US Treasury 1 Month Yield - Spot

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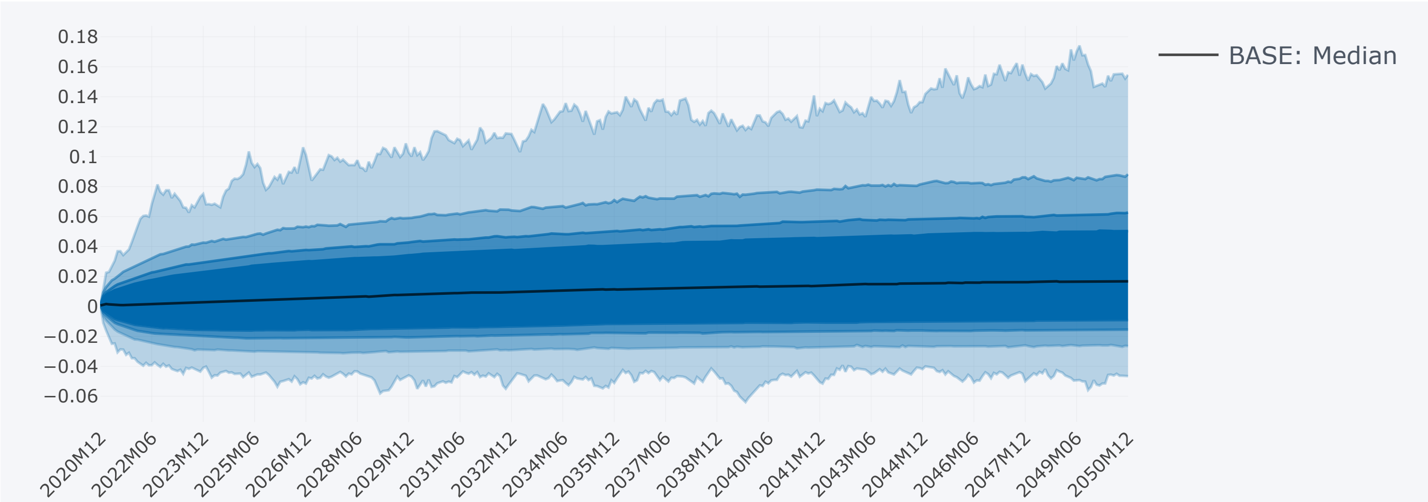
2020 Q4

Validation Report

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

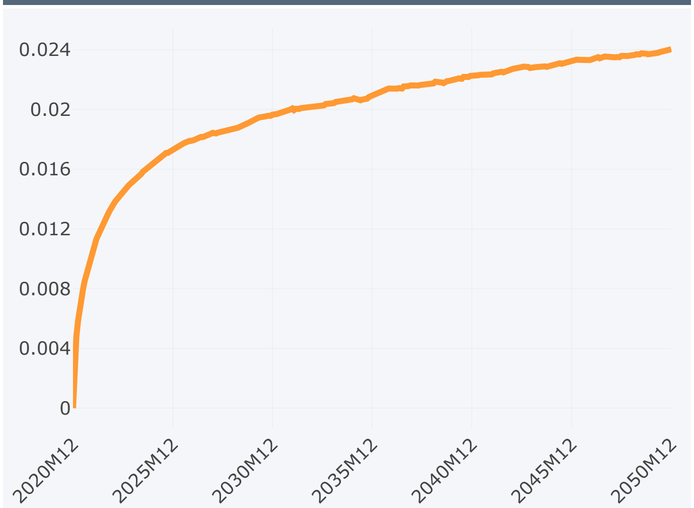


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0013	0.0192
std	0.0107	0.0240
min	-0.0346	-0.0465
1%	-0.0221	-0.0265
5%	-0.0157	-0.0155
10%	-0.0122	-0.0091
50%	0.0011	0.0168
90%	0.0151	0.0503
95%	0.0191	0.0627
99%	0.0268	0.0882
max	0.0494	0.1547

Cross Sectional Volatility Over Time : BASE



US Treasury 3 Month Yield - Spot

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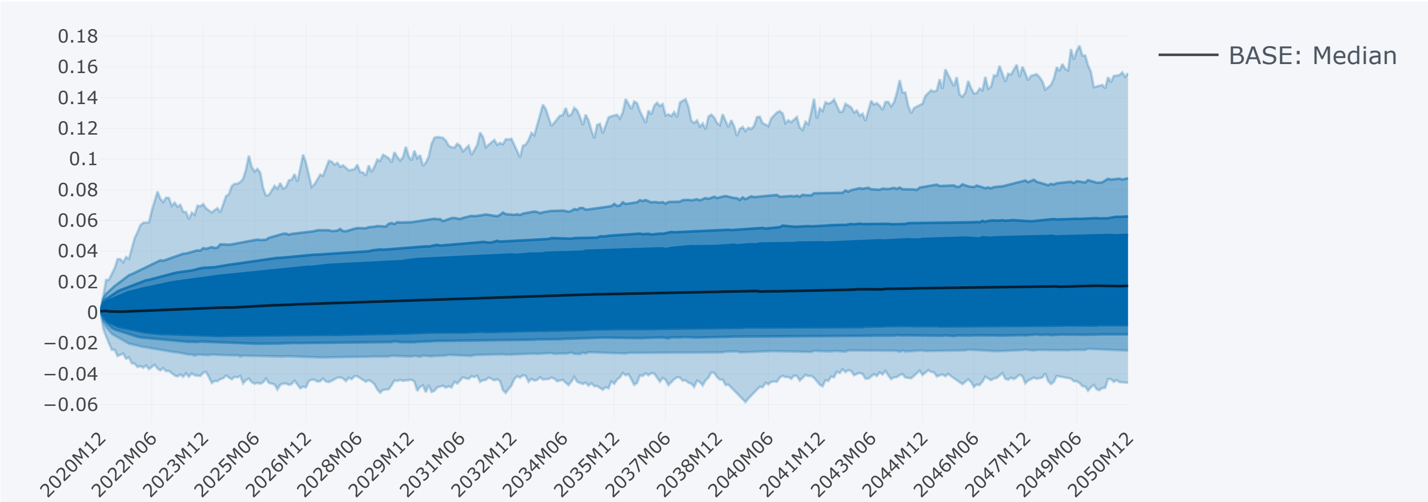
Simulated Data in Percentiles : US Treasury 3 Month Yield - Spot



Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.

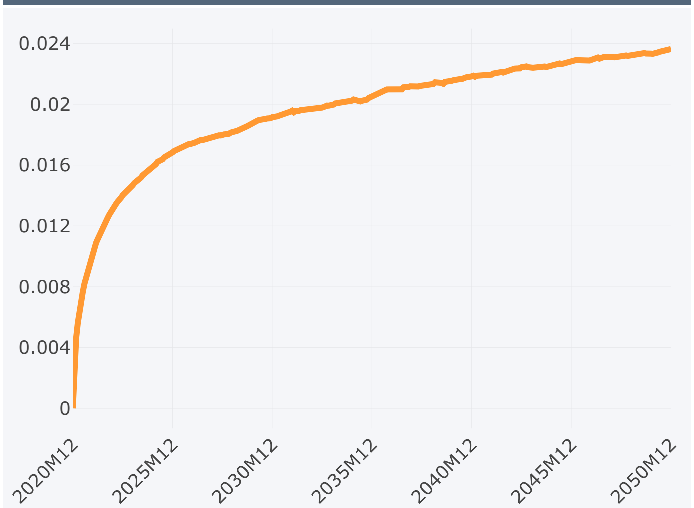
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max

