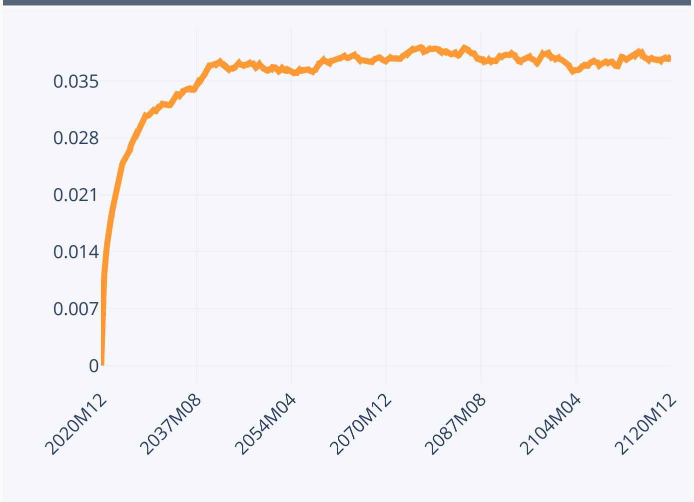


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

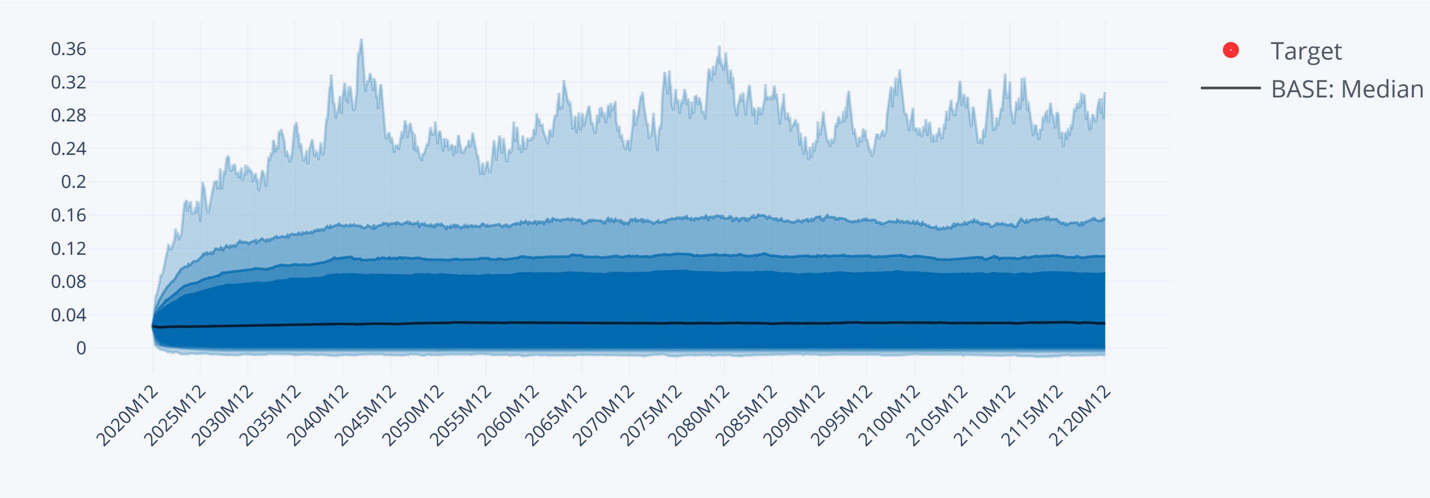
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0239	0.0373
std	0.0147	0.0366
min	-0.0035	-0.0088
1%	0.0012	-0.0044
5%	0.0030	-0.0016
10%	0.0040	0.0004
50%	0.0229	0.0287
90%	0.0437	0.0889
95%	0.0498	0.1071
99%	0.0622	0.1527
max	0.0879	0.2688

Cross Sectional Volatility Over Time : BASE



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

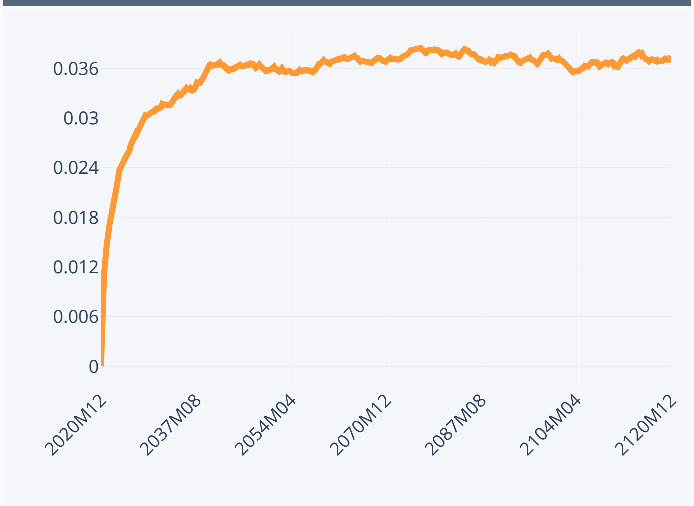


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0260	0.0379
std	0.0146	0.0360
min	-0.0028	-0.0084
1%	0.0018	-0.0039
5%	0.0035	-0.0012
10%	0.0066	0.0007
50%	0.0251	0.0300
90%	0.0456	0.0884
95%	0.0515	0.1062
99%	0.0635	0.1490
max	0.0884	0.2568

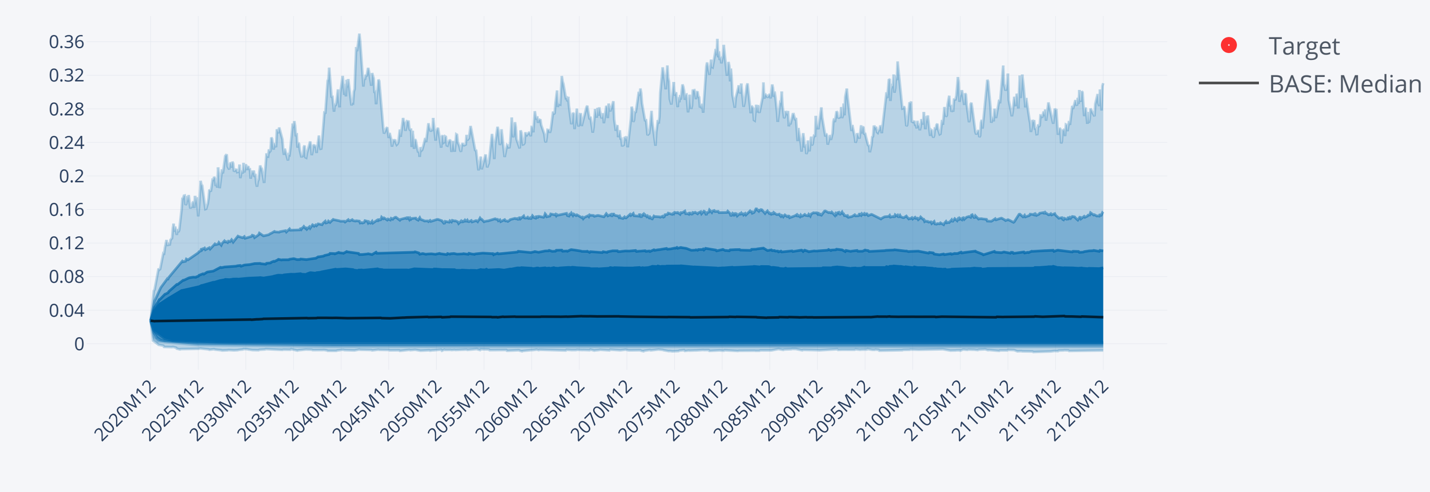
Cross Sectional Volatility Over Time : BASE



US Treasury 1 Year Yield - Coupon
Conning | Risk Solutions

Dec 2004 - Higher Targets
Validation Report

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

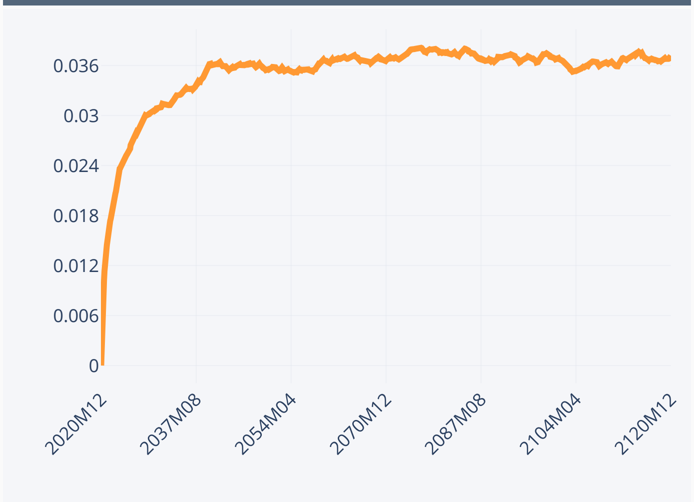


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

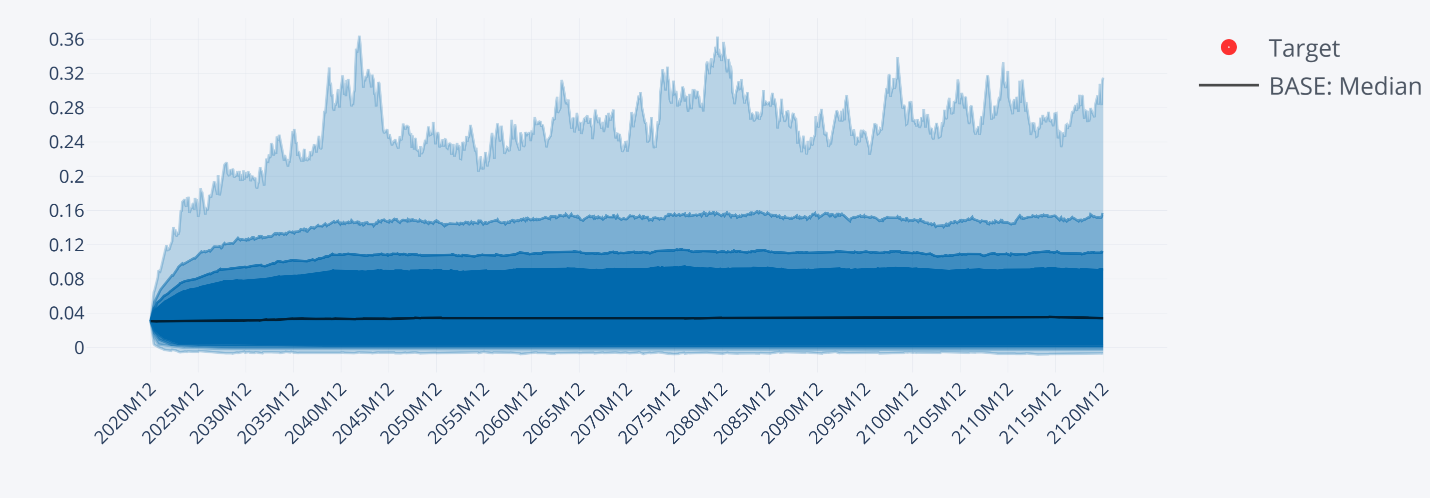
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0283	0.0391
std	0.0145	0.0358
min	-0.0020	-0.0078
1%	0.0025	-0.0033
5%	0.0047	-0.0006
10%	0.0097	0.0013
50%	0.0276	0.0316
90%	0.0477	0.0890
95%	0.0531	0.1069
99%	0.0652	0.1493
max	0.0891	0.2530

Cross Sectional Volatility Over Time : BASE



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

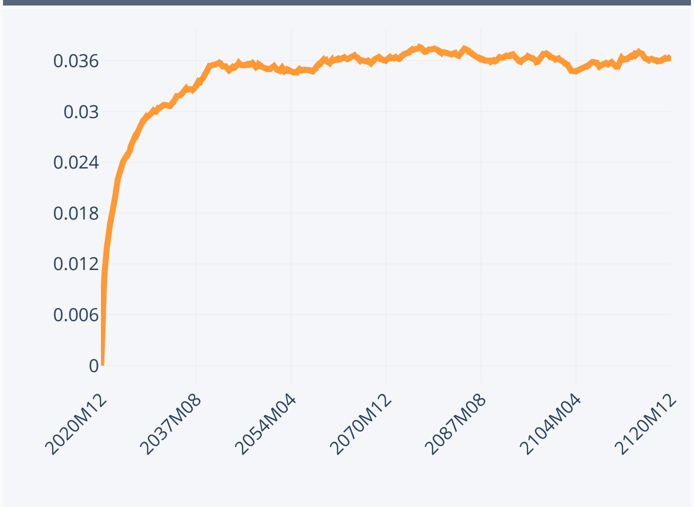


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

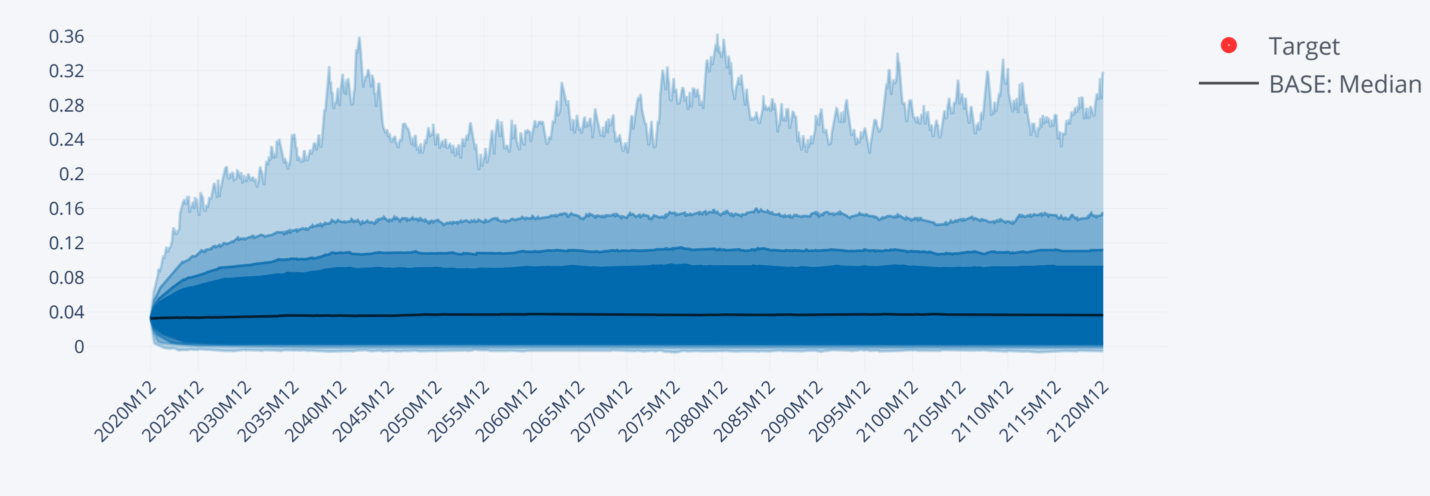
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0312	0.0411
std	0.0140	0.0352
min	-0.0010	-0.0066
1%	0.0034	-0.0023
5%	0.0088	0.0003
10%	0.0136	0.0021
50%	0.0306	0.0344
90%	0.0497	0.0899
95%	0.0550	0.1069
99%	0.0665	0.1483
max	0.0887	0.2473

Cross Sectional Volatility Over Time : BASE



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

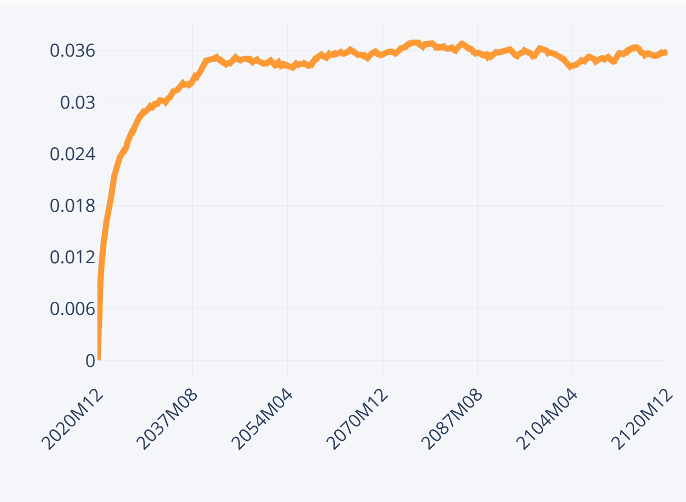


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0335	0.0428
std	0.0135	0.0346
min	-0.0001	-0.0056
1%	0.0046	-0.0014
5%	0.0122	0.0011
10%	0.0166	0.0029
50%	0.0329	0.0368
90%	0.0512	0.0909
95%	0.0563	0.1078
99%	0.0674	0.1463
max	0.0881	0.2428

Cross Sectional Volatility Over Time : BASE



US Treasury 4 Year Yield - Coupon

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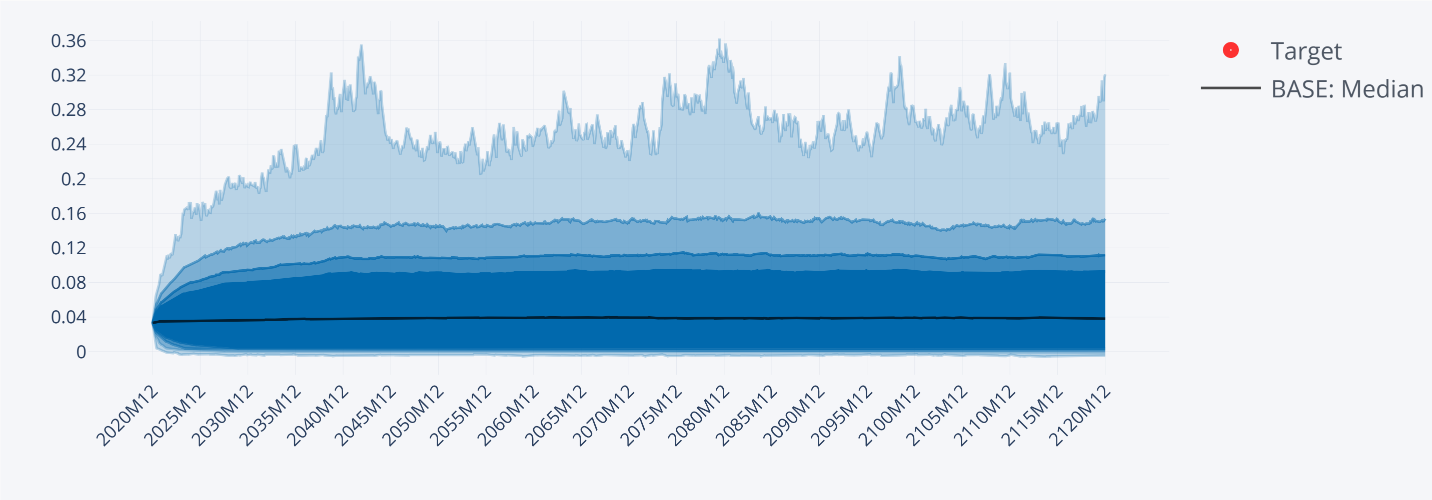
Dec 2004 - Higher Targets

Validation Report

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

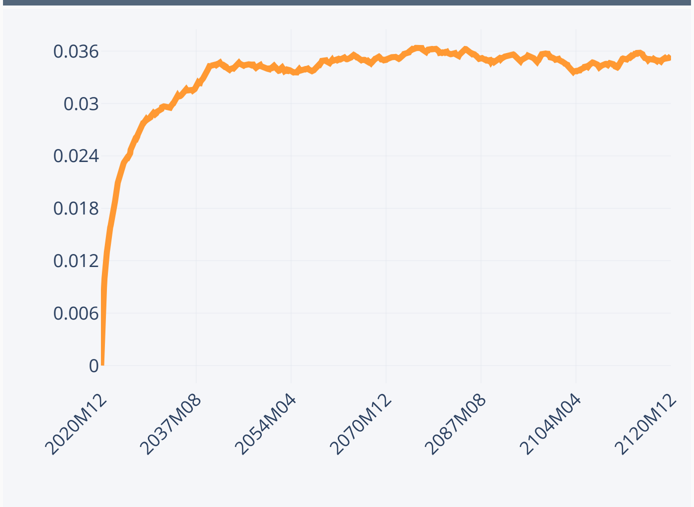


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0355	0.0443
std	0.0130	0.0341
min	0.0007	-0.0046
1%	0.0077	-0.0006
5%	0.0151	0.0018
10%	0.0193	0.0035
50%	0.0351	0.0387
90%	0.0526	0.0915
95%	0.0575	0.1077
99%	0.0682	0.1451
max	0.0876	0.2389

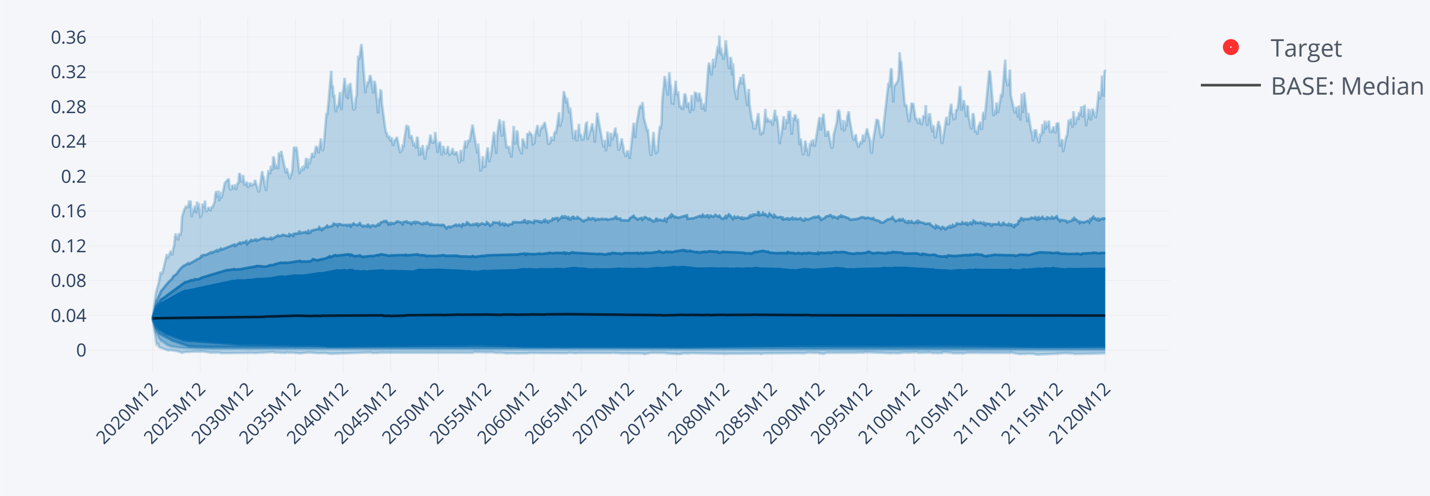
Cross Sectional Volatility Over Time : BASE



US Treasury 5 Year Yield - Coupon
Conning | Risk Solutions

Dec 2004 - Higher Targets
Validation Report

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

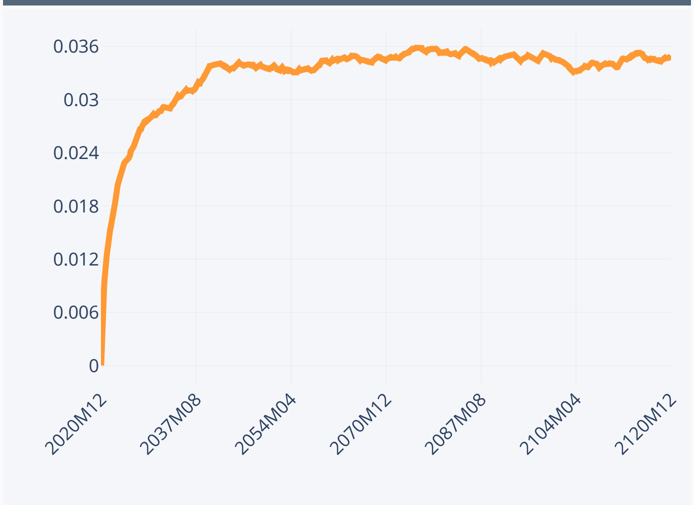


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

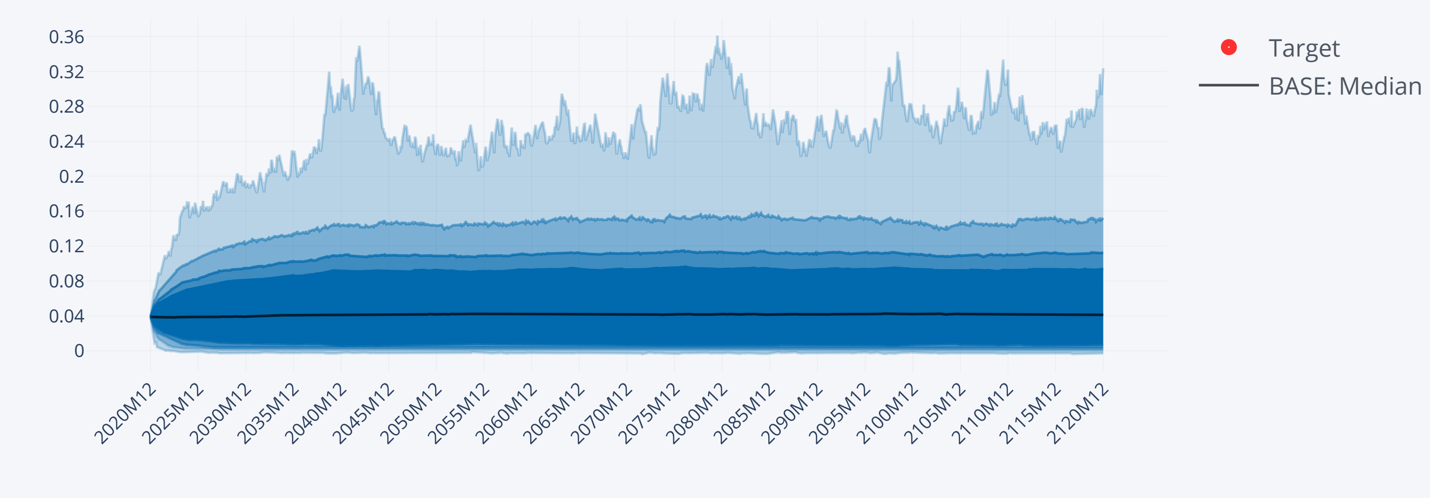
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0373	0.0457
std	0.0126	0.0336
min	0.0013	-0.0038
1%	0.0103	0.0002
5%	0.0175	0.0024
10%	0.0217	0.0043
50%	0.0368	0.0404
90%	0.0538	0.0922
95%	0.0587	0.1081
99%	0.0691	0.1442
max	0.0872	0.2357

Cross Sectional Volatility Over Time : BASE



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

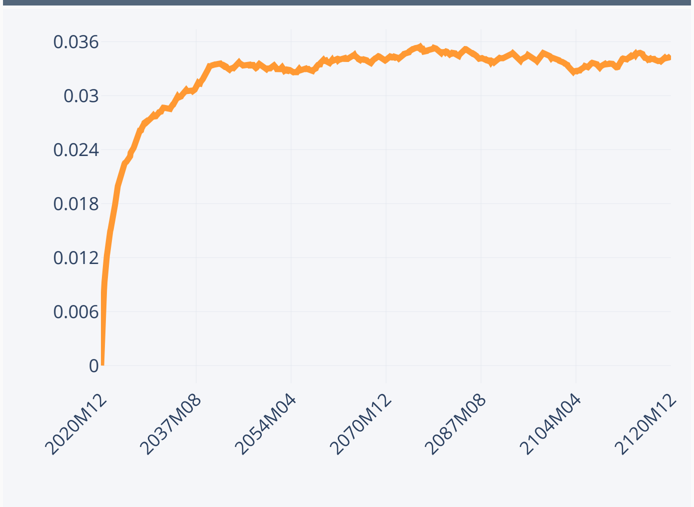


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

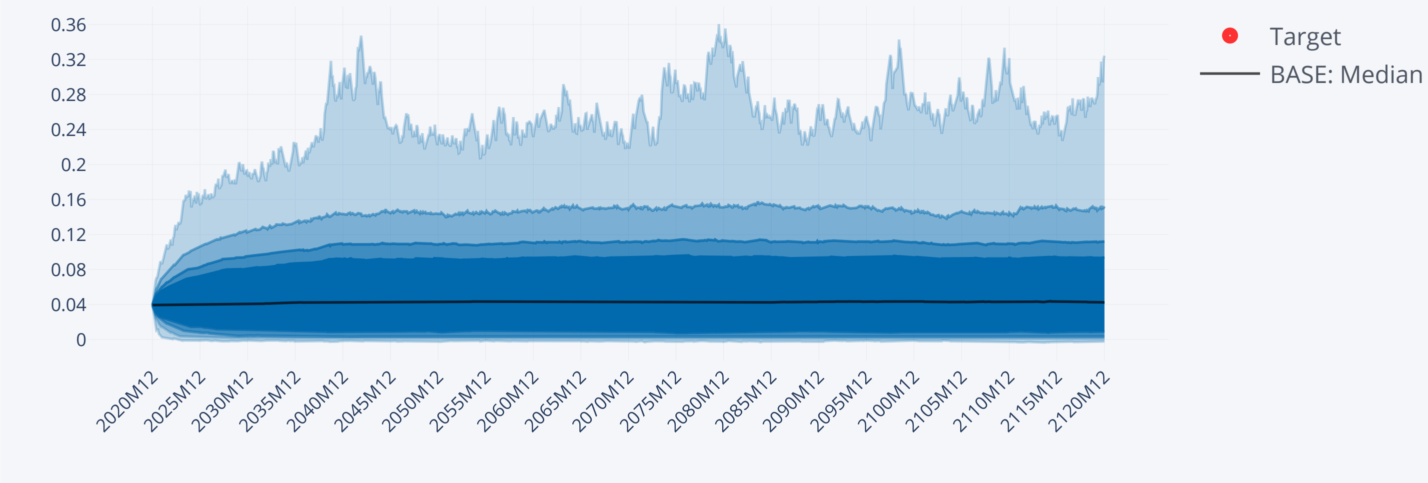
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0388	0.0469
std	0.0122	0.0332
min	0.0019	-0.0030
1%	0.0125	0.0008
5%	0.0196	0.0029
10%	0.0236	0.0066
50%	0.0383	0.0419
90%	0.0549	0.0926
95%	0.0596	0.1082
99%	0.0696	0.1438
max	0.0867	0.2330

Cross Sectional Volatility Over Time : BASE



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

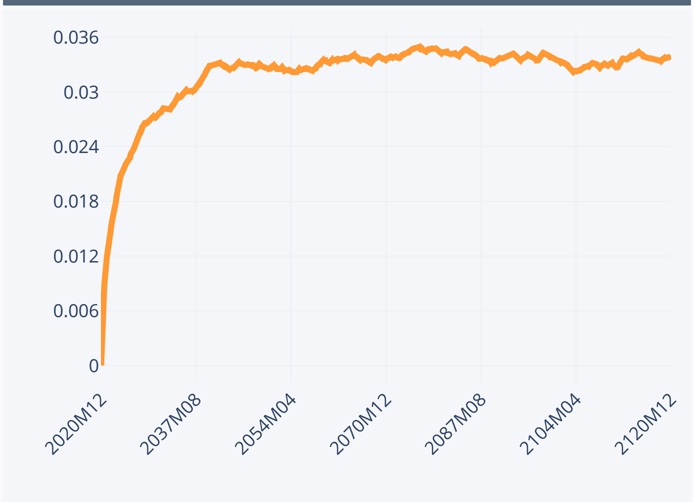


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0400	0.0480
std	0.0119	0.0327
min	0.0024	-0.0023
1%	0.0145	0.0013
5%	0.0214	0.0034
10%	0.0252	0.0088
50%	0.0395	0.0431
90%	0.0557	0.0929
95%	0.0604	0.1084
99%	0.0700	0.1436
max	0.0862	0.2307

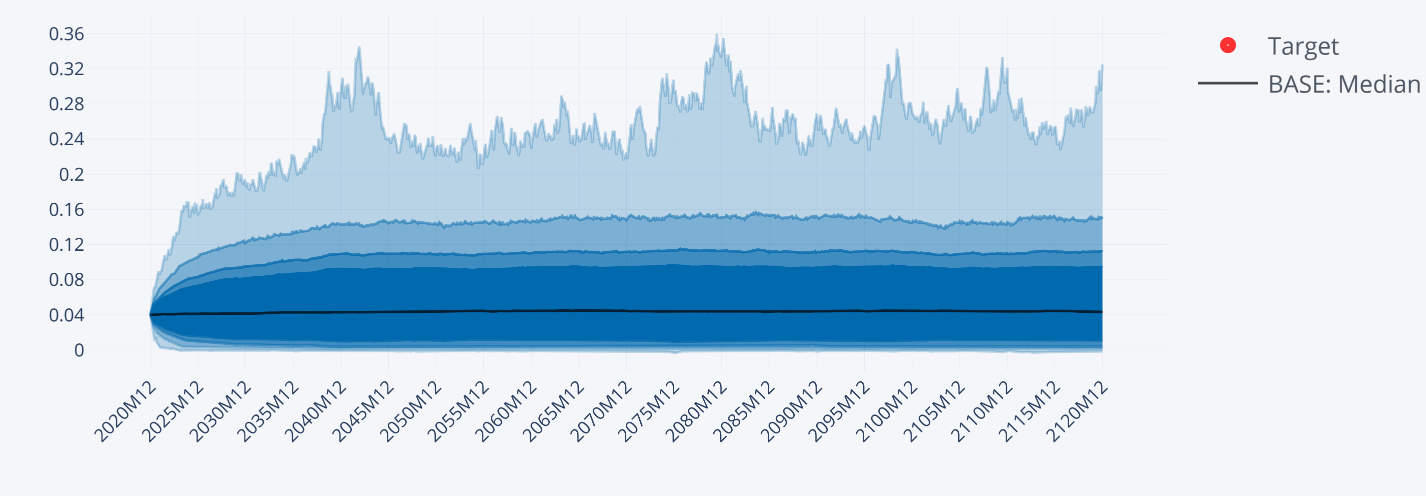
Cross Sectional Volatility Over Time : BASE



US Treasury 8 Year Yield - Coupon
Conning | Risk Solutions

Dec 2004 - Higher Targets
Validation Report

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

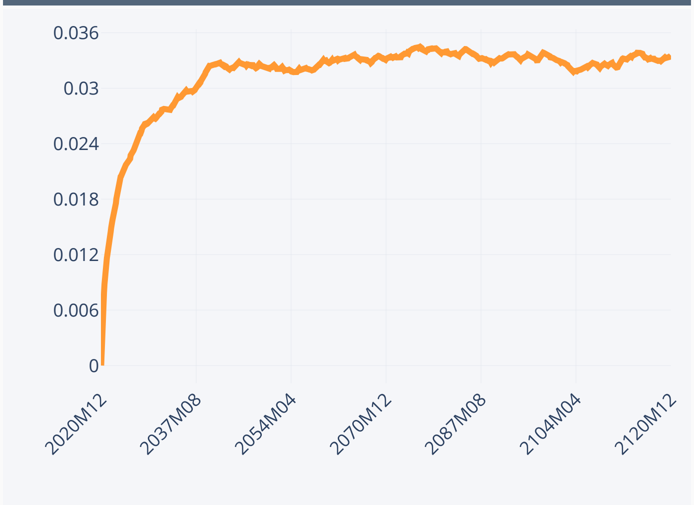


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0411	0.0489
std	0.0116	0.0323
min	0.0029	-0.0017
1%	0.0162	0.0019
5%	0.0229	0.0039
10%	0.0267	0.0107
50%	0.0406	0.0441
90%	0.0563	0.0933
95%	0.0610	0.1084
99%	0.0705	0.1436
max	0.0858	0.2287

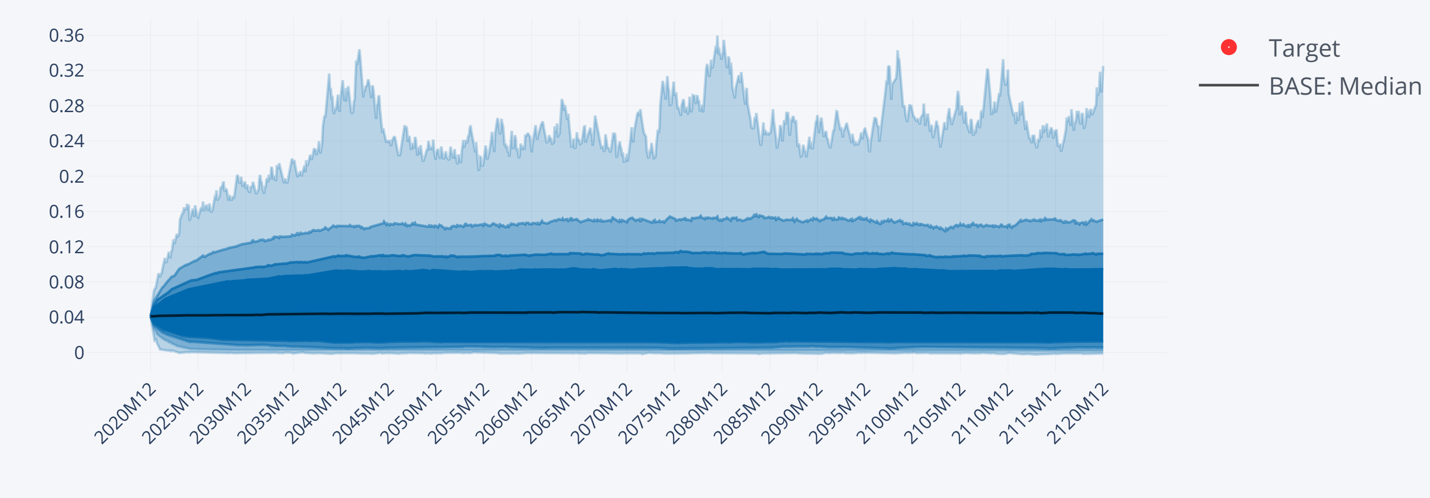
Cross Sectional Volatility Over Time : BASE



US Treasury 9 Year Yield - Coupon
Conning | Risk Solutions

Dec 2004 - Higher Targets
Validation Report

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

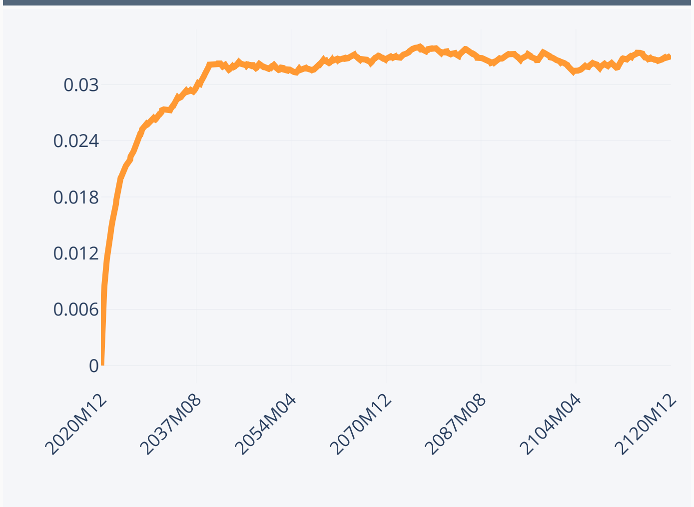


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

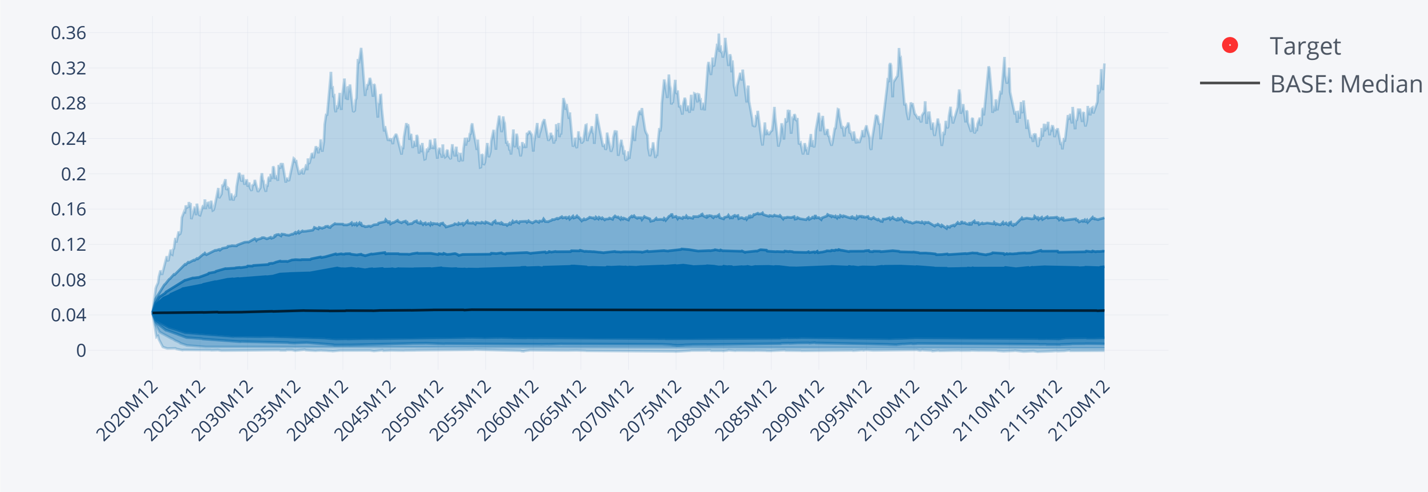
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0421	0.0497
std	0.0114	0.0319
min	0.0033	-0.0012
1%	0.0178	0.0023
5%	0.0243	0.0051
10%	0.0280	0.0123
50%	0.0416	0.0450
90%	0.0570	0.0937
95%	0.0616	0.1086
99%	0.0709	0.1437
max	0.0854	0.2269