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

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0011	0.0198
std	0.0103	0.0236
min	-0.0333	-0.0458
1%	-0.0215	-0.0248
5%	-0.0154	-0.0142
10%	-0.0119	-0.0082
50%	0.0009	0.0174
90%	0.0143	0.0506
95%	0.0182	0.0626
99%	0.0259	0.0875
max	0.0485	0.1560

Cross Sectional Volatility Over Time : BASE



US Treasury 6 Month Yield - Spot

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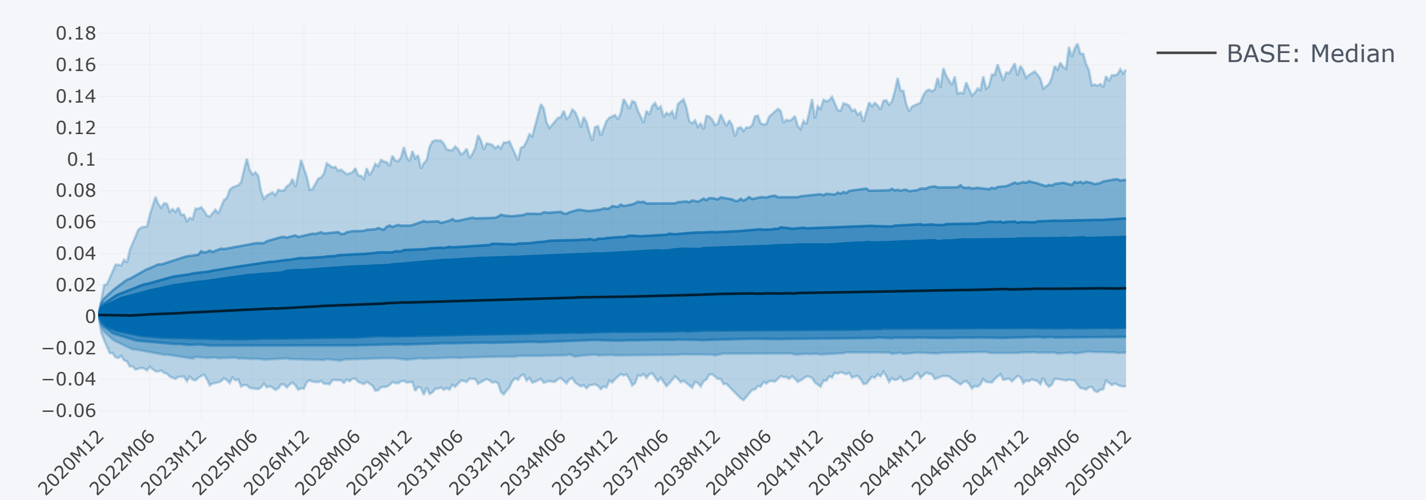
Simulated Data in Percentiles : US Treasury 6 Month Yield - Spot

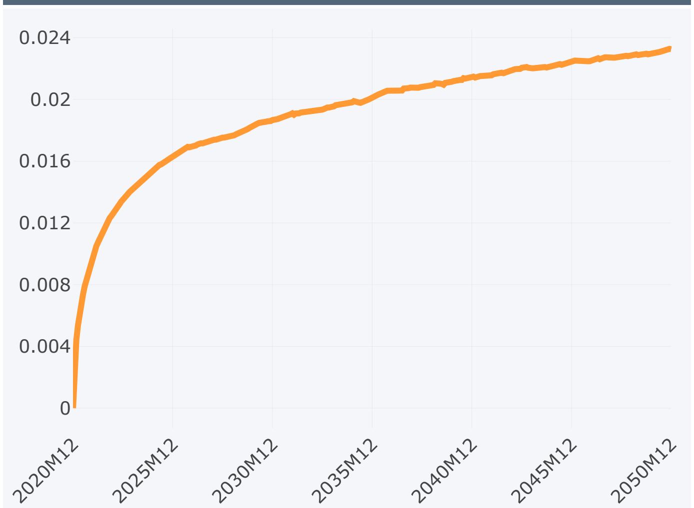


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

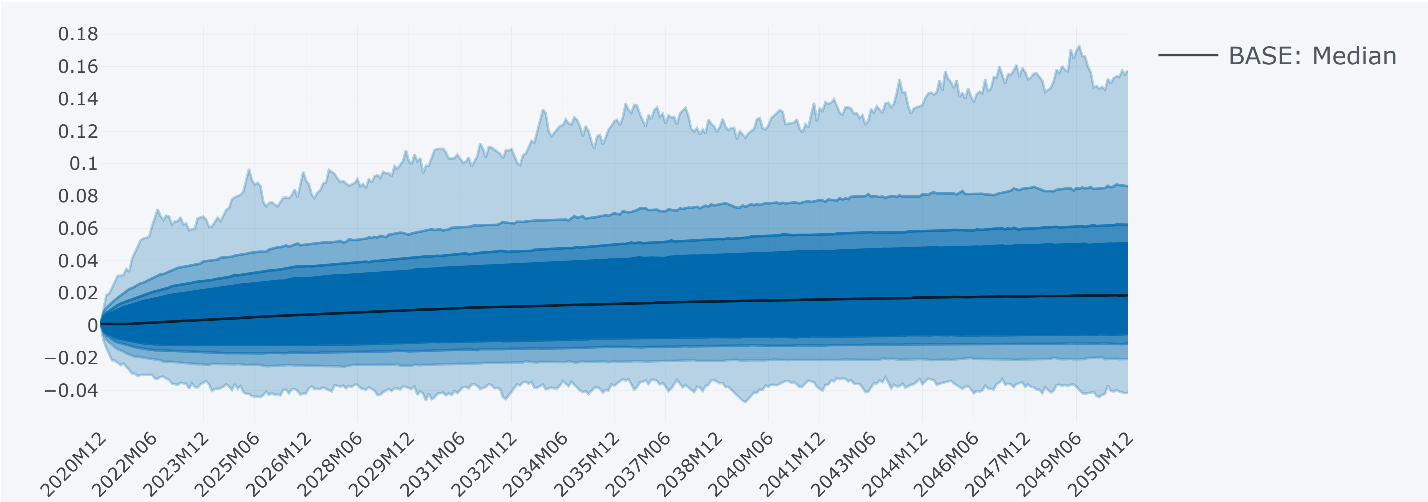
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0010	0.0203
std	0.0099	0.0233
min	-0.0317	-0.0444
1%	-0.0210	-0.0230
5%	-0.0148	-0.0130
10%	-0.0114	-0.0071
50%	0.0008	0.0179
90%	0.0139	0.0505
95%	0.0177	0.0623
99%	0.0250	0.0867
max	0.0475	0.1570

Cross Sectional Volatility Over Time : BASE



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

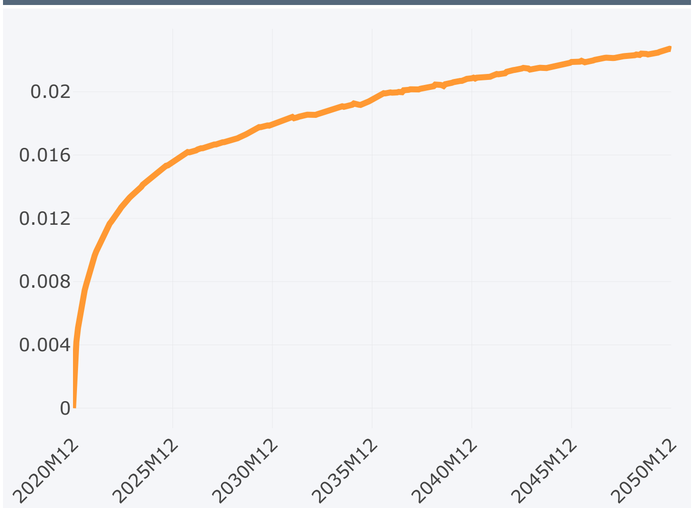


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0015	0.0212
std	0.0093	0.0227
min	-0.0298	-0.0415
1%	-0.0193	-0.0207
5%	-0.0135	-0.0112
10%	-0.0103	-0.0053
50%	0.0013	0.0187
90%	0.0136	0.0508
95%	0.0171	0.0623
99%	0.0243	0.0861
max	0.0458	0.1576

Cross Sectional Volatility Over Time : BASE



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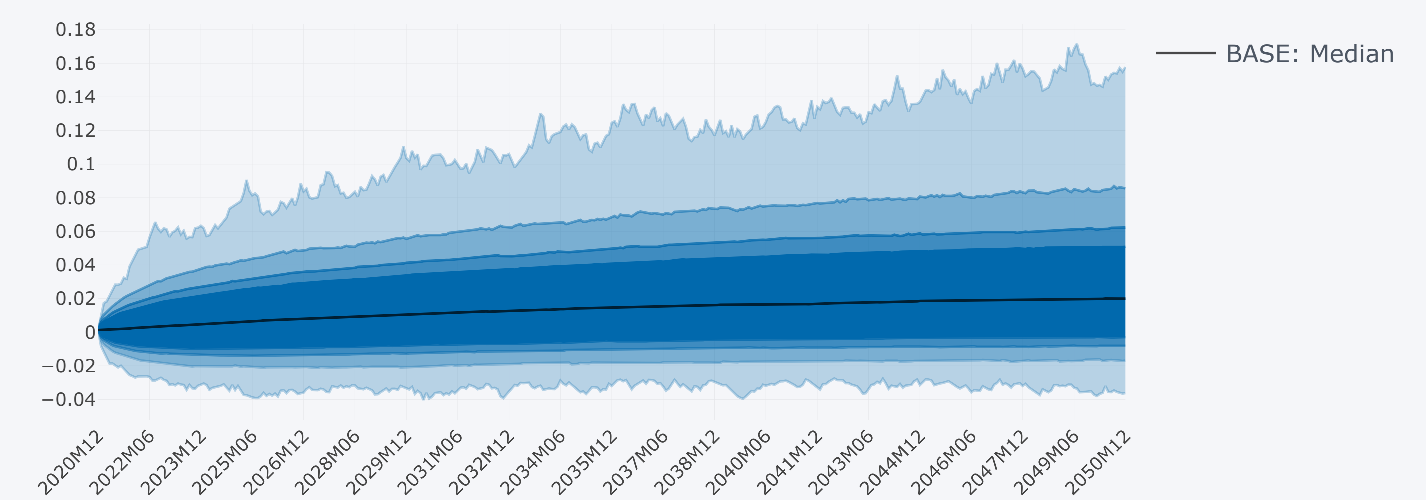
Simulated Data in Percentiles : US Treasury 2 Year Yield - Spot

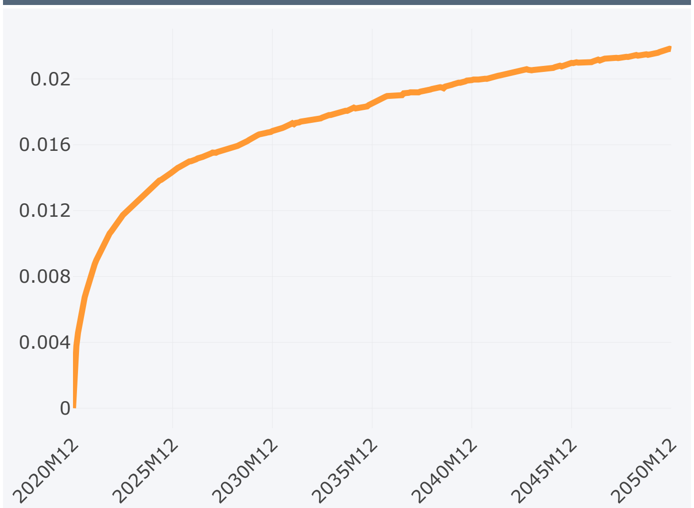


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0026	0.0225
std	0.0085	0.0218
min	-0.0261	-0.0362
1%	-0.0161	-0.0169
5%	-0.0108	-0.0081
10%	-0.0079	-0.0029
50%	0.0024	0.0200
90%	0.0136	0.0508
95%	0.0169	0.0623
99%	0.0233	0.0856
max	0.0431	0.1577

Cross Sectional Volatility Over Time : BASE



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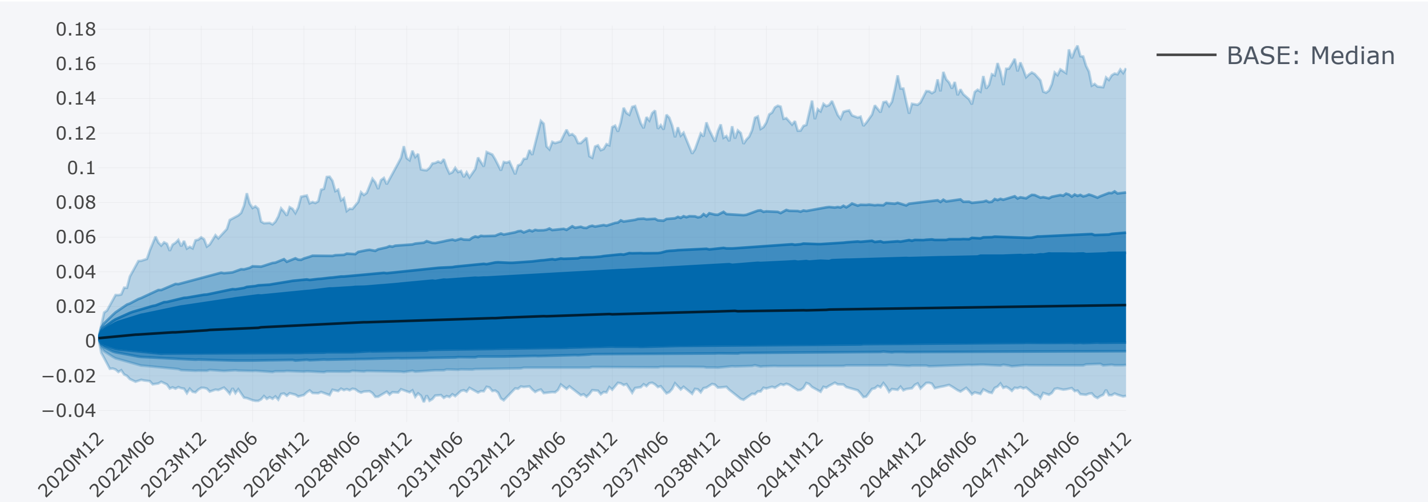
Simulated Data in Percentiles : US Treasury 3 Year Yield - Spot

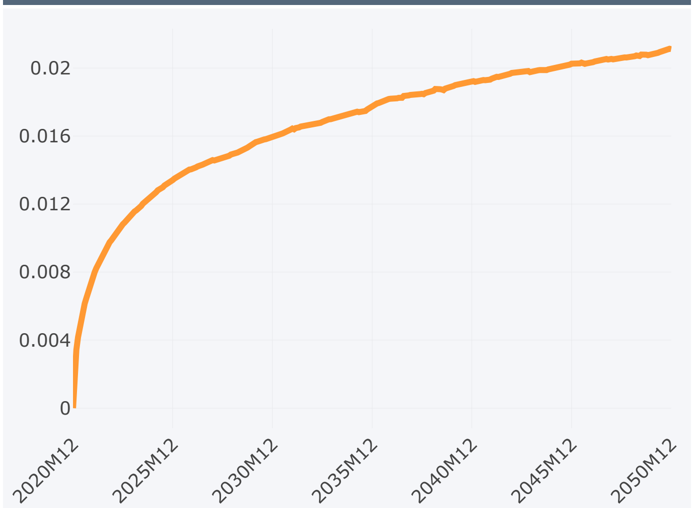


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0038	0.0236
std	0.0077	0.0211
min	-0.0227	-0.0315
1%	-0.0133	-0.0137
5%	-0.0084	-0.0058
10%	-0.0059	-0.0008
50%	0.0036	0.0208
90%	0.0139	0.0510
95%	0.0169	0.0626
99%	0.0228	0.0858
max	0.0409	0.1575