Cross Sectional Volatility Over Time : BASE



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

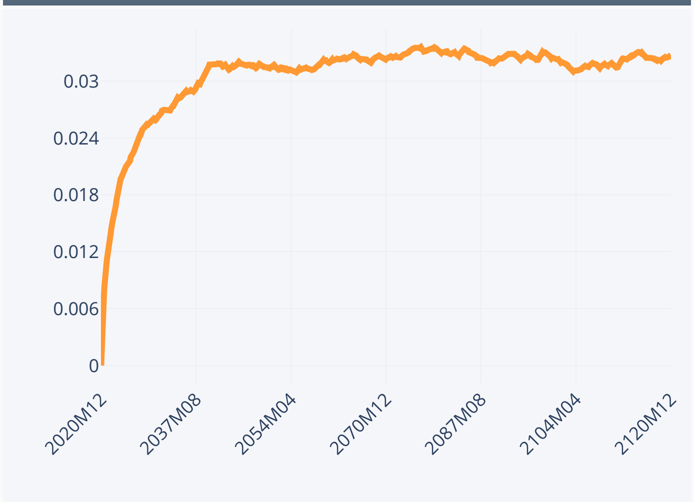


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

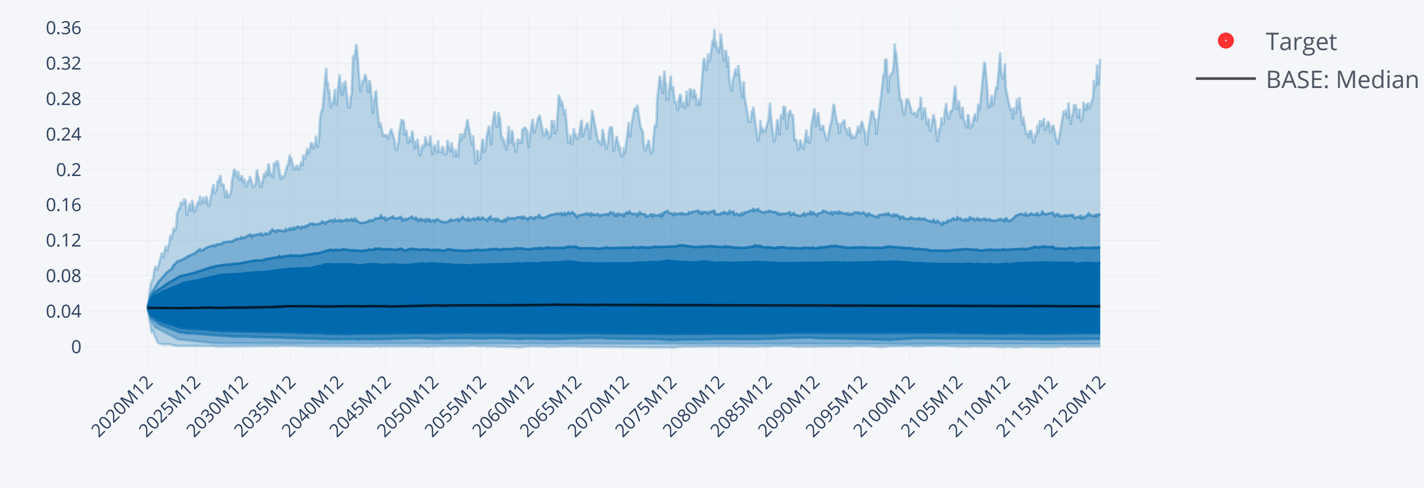
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0430	0.0504
std	0.0112	0.0315
min	0.0037	-0.0007
1%	0.0193	0.0027
5%	0.0256	0.0068
10%	0.0292	0.0137
50%	0.0425	0.0458
90%	0.0575	0.0936
95%	0.0620	0.1085
99%	0.0711	0.1432
max	0.0855	0.2254

Cross Sectional Volatility Over Time : BASE



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

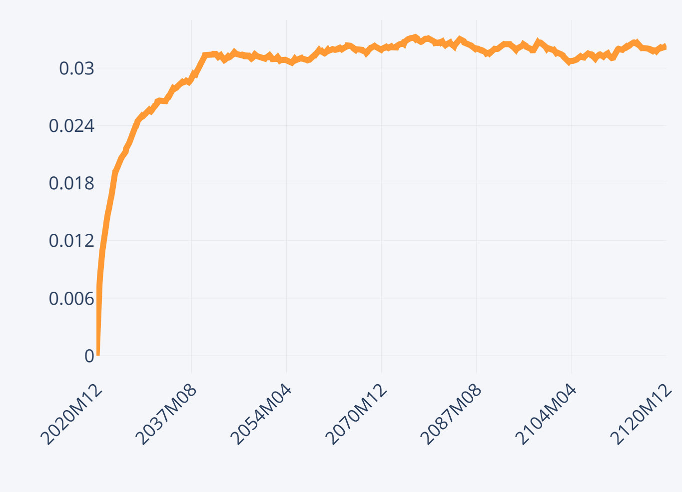


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0438	0.0510
std	0.0110	0.0312
min	0.0043	-0.0002
1%	0.0205	0.0031
5%	0.0267	0.0082
10%	0.0302	0.0149
50%	0.0432	0.0464
90%	0.0580	0.0938
95%	0.0624	0.1087
99%	0.0714	0.1427
max	0.0858	0.2241

Cross Sectional Volatility Over Time : BASE



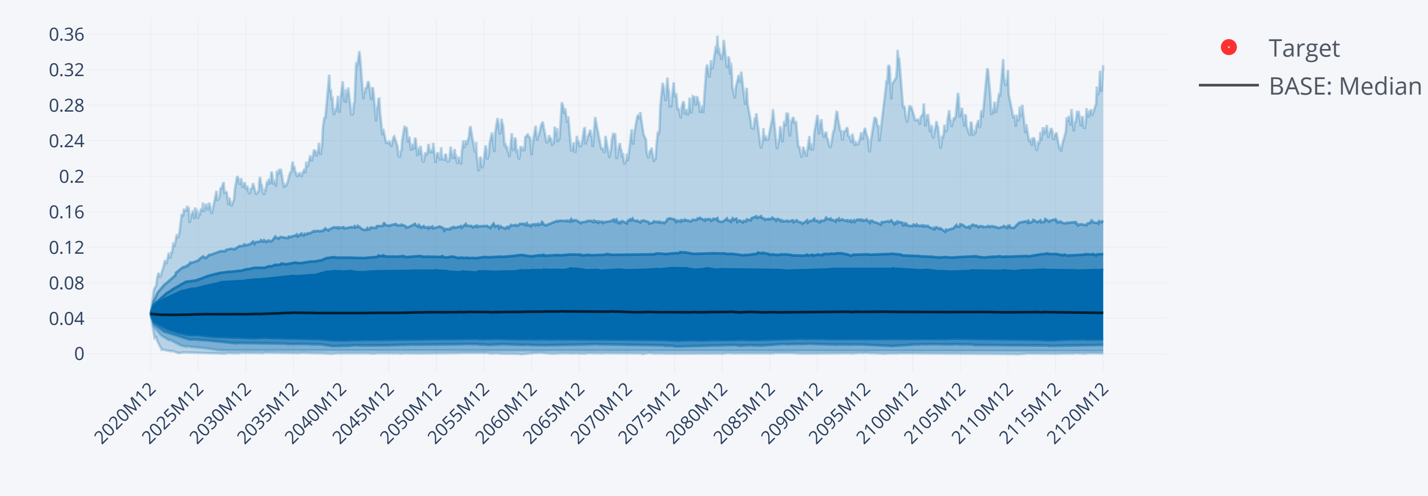
US Treasury 12 Year Yield - Coupon

Conning | Risk Solutions

Dec 2004 - Higher Targets

Validation Report

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

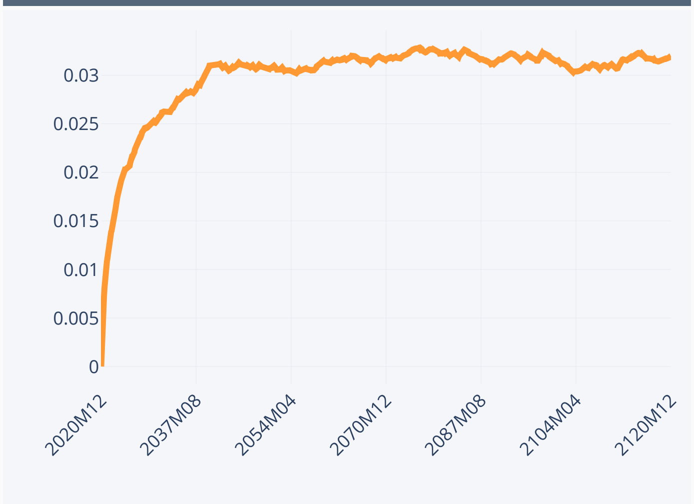


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

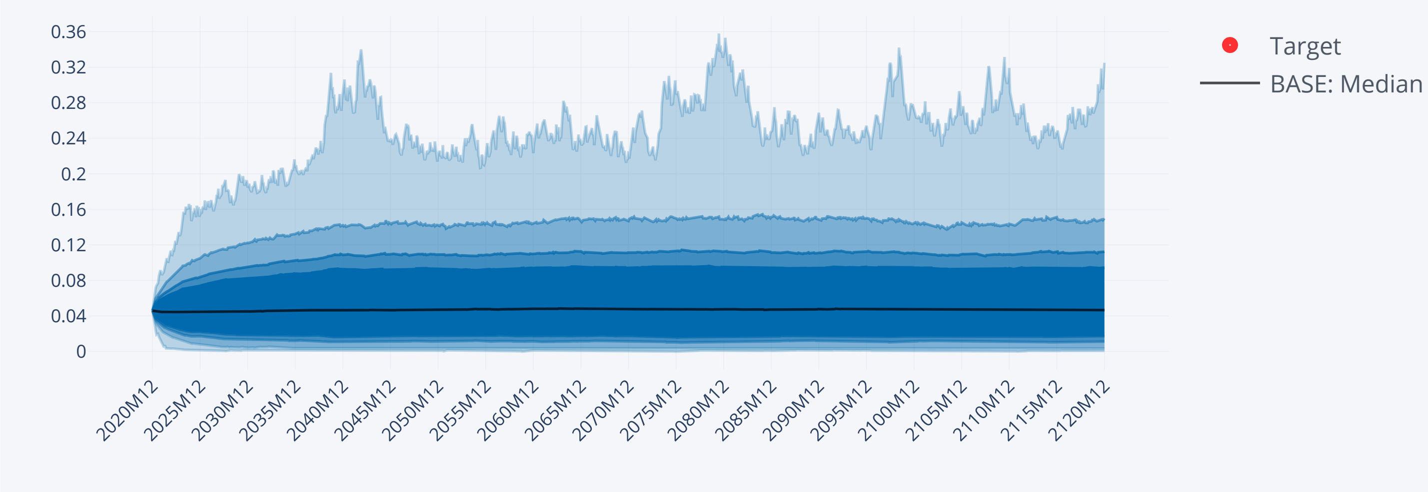
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0444	0.0516
std	0.0108	0.0308
min	0.0059	0.0002
1%	0.0216	0.0034
5%	0.0277	0.0094
10%	0.0311	0.0160
50%	0.0439	0.0468
90%	0.0584	0.0938
95%	0.0628	0.1087
99%	0.0716	0.1424
max	0.0859	0.2229

Cross Sectional Volatility Over Time : BASE



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

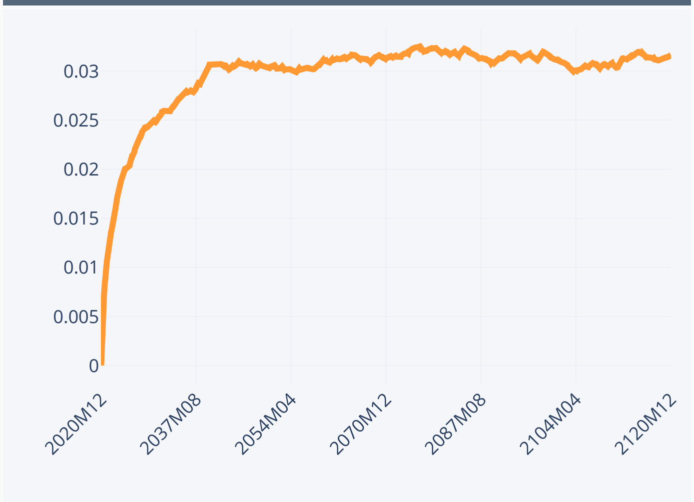


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0449	0.0520
std	0.0106	0.0305
min	0.0072	0.0006
1%	0.0225	0.0036
5%	0.0285	0.0106
10%	0.0318	0.0170
50%	0.0444	0.0474
90%	0.0588	0.0937
95%	0.0630	0.1087
99%	0.0716	0.1419
max	0.0860	0.2218

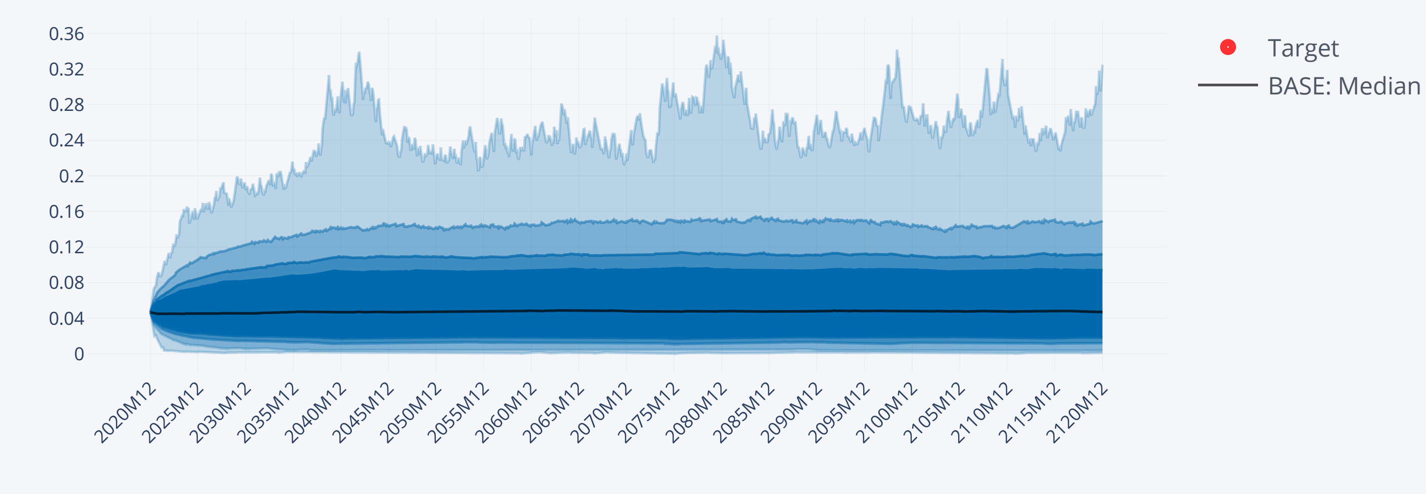
Cross Sectional Volatility Over Time : BASE



US Treasury 14 Year Yield - Coupon
Conning | Risk Solutions

Dec 2004 - Higher Targets
Validation Report

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

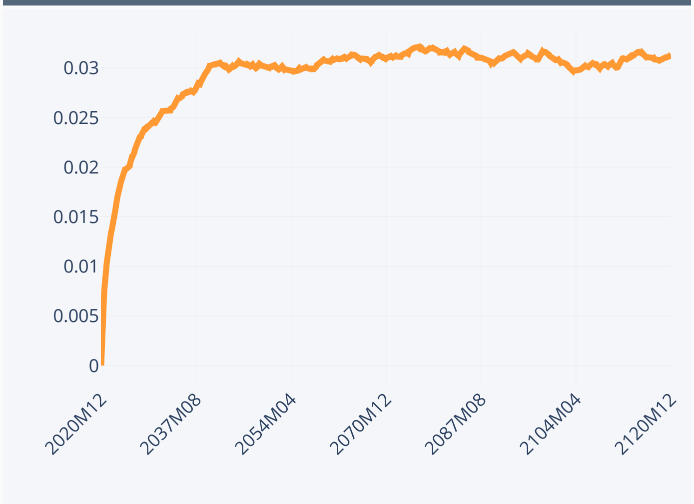


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0454	0.0524
std	0.0105	0.0302
min	0.0085	0.0010
1%	0.0234	0.0039
5%	0.0292	0.0117
10%	0.0325	0.0179
50%	0.0449	0.0478
90%	0.0590	0.0937
95%	0.0632	0.1085
99%	0.0718	0.1420
max	0.0862	0.2209

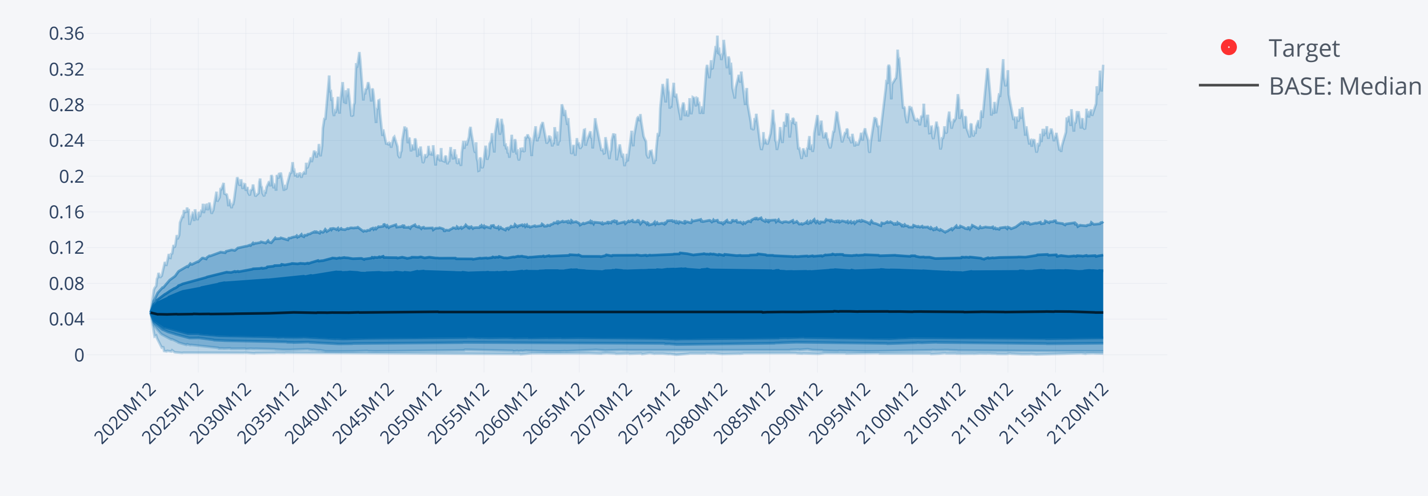
Cross Sectional Volatility Over Time : BASE



US Treasury 15 Year Yield - Coupon
Conning | Risk Solutions

Dec 2004 - Higher Targets
Validation Report

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

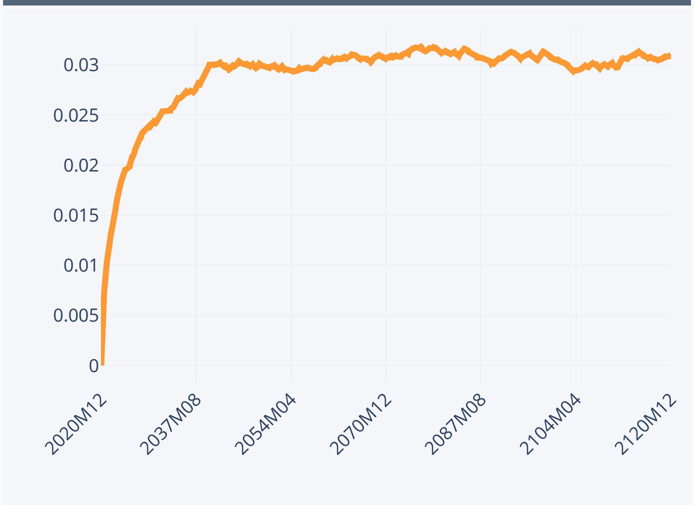


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0458	0.0527
std	0.0103	0.0299
min	0.0096	0.0013
1%	0.0240	0.0048
5%	0.0298	0.0126
10%	0.0331	0.0187
50%	0.0453	0.0481
90%	0.0592	0.0937
95%	0.0634	0.1084
99%	0.0719	0.1416
max	0.0863	0.2201

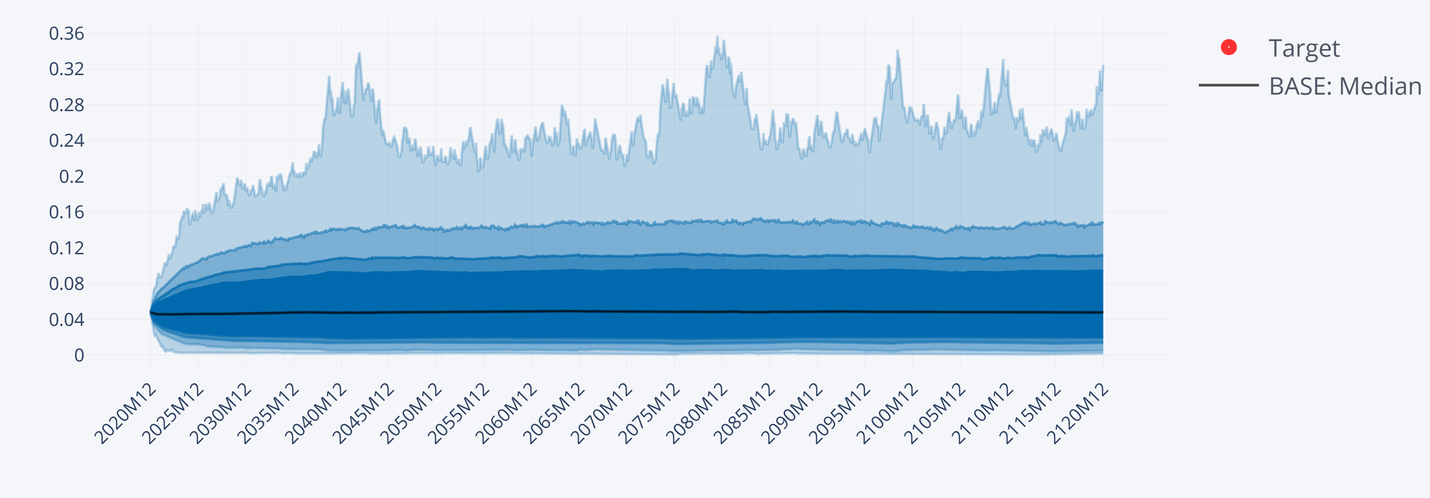
Cross Sectional Volatility Over Time : BASE



US Treasury 16 Year Yield - Coupon
Conning | Risk Solutions

Dec 2004 - Higher Targets
Validation Report

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

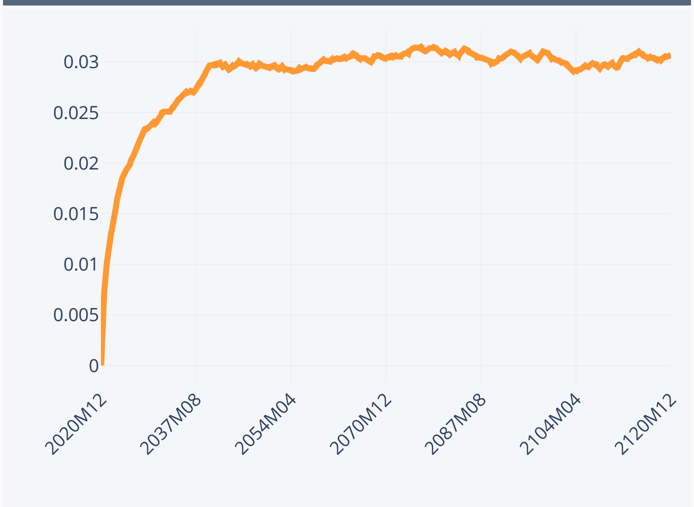


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

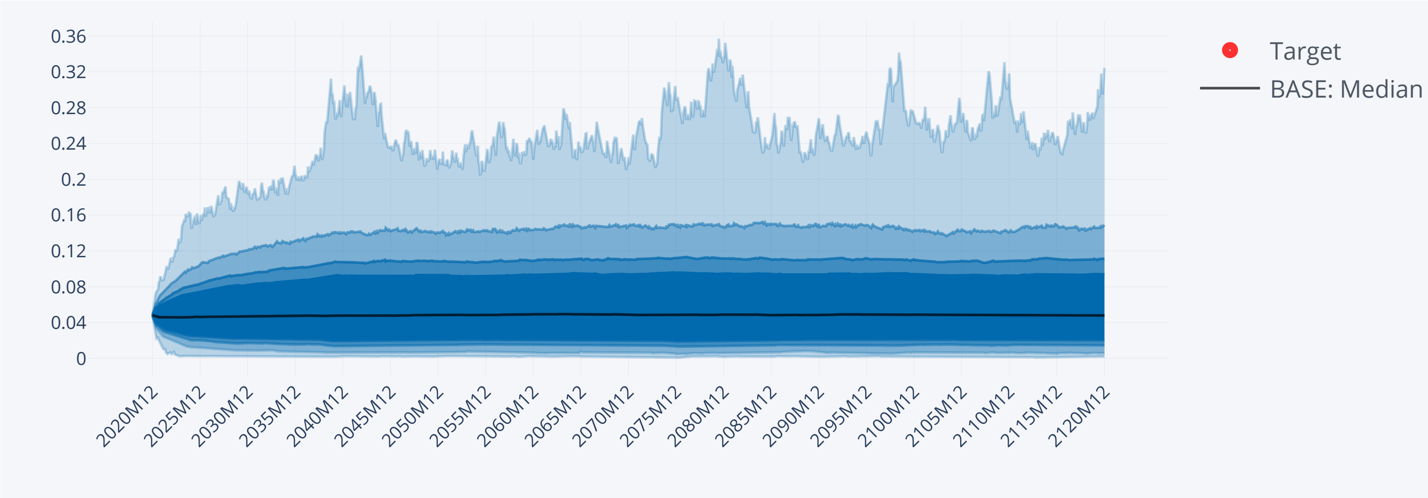
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0461	0.0530
std	0.0102	0.0296
min	0.0106	0.0016
1%	0.0247	0.0058
5%	0.0304	0.0134
10%	0.0335	0.0195
50%	0.0456	0.0484
90%	0.0594	0.0937
95%	0.0635	0.1081
99%	0.0719	0.1414
max	0.0864	0.2193

Cross Sectional Volatility Over Time : BASE



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

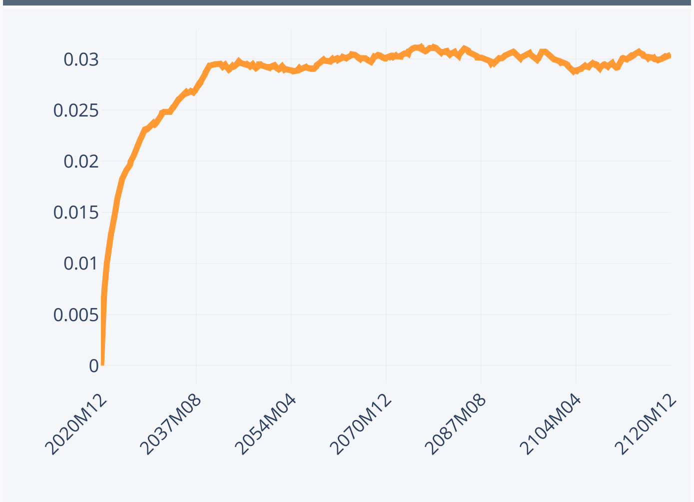


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

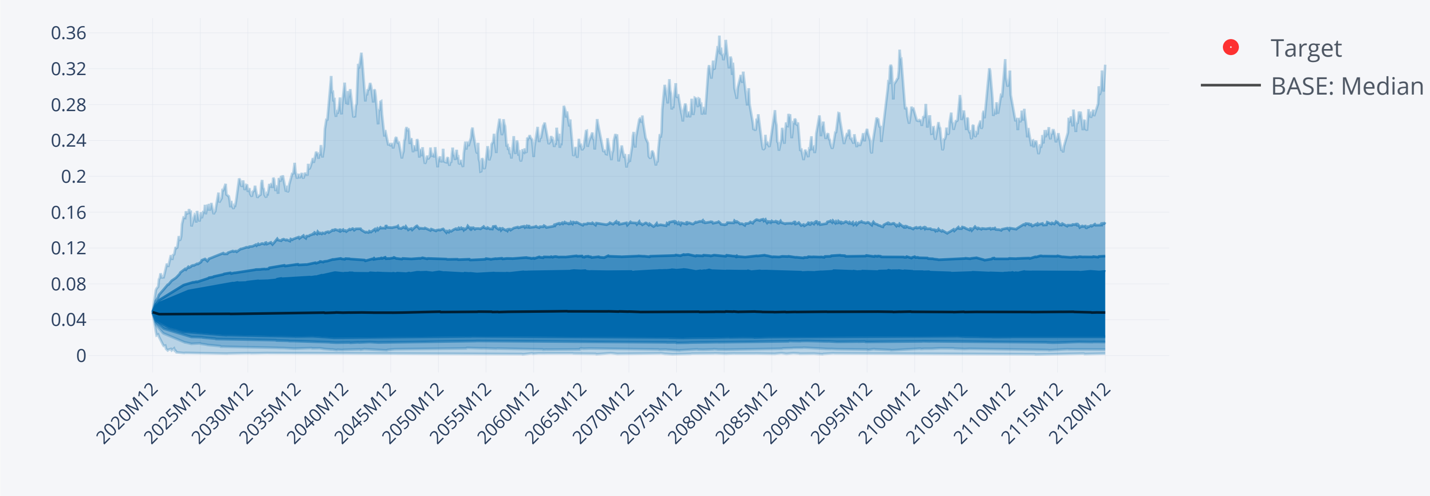
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0464	0.0533
std	0.0101	0.0293
min	0.0115	0.0019
1%	0.0251	0.0067
5%	0.0309	0.0143
10%	0.0340	0.0202
50%	0.0459	0.0486
90%	0.0595	0.0934
95%	0.0636	0.1080
99%	0.0719	0.1412
max	0.0864	0.2186

Cross Sectional Volatility Over Time : BASE



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

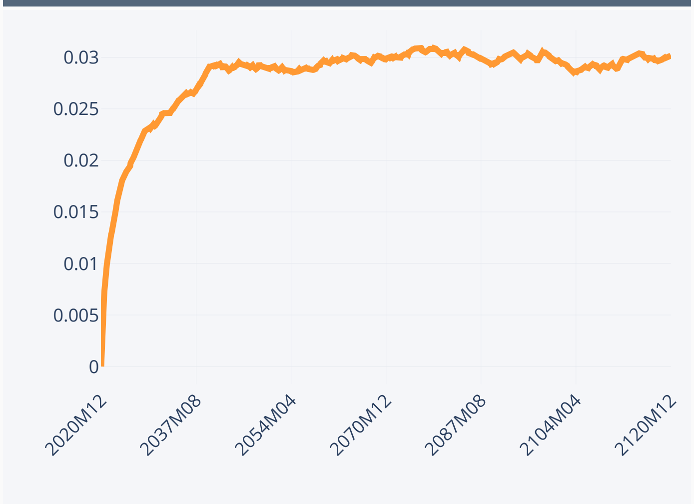


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

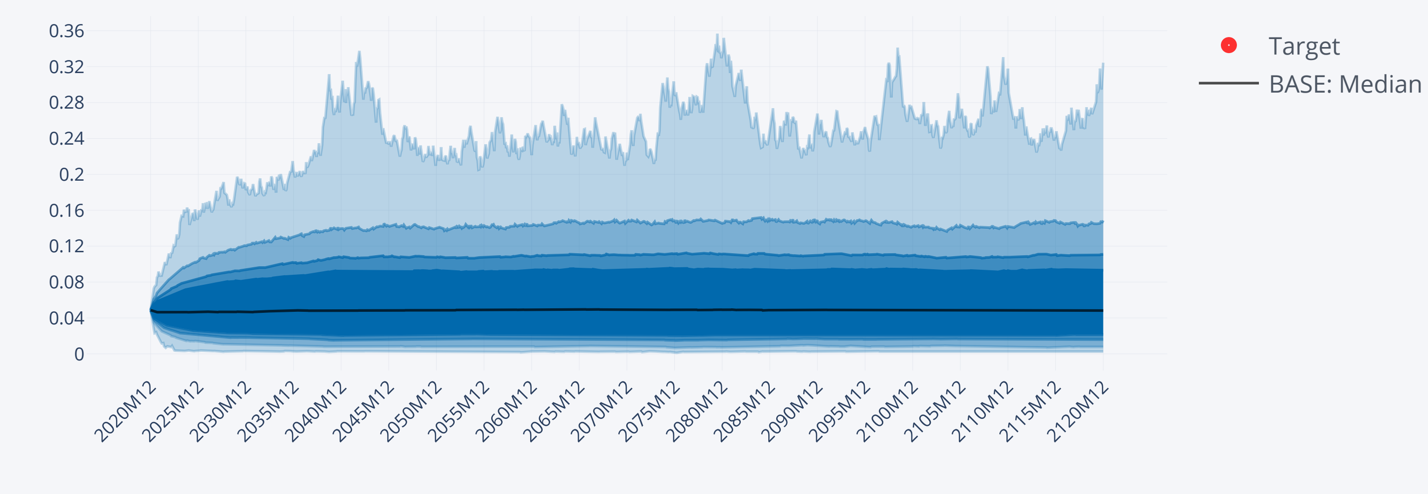
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0466	0.0535
std	0.0099	0.0290
min	0.0124	0.0021
1%	0.0257	0.0075
5%	0.0313	0.0149
10%	0.0343	0.0207
50%	0.0461	0.0488
90%	0.0595	0.0933
95%	0.0636	0.1077
99%	0.0718	0.1409
max	0.0864	0.2180

Cross Sectional Volatility Over Time : BASE



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

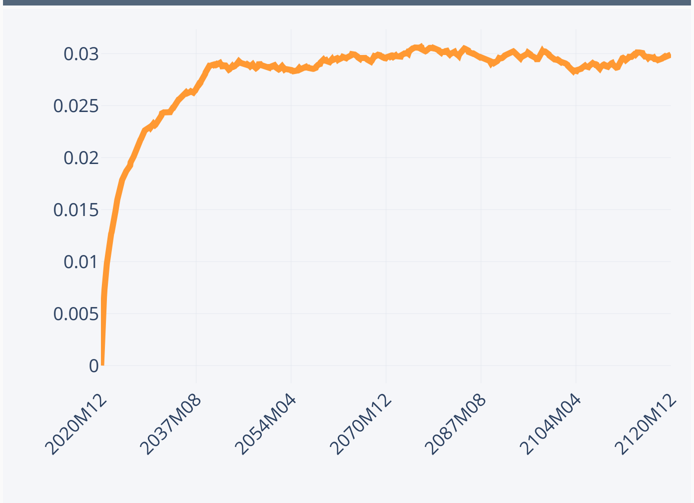


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

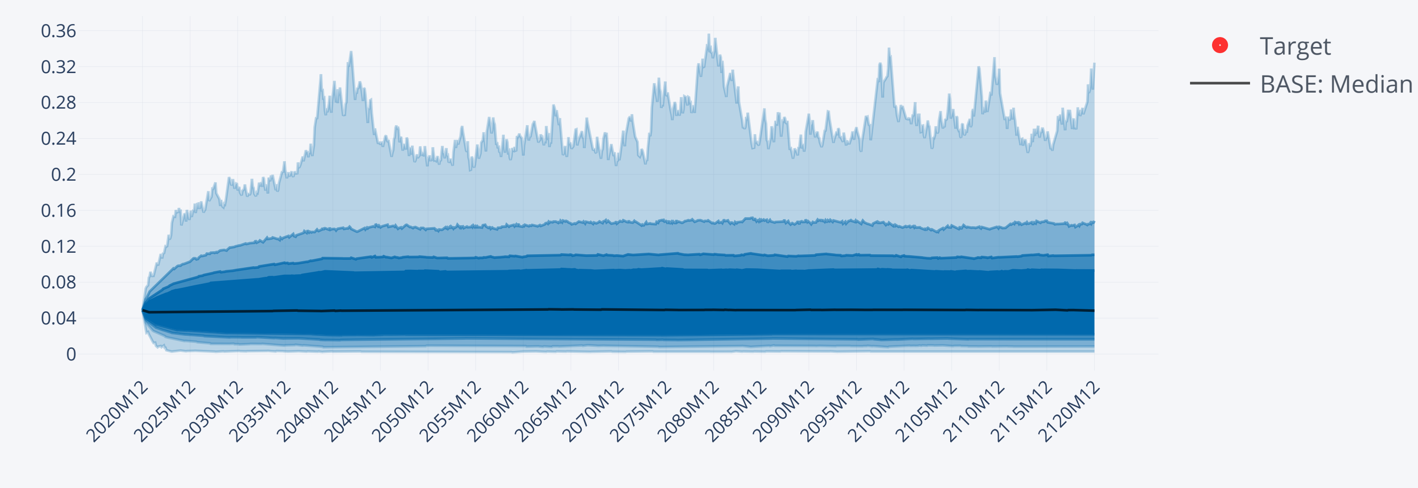
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0468	0.0536
std	0.0098	0.0288
min	0.0131	0.0023
1%	0.0261	0.0084
5%	0.0317	0.0156
10%	0.0347	0.0212
50%	0.0463	0.0489
90%	0.0596	0.0932
95%	0.0636	0.1075
99%	0.0718	0.1406
max	0.0863	0.2174

Cross Sectional Volatility Over Time : BASE



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

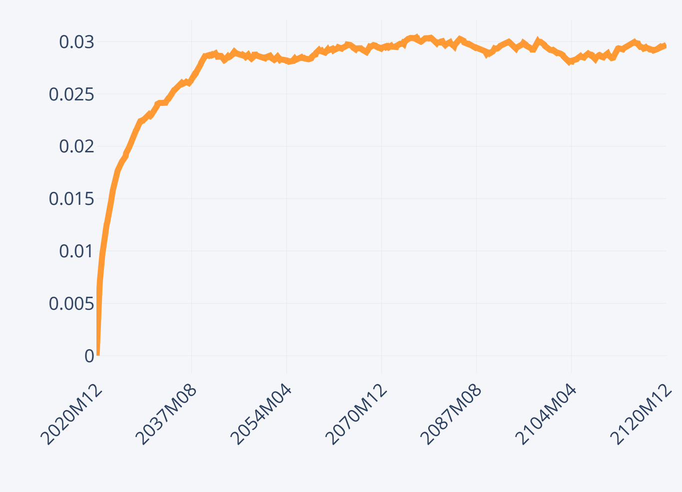


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0470	0.0538
std	0.0097	0.0286
min	0.0138	0.0025
1%	0.0265	0.0091
5%	0.0320	0.0161
10%	0.0350	0.0217
50%	0.0464	0.0491
90%	0.0596	0.0930
95%	0.0636	0.1073
99%	0.0718	0.1403
max	0.0862	0.2169

Cross Sectional Volatility Over Time : BASE



US Treasury 21 Year Yield - Coupon

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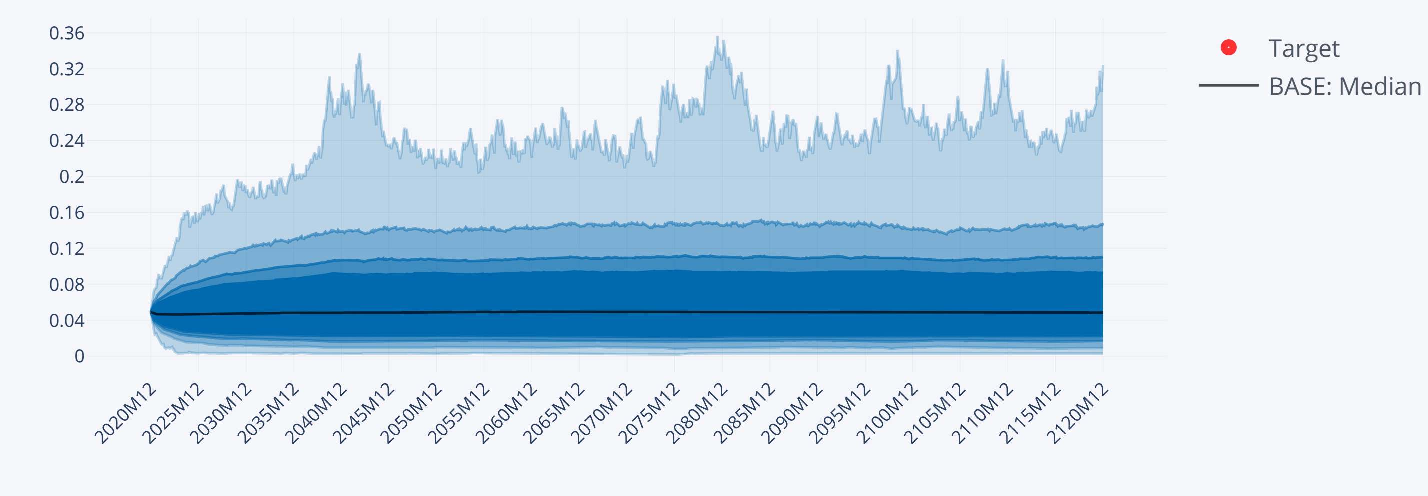
Dec 2004 - Higher Targets