Cross Sectional Volatility Over Time : BASE



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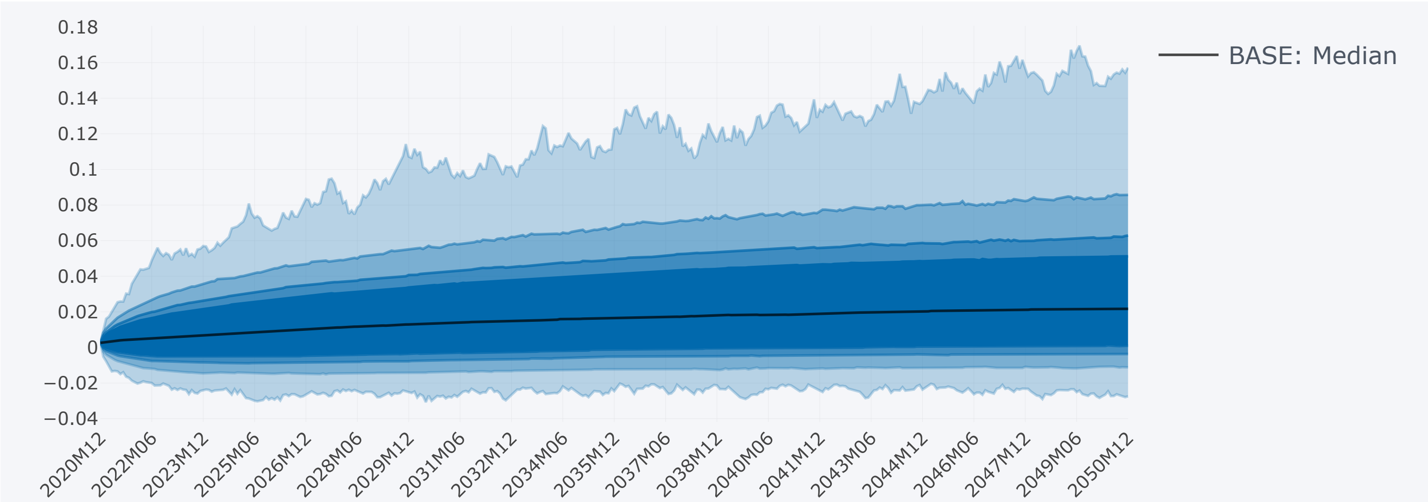
Simulated Data in Percentiles : US Treasury 4 Year Yield - Spot

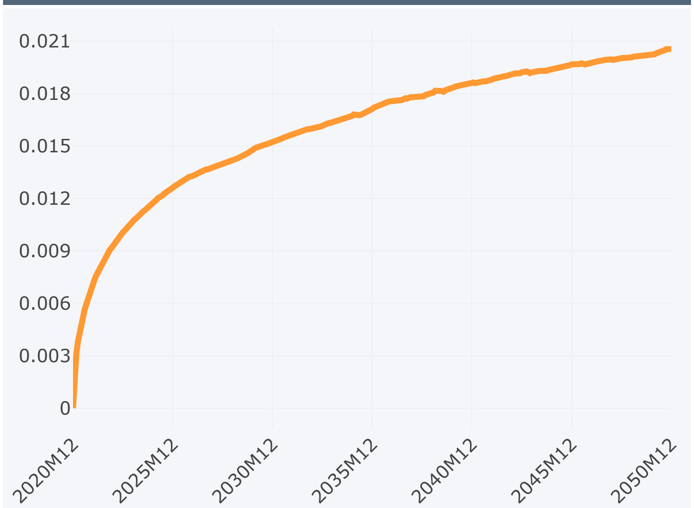


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0049	0.0245
std	0.0071	0.0206
min	-0.0197	-0.0275
1%	-0.0108	-0.0112
5%	-0.0064	-0.0037
10%	-0.0041	0.0010
50%	0.0047	0.0217
90%	0.0142	0.0512
95%	0.0169	0.0629
99%	0.0224	0.0857
max	0.0391	0.1572

Cross Sectional Volatility Over Time : BASE



US Treasury 5 Year Yield - Spot 2020 Q4
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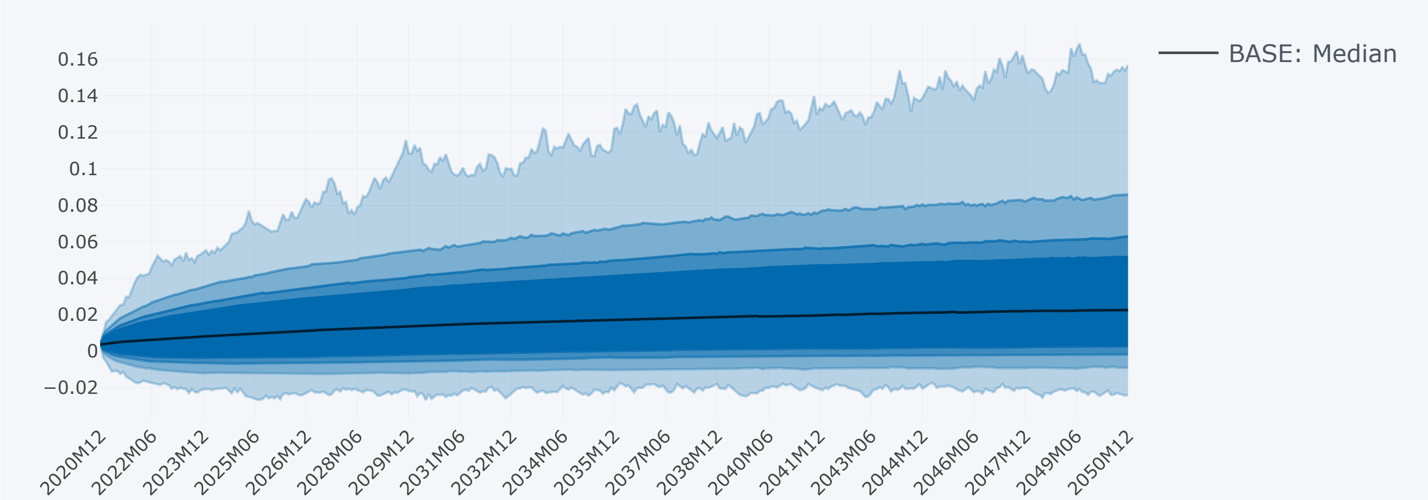
Simulated Data in Percentiles : US Treasury 5 Year Yield - Spot

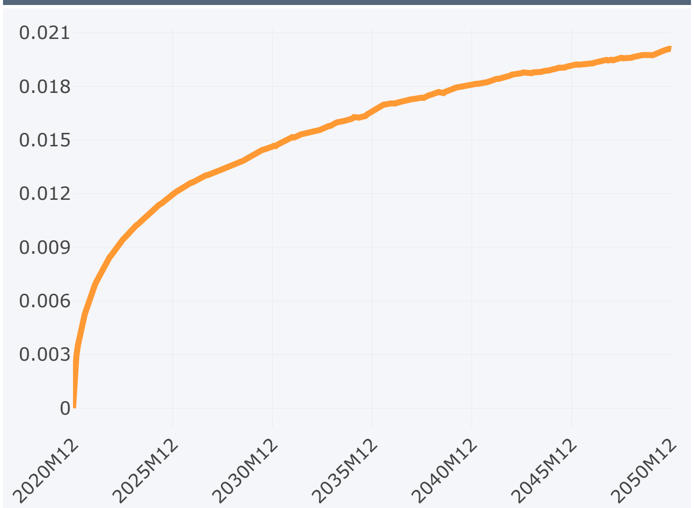


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0059	0.0254
std	0.0066	0.0201
min	-0.0170	-0.0239
1%	-0.0086	-0.0091
5%	-0.0045	-0.0018
10%	-0.0024	0.0027
50%	0.0058	0.0226
90%	0.0145	0.0515
95%	0.0171	0.0630
99%	0.0221	0.0858
max	0.0376	0.1569

Cross Sectional Volatility Over Time : BASE



US Treasury 6 Year Yield - Spot

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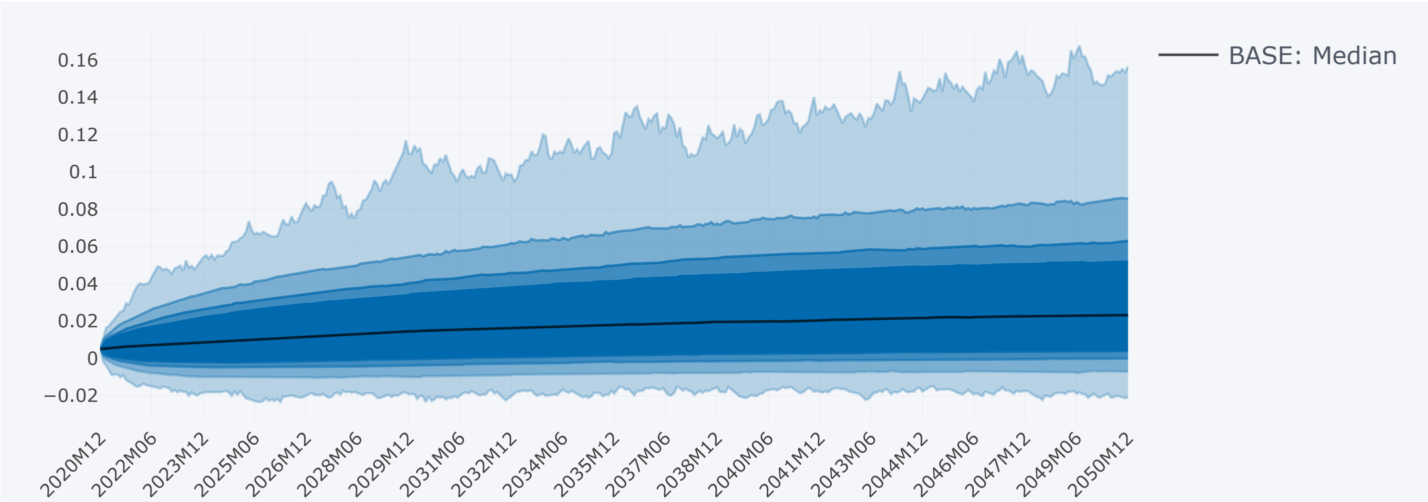
Simulated Data in Percentiles : US Treasury 6 Year Yield - Spot

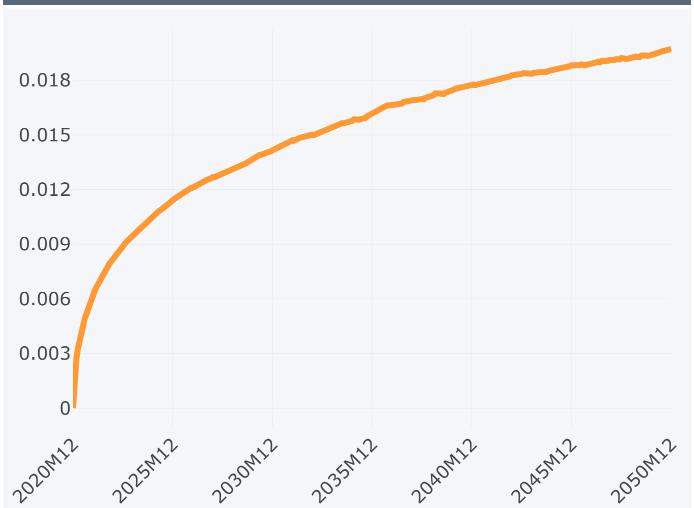


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

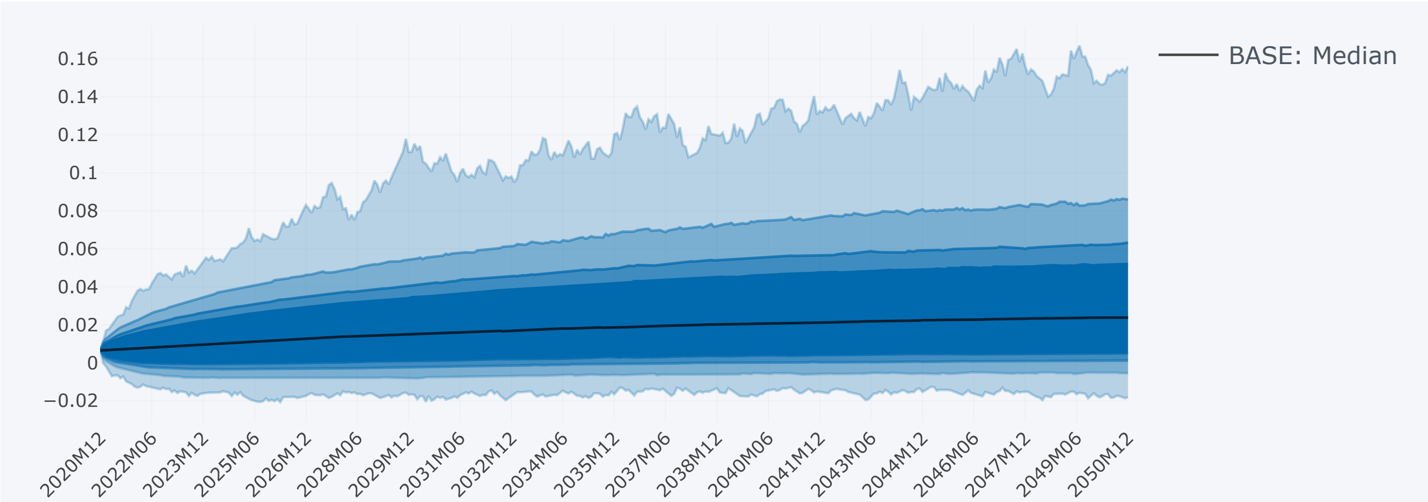
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0069	0.0262
std	0.0062	0.0197
min	-0.0146	-0.0208
1%	-0.0067	-0.0072
5%	-0.0028	-0.0001
10%	-0.0009	0.0040
50%	0.0067	0.0232
90%	0.0149	0.0518
95%	0.0174	0.0630
99%	0.0220	0.0857
max	0.0363	0.1565