Validation Report

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

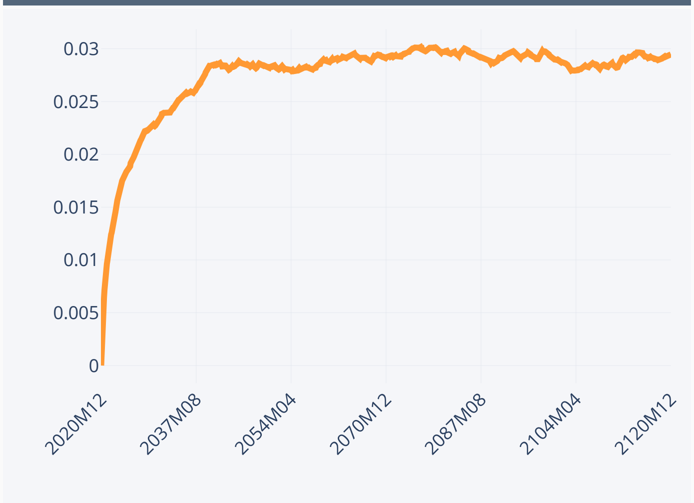


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

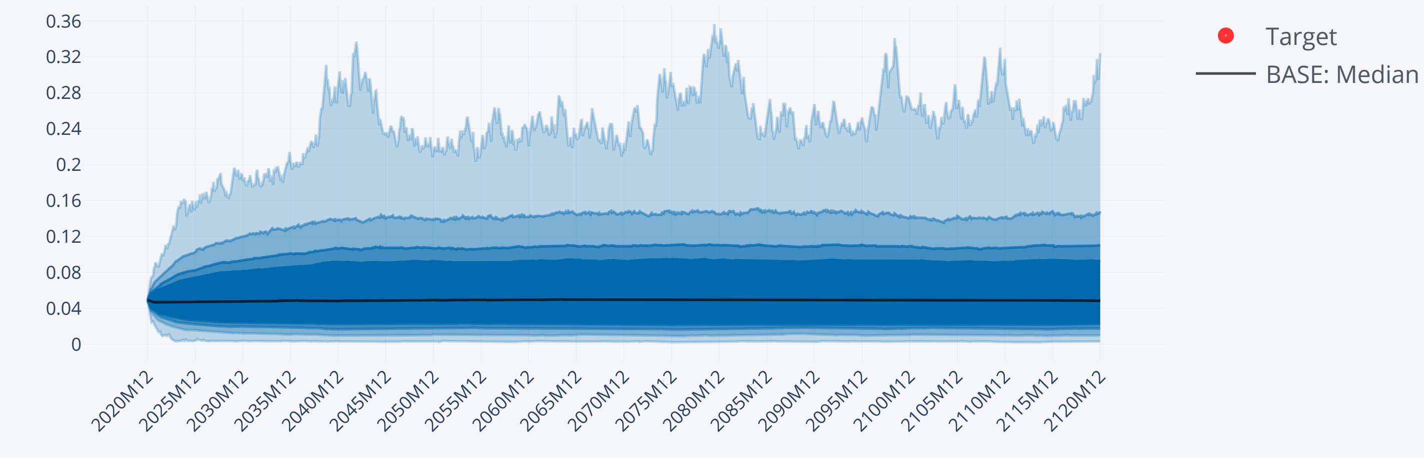
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0471	0.0539
std	0.0096	0.0283
min	0.0144	0.0028
1%	0.0269	0.0098
5%	0.0323	0.0166
10%	0.0352	0.0221
50%	0.0465	0.0492
90%	0.0596	0.0928
95%	0.0636	0.1071
99%	0.0717	0.1399
max	0.0861	0.2164

Cross Sectional Volatility Over Time : BASE



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

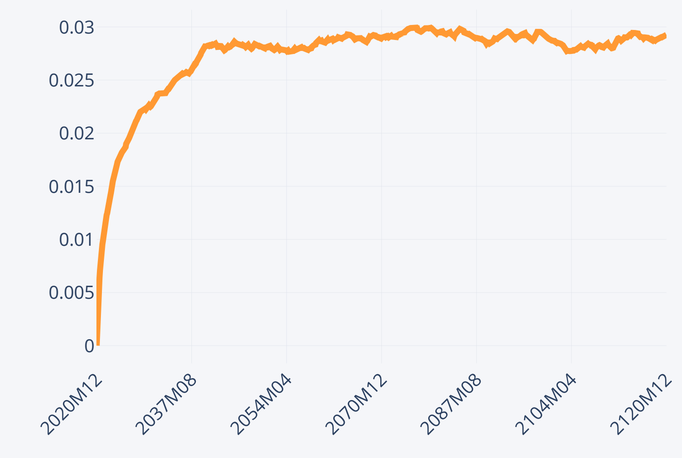


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0472	0.0539
std	0.0095	0.0281
min	0.0150	0.0029
1%	0.0273	0.0104
5%	0.0326	0.0171
10%	0.0355	0.0225
50%	0.0466	0.0493
90%	0.0596	0.0926
95%	0.0635	0.1068
99%	0.0715	0.1394
max	0.0860	0.2160

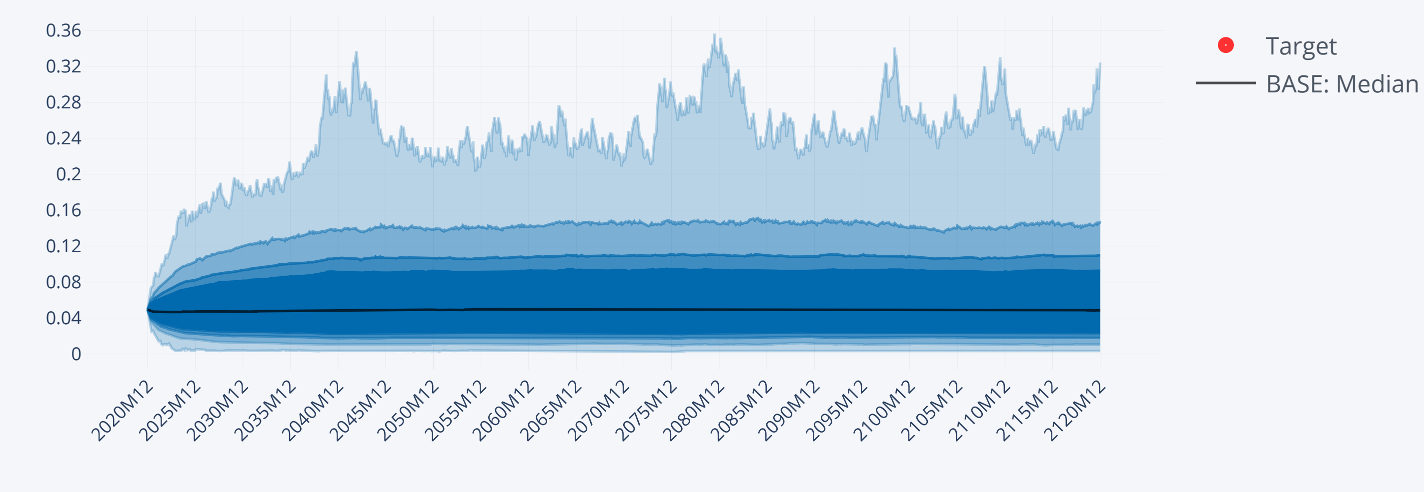
Cross Sectional Volatility Over Time : BASE



US Treasury 23 Year Yield - Coupon
Conning | Risk Solutions

Dec 2004 - Higher Targets
Validation Report

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

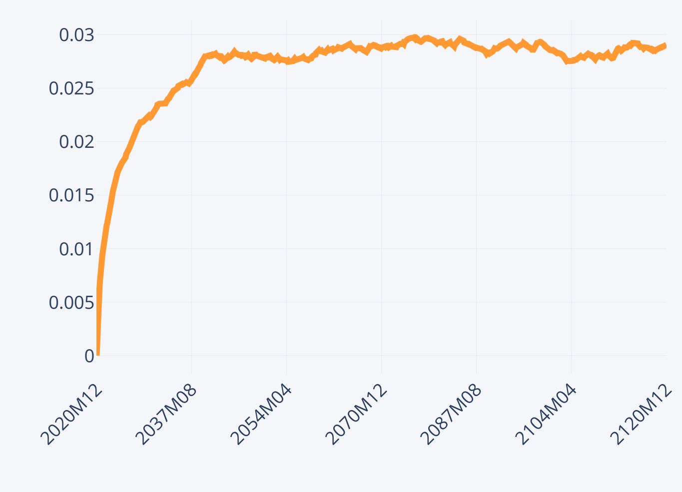


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0473	0.0540
std	0.0094	0.0279
min	0.0155	0.0031
1%	0.0276	0.0110
5%	0.0328	0.0175
10%	0.0357	0.0229
50%	0.0467	0.0493
90%	0.0596	0.0924
95%	0.0634	0.1064
99%	0.0714	0.1390
max	0.0858	0.2156

Cross Sectional Volatility Over Time : BASE



US Treasury 24 Year Yield - Coupon

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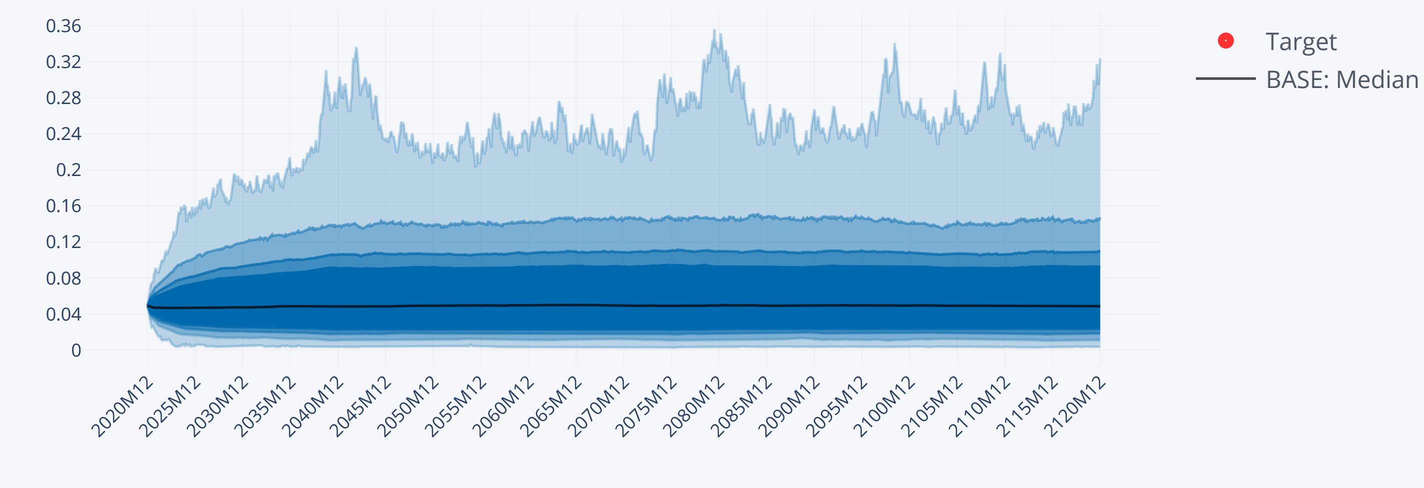
Dec 2004 - Higher Targets

Validation Report

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

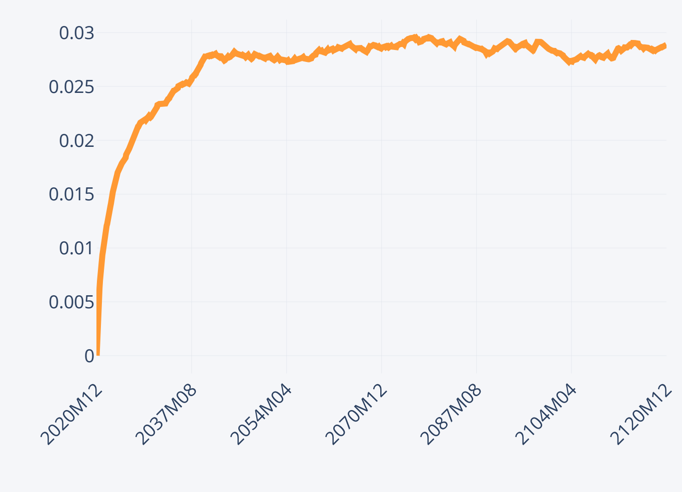


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0473	0.0540
std	0.0094	0.0278
min	0.0160	0.0033
1%	0.0278	0.0116
5%	0.0330	0.0179
10%	0.0358	0.0232
50%	0.0468	0.0493
90%	0.0595	0.0923
95%	0.0633	0.1062
99%	0.0713	0.1388
max	0.0857	0.2152

Cross Sectional Volatility Over Time : BASE



US Treasury 25 Year Yield - Coupon
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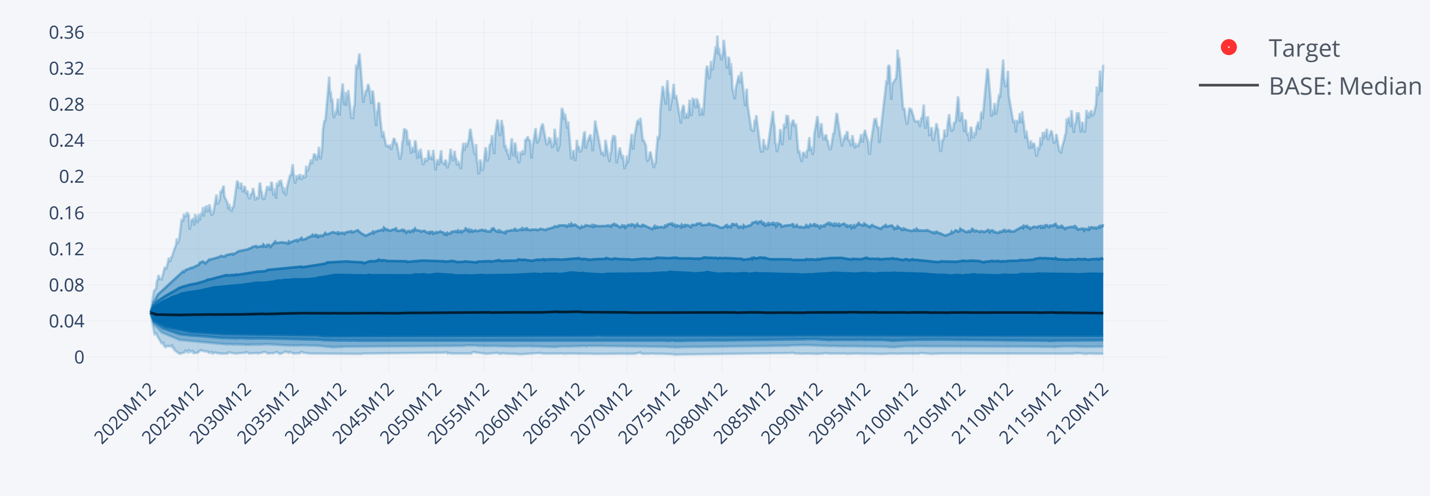
Dec 2004 - Higher Targets
Validation Report

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

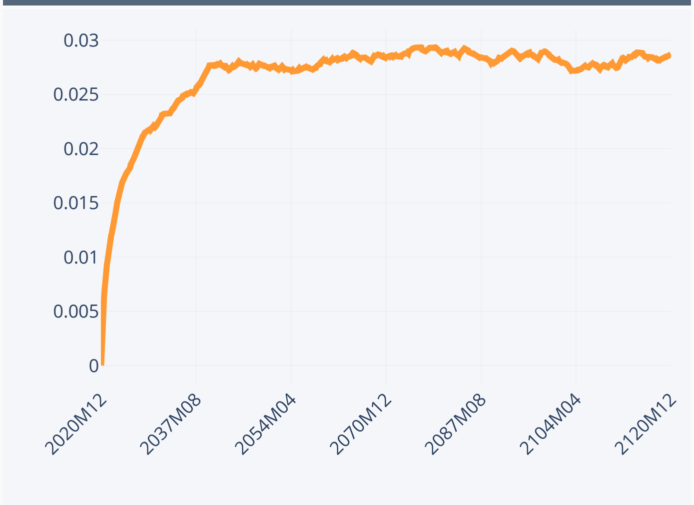


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0474	0.0541
std	0.0093	0.0276
min	0.0165	0.0035
1%	0.0281	0.0121
5%	0.0332	0.0183
10%	0.0360	0.0235
50%	0.0468	0.0494
90%	0.0595	0.0921
95%	0.0632	0.1060
99%	0.0712	0.1385
max	0.0855	0.2149

Cross Sectional Volatility Over Time : BASE



US Treasury 26 Year Yield - Coupon
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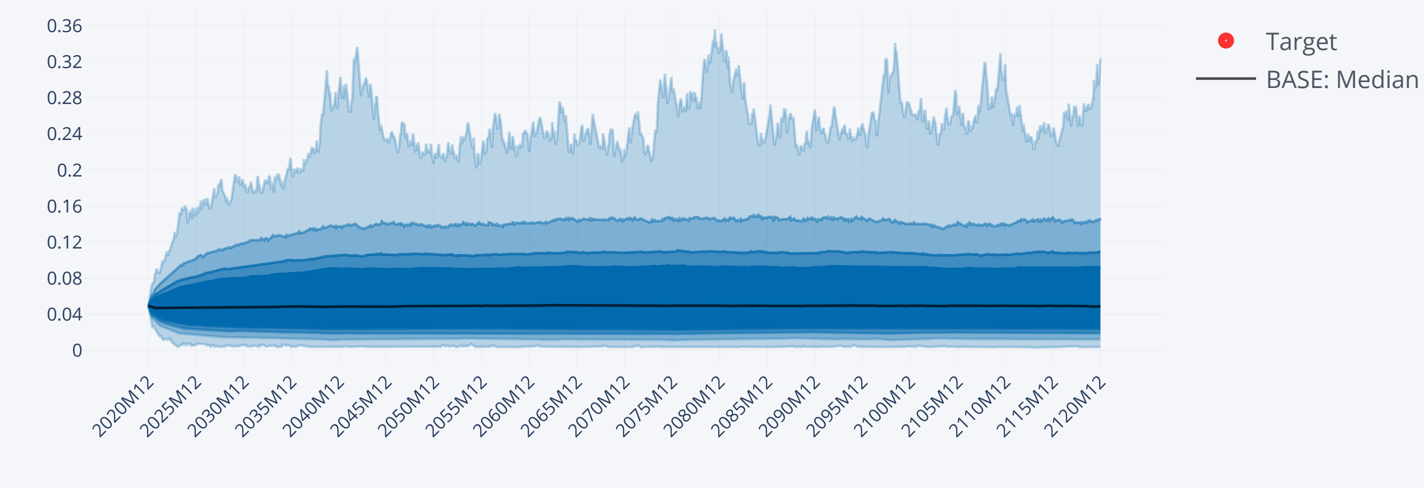
Dec 2004 - Higher Targets
Validation Report

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

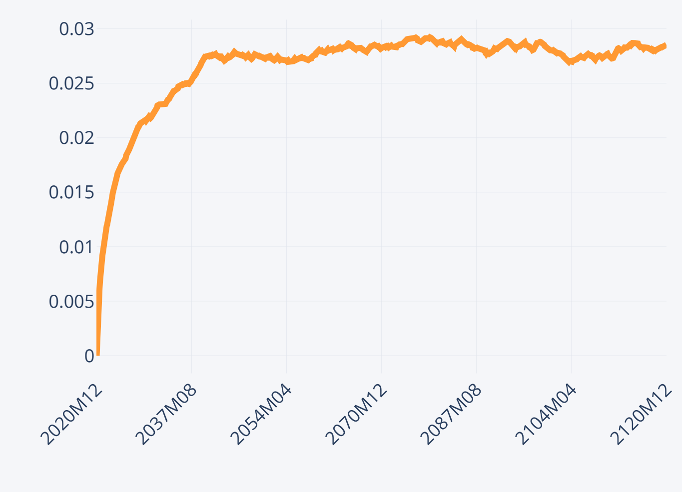


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

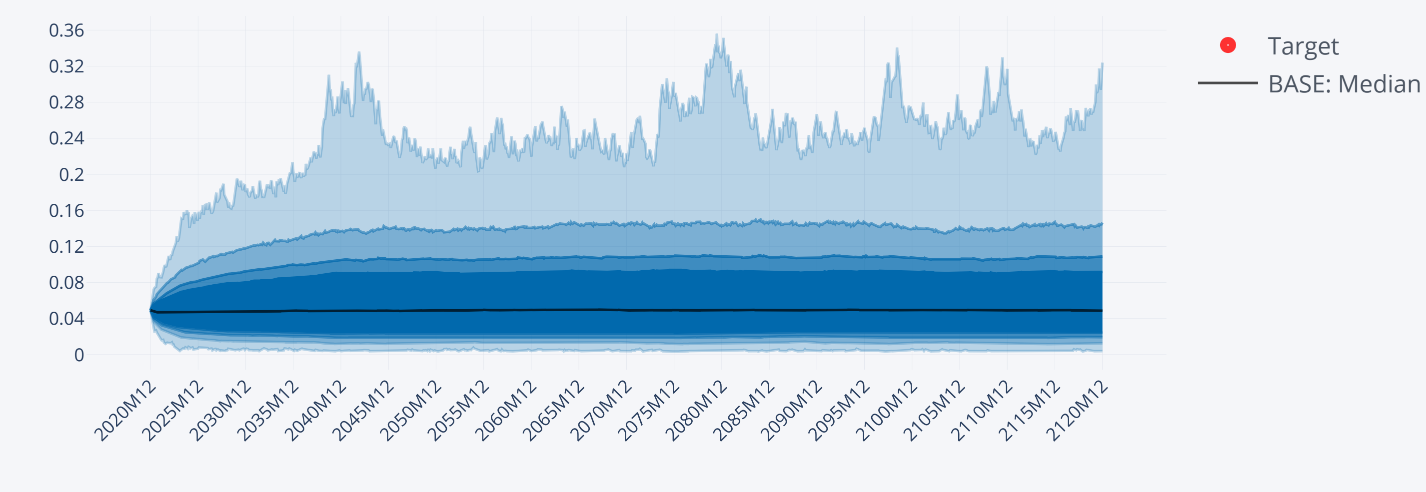
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0474	0.0541
std	0.0092	0.0274
min	0.0169	0.0036
1%	0.0283	0.0125
5%	0.0333	0.0186
10%	0.0361	0.0238
50%	0.0468	0.0493
90%	0.0594	0.0918
95%	0.0631	0.1058
99%	0.0710	0.1381
max	0.0854	0.2146

Cross Sectional Volatility Over Time : BASE



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

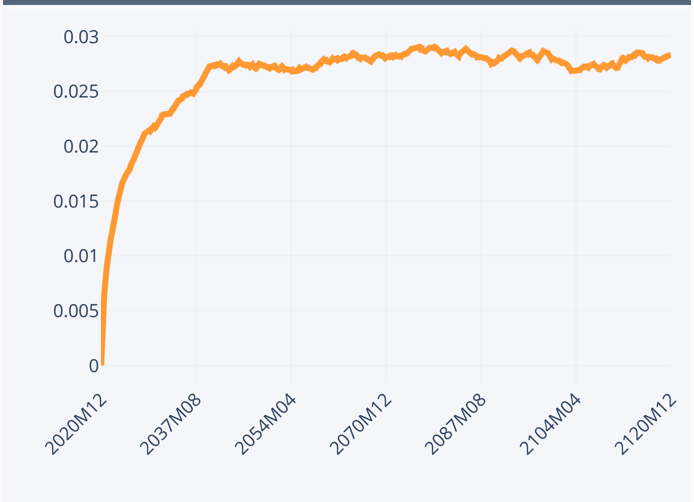


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0474	0.0541
std	0.0091	0.0272
min	0.0173	0.0038
1%	0.0285	0.0130
5%	0.0335	0.0190
10%	0.0362	0.0240
50%	0.0468	0.0493
90%	0.0593	0.0916
95%	0.0630	0.1056
99%	0.0709	0.1380
max	0.0852	0.2143

Cross Sectional Volatility Over Time : BASE



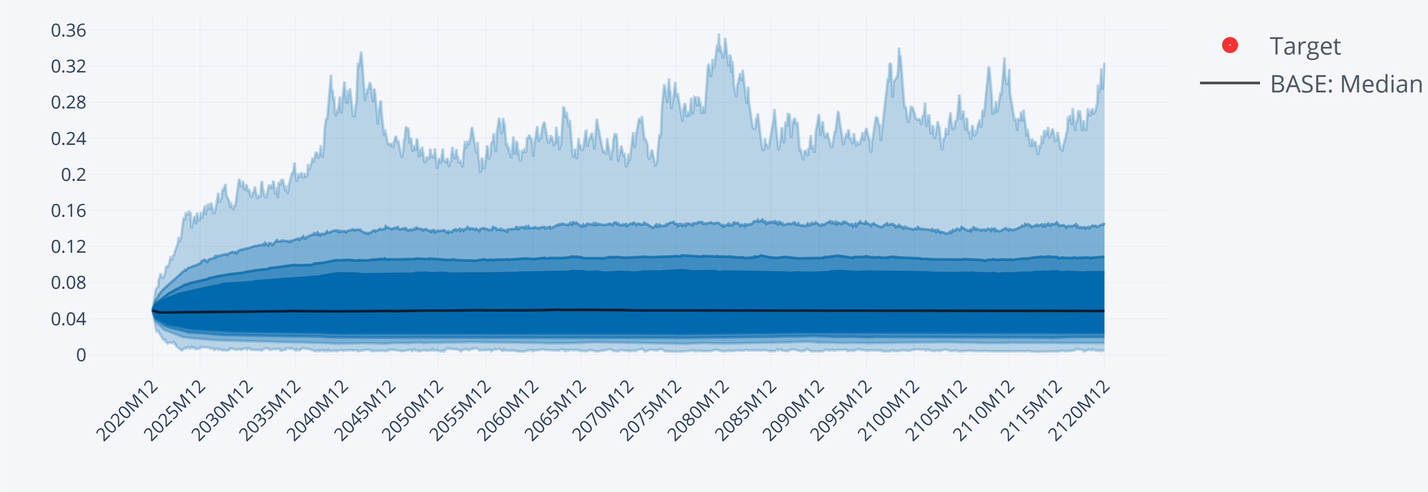
US Treasury 28 Year Yield - Coupon

Conning | Risk Solutions

Dec 2004 - Higher Targets

Validation Report

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

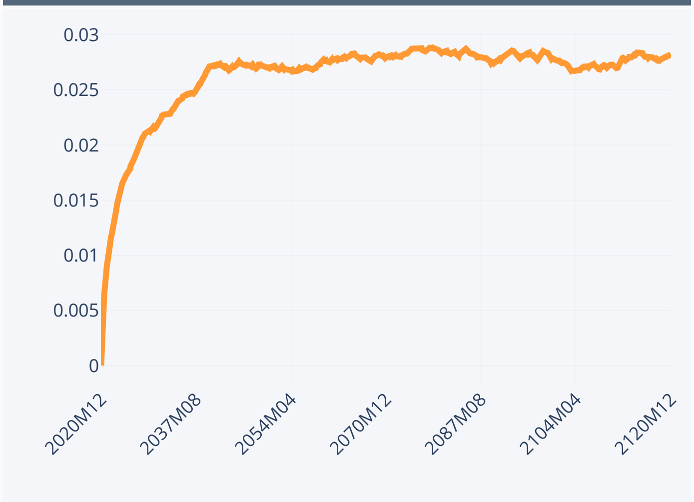


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0474	0.0541
std	0.0090	0.0271
min	0.0176	0.0039
1%	0.0286	0.0134
5%	0.0336	0.0193
10%	0.0363	0.0242
50%	0.0468	0.0493
90%	0.0592	0.0914
95%	0.0629	0.1053
99%	0.0707	0.1378
max	0.0850	0.2140

Cross Sectional Volatility Over Time : BASE



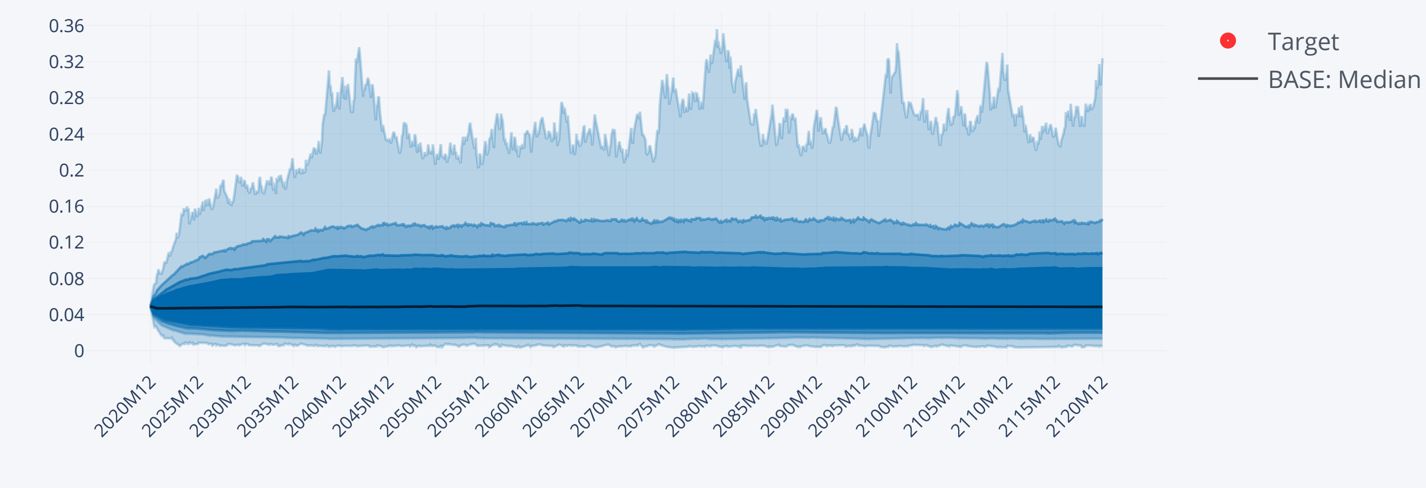
US Treasury 29 Year Yield - Coupon

Conning | Risk Solutions

Dec 2004 - Higher Targets

Validation Report

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

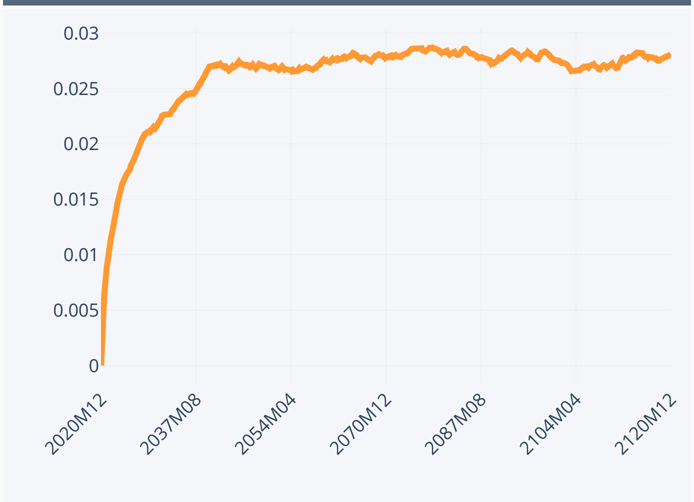


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

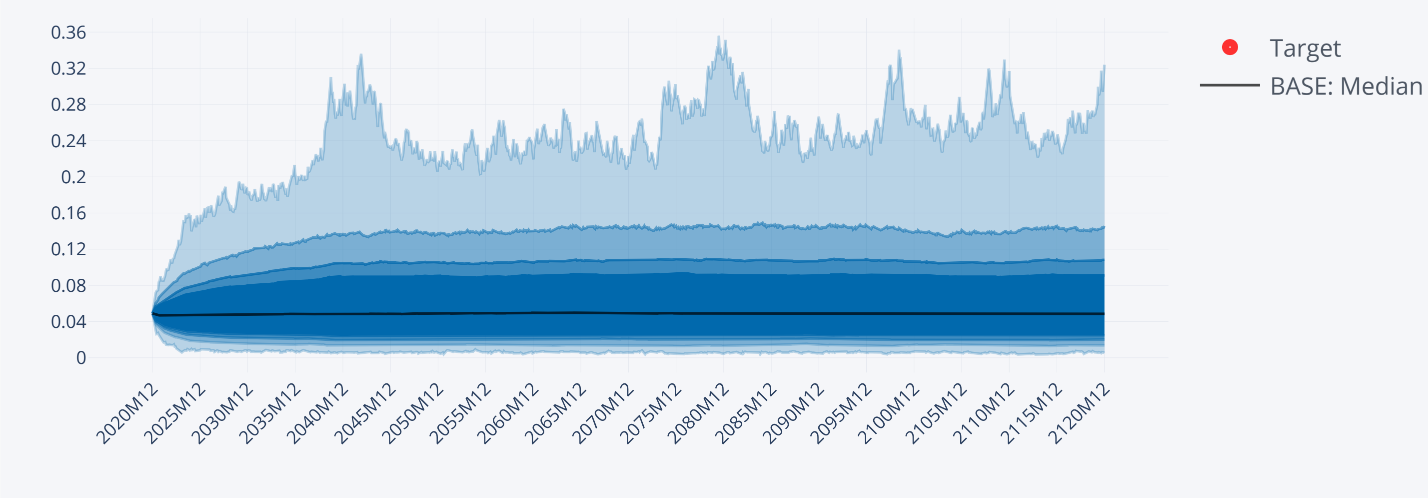
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0474	0.0541
std	0.0090	0.0270
min	0.0180	0.0046
1%	0.0288	0.0138
5%	0.0337	0.0196
10%	0.0363	0.0245
50%	0.0468	0.0493
90%	0.0591	0.0912
95%	0.0628	0.1051
99%	0.0706	0.1376
max	0.0849	0.2138

Cross Sectional Volatility Over Time : BASE



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

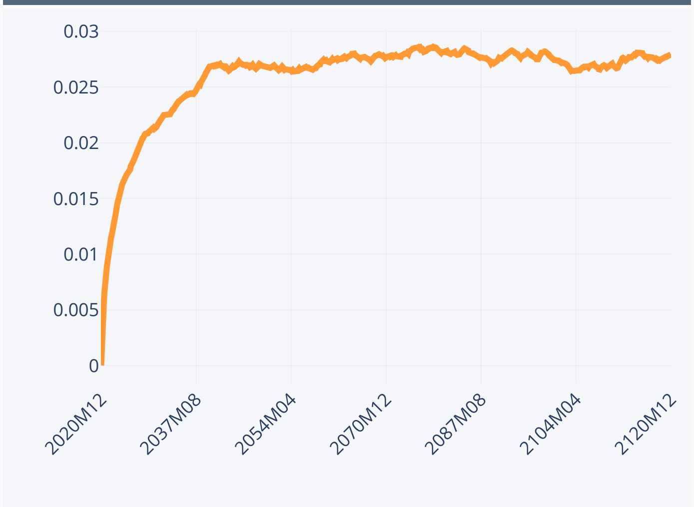


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

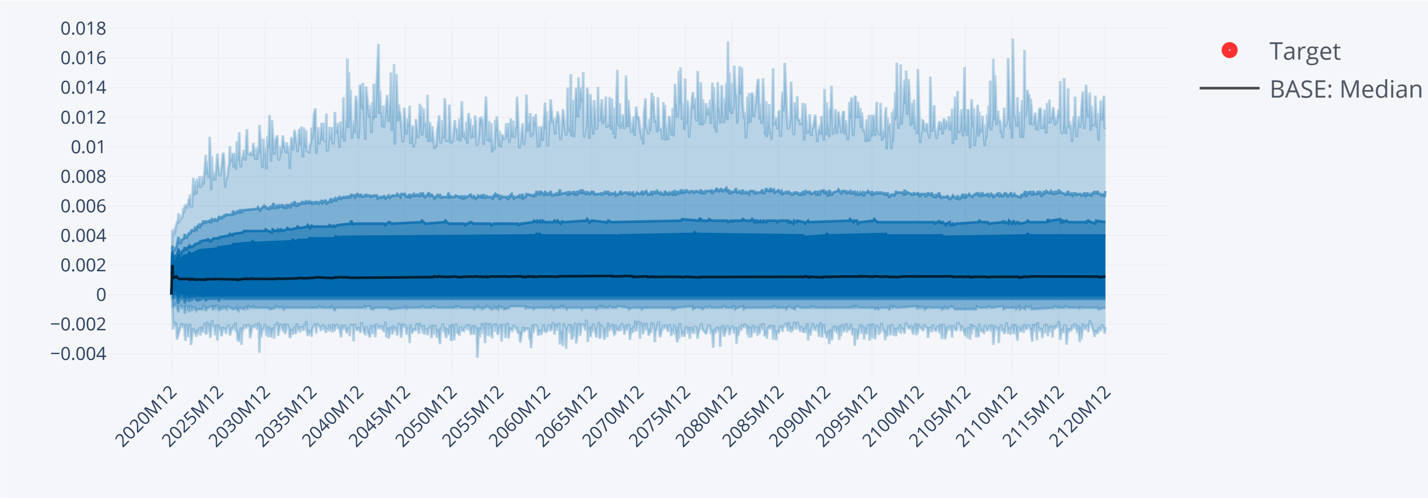
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0474	0.0540
std	0.0089	0.0268
min	0.0183	0.0052
1%	0.0289	0.0142
5%	0.0338	0.0199
10%	0.0364	0.0246
50%	0.0467	0.0492
90%	0.0590	0.0910
95%	0.0627	0.1048
99%	0.0704	0.1374
max	0.0847	0.2135

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Money Market Price

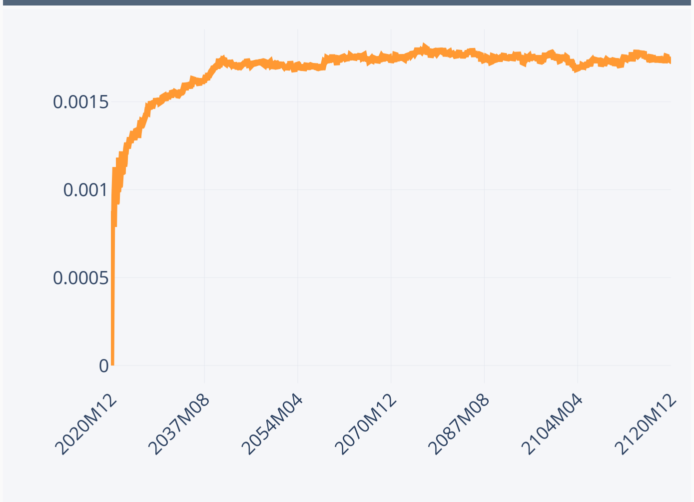


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

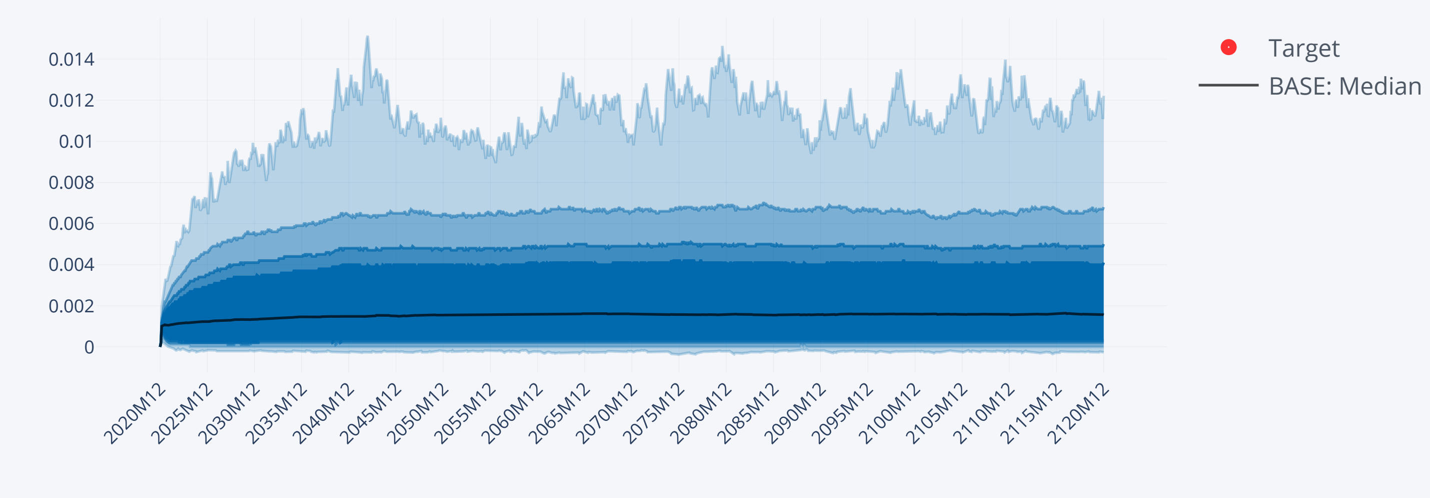
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0011	0.0016
std	0.0009	0.0017
min	-0.0020	-0.0031
1%	-0.0008	-0.0010
5%	-0.0002	-0.0003
10%	0.0000	-0.0001
50%	0.0011	0.0012
90%	0.0024	0.0039
95%	0.0027	0.0049
99%	0.0035	0.0066
max	0.0053	0.0105