Cross Sectional Volatility Over Time : BASE



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

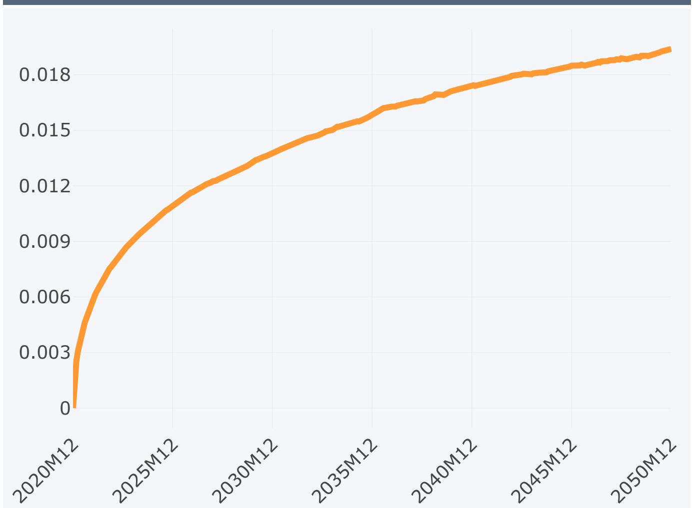


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0077	0.0269
std	0.0058	0.0194
min	-0.0125	-0.0181
1%	-0.0050	-0.0055
5%	-0.0014	0.0012
10%	0.0004	0.0053
50%	0.0075	0.0238
90%	0.0152	0.0520
95%	0.0176	0.0633
99%	0.0219	0.0860
max	0.0353	0.1562

Cross Sectional Volatility Over Time : BASE



US Treasury 8 Year Yield - Spot

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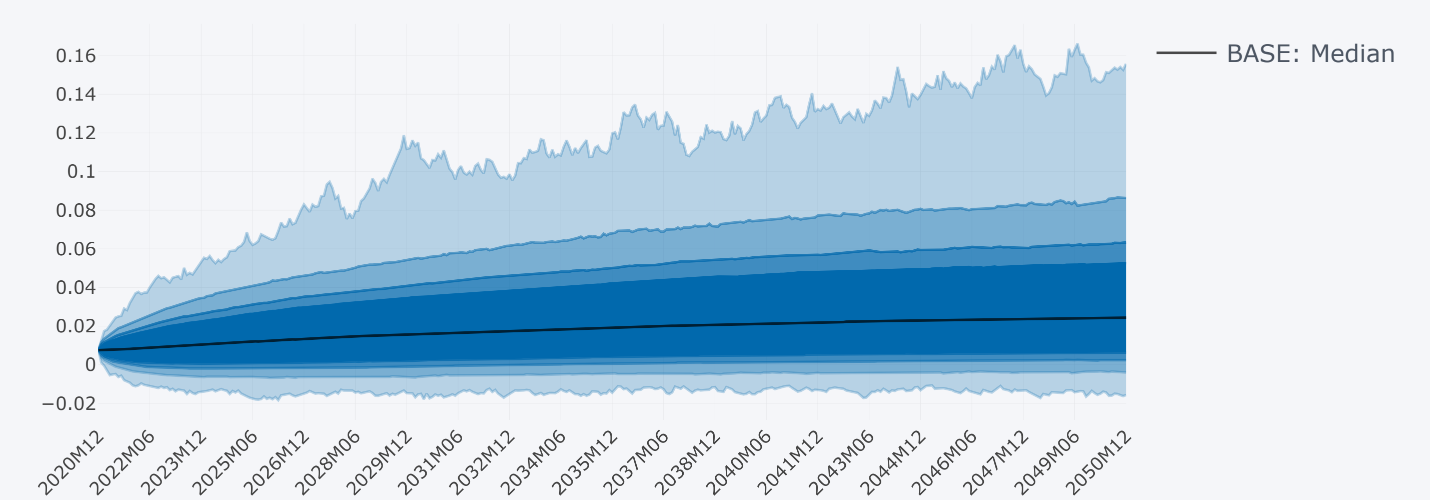
Validation Report

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

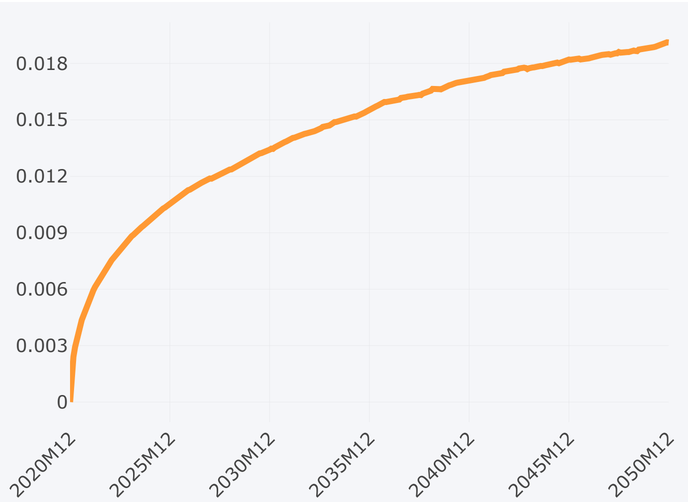


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0085	0.0275
std	0.0055	0.0191
min	-0.0106	-0.0156
1%	-0.0034	-0.0040
5%	-0.0002	0.0024
10%	0.0015	0.0063
50%	0.0083	0.0244
90%	0.0157	0.0523
95%	0.0178	0.0633
99%	0.0220	0.0863
max	0.0344	0.1558

Cross Sectional Volatility Over Time : BASE



US Treasury 9 Year Yield - Spot 2020 Q4

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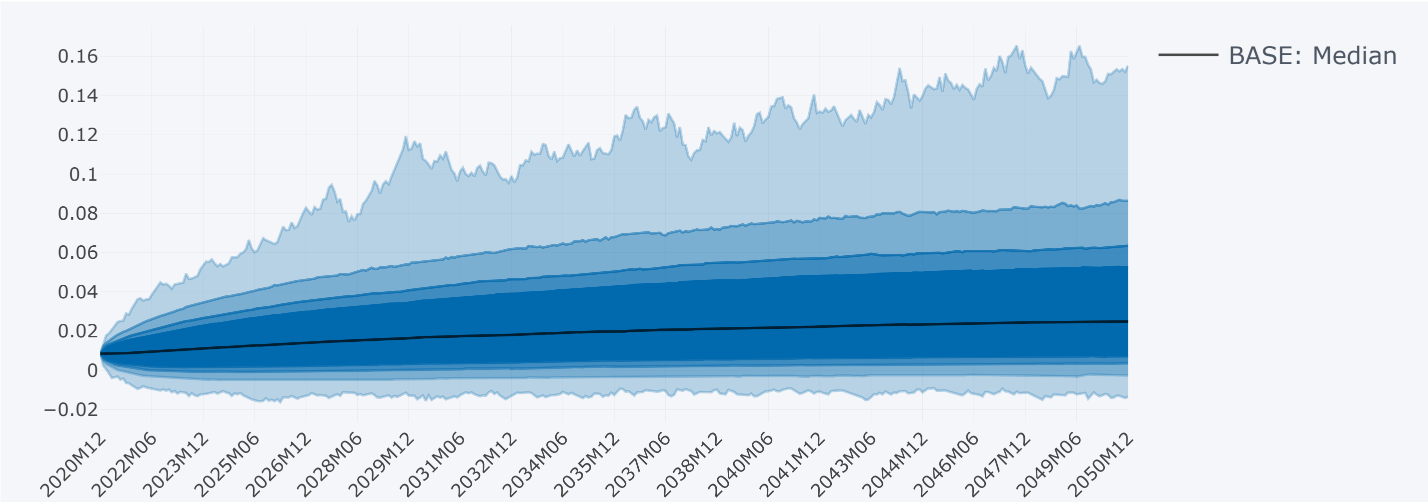
Simulated Data in Percentiles : US Treasury 9 Year Yield - Spot