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Money Market Income

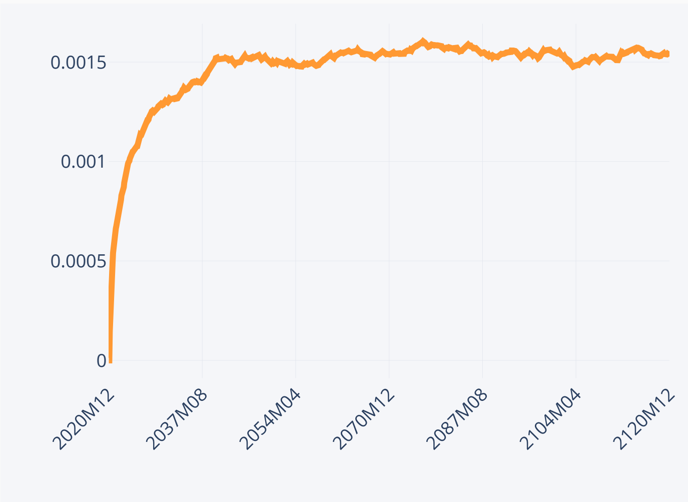


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0011	0.0019
std	0.0006	0.0015
min	-0.0000	-0.0002
1%	0.0001	0.0000
5%	0.0002	0.0002
10%	0.0003	0.0003
50%	0.0011	0.0016
90%	0.0019	0.0040
95%	0.0022	0.0048
99%	0.0027	0.0065
max	0.0037	0.0103

Cross Sectional Volatility Over Time : BASE



Short Govt Bonds Price
Conning | Risk Solutions

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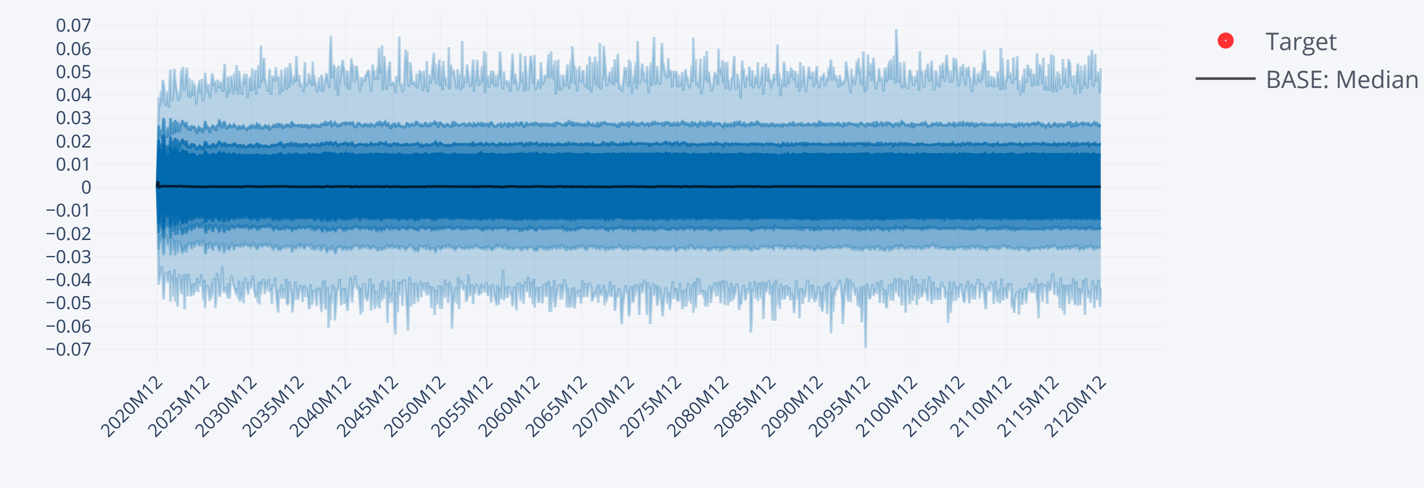
Validation Report

Simulated Data in Percentiles : Short Govt Bonds Price

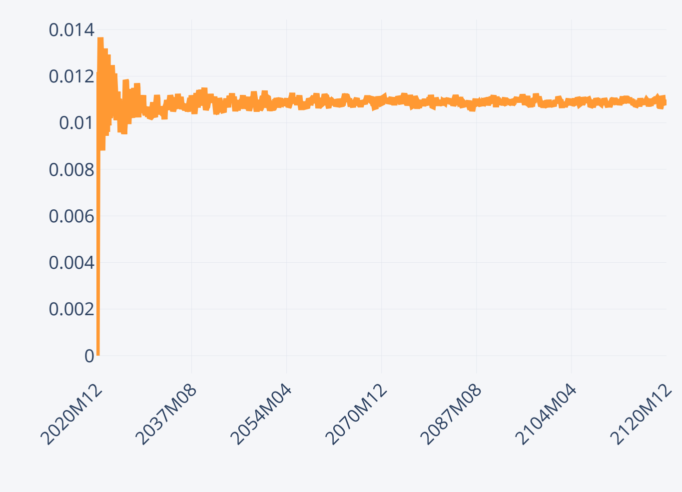


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

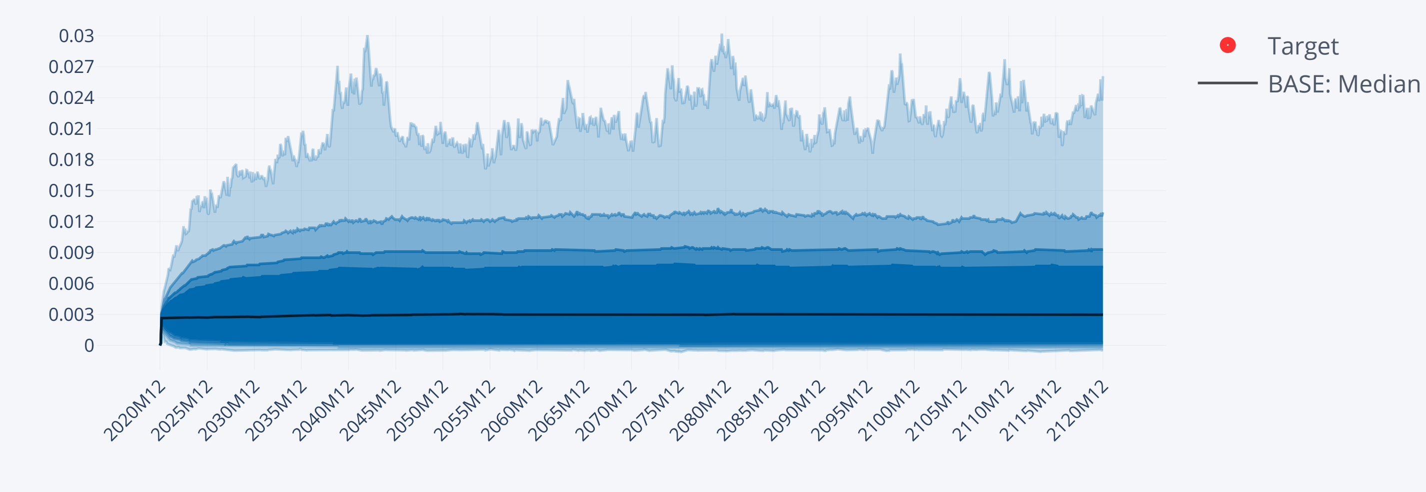
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0002	0.0004
std	0.0088	0.0111
min	-0.0374	-0.0524
1%	-0.0205	-0.0267
5%	-0.0143	-0.0179
10%	-0.0108	-0.0137
50%	0.0003	0.0003
90%	0.0114	0.0146
95%	0.0150	0.0192
99%	0.0214	0.0282
max	0.0385	0.0437

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Short Govt Bonds Income

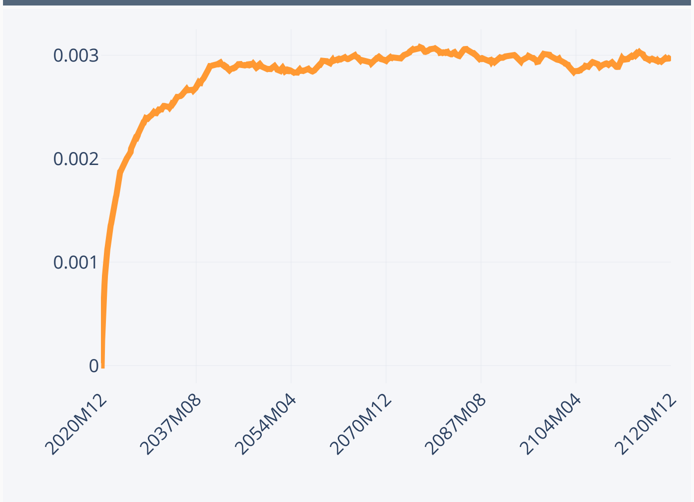


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0027	0.0035
std	0.0011	0.0029
min	0.0000	-0.0005
1%	0.0005	-0.0001
5%	0.0010	0.0001
10%	0.0013	0.0002
50%	0.0027	0.0030
90%	0.0042	0.0076
95%	0.0046	0.0089
99%	0.0055	0.0122
max	0.0074	0.0195

Cross Sectional Volatility Over Time : BASE



Int Govt Bonds Price
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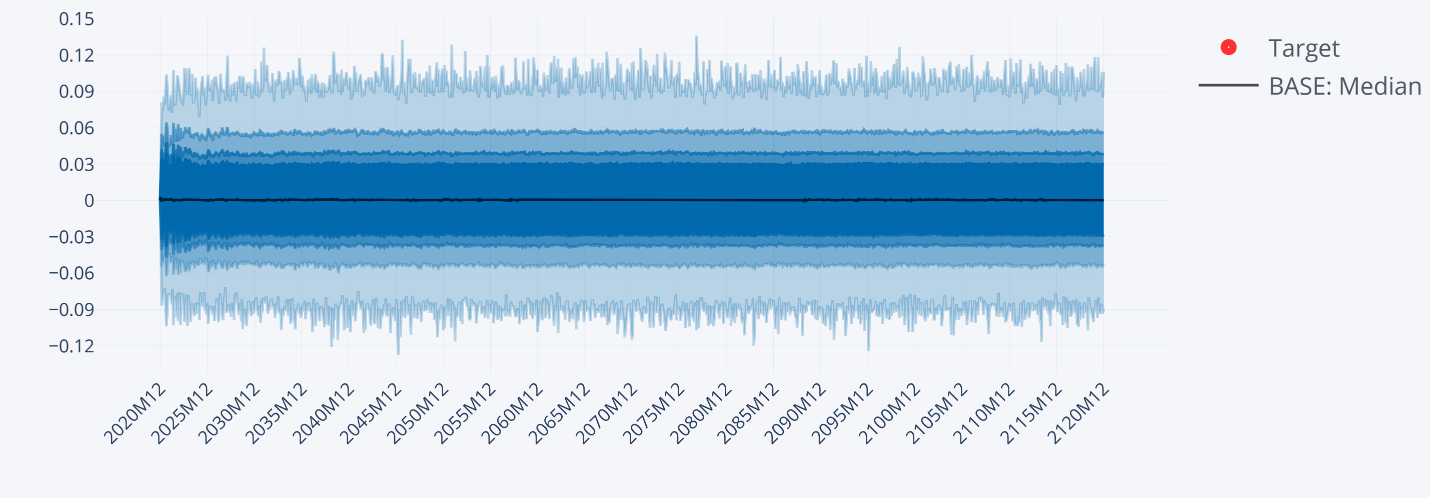
Simulated Data in Percentiles : Int Govt Bonds Price

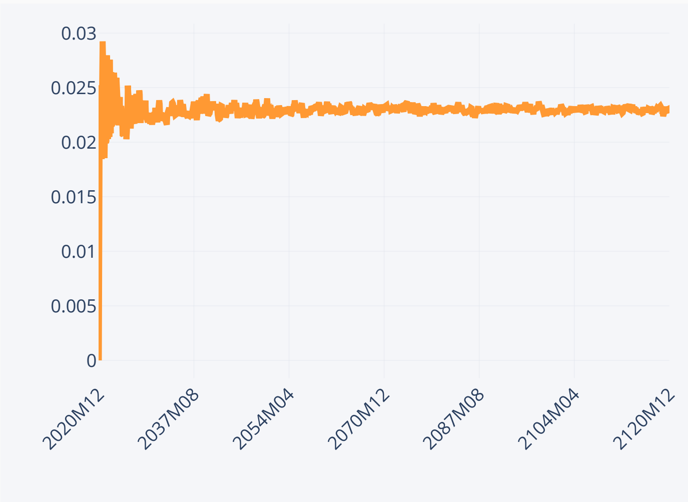


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0003	0.0008
std	0.0186	0.0233
min	-0.0771	-0.1072
1%	-0.0432	-0.0544
5%	-0.0300	-0.0373
10%	-0.0232	-0.0286
50%	0.0002	0.0005
90%	0.0240	0.0305
95%	0.0313	0.0401
99%	0.0446	0.0578
max	0.0811	0.0894

Cross Sectional Volatility Over Time : BASE



Int Govt Bonds Income
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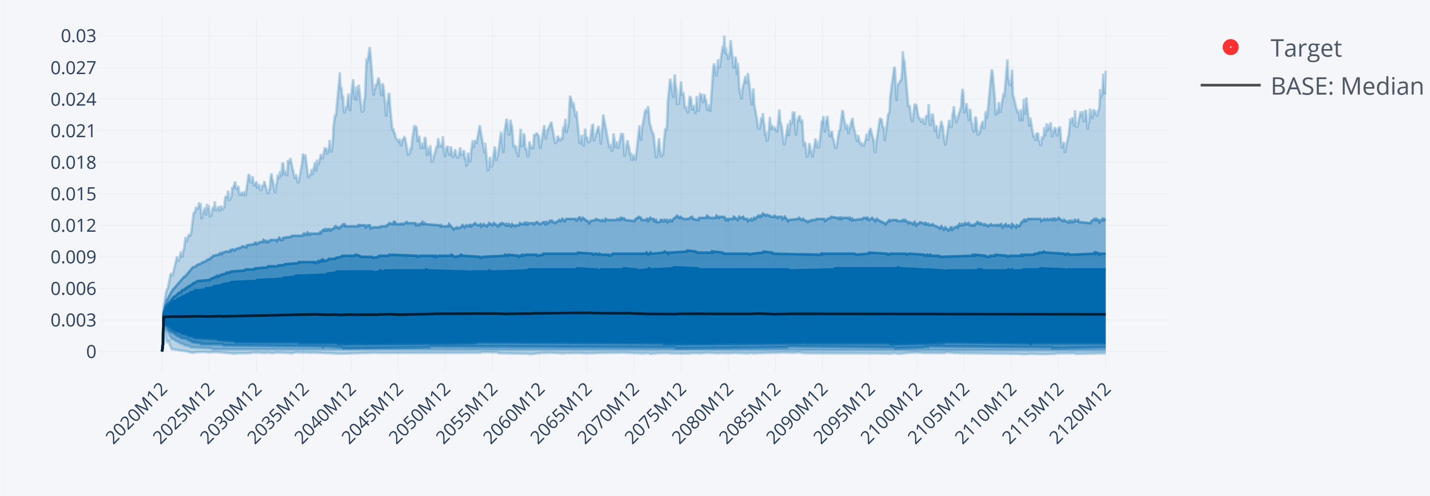
Simulated Data in Percentiles : Int Govt Bonds Income

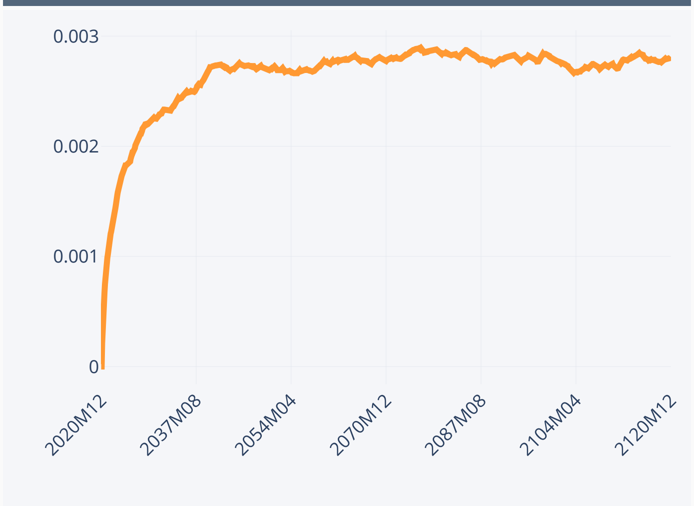


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

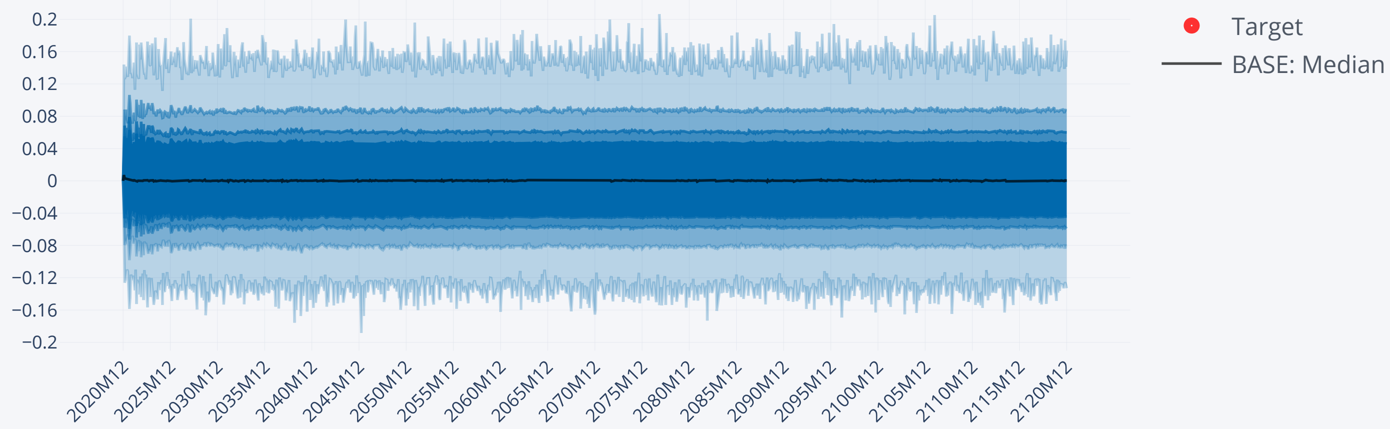
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0033	0.0040
std	0.0010	0.0027
min	0.0002	-0.0002
1%	0.0012	0.0001
5%	0.0018	0.0004
10%	0.0021	0.0008
50%	0.0033	0.0036
90%	0.0046	0.0077
95%	0.0050	0.0090
99%	0.0058	0.0120
max	0.0073	0.0185

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Long Govt Bonds Price

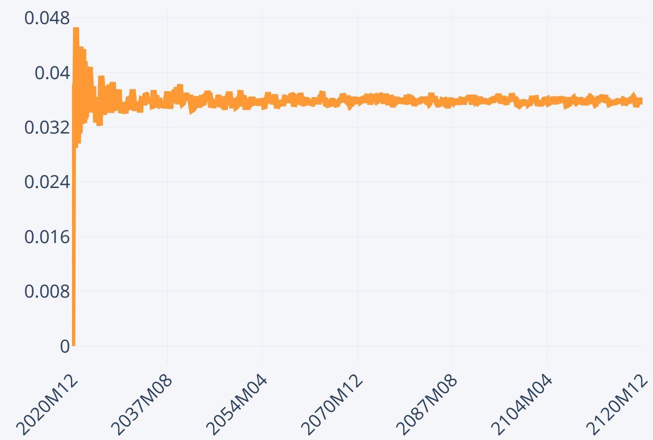


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

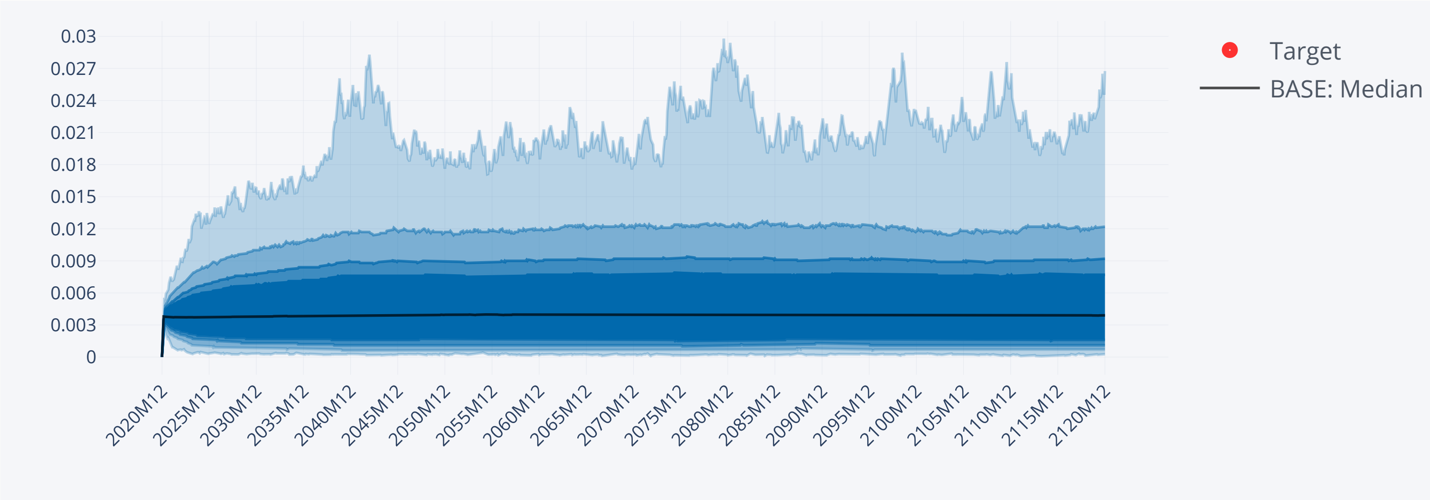
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0003	0.0011
std	0.0296	0.0363
min	-0.1230	-0.1544
1%	-0.0682	-0.0822
5%	-0.0471	-0.0568
10%	-0.0370	-0.0441
50%	-0.0001	0.0006
90%	0.0382	0.0480
95%	0.0497	0.0628
99%	0.0709	0.0881
max	0.1272	0.1473

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Long Govt Bonds Income

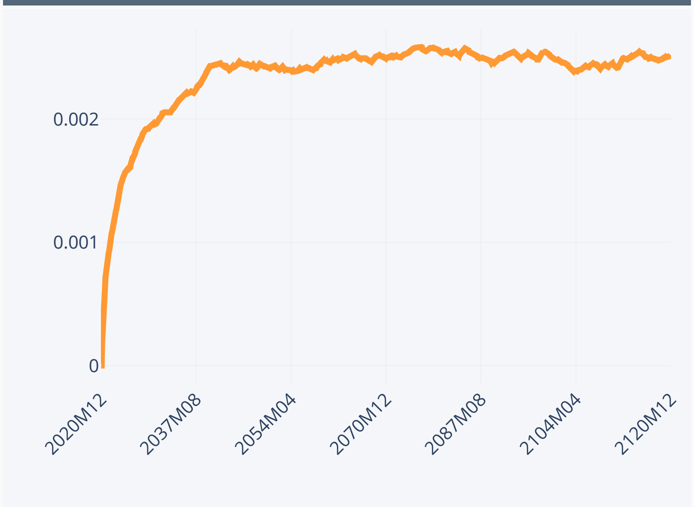


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0038	0.0044
std	0.0008	0.0024
min	0.0009	0.0002
1%	0.0020	0.0007
5%	0.0025	0.0011
10%	0.0028	0.0016
50%	0.0037	0.0040
90%	0.0048	0.0077
95%	0.0052	0.0089
99%	0.0058	0.0117
max	0.0073	0.0176

Cross Sectional Volatility Over Time : BASE



Short Inv Corp Bonds Price
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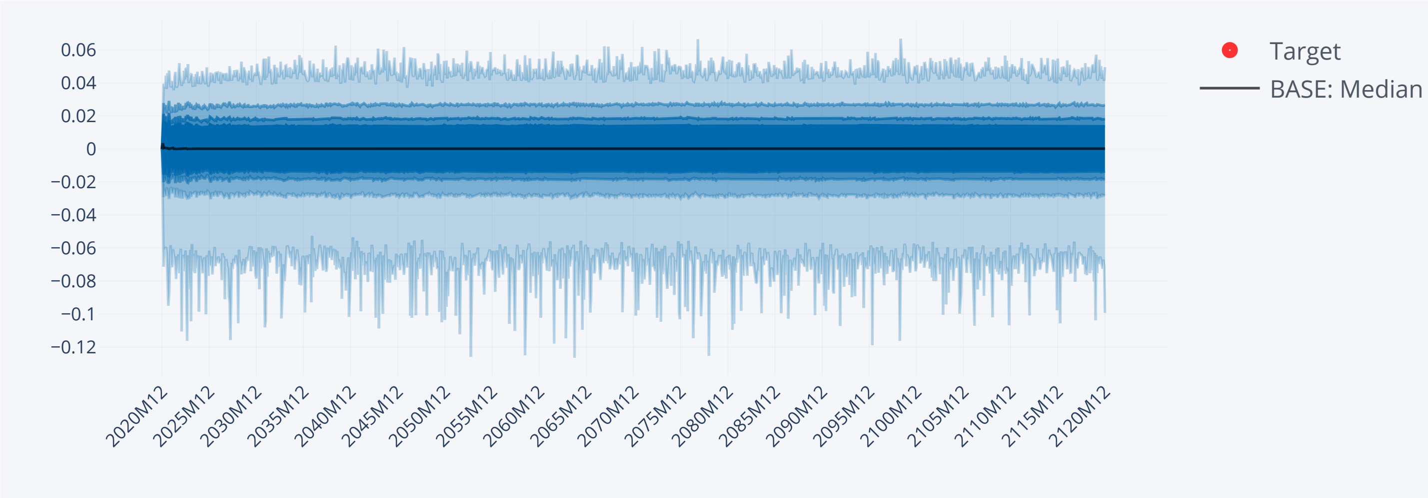
Validation Report

Simulated Data in Percentiles : Short Inv Corp Bonds Price

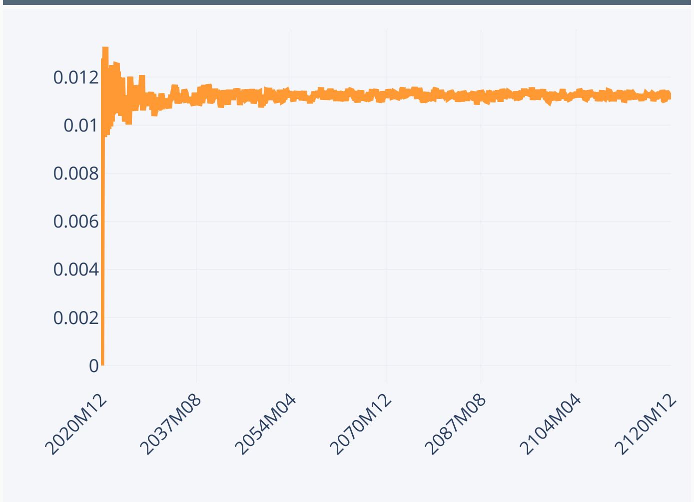


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

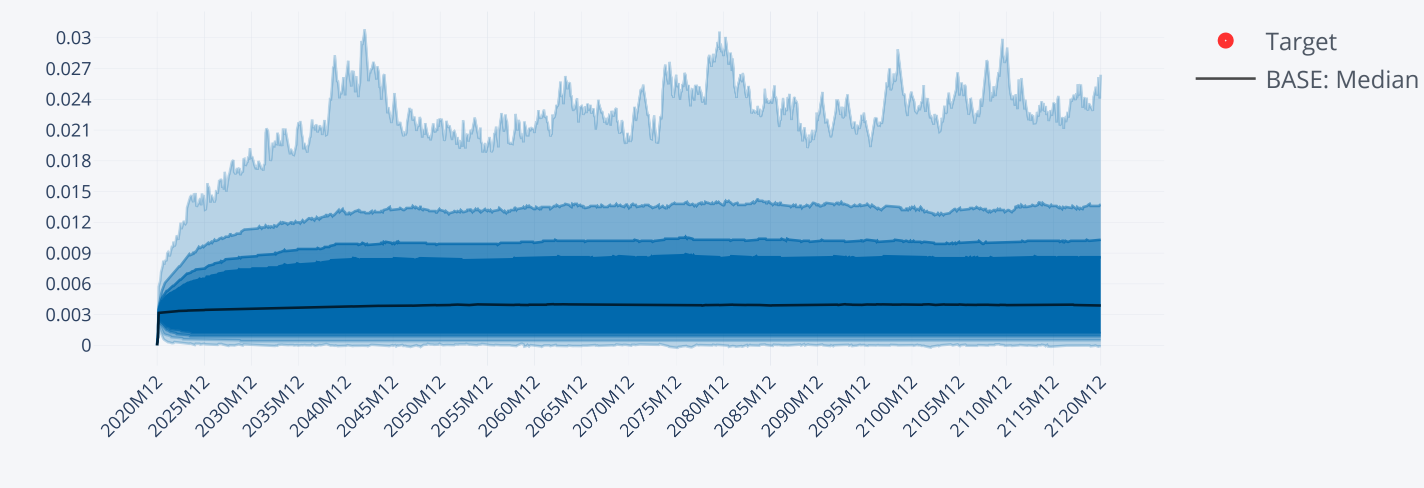
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	-0.0001	0.0001
std	0.0096	0.0114
min	-0.0699	-0.1036
1%	-0.0238	-0.0280
5%	-0.0152	-0.0183
10%	-0.0115	-0.0138
50%	0.0000	0.0001
90%	0.0117	0.0143
95%	0.0153	0.0189
99%	0.0219	0.0276
max	0.0380	0.0449

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Short Inv Corp Bonds Income

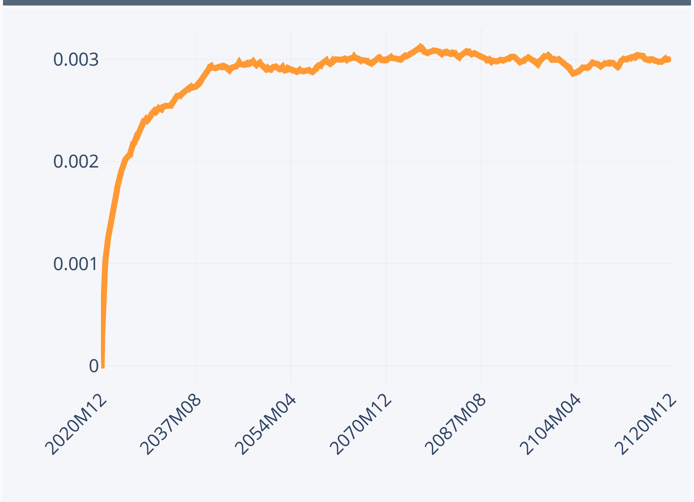


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

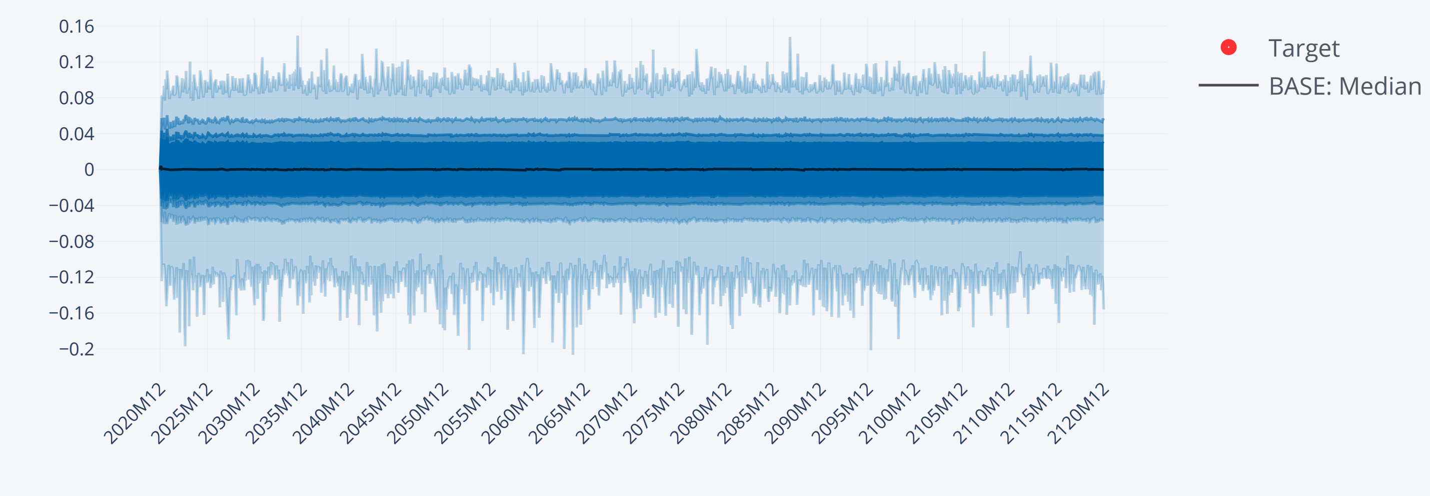
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0033	0.0044
std	0.0012	0.0029
min	0.0004	0.0001
1%	0.0010	0.0005
5%	0.0015	0.0008
10%	0.0018	0.0011
50%	0.0032	0.0039
90%	0.0048	0.0085
95%	0.0053	0.0099
99%	0.0062	0.0132
max	0.0083	0.0221

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Int Inv Corp Bonds Price

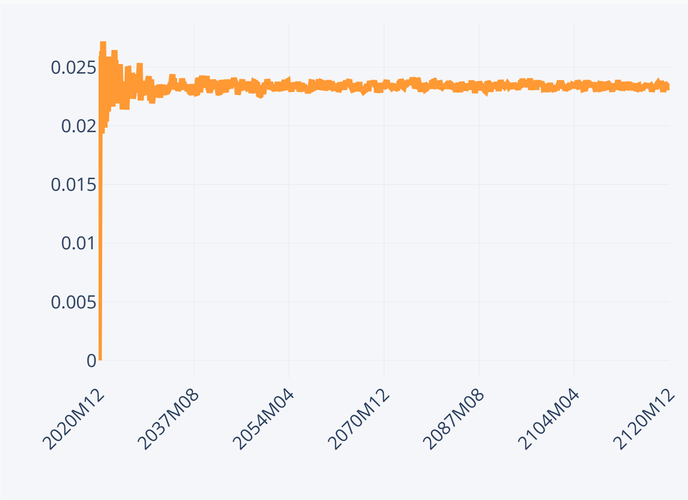


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	-0.0005	0.0001
std	0.0199	0.0237
min	-0.1275	-0.1766
1%	-0.0486	-0.0567
5%	-0.0321	-0.0381
10%	-0.0248	-0.0292
50%	-0.0003	0.0002
90%	0.0245	0.0304
95%	0.0322	0.0393
99%	0.0454	0.0563
max	0.0784	0.0933

Cross Sectional Volatility Over Time : BASE



Int Inv Corp Bonds Income
Conning | Risk Solutions

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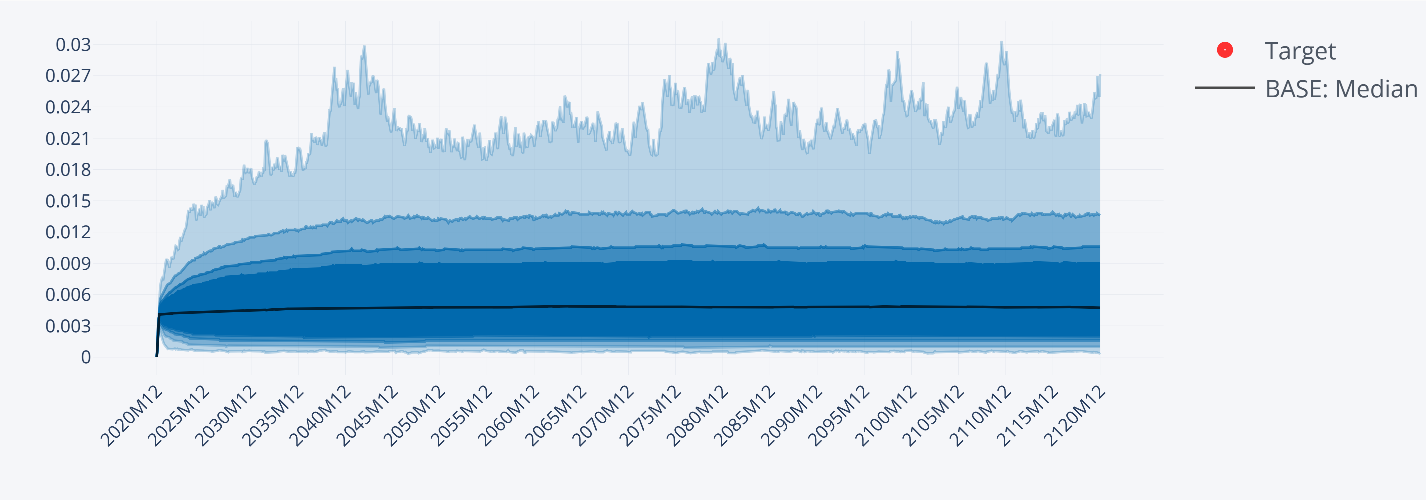
Validation Report

Simulated Data in Percentiles : Int Inv Corp Bonds Income

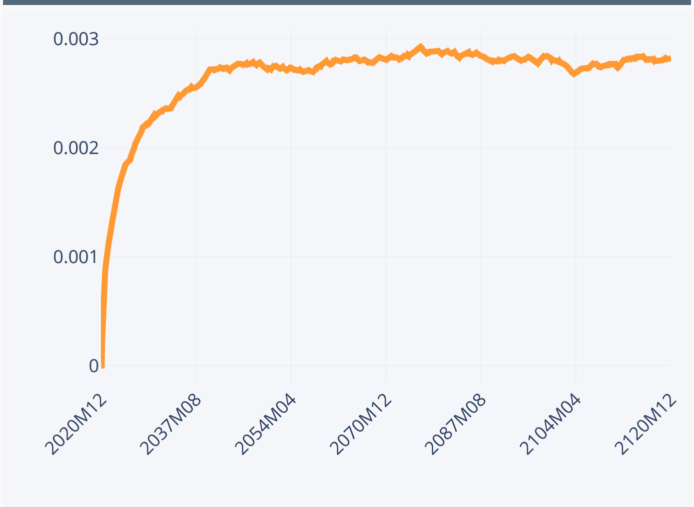


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

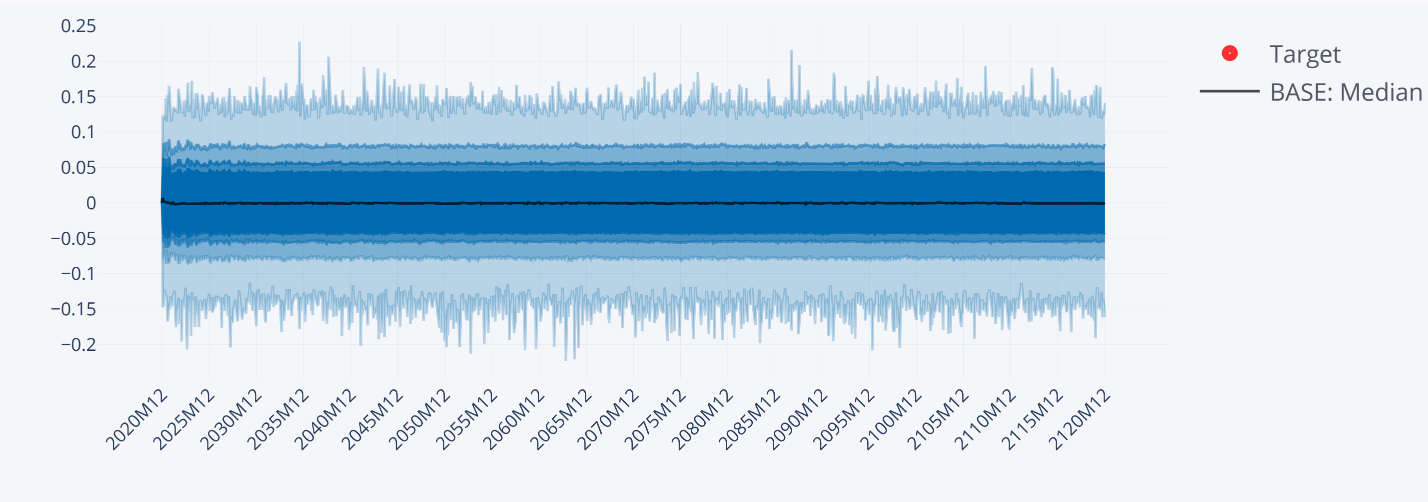
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0042	0.0052
std	0.0010	0.0027
min	0.0008	0.0006
1%	0.0020	0.0010
5%	0.0026	0.0015
10%	0.0029	0.0020
50%	0.0041	0.0048
90%	0.0055	0.0089
95%	0.0059	0.0103
99%	0.0068	0.0132
max	0.0094	0.0207