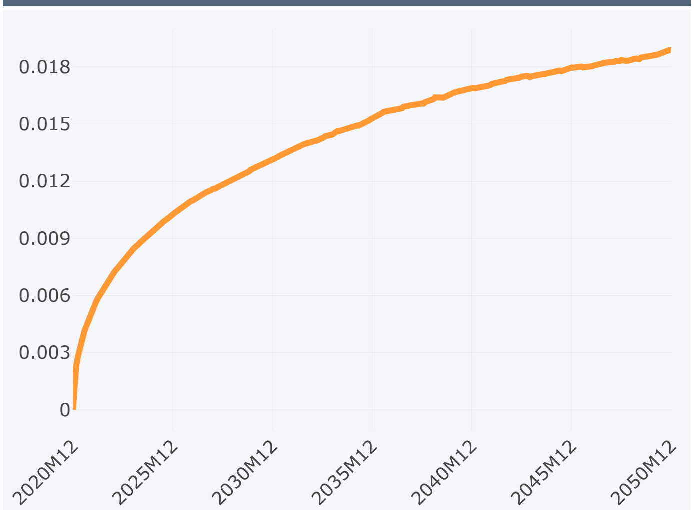


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0092	0.0281
std	0.0053	0.0189
min	-0.0090	-0.0135
1%	-0.0021	-0.0026
5%	0.0010	0.0036
10%	0.0026	0.0072
50%	0.0090	0.0249
90%	0.0161	0.0525
95%	0.0182	0.0635
99%	0.0222	0.0864
max	0.0337	0.1553

Cross Sectional Volatility Over Time : BASE



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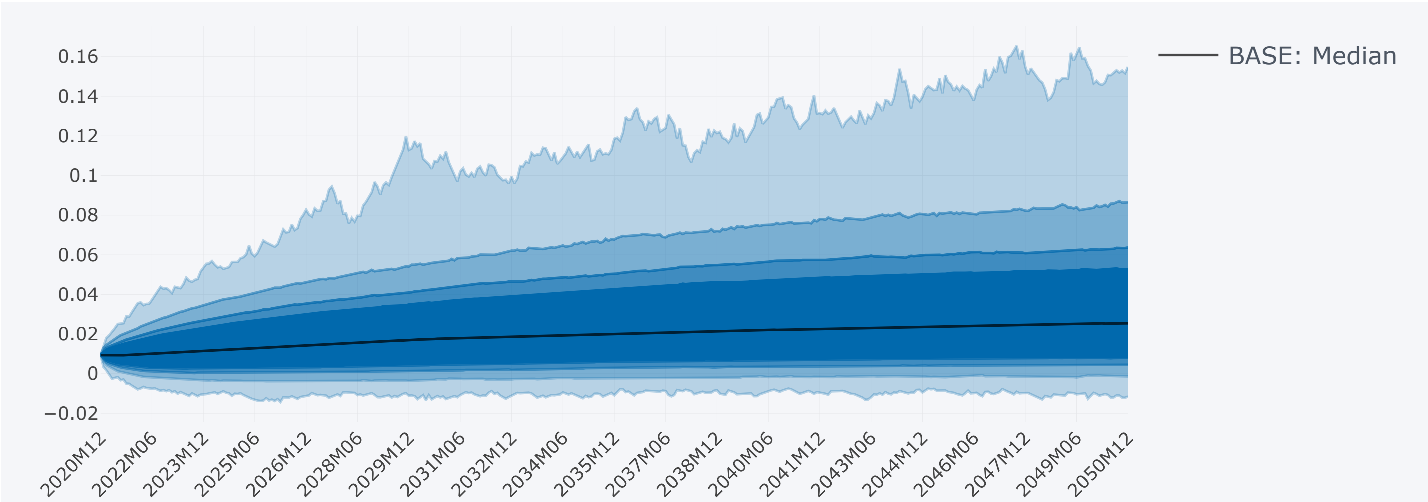
Simulated Data in Percentiles : US Treasury 10 Year Yield - Spot

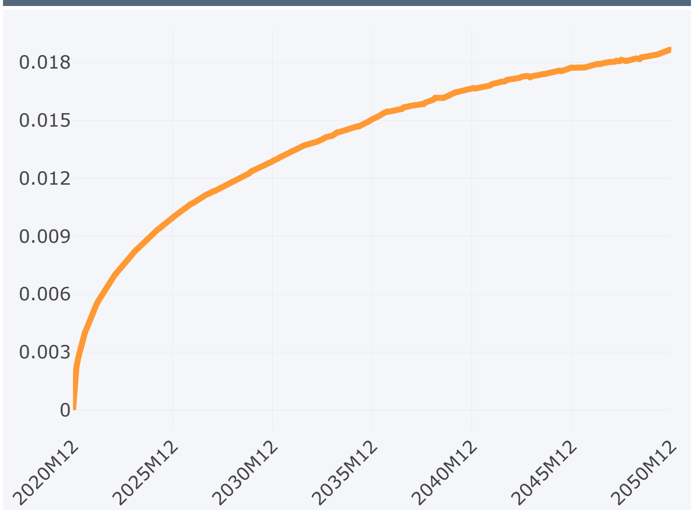


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

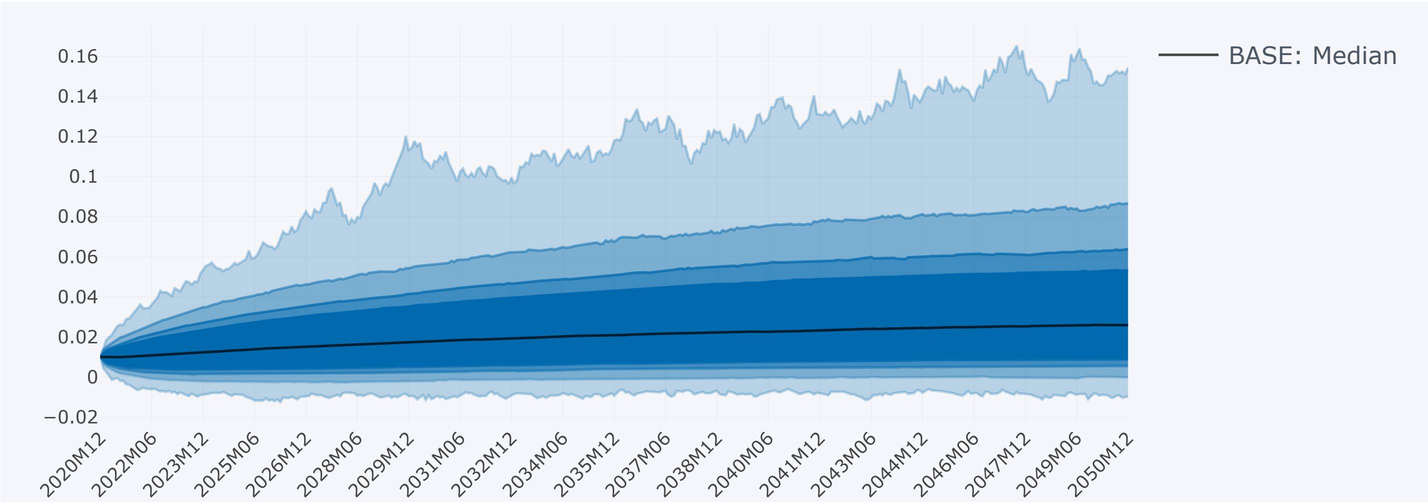
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0099	0.0286
std	0.0051	0.0186
min	-0.0074	-0.0115
1%	-0.0009	-0.0014
5%	0.0020	0.0045
10%	0.0035	0.0080
50%	0.0097	0.0254
90%	0.0165	0.0528
95%	0.0185	0.0637
99%	0.0225	0.0865
max	0.0331	0.1548