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Long Inv Corp Bonds Price

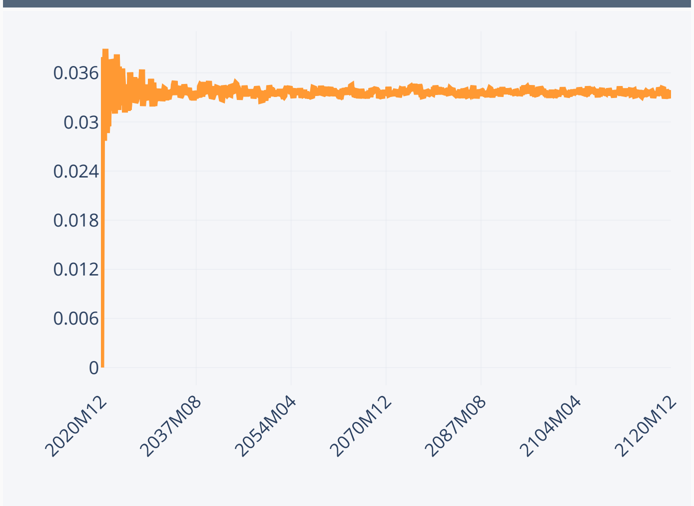


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

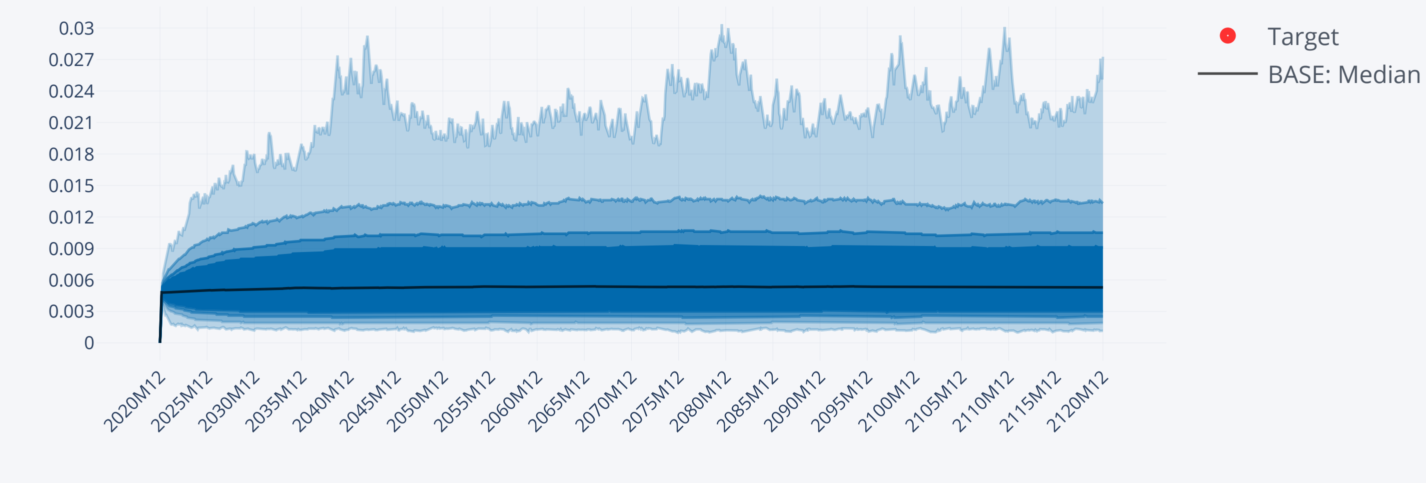
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	-0.0010	0.0001
std	0.0287	0.0339
min	-0.1427	-0.1956
1%	-0.0700	-0.0788
5%	-0.0474	-0.0544
10%	-0.0365	-0.0423
50%	-0.0013	-0.0004
90%	0.0358	0.0438
95%	0.0465	0.0559
99%	0.0667	0.0803
max	0.1147	0.1417

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Long Inv Corp Bonds Income

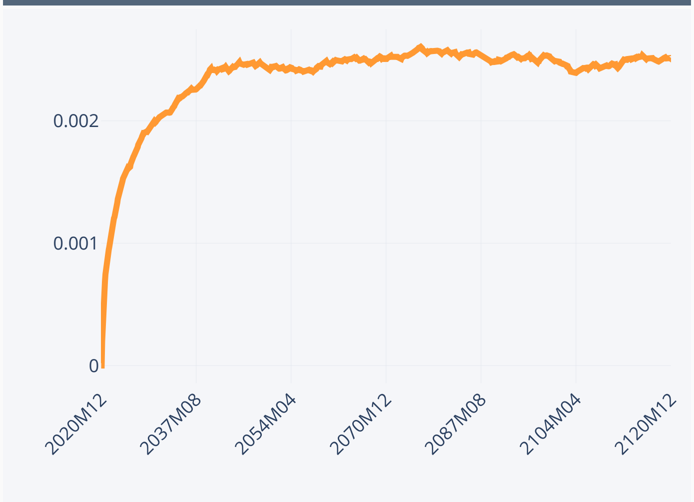


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

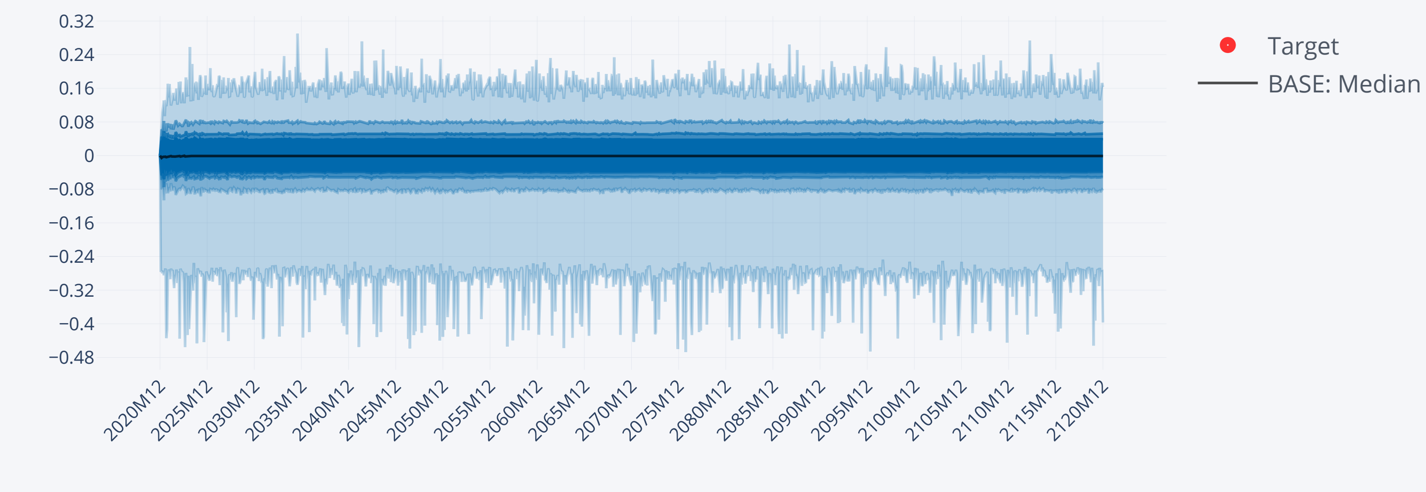
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0049	0.0057
std	0.0009	0.0024
min	0.0018	0.0014
1%	0.0030	0.0019
5%	0.0035	0.0024
10%	0.0038	0.0029
50%	0.0048	0.0053
90%	0.0060	0.0090
95%	0.0063	0.0103
99%	0.0070	0.0129
max	0.0095	0.0196

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : High Yield Corp Bonds Price

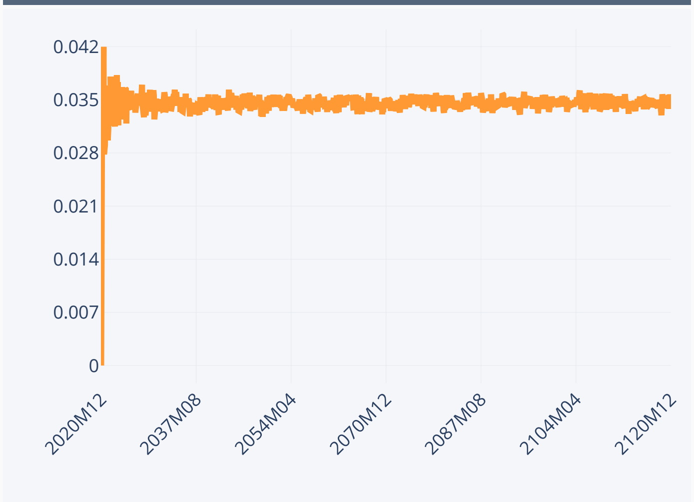


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

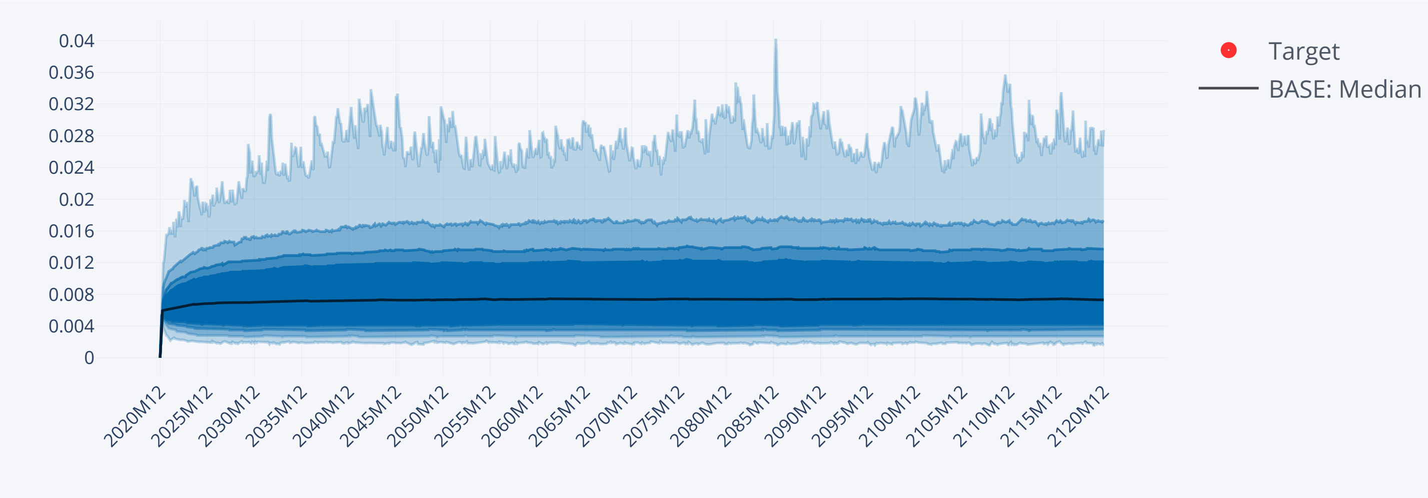
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	-0.0030	-0.0012
std	0.0324	0.0347
min	-0.2785	-0.4309
1%	-0.0753	-0.0809
5%	-0.0485	-0.0520
10%	-0.0373	-0.0393
50%	-0.0024	-0.0009
90%	0.0332	0.0386
95%	0.0443	0.0522
99%	0.0681	0.0780
max	0.1700	0.1549

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : High Yield Corp Bonds Income

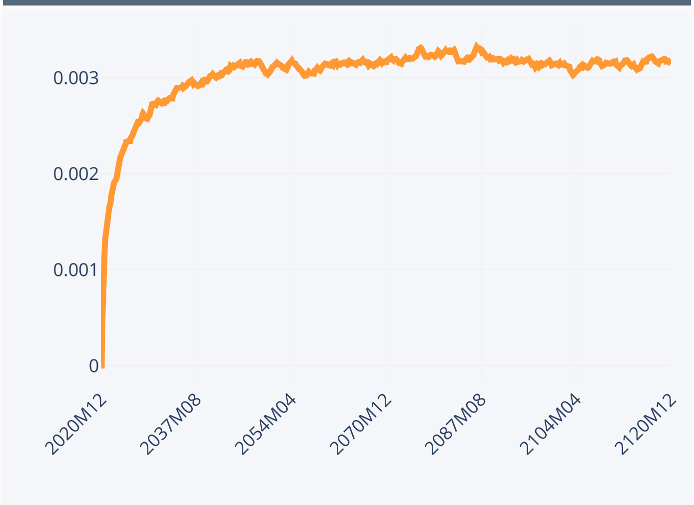


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

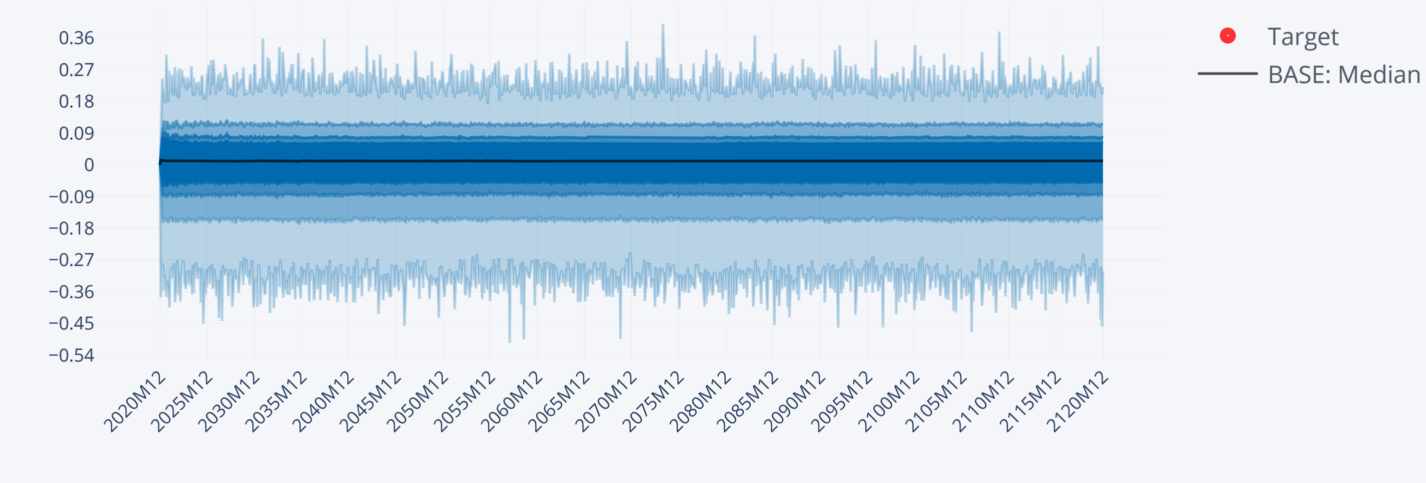
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0064	0.0078
std	0.0015	0.0031
min	0.0021	0.0018
1%	0.0036	0.0027
5%	0.0043	0.0035
10%	0.0047	0.0041
50%	0.0062	0.0073
90%	0.0083	0.0120
95%	0.0091	0.0135
99%	0.0109	0.0165
max	0.0165	0.0306

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Small Cap Price

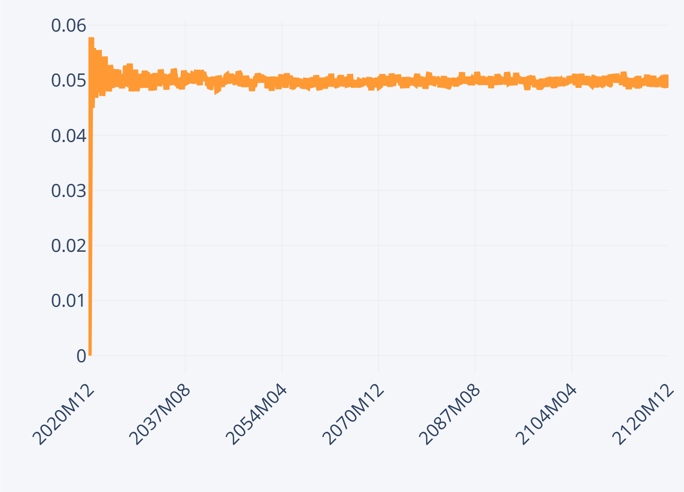


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

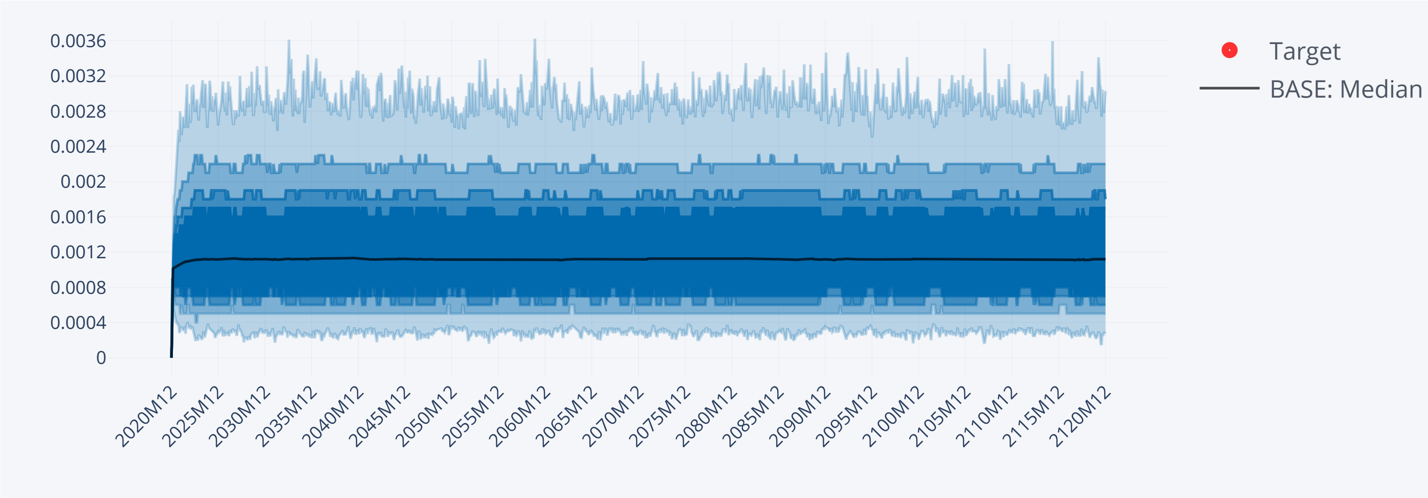
Simulation Summary

	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

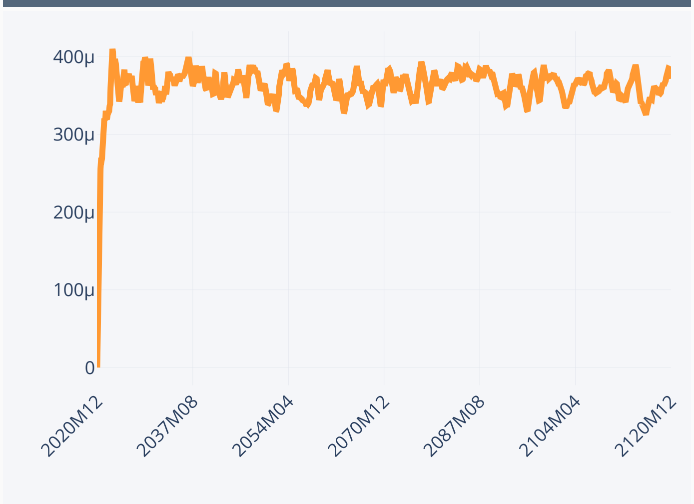


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

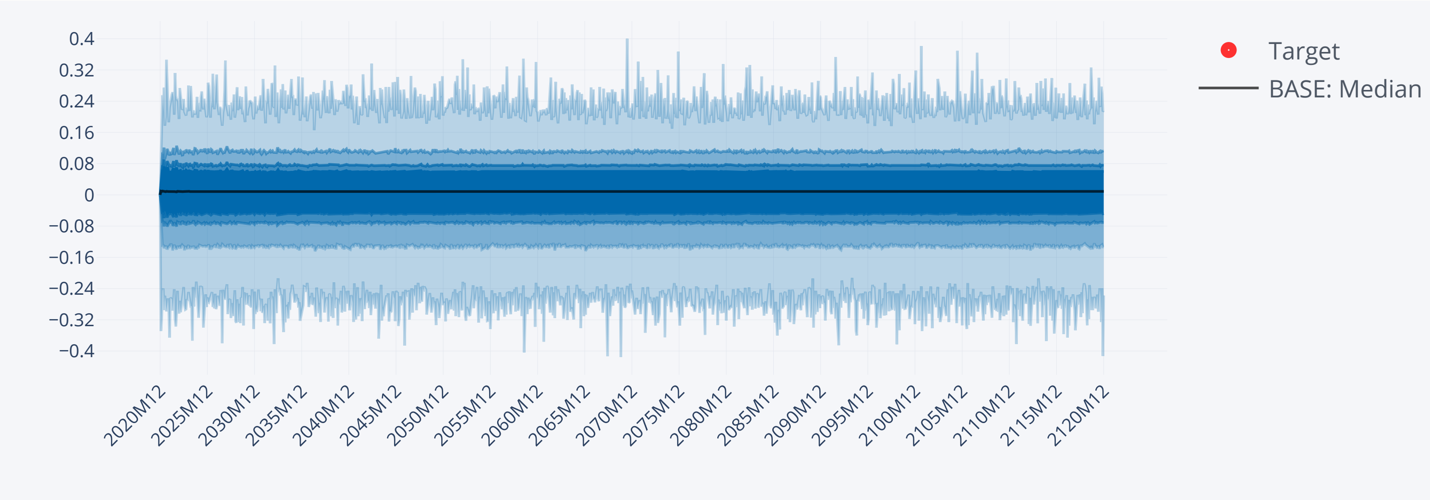
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0011	0.0012
std	0.0003	0.0003
min	0.0003	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



Simulated Data in Percentiles : Mid Cap Price

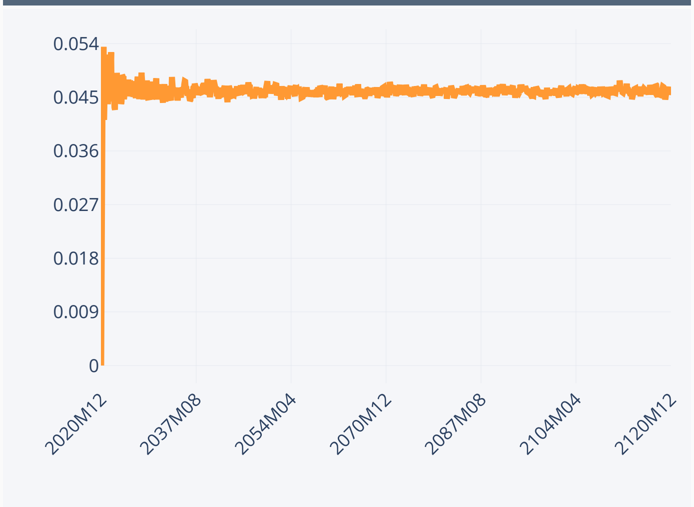


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0062	0.0062
std	0.0445	0.0464
min	-0.3657	-0.2822
1%	-0.1300	-0.1334
5%	-0.0693	-0.0718
10%	-0.0464	-0.0492
50%	0.0085	0.0085
90%	0.0577	0.0593
95%	0.0718	0.0754
99%	0.1045	0.1111
max	0.2234	0.2031

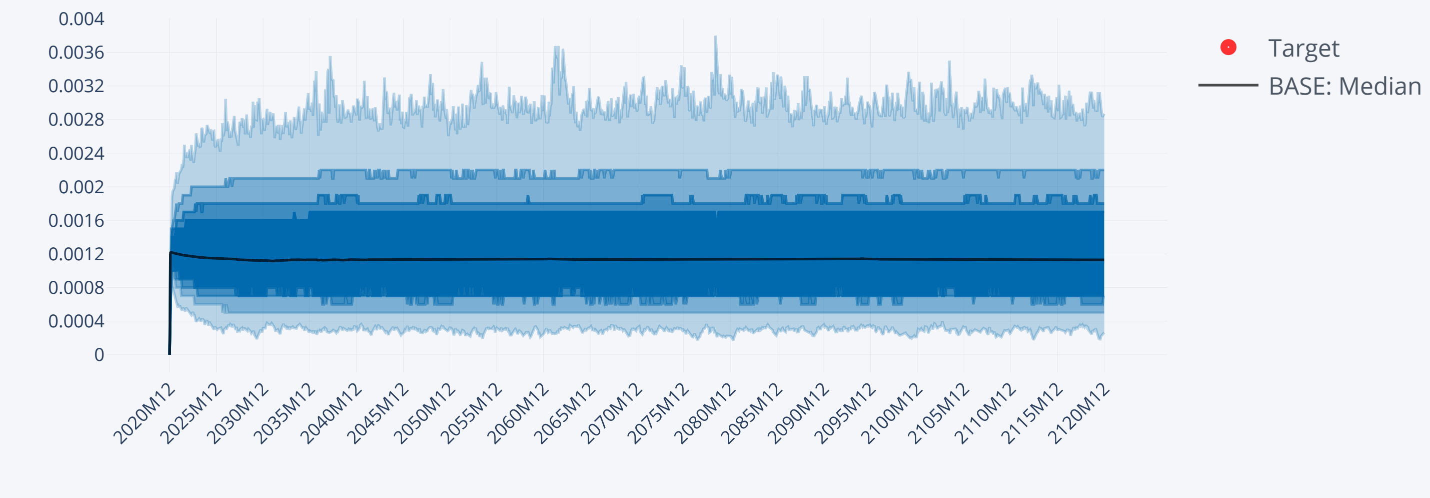
Cross Sectional Volatility Over Time : BASE



Mid Cap Income
Conning | Risk Solutions

Dec 2004 - Higher Targets
Validation Report

Simulated Data in Percentiles : Mid Cap Income

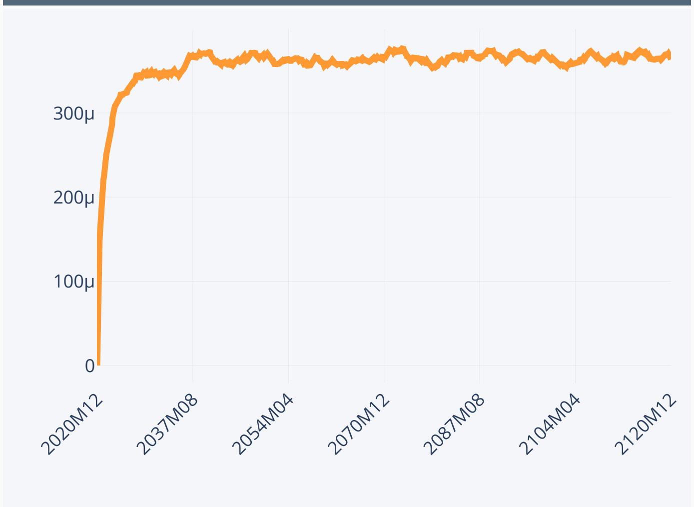


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

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	0.0019
99%	0.0018	0.0022
max	0.0022	0.0028

Cross Sectional Volatility Over Time : BASE



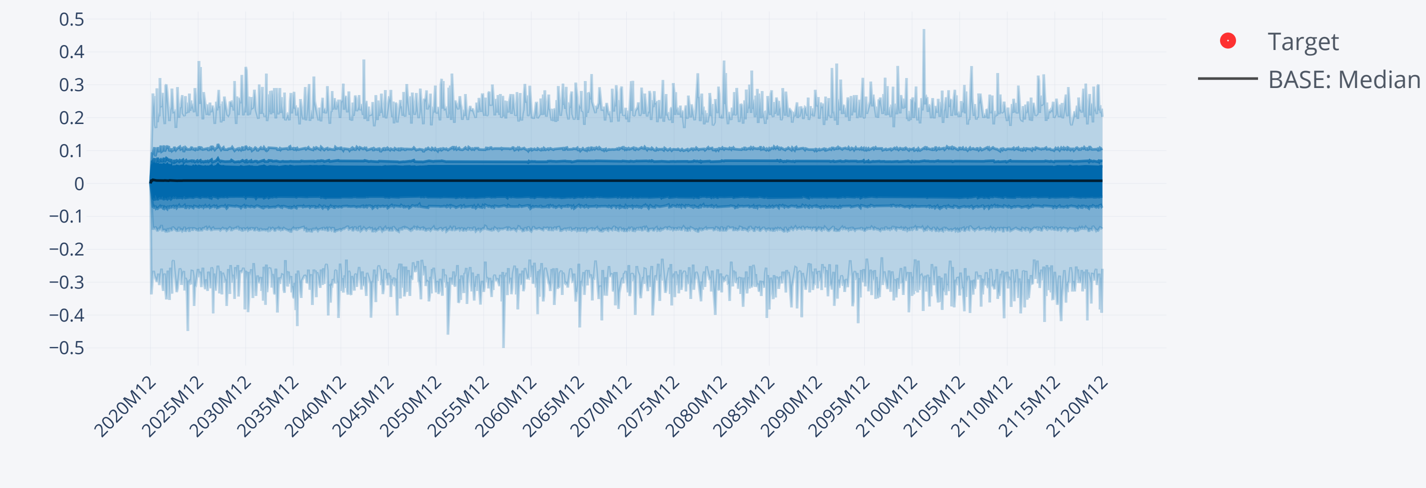
Large Cap Price

Conning | Risk Solutions

Dec 2004 - Higher Targets

Validation Report

Simulated Data in Percentiles : Large Cap Price

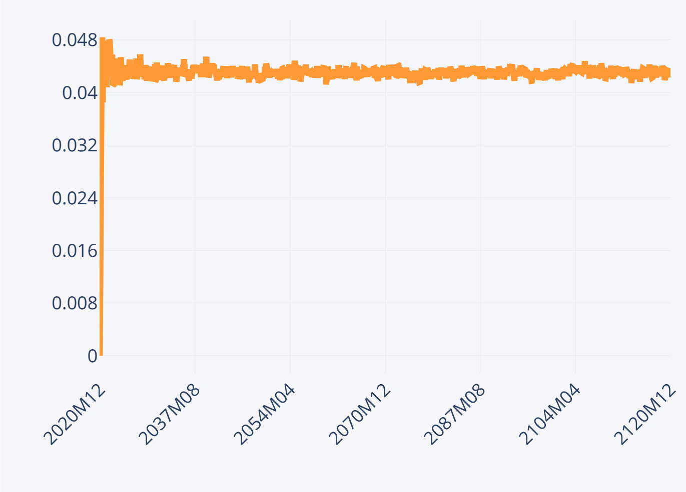


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

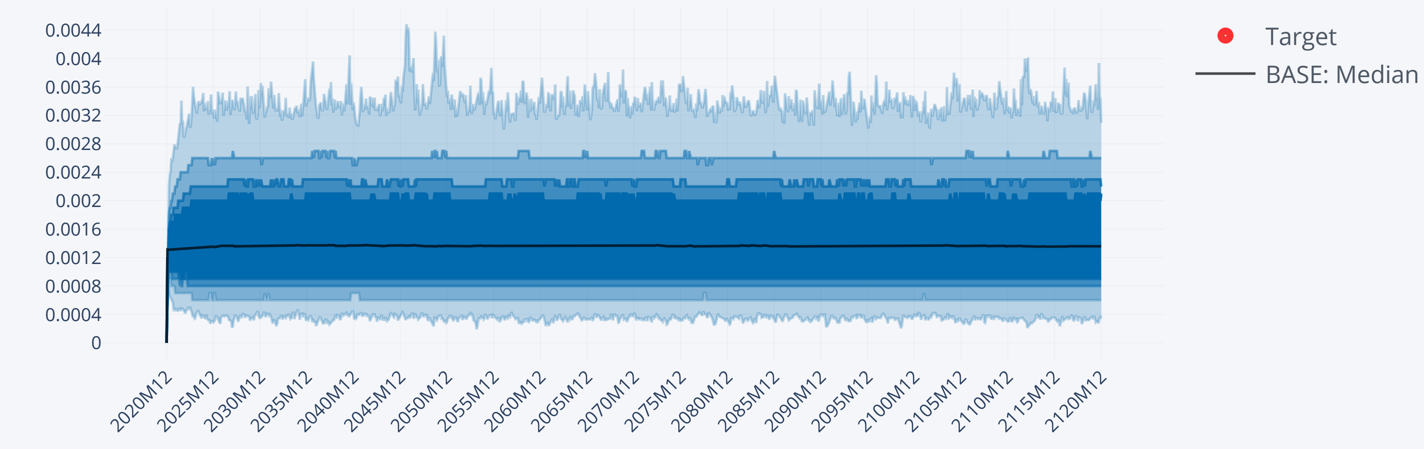
Simulation Summary

	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%	-0.0689	-0.0696
10%	-0.0419	-0.0415
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



Simulated Data in Percentiles : Large Cap Income

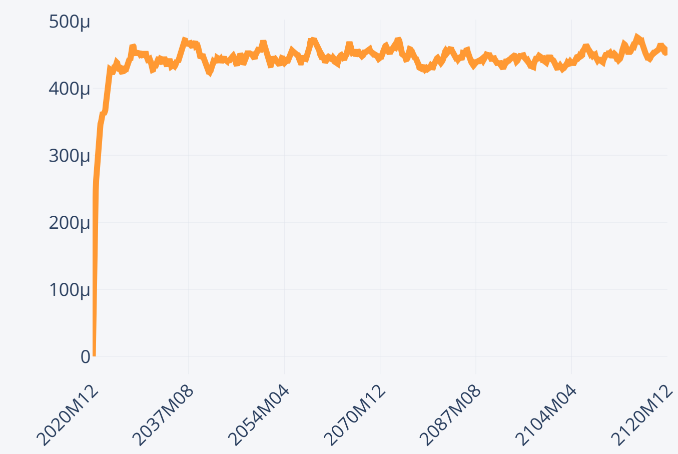


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

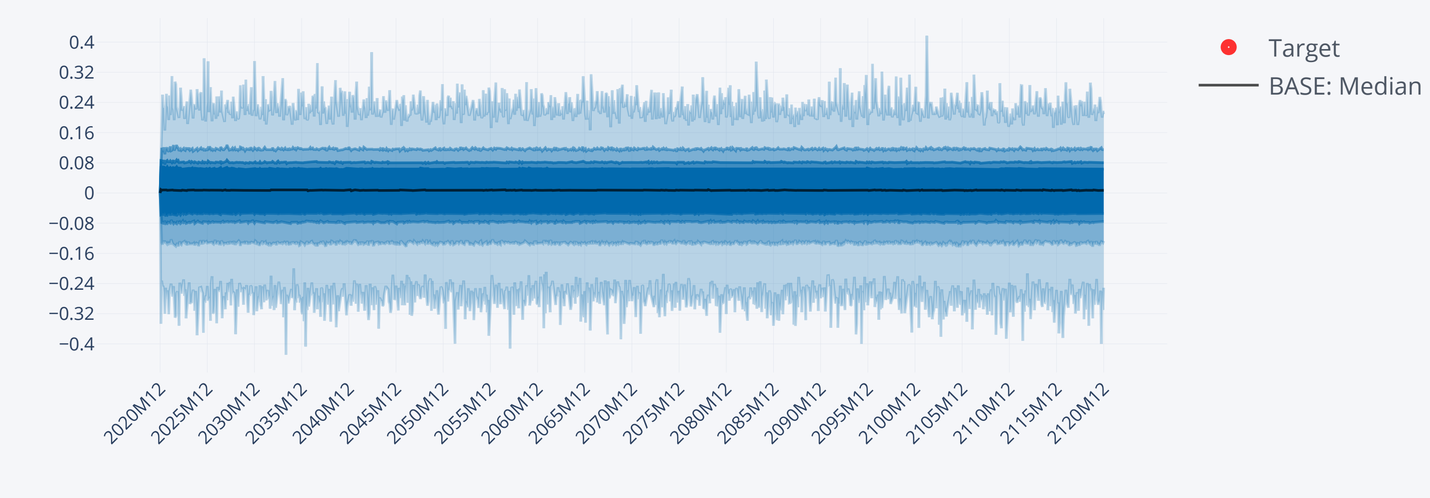
Simulation Summary

	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

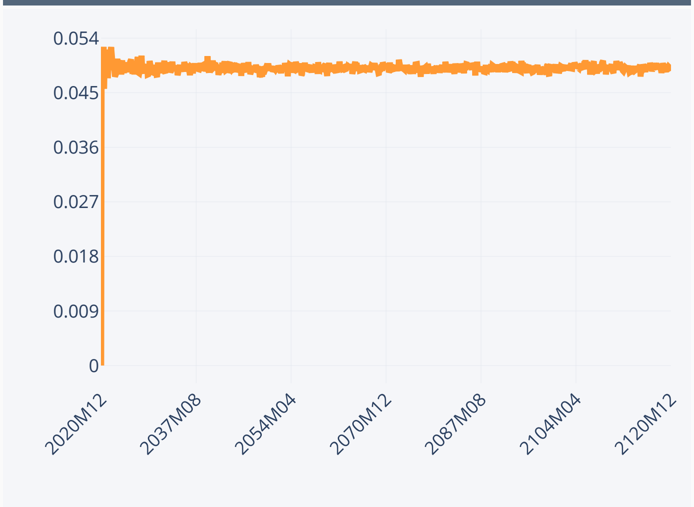


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

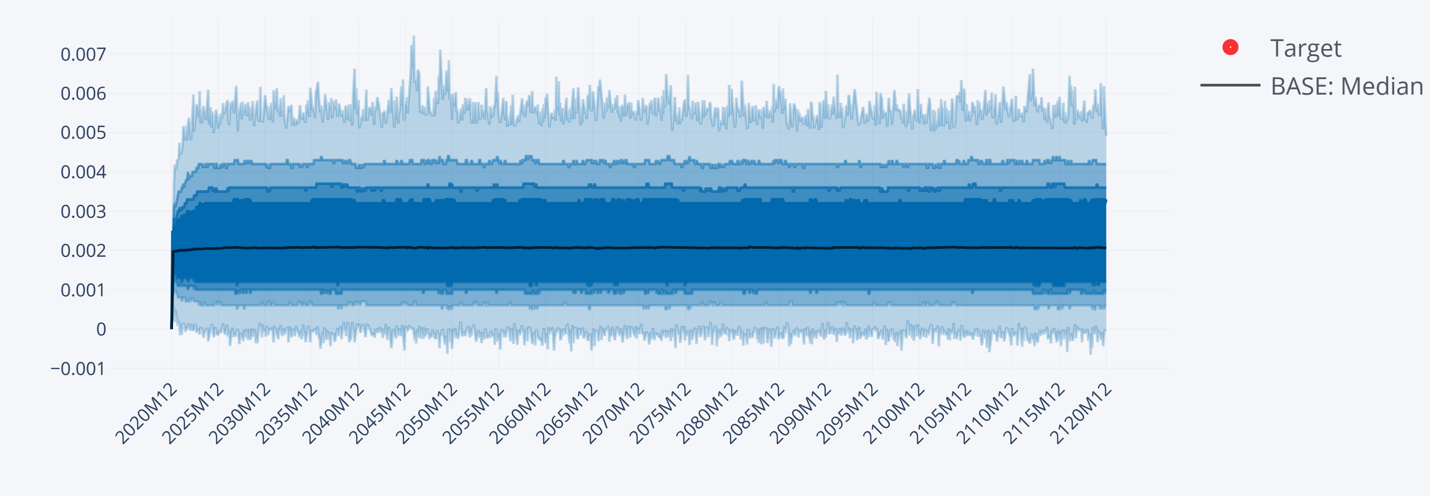
Simulation Summary

	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



Simulated Data in Percentiles : International Diversified Equity Income

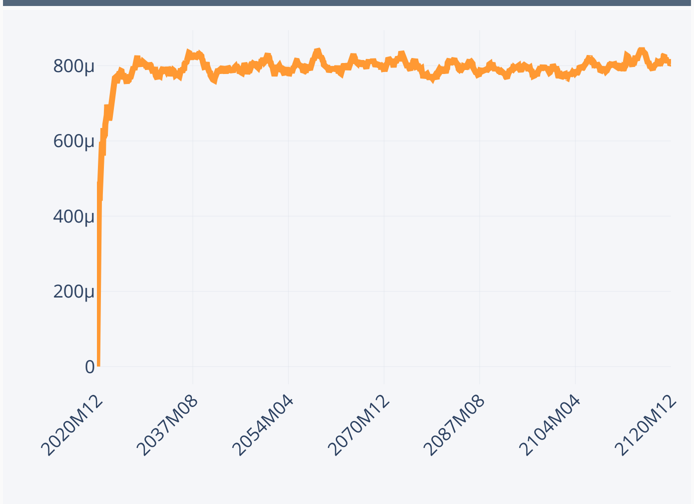


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

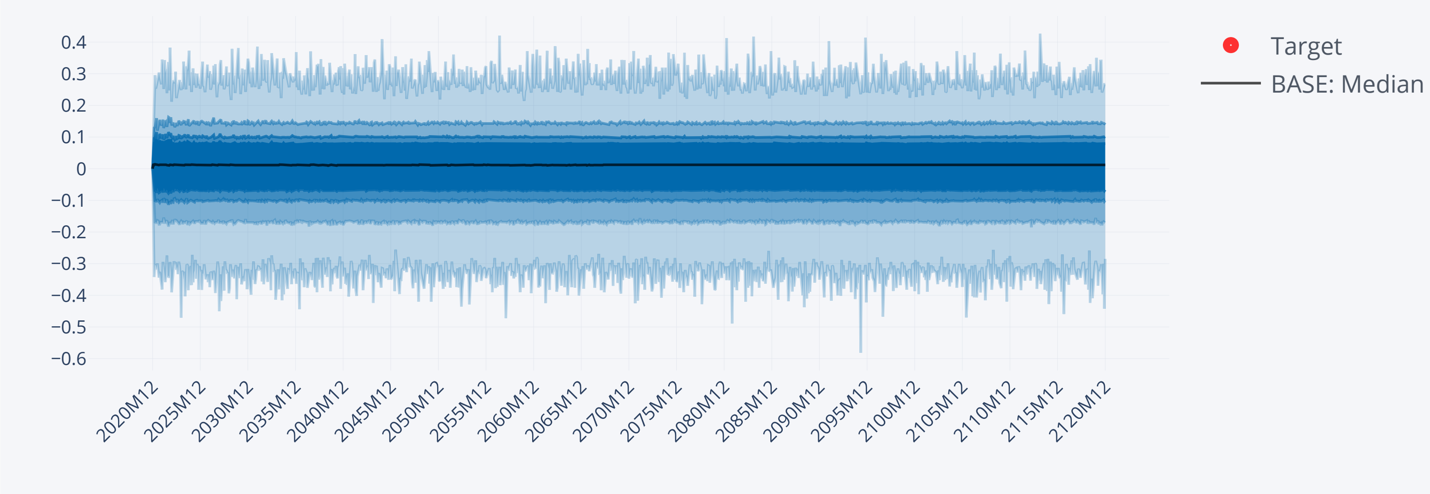
Simulation Summary

	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



Simulated Data in Percentiles : Aggressive US Equity Price

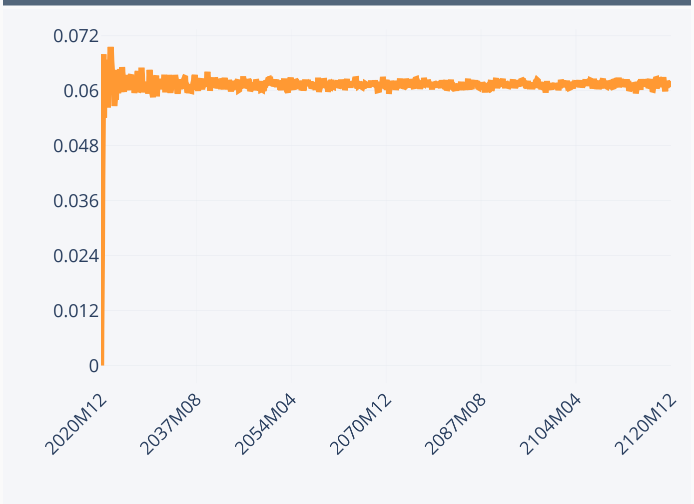


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

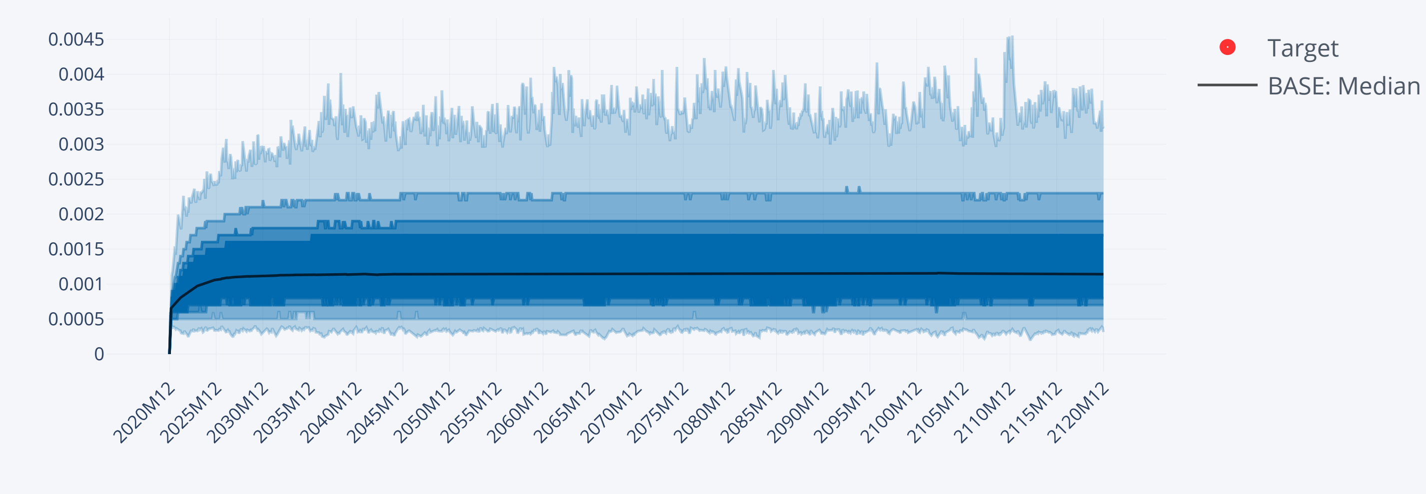
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0081	0.0078
std	0.0622	0.0620
min	-0.3816	-0.3065
1%	-0.1676	-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

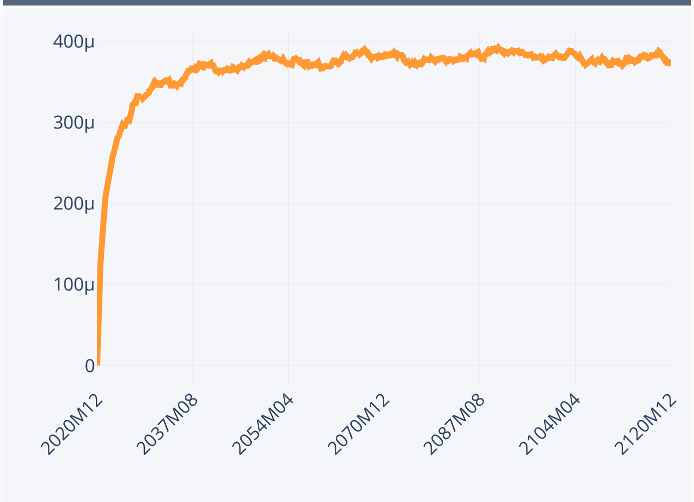


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

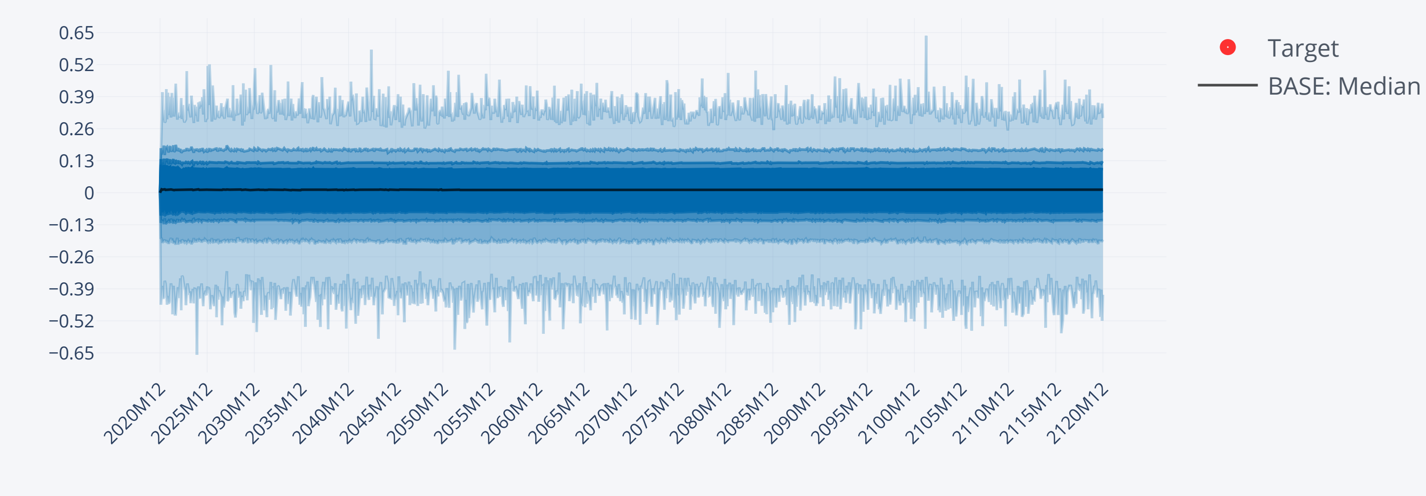
Simulation Summary

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

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Aggressive Foreign Equity Price

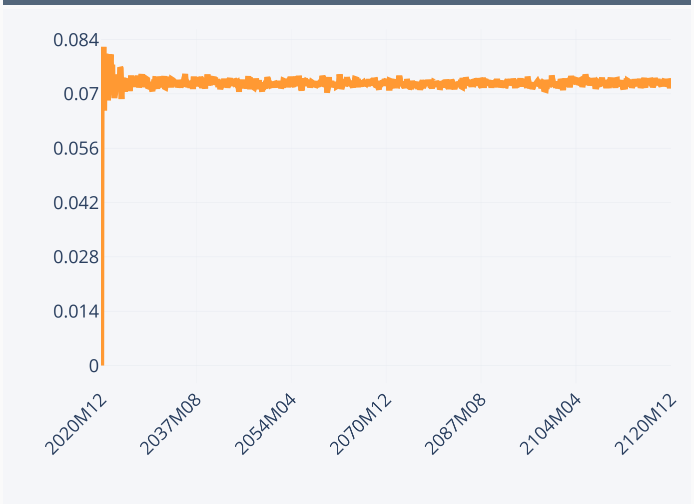


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

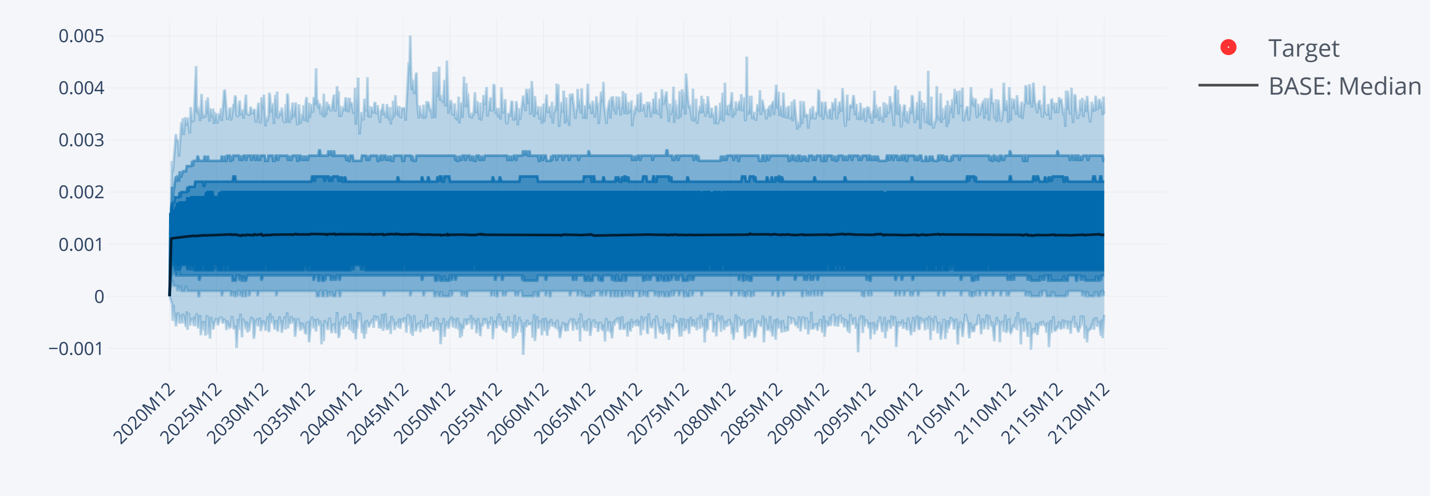
Simulation Summary

	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



Simulated Data in Percentiles : Aggressive Foreign Equity Income

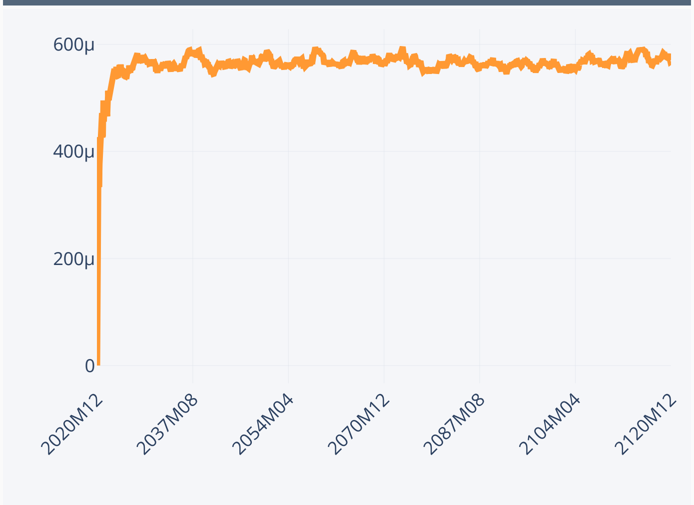


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

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



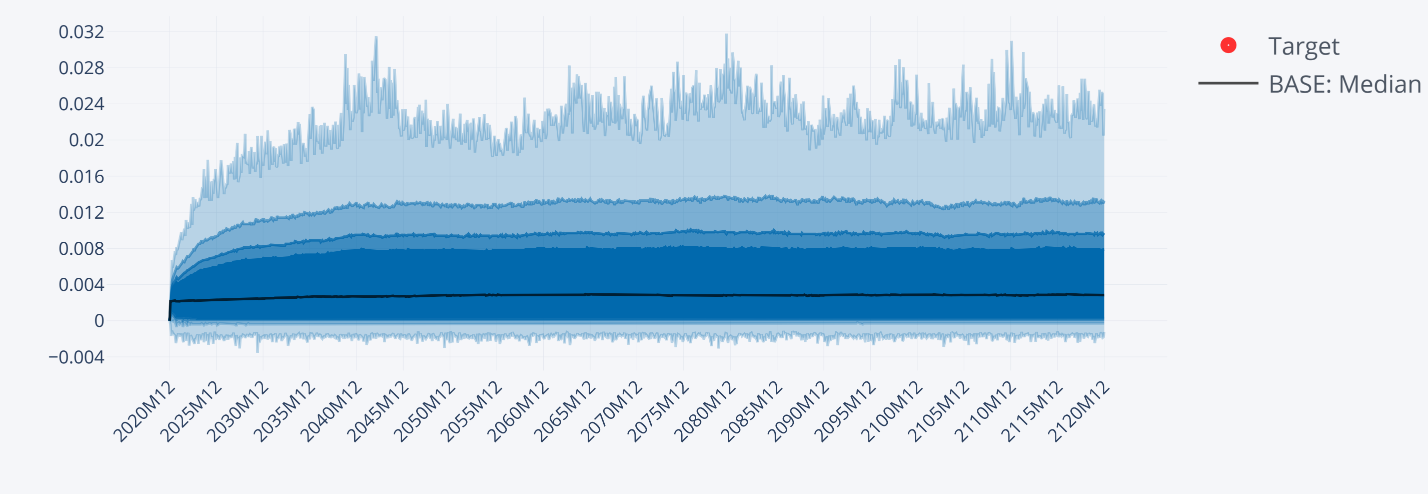
Money Market Total Return

Conning | Risk Solutions

Dec 2004 - Higher Targets

Validation Report

Simulated Data in Percentiles : Money Market Total Return

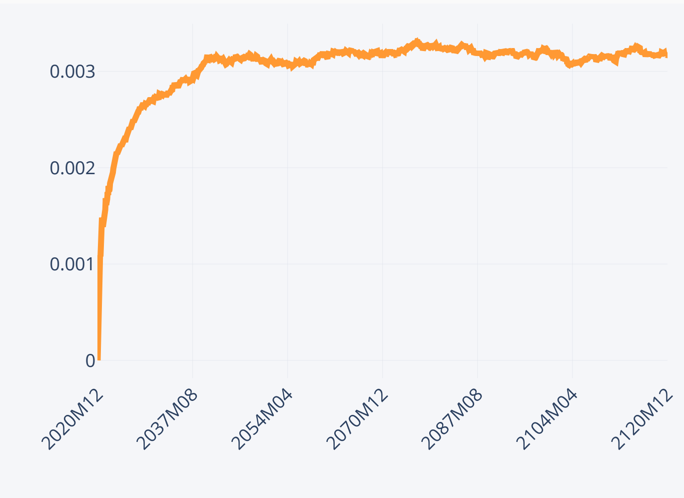


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0022	0.0035
std	0.0014	0.0031
min	-0.0017	-0.0025
1%	-0.0002	-0.0003
5%	0.0002	0.0001
10%	0.0004	0.0003
50%	0.0022	0.0028
90%	0.0041	0.0078
95%	0.0047	0.0094
99%	0.0059	0.0128
max	0.0087	0.0191

Cross Sectional Volatility Over Time : BASE



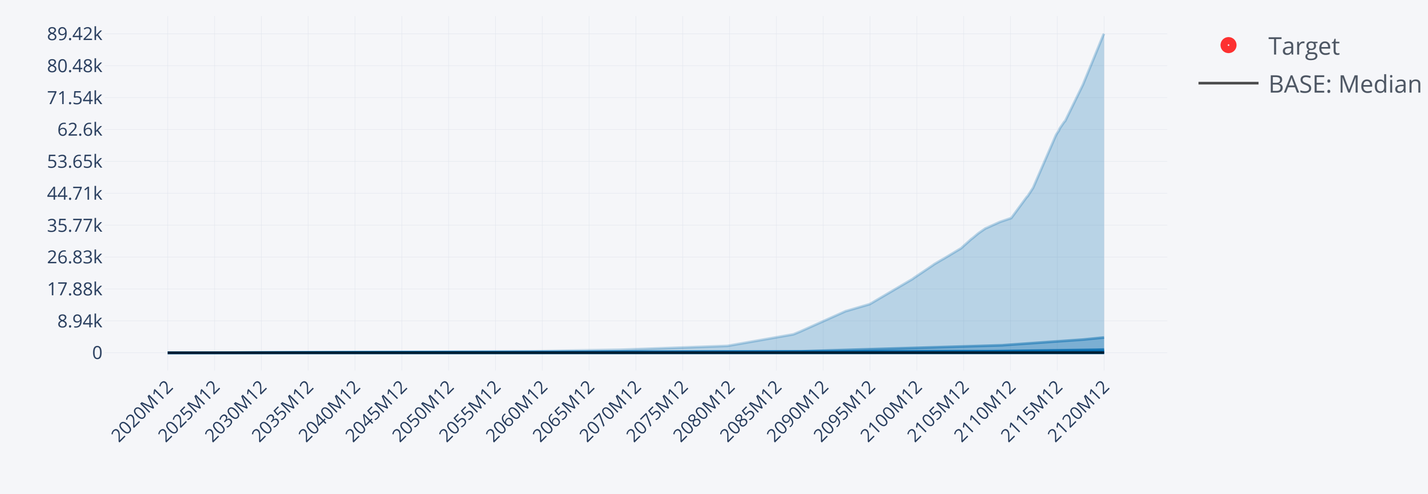
Money Market Cumulative Return

Conning | Risk Solutions

Dec 2004 - Higher Targets

Validation Report

Simulated Data in Percentiles : Money Market Cumulative Return

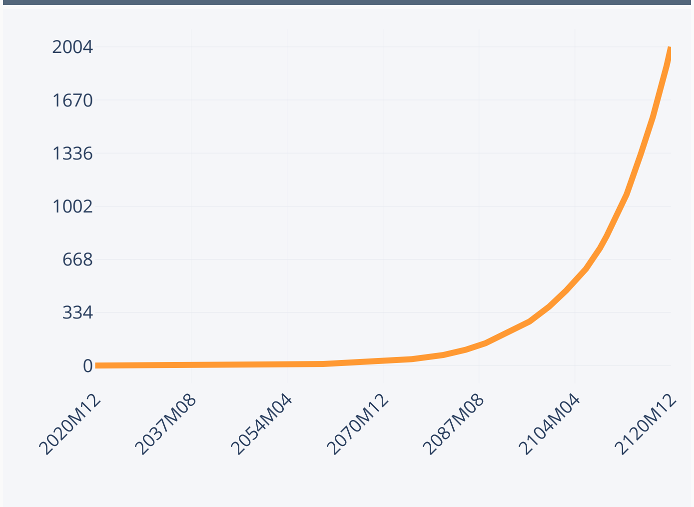


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0270	2.8024
std	0.0064	3.5837
min	0.0102	-0.0043
1%	0.0136	0.1942
5%	0.0167	0.3614
10%	0.0188	0.5133
50%	0.0269	1.7679
90%	0.0352	6.0264
95%	0.0378	8.6746
99%	0.0423	16.9402
max	0.0529	107.9669

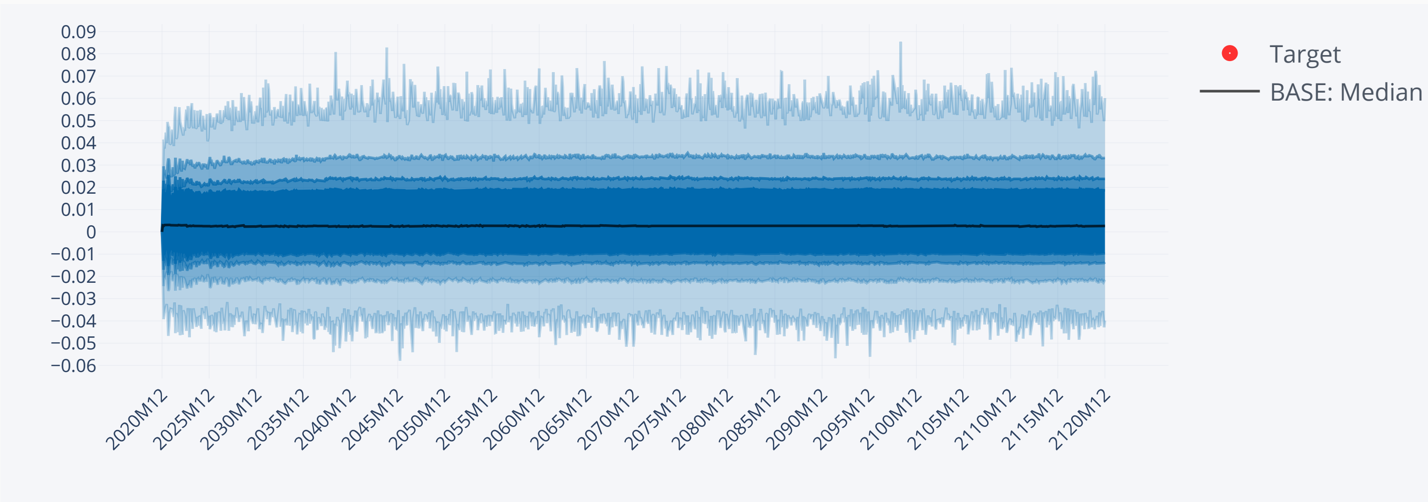
Cross Sectional Volatility Over Time : BASE



Short Govt Bonds Total Return
Conning | Risk Solutions

Dec 2004 - Higher Targets
Validation Report

Simulated Data in Percentiles : Short Govt Bonds Total Return

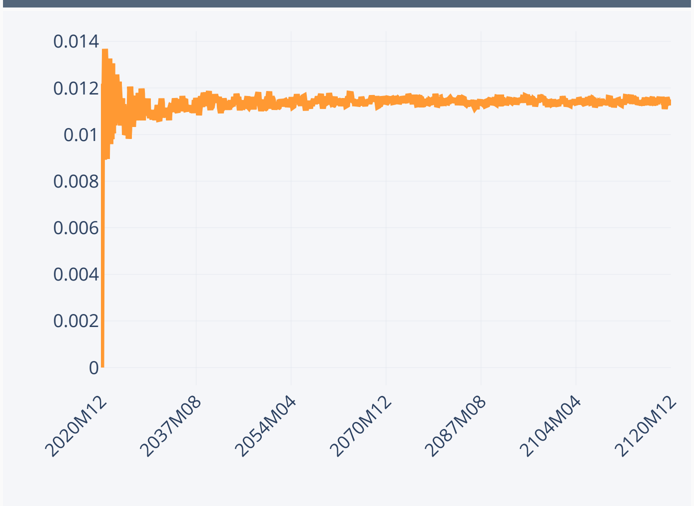


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0030	0.0039
std	0.0090	0.0115
min	-0.0348	-0.0438
1%	-0.0177	-0.0226
5%	-0.0116	-0.0140
10%	-0.0082	-0.0100
50%	0.0029	0.0026
90%	0.0143	0.0192
95%	0.0180	0.0246
99%	0.0246	0.0342
max	0.0436	0.0572

Cross Sectional Volatility Over Time : BASE



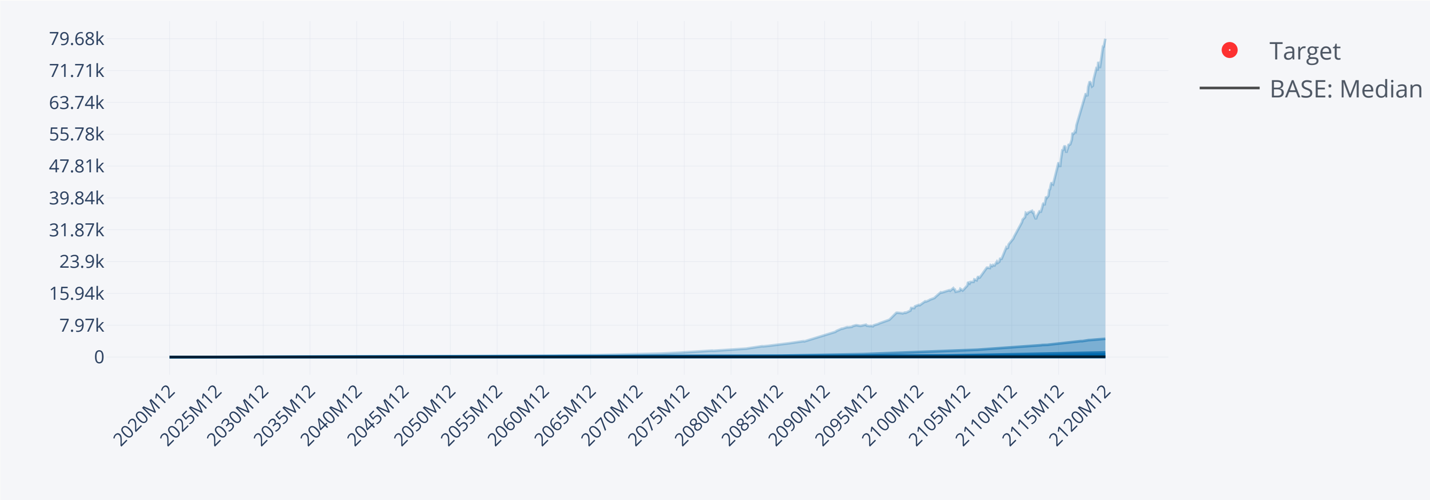
Short Govt Bonds Cumulative Return

Conning | Risk Solutions

Dec 2004 - Higher Targets

Validation Report

Simulated Data in Percentiles : Short Govt Bonds Cumulative Return

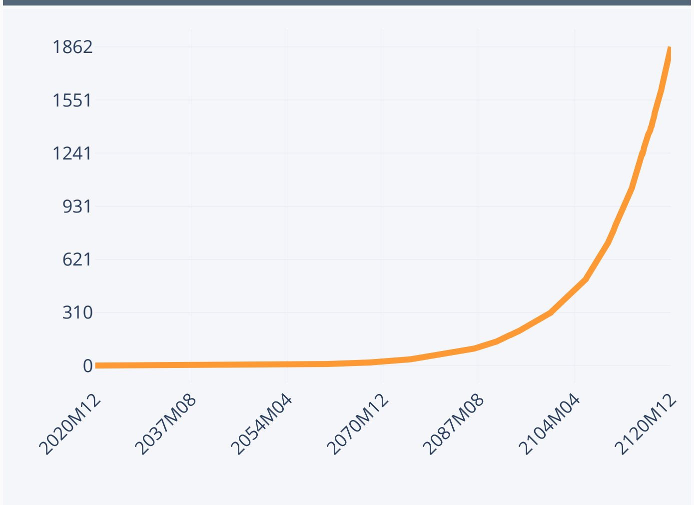


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

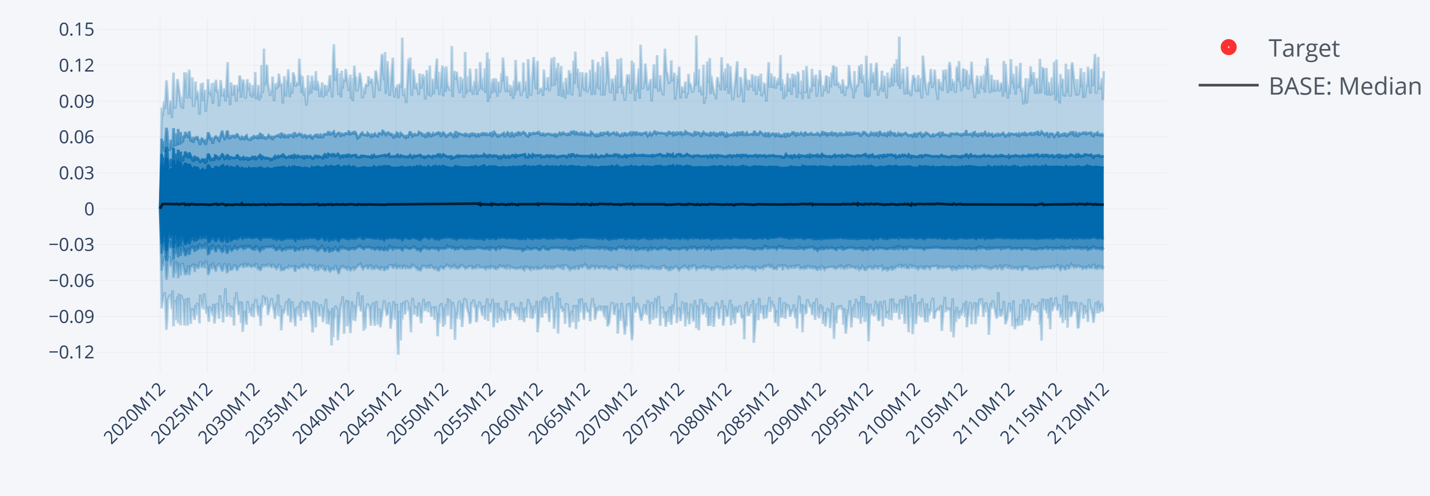
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0368	3.1363
std	0.0302	2.9993
min	-0.0760	0.1932
1%	-0.0347	0.4525
5%	-0.0136	0.7101
10%	-0.0026	0.8987
50%	0.0372	2.3135
90%	0.0756	6.0680
95%	0.0864	8.2172
99%	0.1032	14.7700
max	0.1228	67.3204

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Int Govt Bonds Total Return

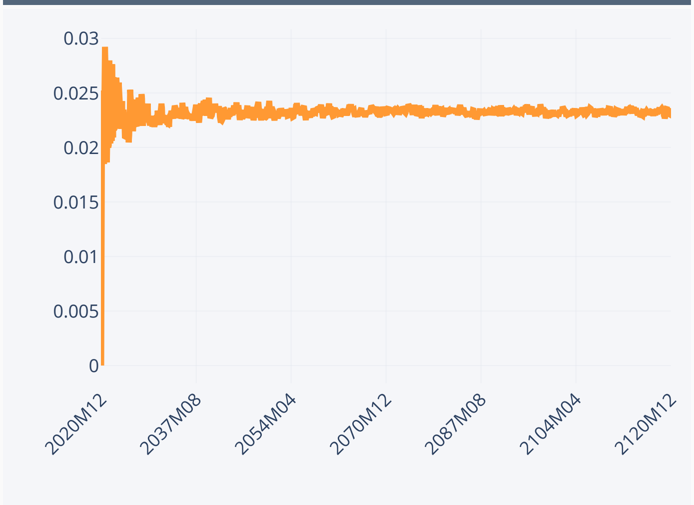


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

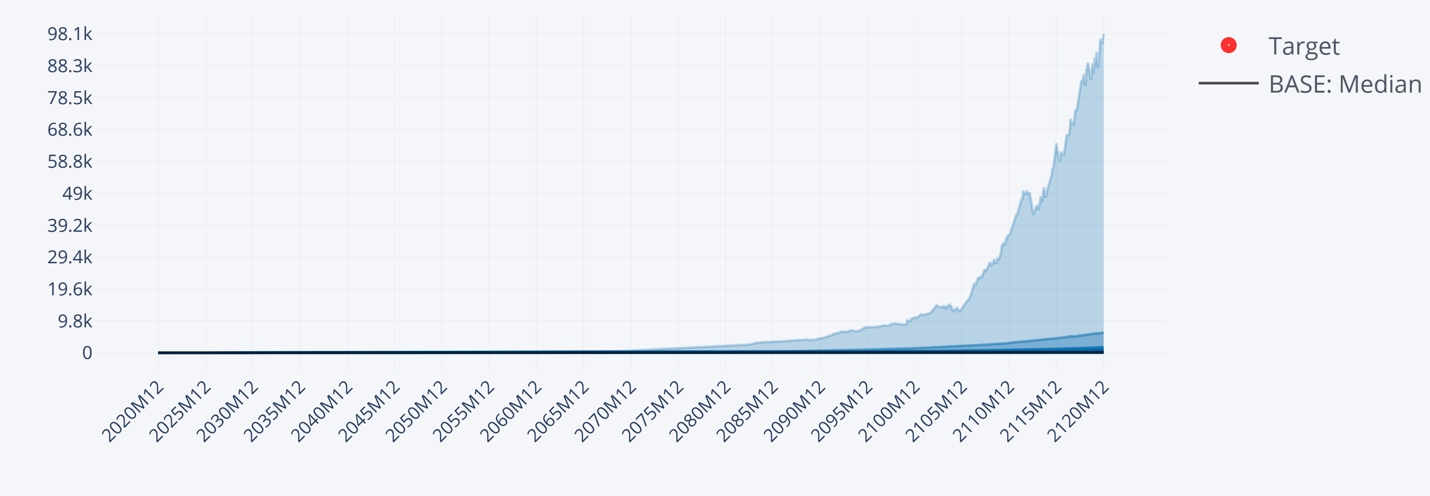
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0036	0.0048
std	0.0186	0.0236
min	-0.0738	-0.0986
1%	-0.0397	-0.0501
5%	-0.0266	-0.0330
10%	-0.0199	-0.0244
50%	0.0035	0.0037
90%	0.0274	0.0354
95%	0.0348	0.0454
99%	0.0485	0.0636
max	0.0864	0.0940

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Int Govt Bonds Cumulative Return

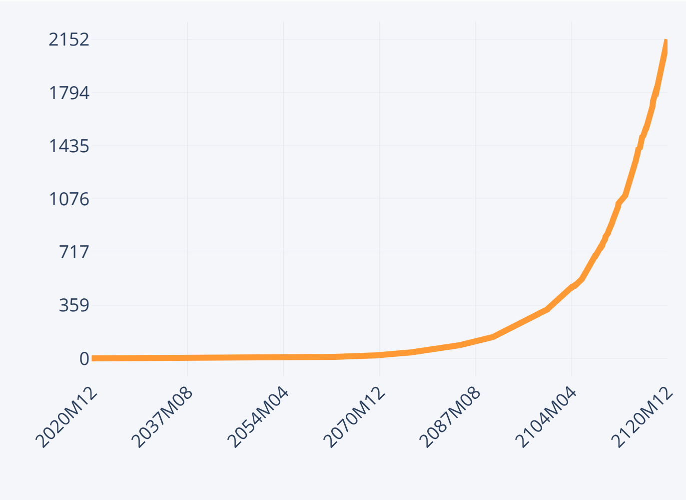


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

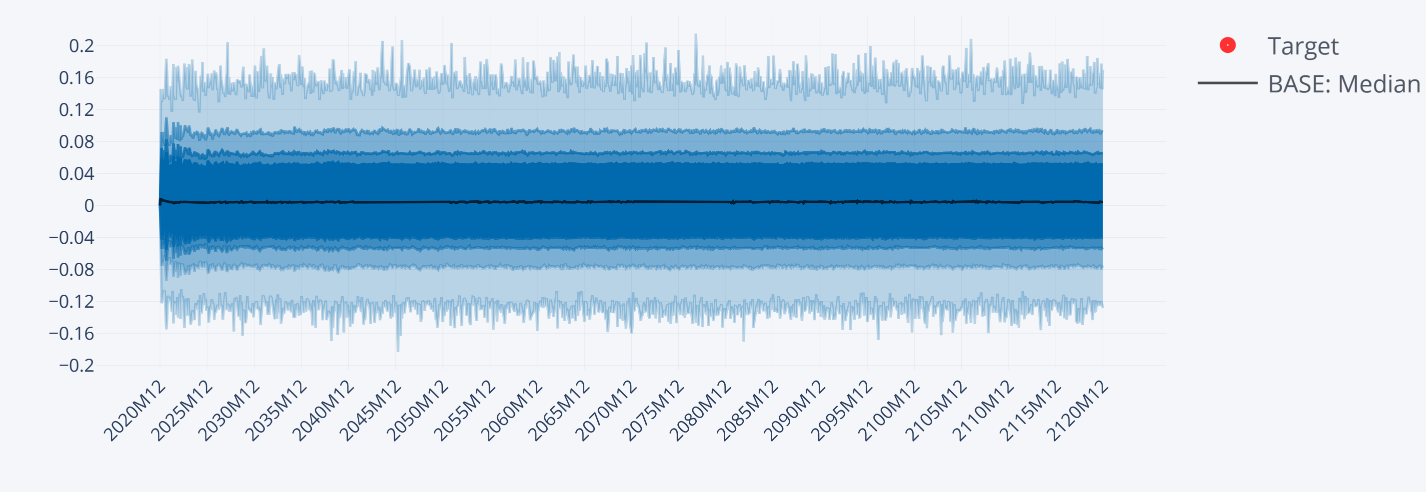
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0477	3.7572
std	0.0724	2.6435
min	-0.1860	0.4824
1%	-0.1149	0.9572
5%	-0.0689	1.3213
10%	-0.0450	1.5666
50%	0.0465	3.0695
90%	0.1402	6.5651
95%	0.1683	8.3060
99%	0.2202	13.9035
max	0.3330	44.7290

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Long Govt Bonds Total Return

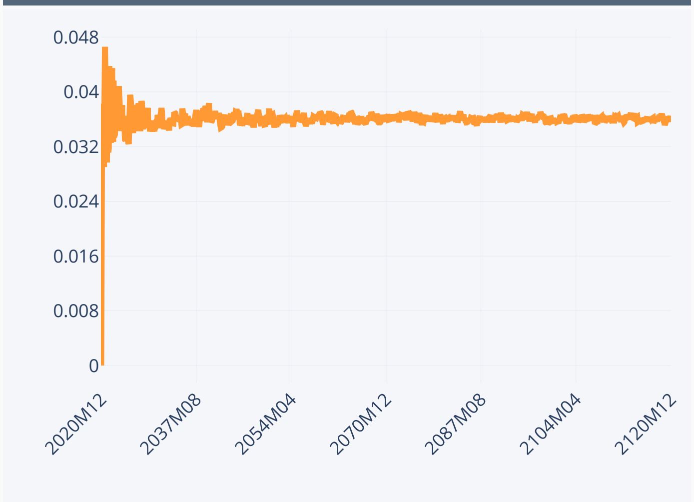


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0041	0.0054
std	0.0297	0.0365
min	-0.1192	-0.1459
1%	-0.0646	-0.0781
5%	-0.0435	-0.0525
10%	-0.0333	-0.0399
50%	0.0035	0.0048
90%	0.0422	0.0527
95%	0.0537	0.0677
99%	0.0749	0.0942
max	0.1325	0.1513

Cross Sectional Volatility Over Time : BASE



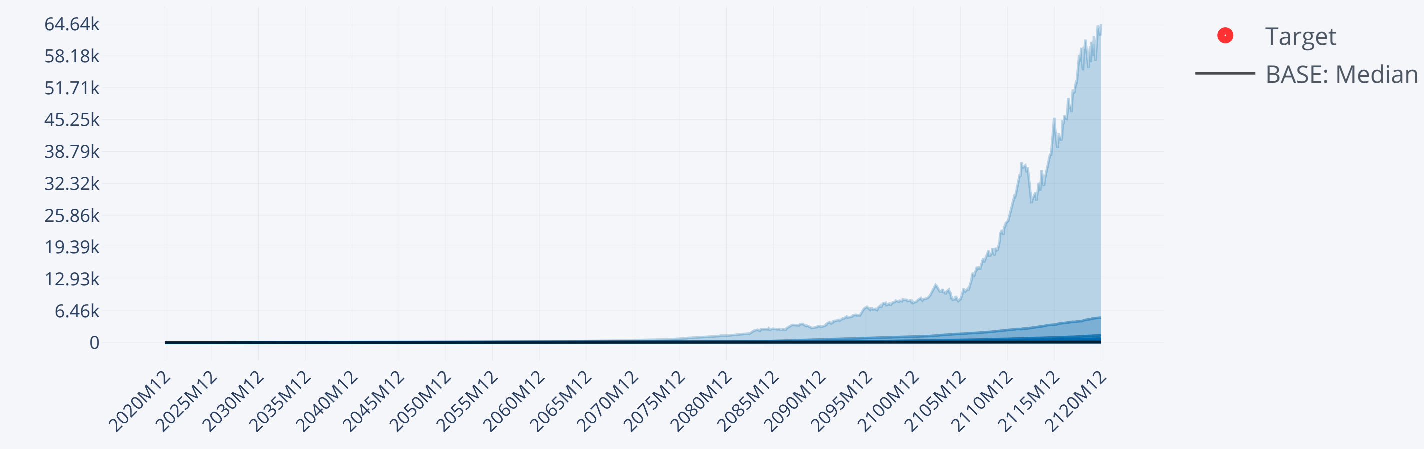
Long Govt Bonds Cumulative Return

Conning | Risk Solutions

Dec 2004 - Higher Targets

Validation Report

Simulated Data in Percentiles : Long Govt Bonds Cumulative Return

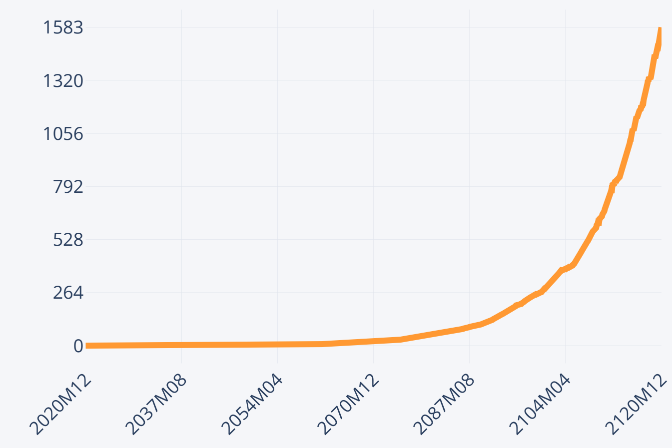


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

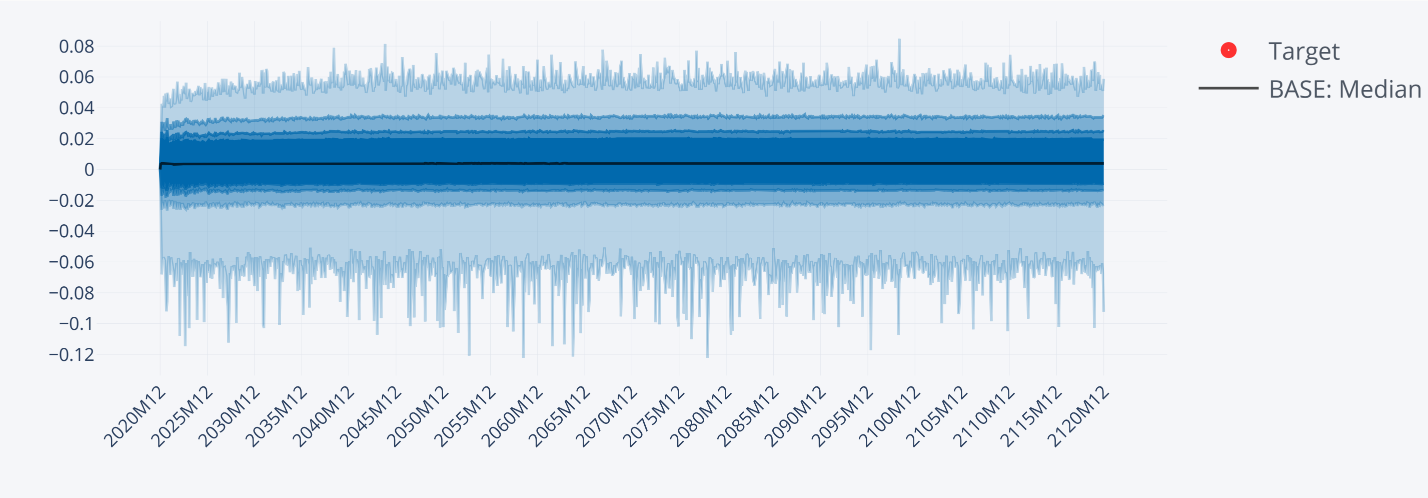
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0735	3.7921
std	0.1217	2.1848
min	-0.2823	0.5568
1%	-0.1808	1.1583
5%	-0.1150	1.5869
10%	-0.0771	1.8711
50%	0.0677	3.2839
90%	0.2317	6.2246
95%	0.2828	7.6467
99%	0.3792	11.8114
max	0.6685	34.8463

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Short Inv Corp Bonds Total Return

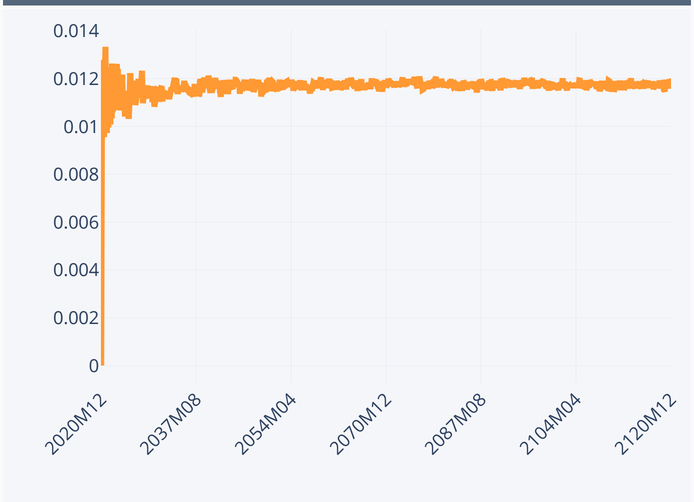


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0032	0.0045
std	0.0097	0.0119
min	-0.0669	-0.1023
1%	-0.0207	-0.0232
5%	-0.0120	-0.0137
10%	-0.0084	-0.0094
50%	0.0032	0.0039
90%	0.0152	0.0198
95%	0.0190	0.0249
99%	0.0259	0.0343
max	0.0436	0.0571

Cross Sectional Volatility Over Time : BASE



Short Inv Corp Bonds Cumulative Return

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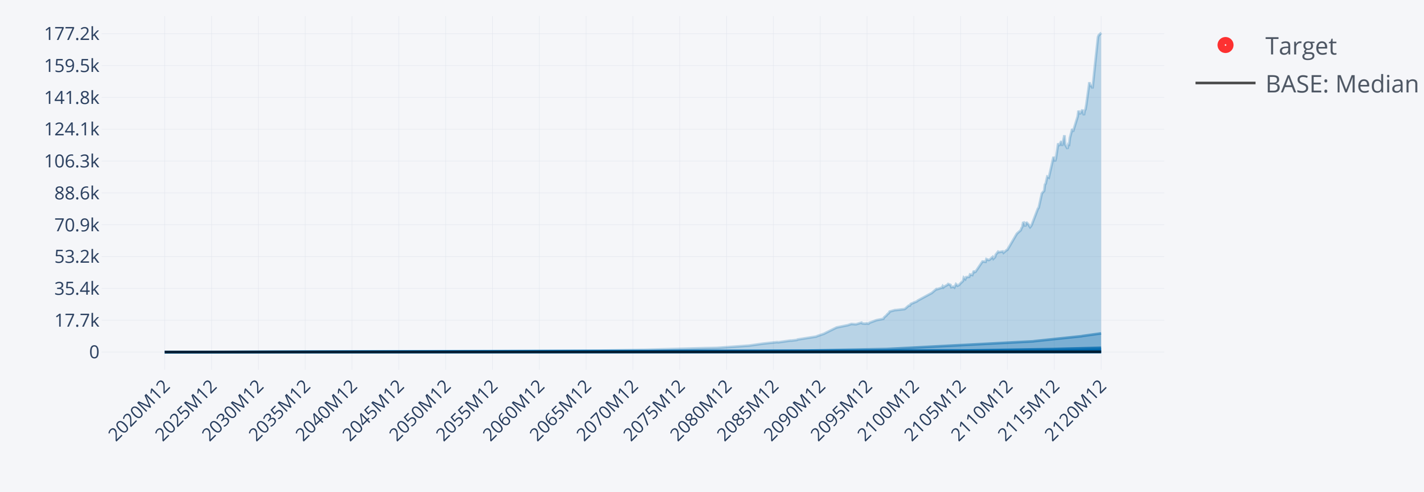
Dec 2004 - Higher Targets

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.

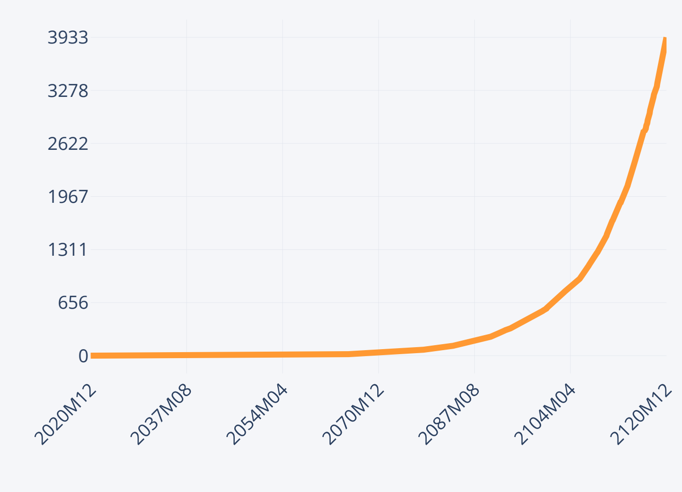
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max

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

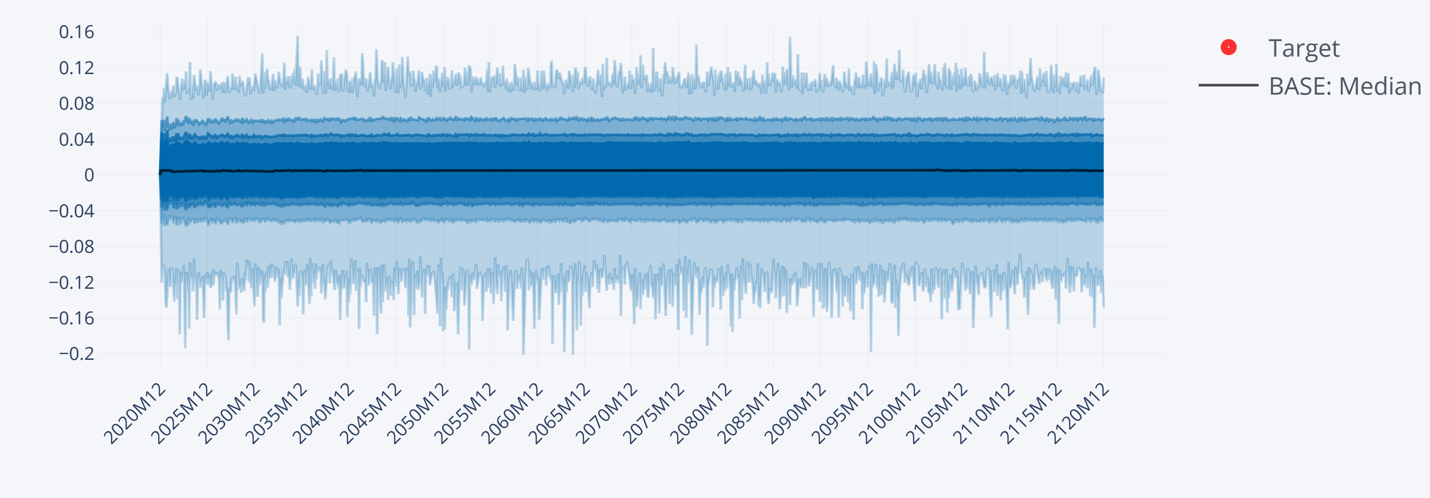
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0427	4.0475
std	0.0318	3.6669
min	-0.0912	0.4590
1%	-0.0345	0.7744
5%	-0.0104	1.0735
10%	0.0014	1.3077
50%	0.0434	3.0368
90%	0.0827	7.6552
95%	0.0940	10.2850
99%	0.1109	17.9717
max	0.1371	84.3764

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Int Inv Corp Bonds Total Return

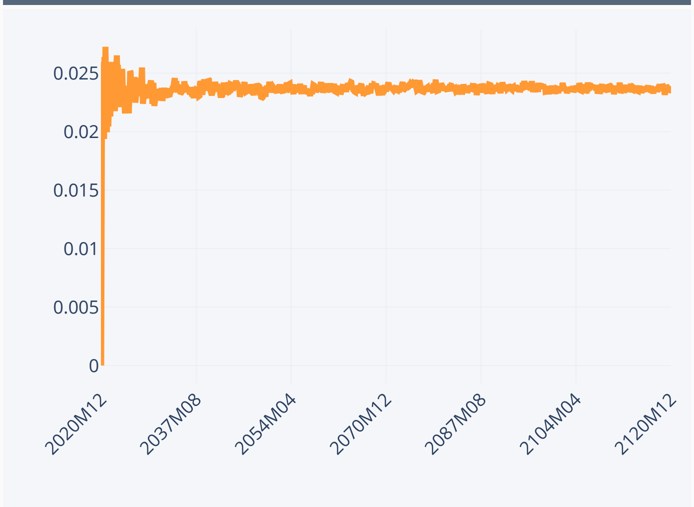


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

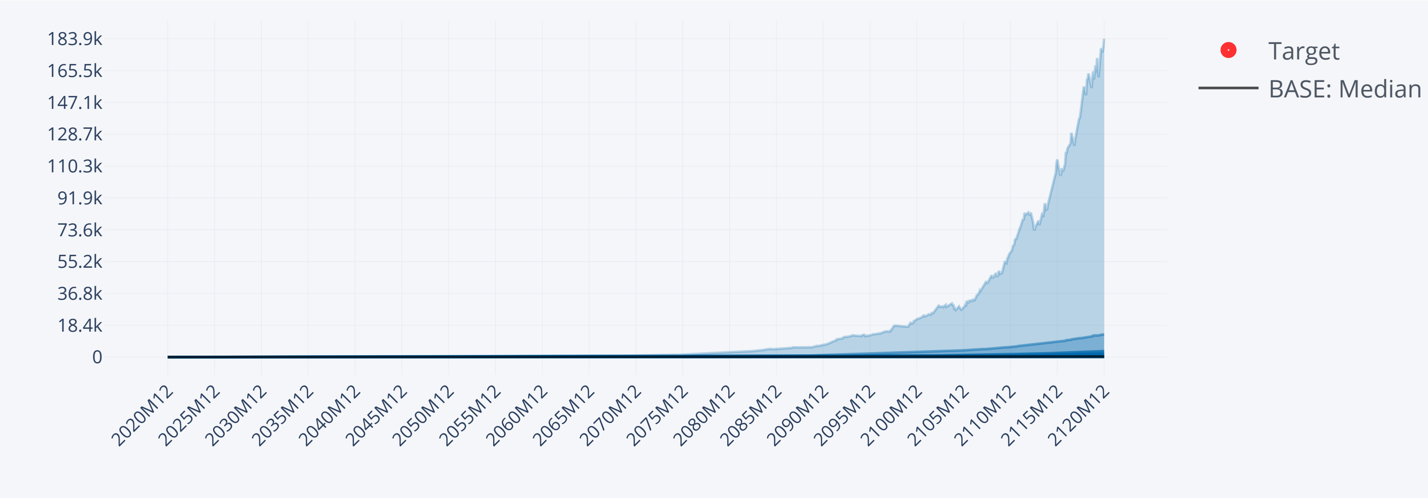
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0037	0.0053
std	0.0200	0.0239
min	-0.1229	-0.1749
1%	-0.0446	-0.0514
5%	-0.0280	-0.0326
10%	-0.0207	-0.0239
50%	0.0038	0.0048
90%	0.0289	0.0359
95%	0.0365	0.0453
99%	0.0495	0.0624
max	0.0845	0.0985

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Int Inv Corp Bonds Cumulative Return

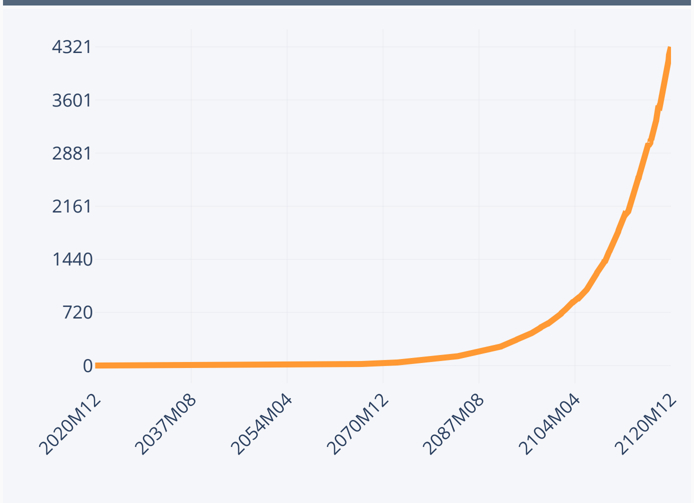


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

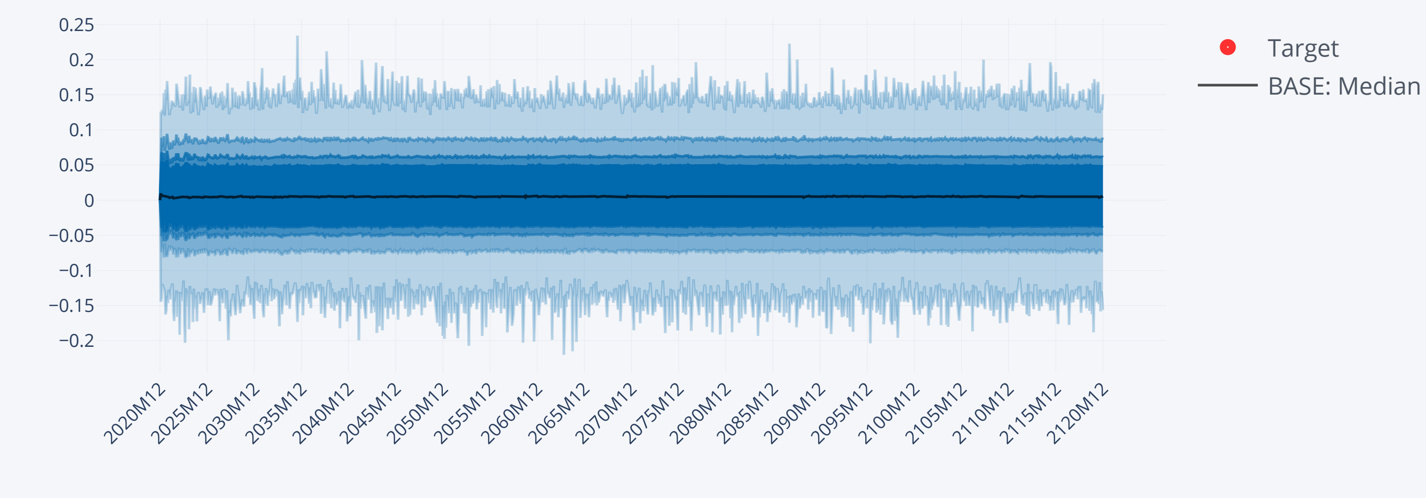
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0518	4.7079
std	0.0744	3.1997
min	-0.2371	0.6529
1%	-0.1204	1.2650
5%	-0.0686	1.7399
10%	-0.0437	2.0432
50%	0.0511	3.8926
90%	0.1466	8.0894
95%	0.1749	10.2562
99%	0.2273	17.0028
max	0.3588	55.8464

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Long Inv Corp Bonds Total Return

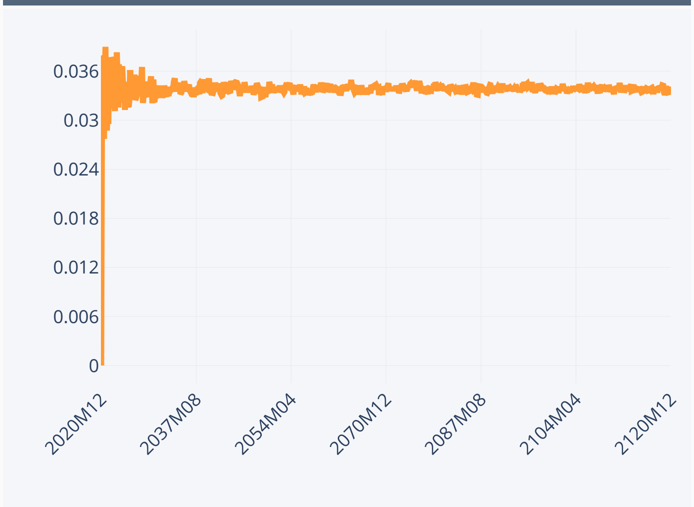


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0039	0.0058
std	0.0287	0.0340
min	-0.1374	-0.1931
1%	-0.0647	-0.0729
5%	-0.0426	-0.0493
10%	-0.0317	-0.0369
50%	0.0034	0.0052
90%	0.0405	0.0497
95%	0.0517	0.0622
99%	0.0720	0.0871
max	0.1210	0.1471

Cross Sectional Volatility Over Time : BASE



Long Inv Corp Bonds Cumulative Return
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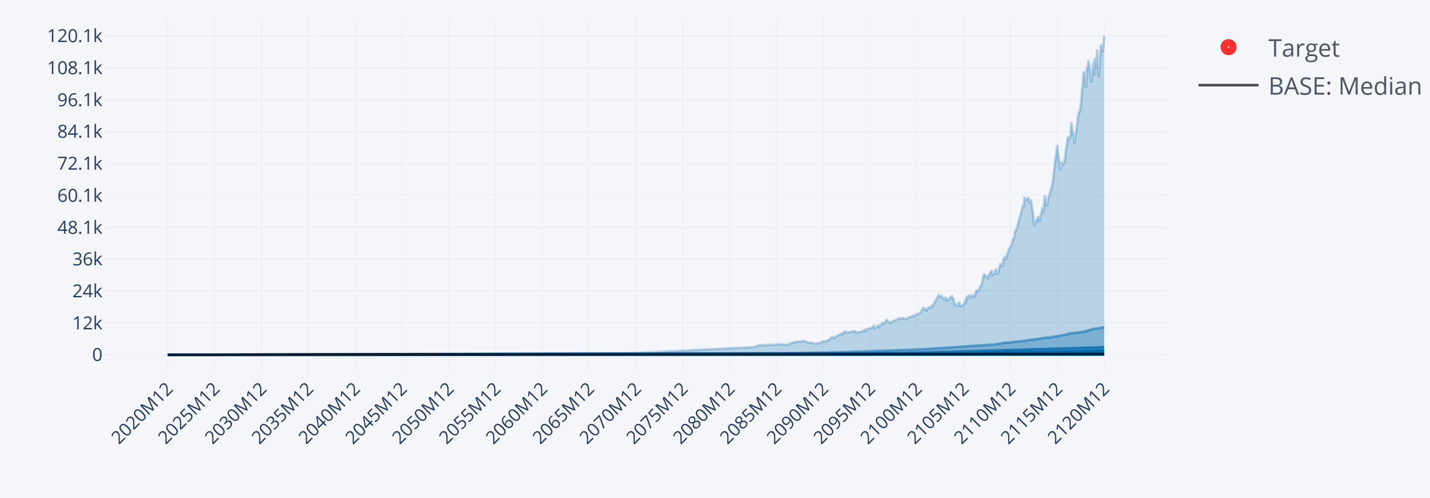
Dec 2004 - Higher Targets
Validation Report

Simulated Data in Percentiles : Long Inv Corp Bonds Cumulative Return

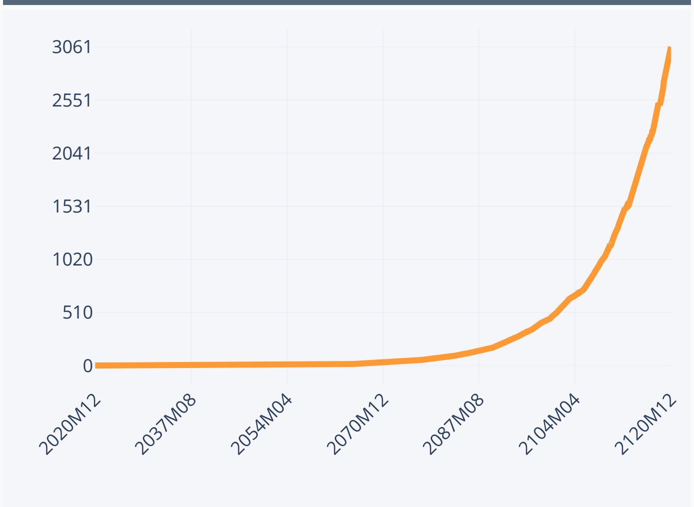


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

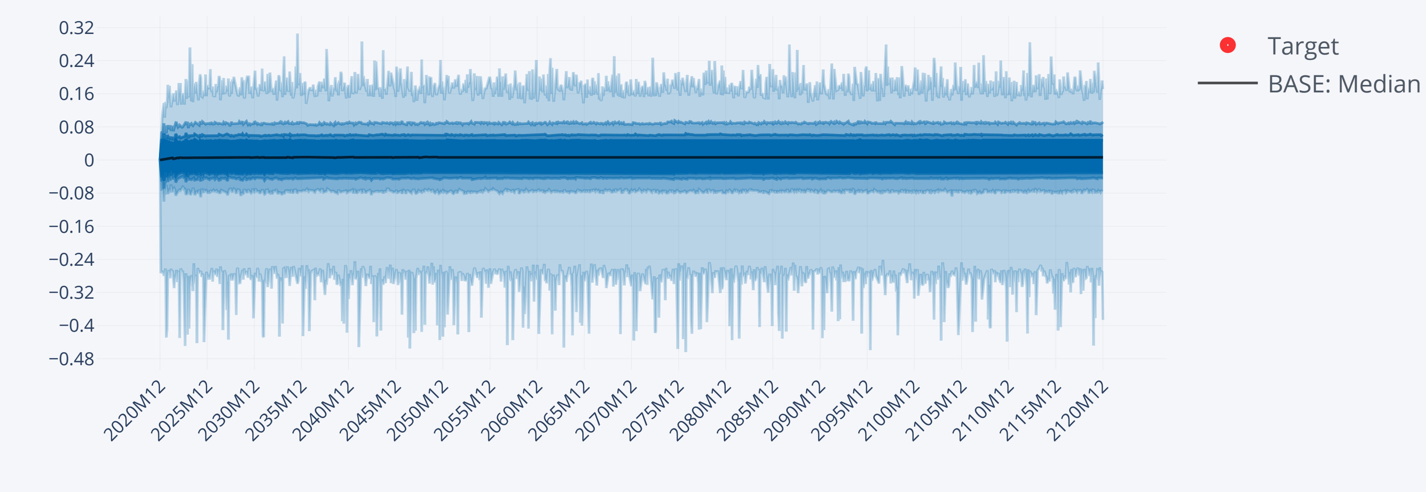
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0674	4.6032
std	0.1133	2.6279
min	-0.3298	0.6545
1%	-0.1780	1.4547
5%	-0.1099	1.9822
10%	-0.0750	2.3126
50%	0.0632	3.9767
90%	0.2145	7.4785
95%	0.2614	9.2640
99%	0.3544	14.4615
max	0.6481	40.5292

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : High Yield Corp Bonds Total Return

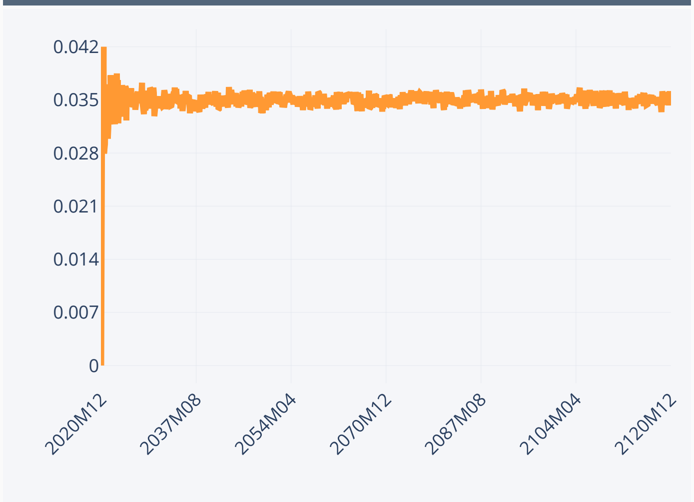


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

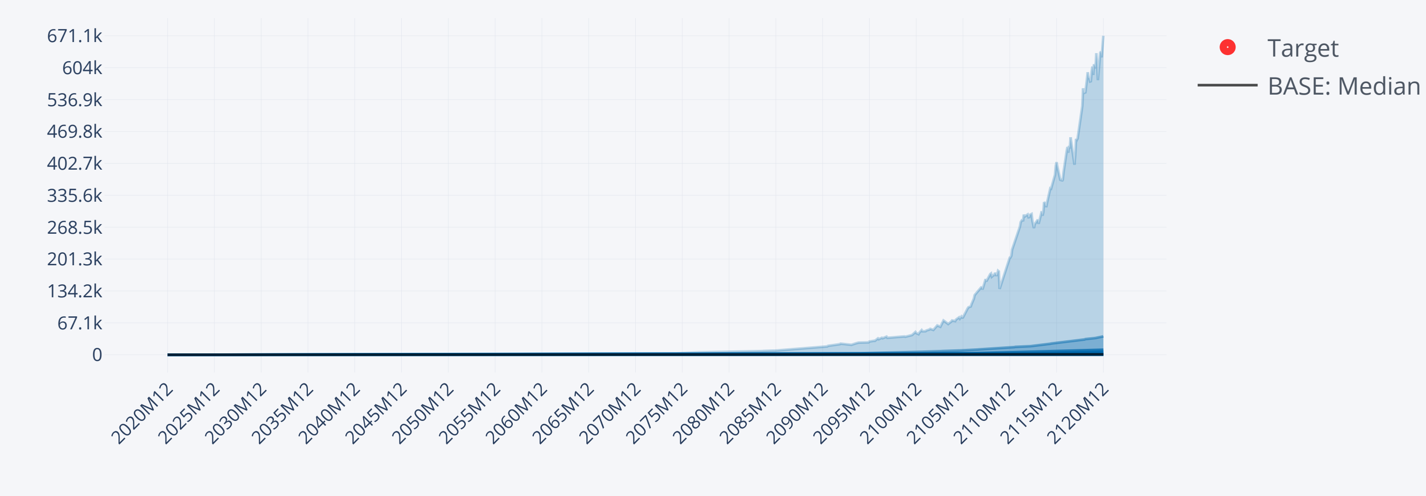
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0033	0.0065
std	0.0327	0.0351
min	-0.2711	-0.4265
1%	-0.0695	-0.0732
5%	-0.0421	-0.0442
10%	-0.0310	-0.0320
50%	0.0037	0.0065
90%	0.0401	0.0475
95%	0.0518	0.0611
99%	0.0766	0.0881
max	0.1790	0.1600

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : High Yield Corp Bonds Cumulative Return

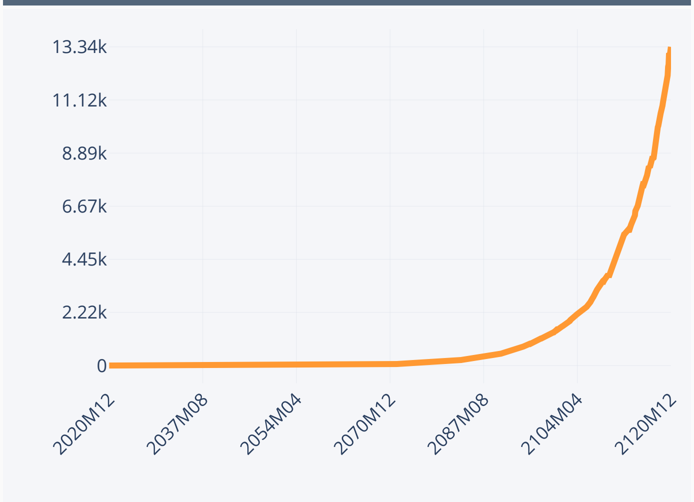


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

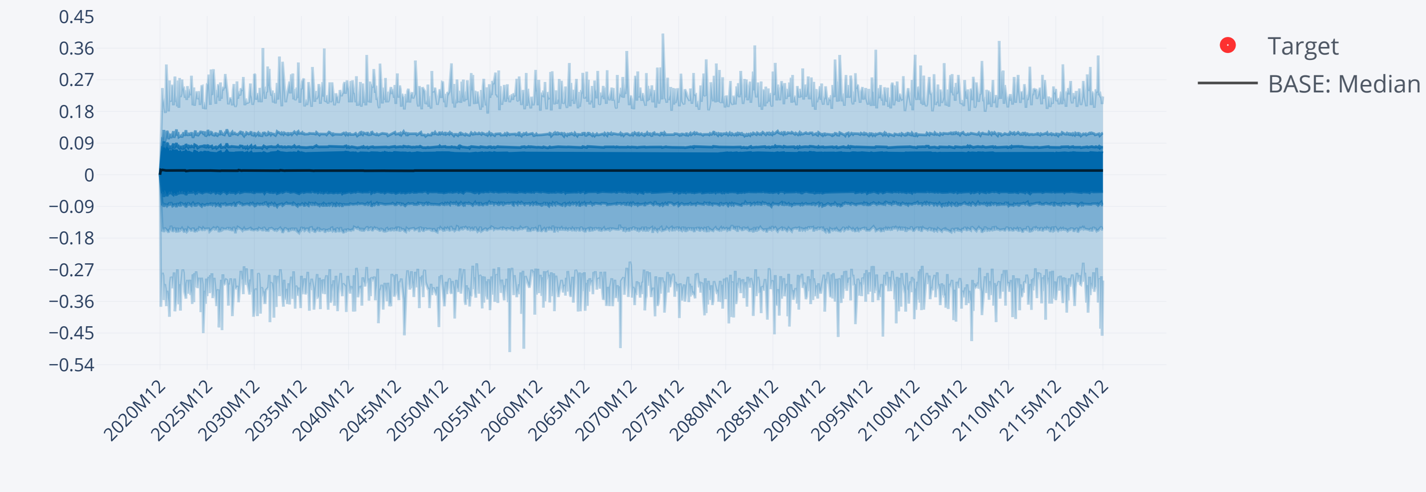
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0208	6.6419
std	0.0910	4.5955
min	-0.4104	0.3999
1%	-0.2158	1.6218
5%	-0.1381	2.3502
10%	-0.0974	2.7988
50%	0.0261	5.4487
90%	0.1335	11.7480
95%	0.1608	14.8258
99%	0.2142	23.8051
max	0.3557	92.3751

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Small Cap Total Return

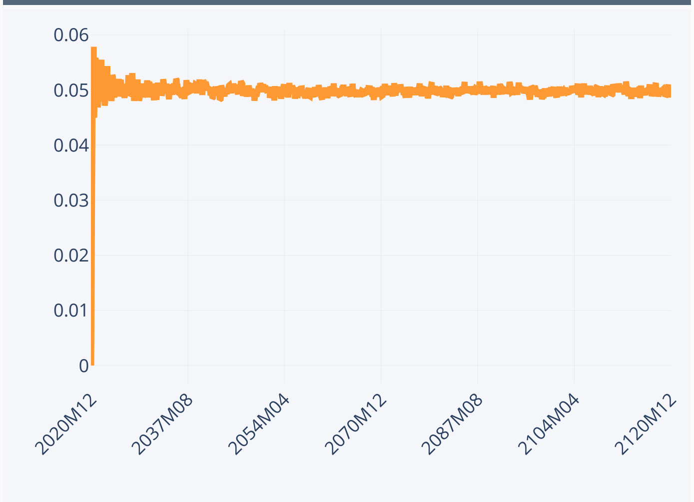


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

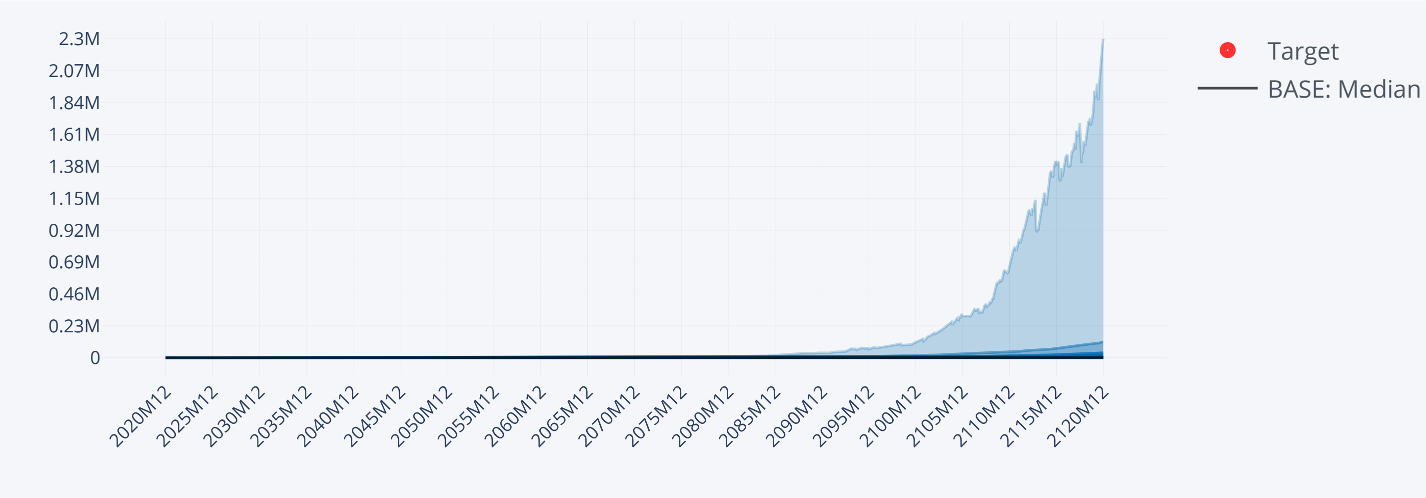
Simulation Summary

	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	15.2630
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	31.4801
95%	0.4076	42.4141
99%	0.5425	75.1610
max	0.8386	182.6283

Cross Sectional Volatility Over Time : BASE

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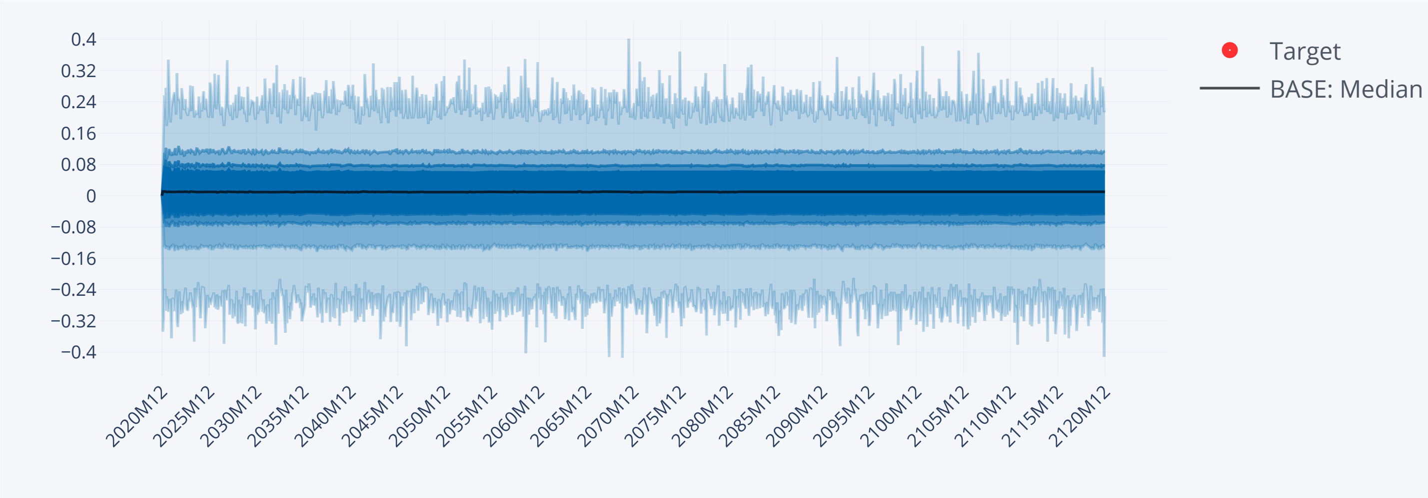
Simulated Data in Percentiles : Mid Cap Total Return

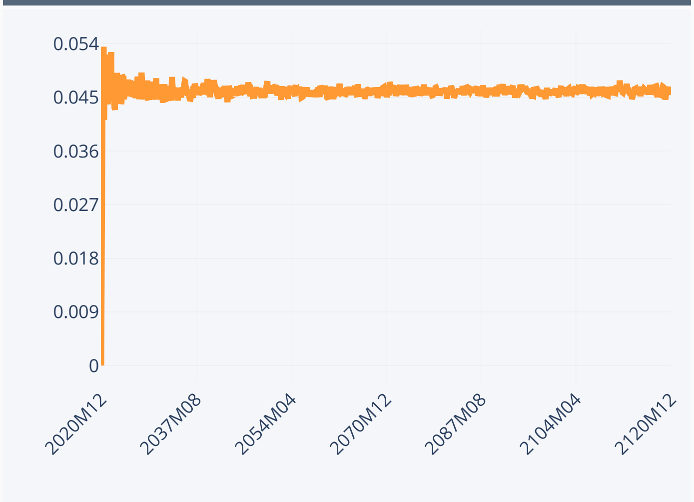


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

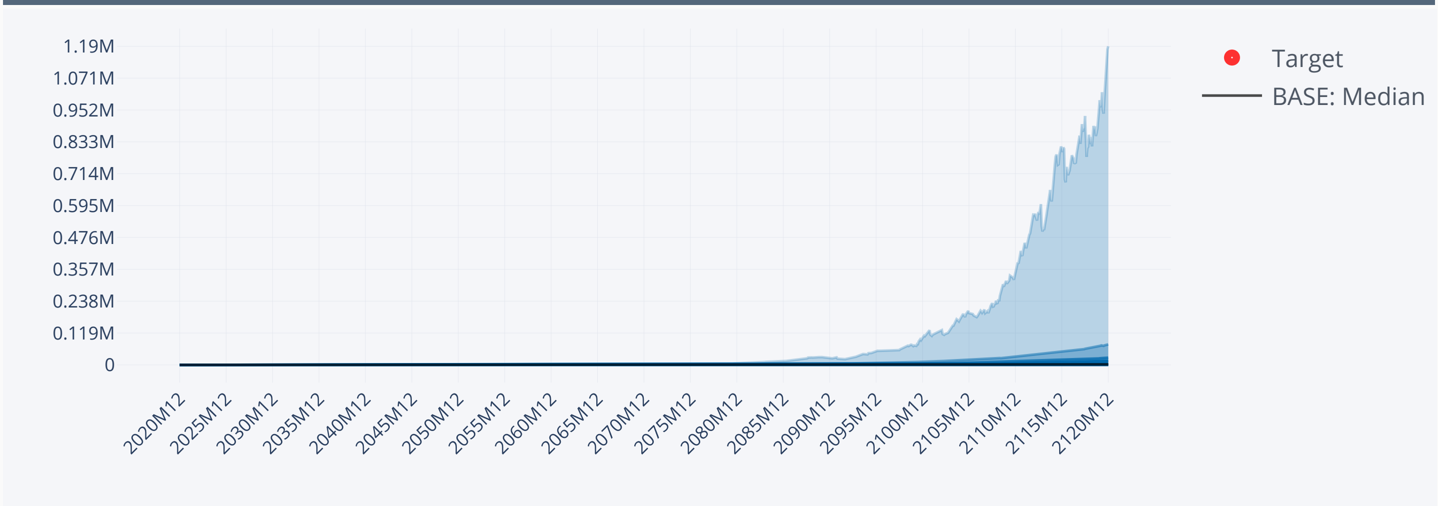
Simulation Summary

	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

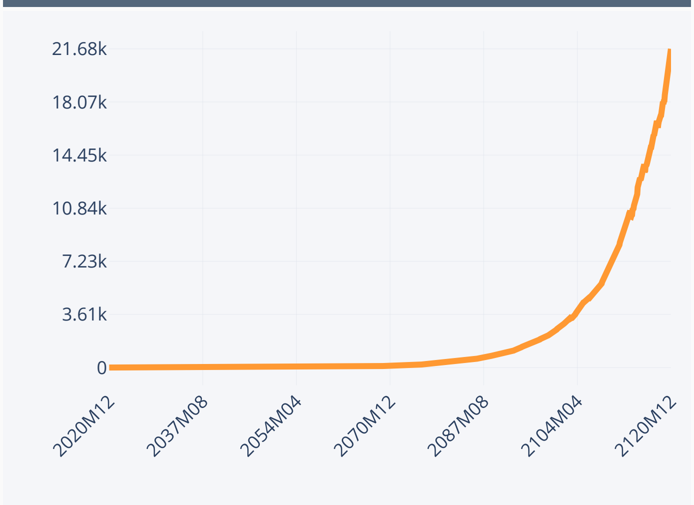


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

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	28.4069
95%	0.3832	37.9843
99%	0.5191	63.2069
max	0.8825	167.3040

Cross Sectional Volatility Over Time : BASE



Large Cap Total Return
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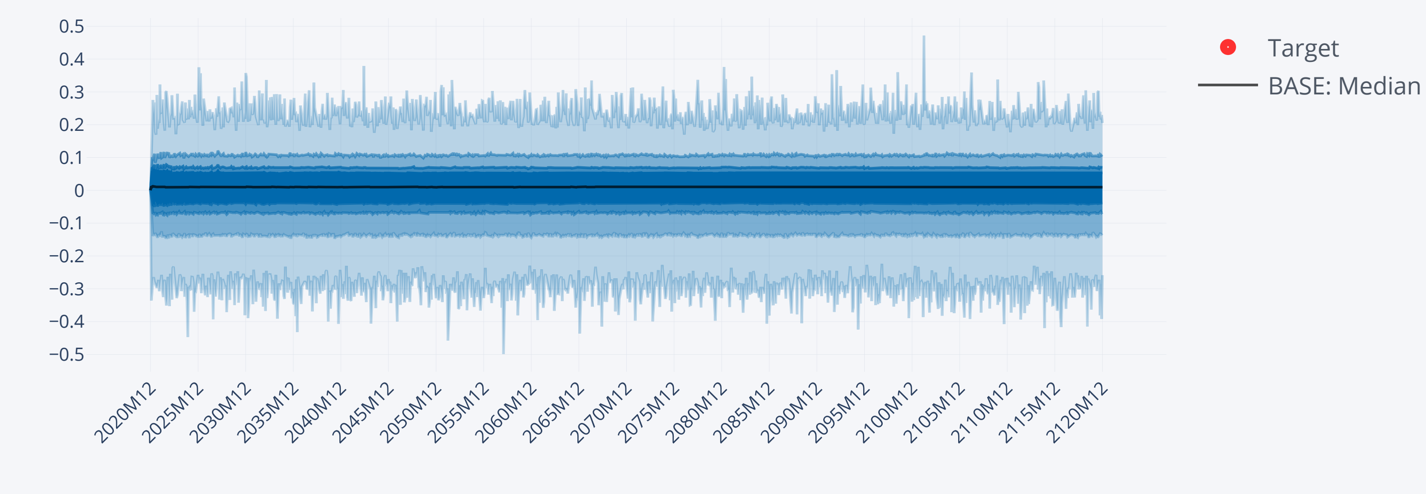
Dec 2004 - Higher Targets
Validation Report

Simulated Data in Percentiles : Large Cap Total Return

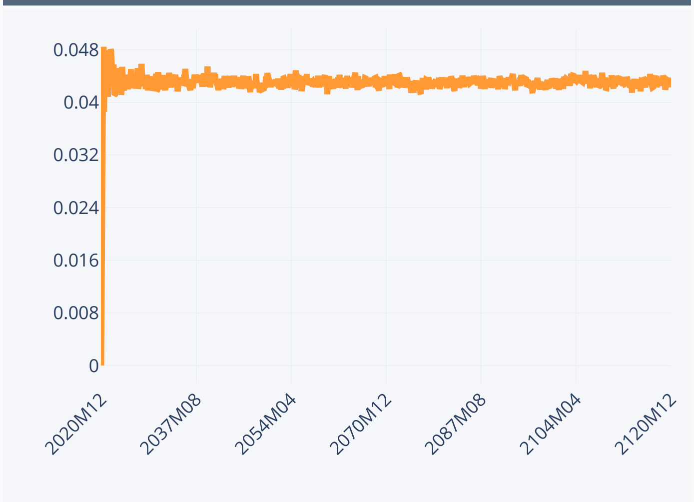


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

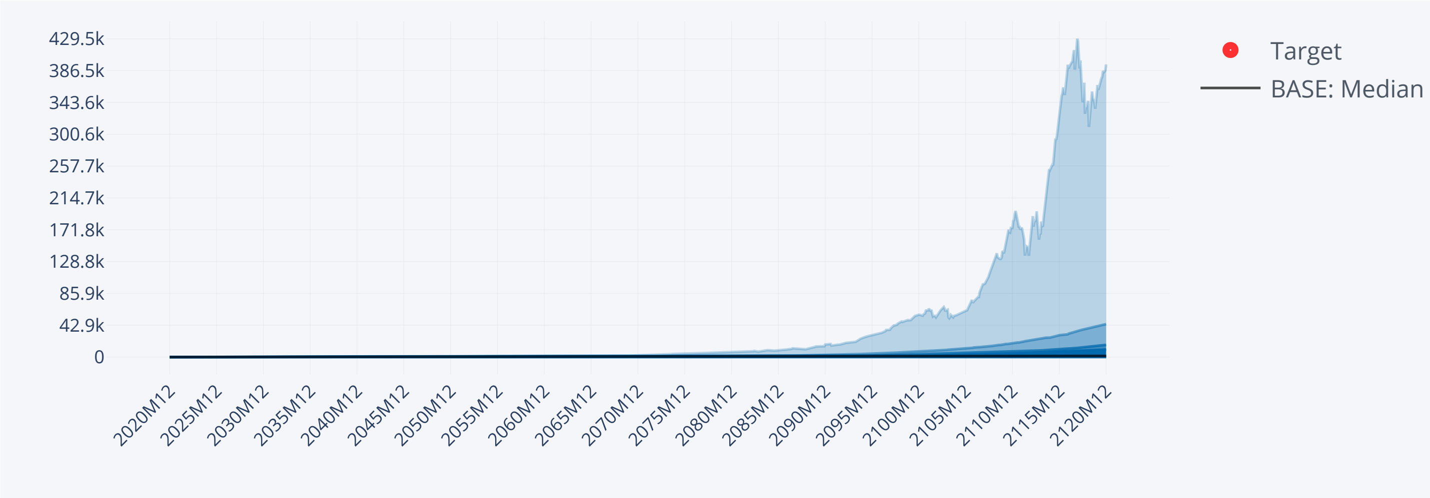
Simulation Summary

	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



Simulated Data in Percentiles : Large Cap Cumulative Return

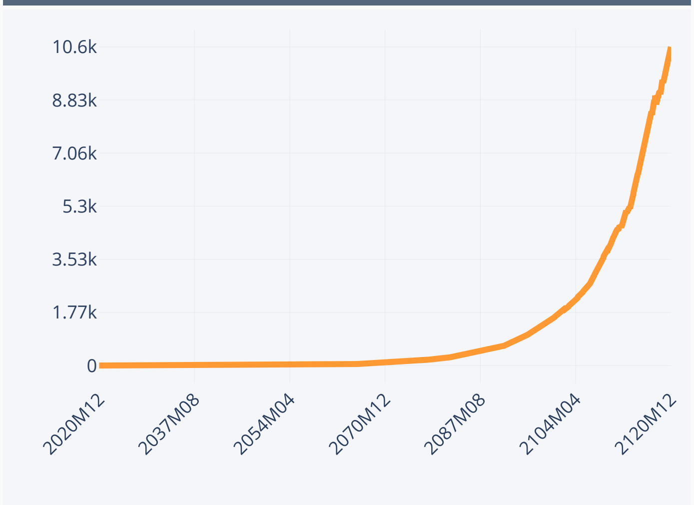


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

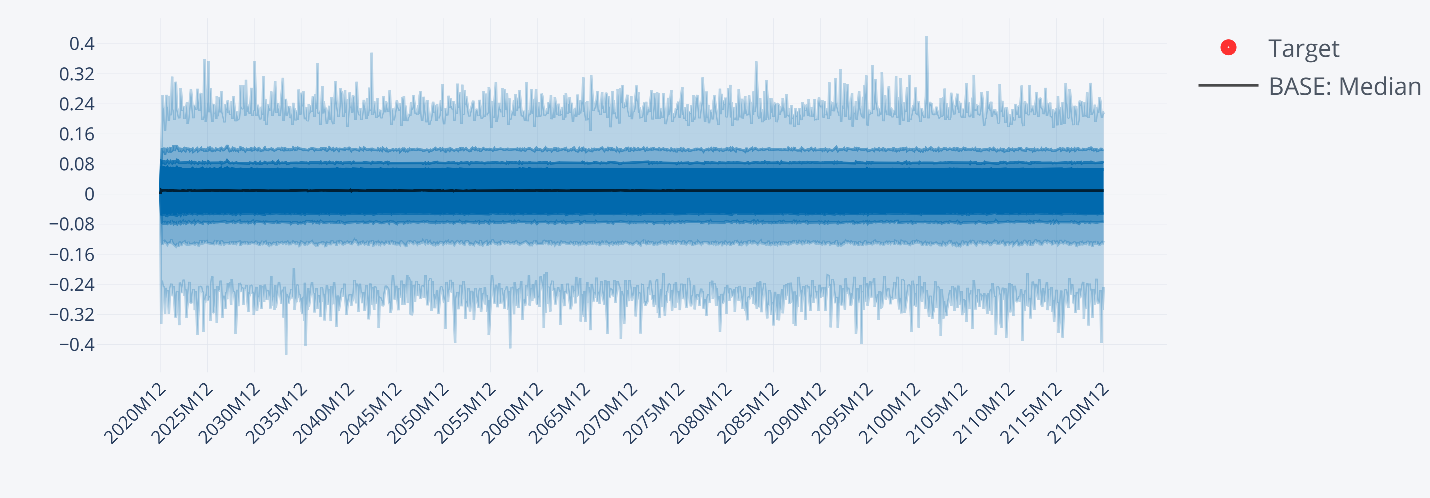
Simulation Summary

	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	24.0786
95%	0.3561	31.5265
99%	0.4698	49.5595
max	0.8170	119.0688

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : International Diversified Equity Total Return

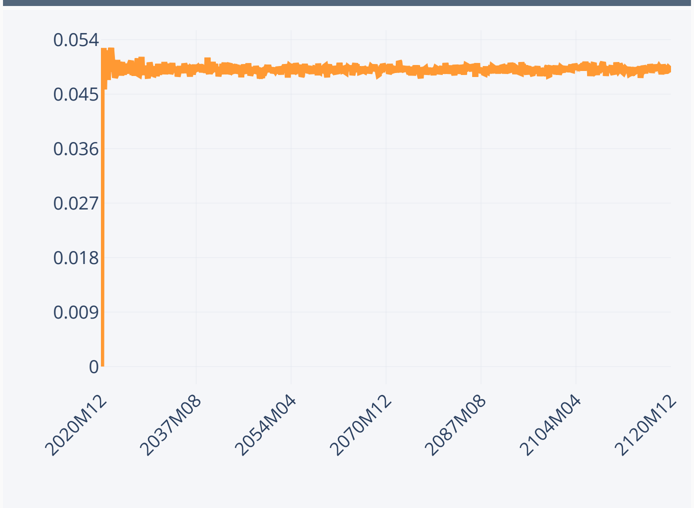


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

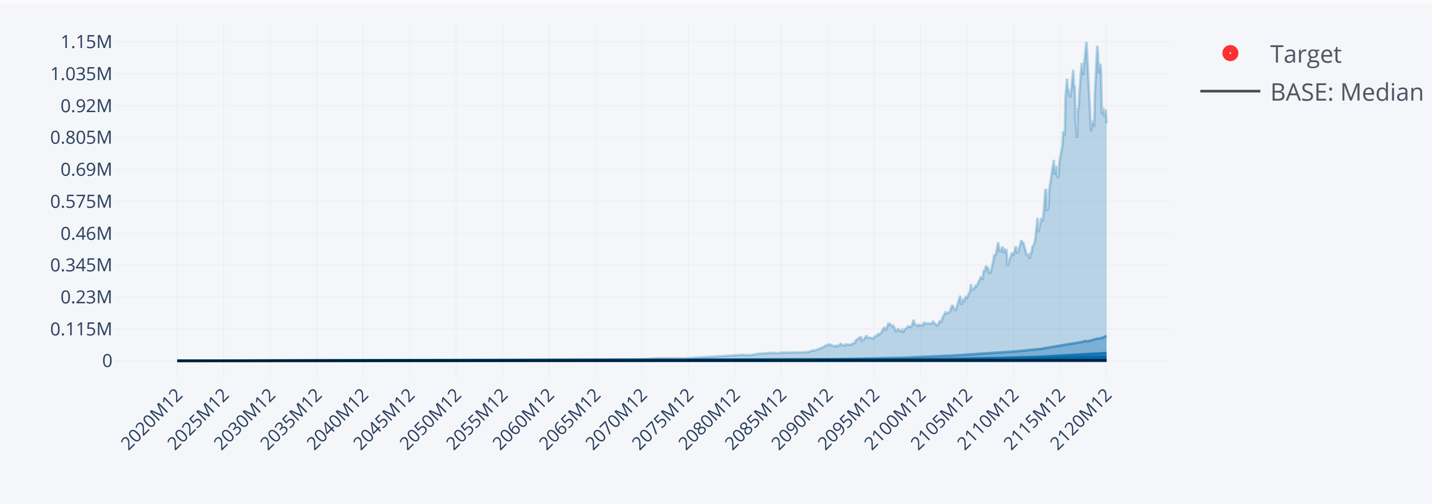
Simulation Summary

	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

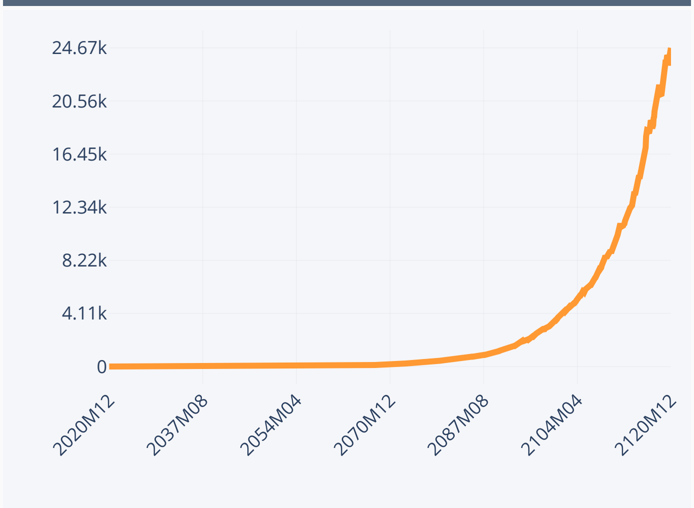


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

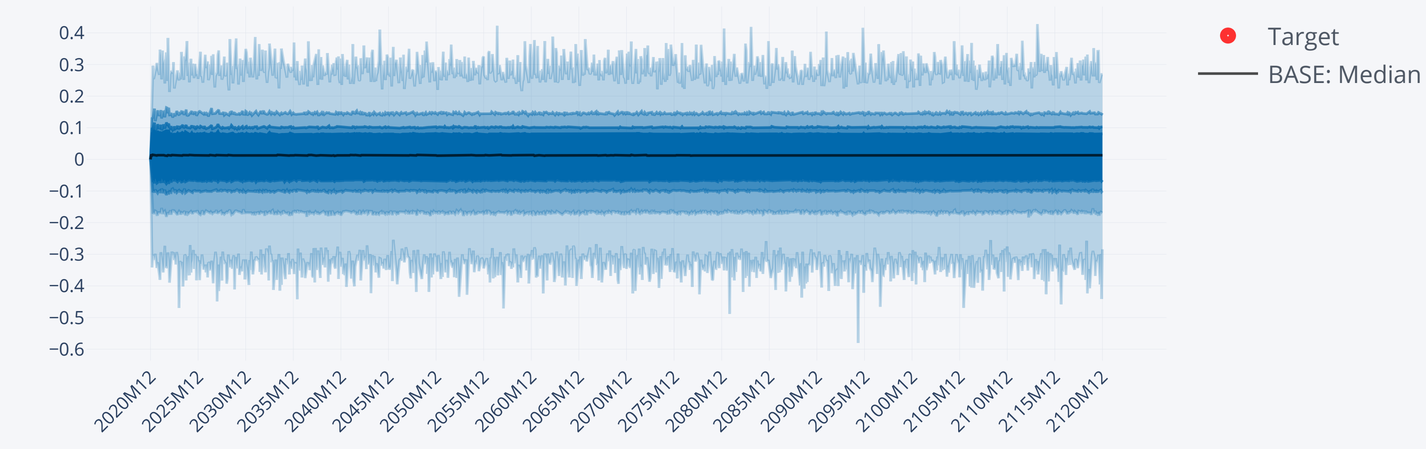
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0984	13.4096
std	0.1920	15.6573
min	-0.4832	-0.9127
1%	-0.3083	-0.0172
5%	-0.2021	0.9623
10%	-0.1431	1.8504
50%	0.0907	8.8565
90%	0.3480	29.8528
95%	0.4300	40.7827
99%	0.5785	71.9748
max	0.9585	400.2505

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Aggressive US Equity Total Return

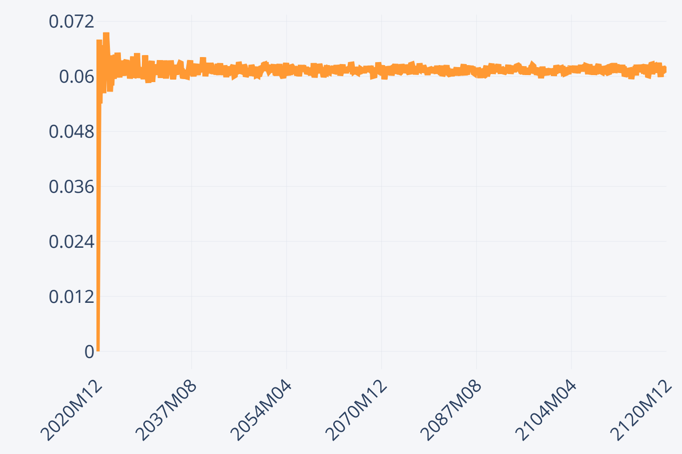


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

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

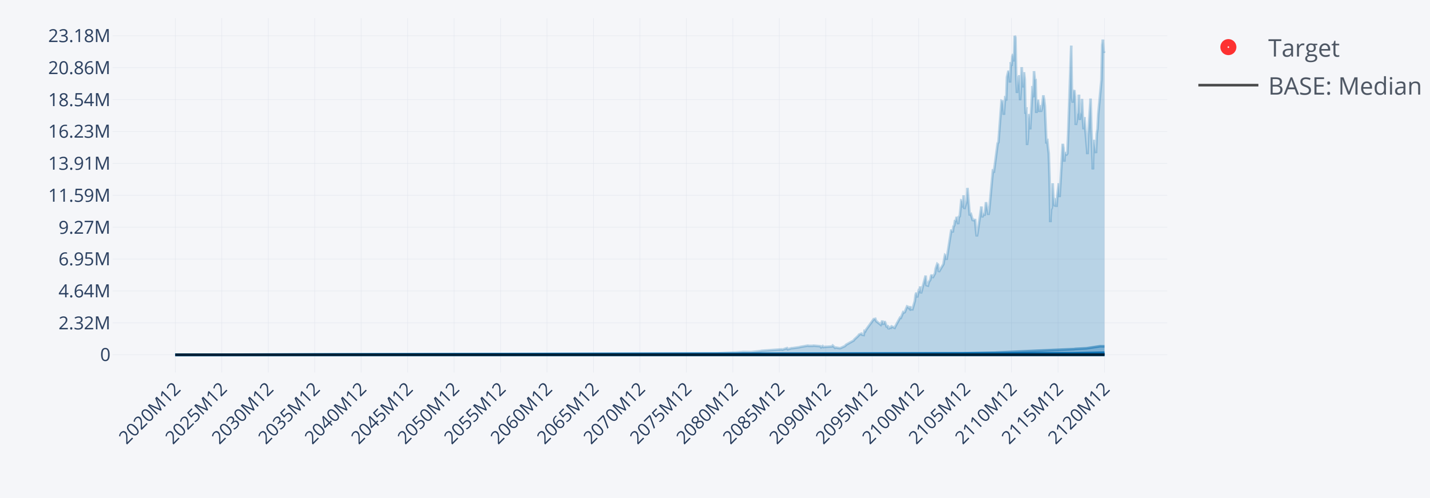
Cross Sectional Volatility Over Time : BASE



Aggressive US Equity Cumulative Return
Conning | Risk Solutions

Dec 2004 - Higher Targets
Validation Report

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

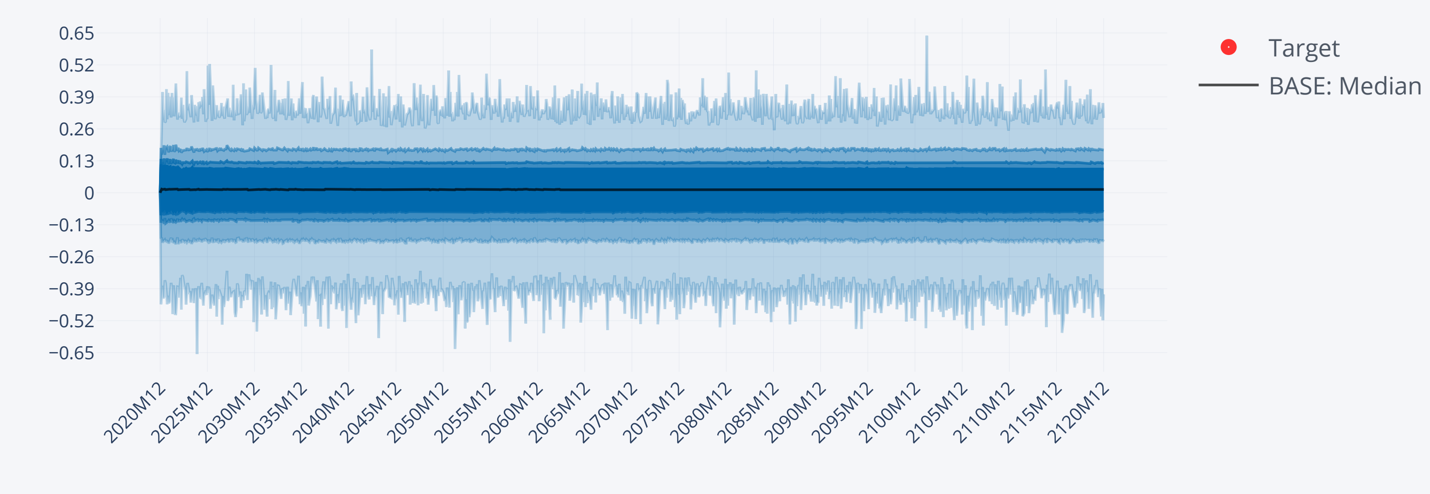
	BASE: 2021M12	BASE: 2050M12
mean	0.1185	22.7657
std	0.2337	33.3815
min	-0.5775	-0.9356
1%	-0.3674	-0.3744
5%	-0.2425	0.5880
10%	-0.1786	1.5393
50%	0.1078	11.7435
90%	0.4252	55.4966
95%	0.5238	79.3352
99%	0.7064	162.9480
max	1.2402	539.3252

Cross Sectional Volatility Over Time : BASE

Aggressive Foreign Equity Total Return
Conning | Risk Solutions

Dec 2004 - Higher Targets
Validation Report

Simulated Data in Percentiles : Aggressive Foreign Equity Total Return

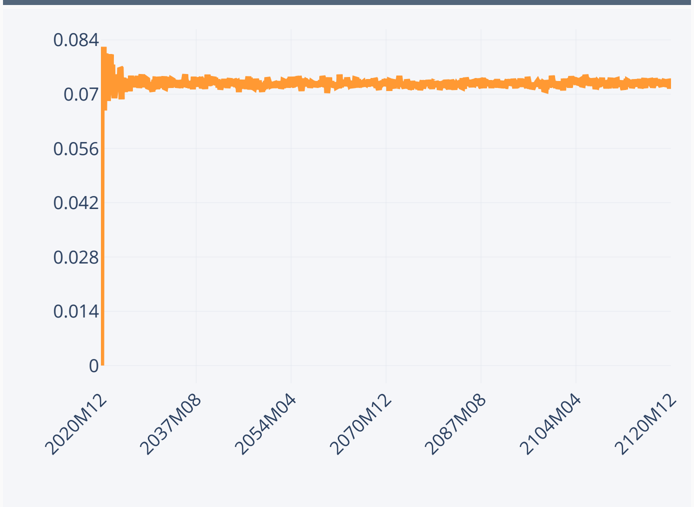


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

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

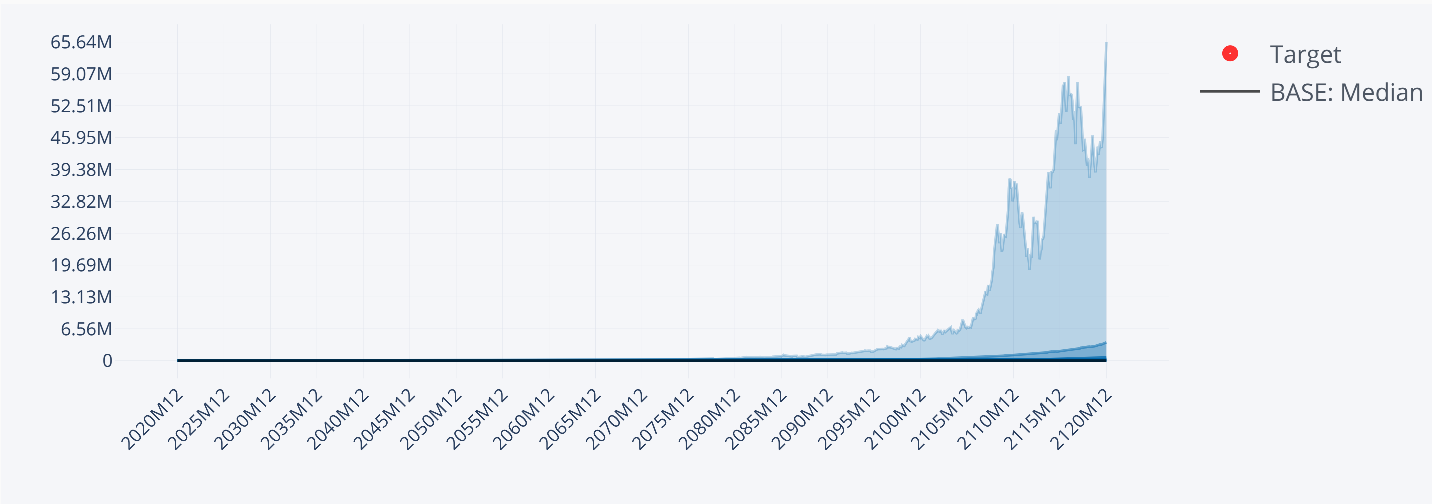
Cross Sectional Volatility Over Time : BASE



Aggressive Foreign Equity Cumulative Return
Conning | Risk Solutions

Dec 2004 - Higher Targets
Validation Report

Simulated Data in Percentiles : Aggressive Foreign Equity Cumulative Return

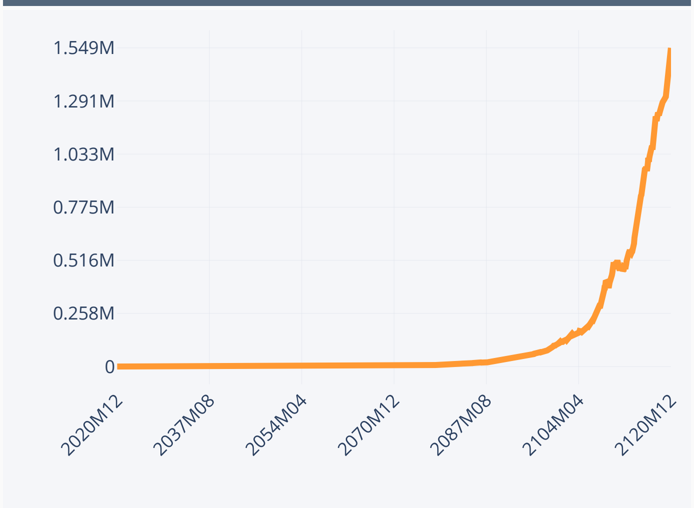


Simulated Data: There are 1200 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

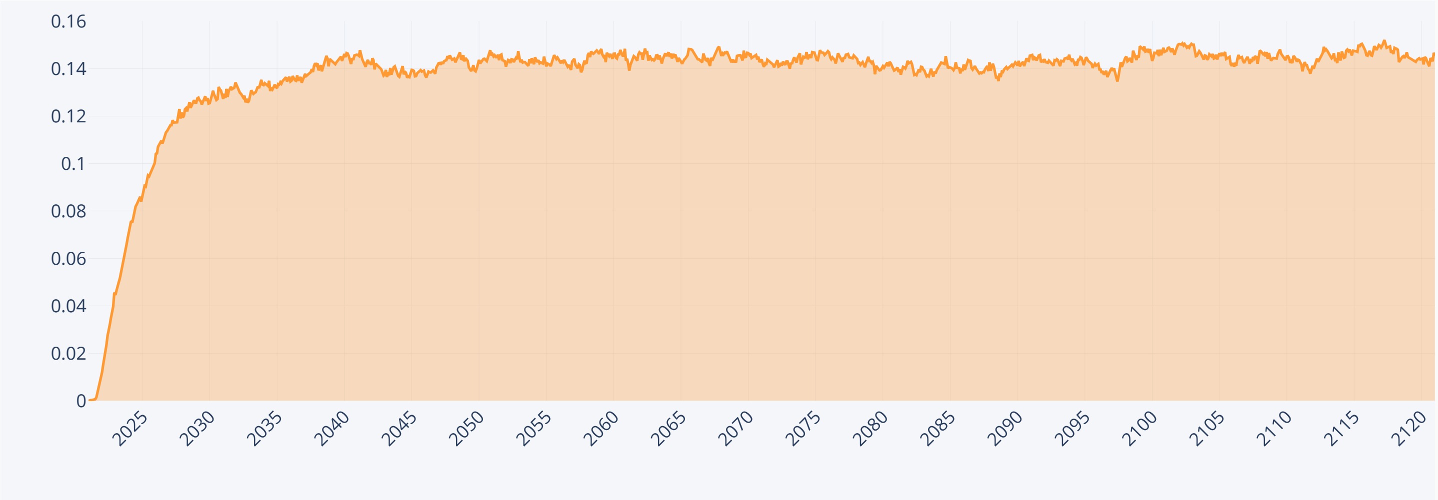
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.1436	39.4302
std	0.3015	78.6499
min	-0.6873	-0.9880
1%	-0.4633	-0.5208
5%	-0.3079	0.3228
10%	-0.2199	1.4335
50%	0.1211	15.2731
90%	0.5403	96.1768
95%	0.6794	155.5099
99%	0.9390	359.9544
max	1.6141	1648.6636

Cross Sectional Volatility Over Time : BASE

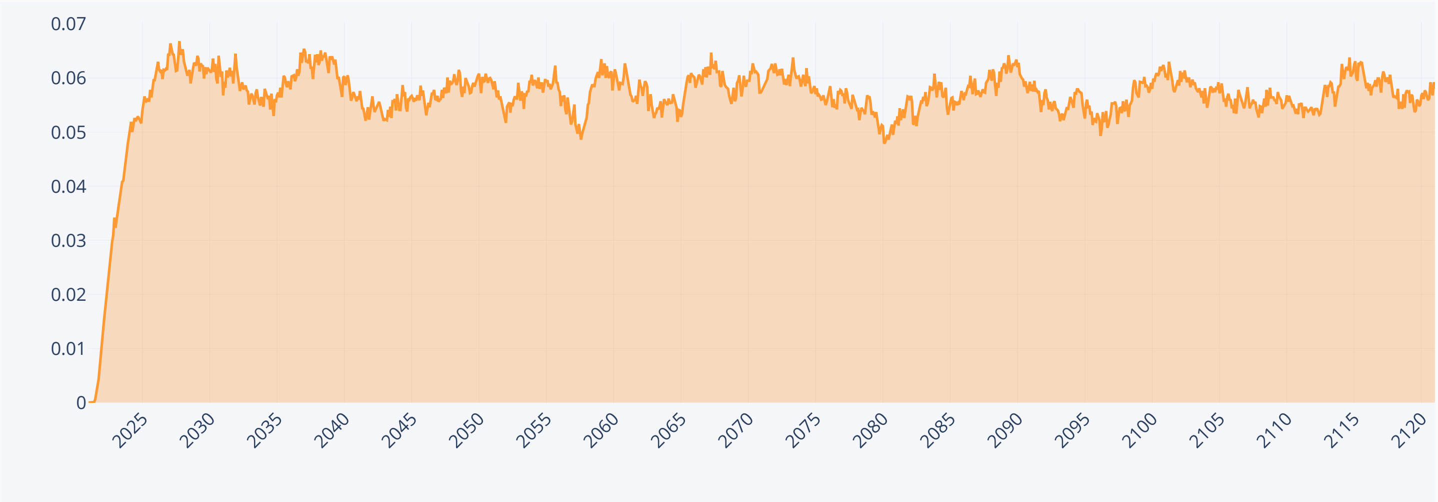


Term Structure Inversion Probability



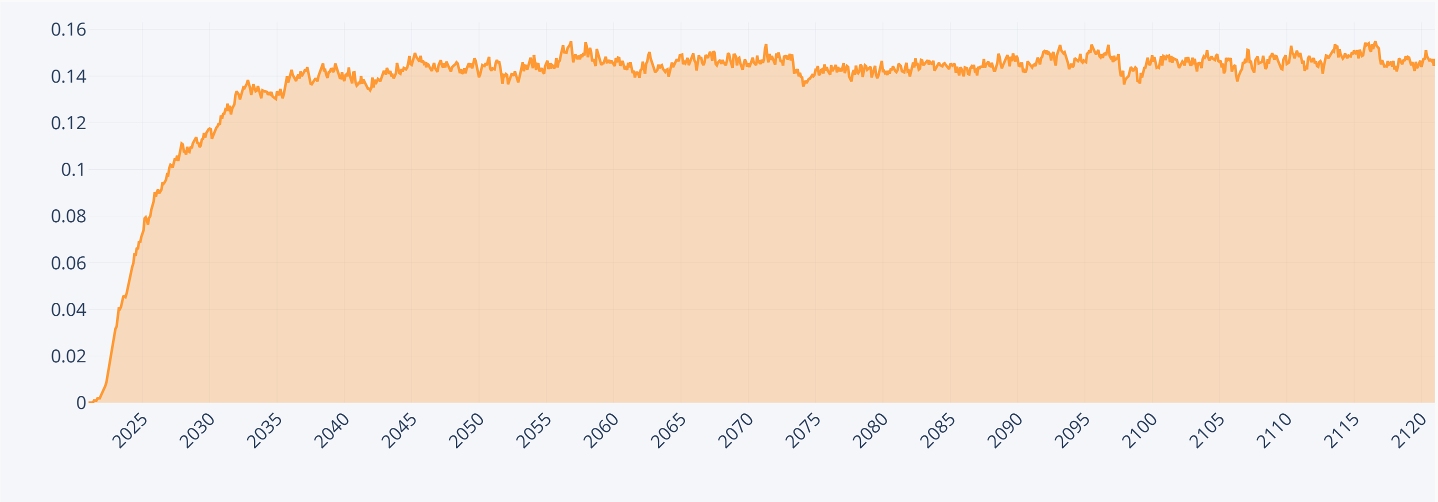
Probability that 1 Year yield is higher than 20 Year Yield.

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.

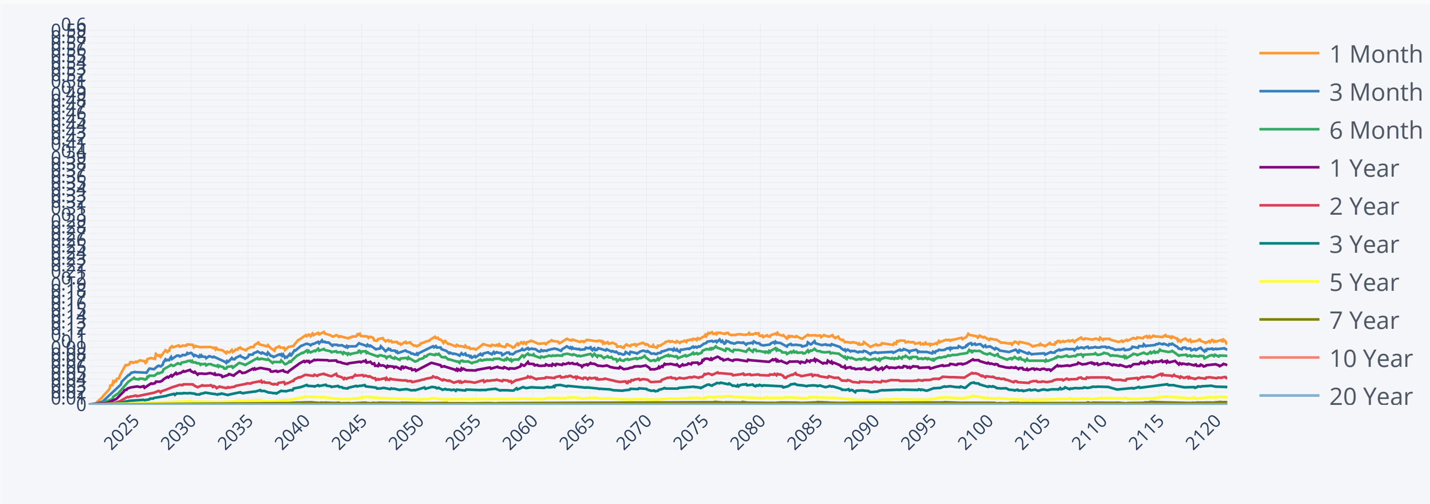
Correlation Matrix of Total Return in the 1st Simulation Year

	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	0.28	-0.02	0.12	0.75	0.76	-0.05	0.11	0.72	-0.09	-0.01	0.09	0.70
Aggressive US Equity	0.60	1.00	0.37	-0.04	0.15	0.60	0.82	-0.06	0.15	0.80	-0.10	-0.03	0.11	0.82
High Yield Corp Bonds	0.28	0.37	1.00	0.68	0.89	0.30	0.39	0.65	0.87	0.39	-0.53	0.68	0.87	0.37
Int Govt Bonds	-0.02	-0.04	0.68	1.00	0.94	-0.03	-0.02	0.98	0.93	-0.02	-0.68	0.99	0.93	-0.01
Int Inv Corp Bonds	0.12	0.15	0.89	0.94	1.00	0.12	0.16	0.91	0.99	0.17	-0.67	0.93	0.99	0.16
International Diversified Equity	0.75	0.60	0.30	-0.03	0.12	1.00	0.78	-0.06	0.12	0.71	-0.07	-0.01	0.09	0.70
Large Cap	0.76	0.82	0.39	-0.02	0.16	0.78	1.00	-0.05	0.17	0.90	-0.10	-0.01	0.13	0.90
Long Govt Bonds	-0.05	-0.06	0.65	0.98	0.91	-0.06	-0.05	1.00	0.93	-0.05	-0.64	0.94	0.88	-0.04
Long Inv Corp Bonds	0.11	0.15	0.87	0.93	0.99	0.12	0.17	0.93	1.00	0.17	-0.65	0.90	0.95	0.16
Mid Cap	0.72	0.80	0.39	-0.02	0.17	0.71	0.90	-0.05	0.17	1.00	-0.09	-0.01	0.13	0.93
Money Market	-0.09	-0.10	-0.53	-0.68	-0.67	-0.07	-0.10	-0.64	-0.65	-0.09	1.00	-0.65	-0.64	-0.10
Short Govt Bonds	-0.01	-0.03	0.68	0.99	0.93	-0.01	-0.01	0.94	0.90	-0.01	-0.65	1.00	0.94	0.00
Short Inv Corp Bonds	0.09	0.11	0.87	0.93	0.99	0.09	0.13	0.88	0.95	0.13	-0.64	0.94	1.00	0.13
Small Cap	0.70	0.82	0.37	-0.01	0.16	0.70	0.90	-0.04	0.16	0.93	-0.10	0.00	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	0.08	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	0.10	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	0.08	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	0.12	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	0.90	-0.14	0.24	0.84	0.78	-0.13
Long Inv Corp Bonds	0.10	0.10	0.81	0.89	0.98	0.09	0.12	0.90	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	-0.07	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	-0.07	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	0.0066	0.0905	0.1113	0.1022
3 Month	0.0030	0.0757	0.0981	0.0900
6 Month	0.0016	0.0636	0.0861	0.0796
1 Year	0.0006	0.0489	0.0687	0.0657
2 Year	0.0001	0.0305	0.0458	0.0432
3 Year	0.0001	0.0170	0.0291	0.0262
5 Year	0.0000	0.0051	0.0109	0.0087
7 Year	0.0000	0.0009	0.0026	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