Cross Sectional Volatility Over Time : BASE



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

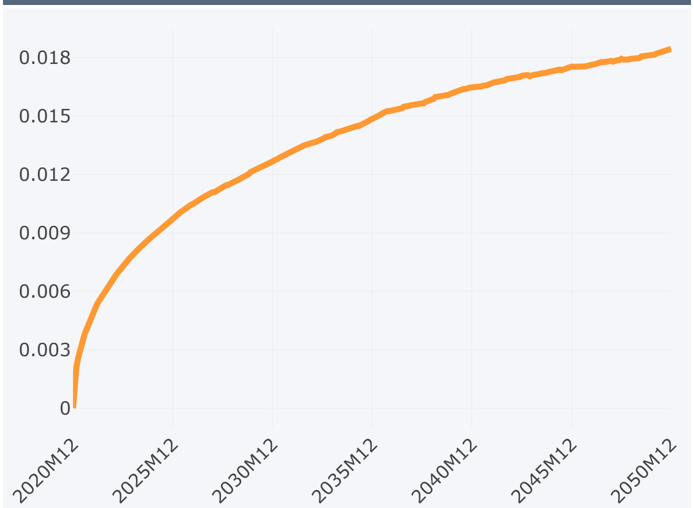


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

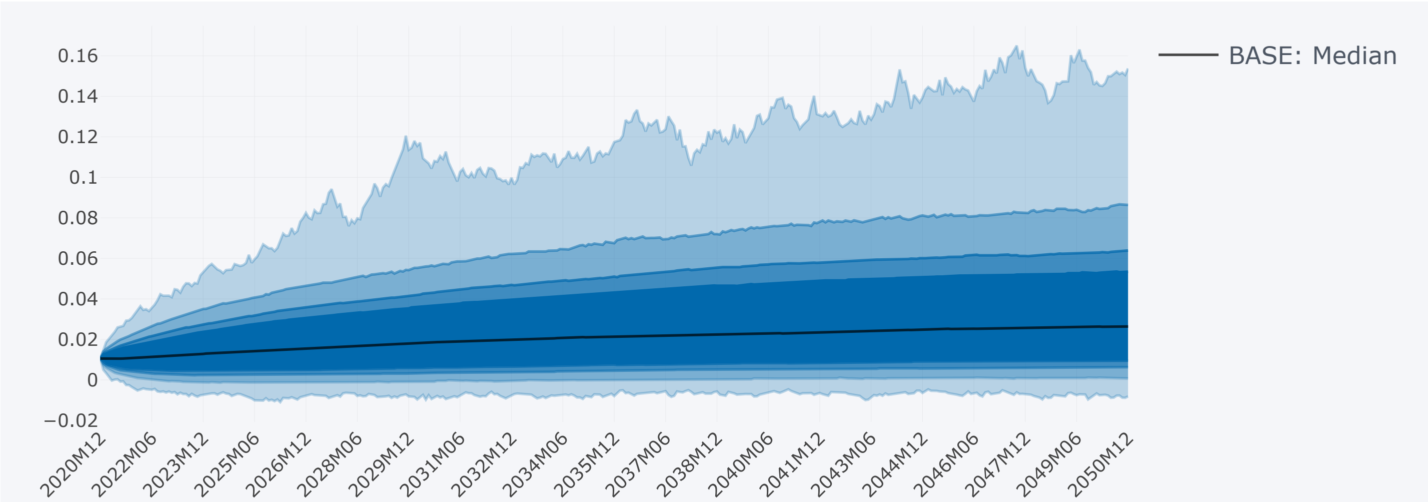
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0105	0.0291
std	0.0049	0.0184
min	-0.0061	-0.0098
1%	0.0002	-0.0003
5%	0.0029	0.0055
10%	0.0044	0.0088
50%	0.0103	0.0259
90%	0.0169	0.0532
95%	0.0188	0.0638
99%	0.0227	0.0867
max	0.0326	0.1543

Cross Sectional Volatility Over Time : BASE



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

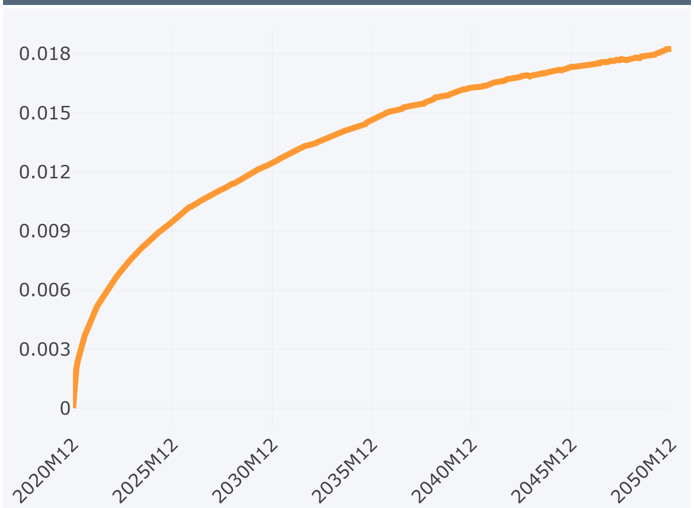


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

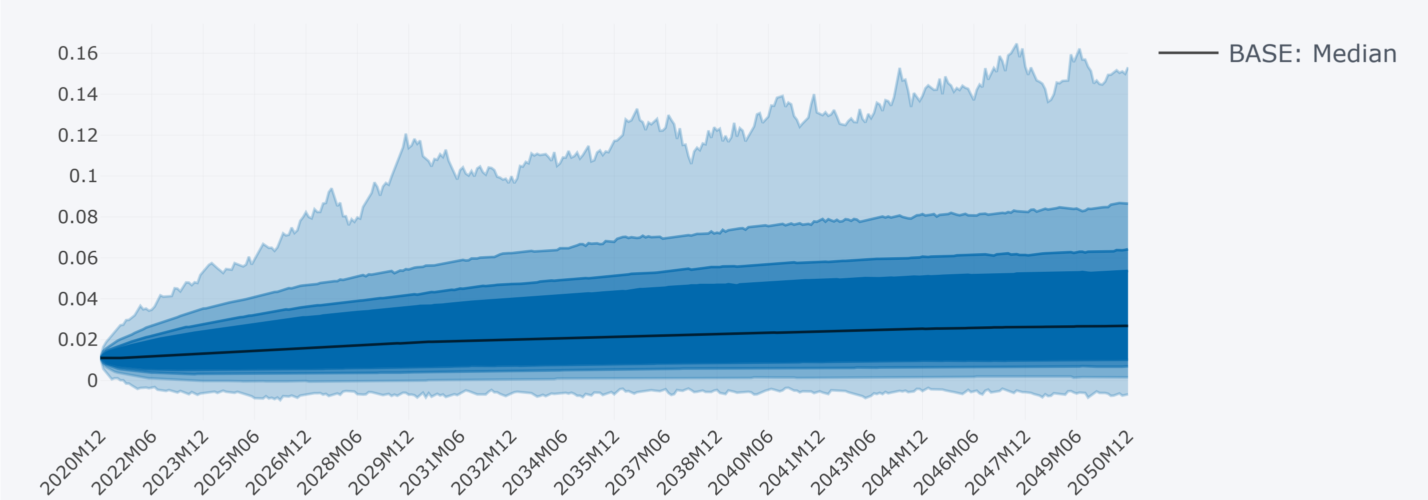
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0111	0.0296
std	0.0047	0.0183
min	-0.0048	-0.0082
1%	0.0012	0.0007
5%	0.0038	0.0063
10%	0.0052	0.0095
50%	0.0109	0.0264
90%	0.0173	0.0534
95%	0.0192	0.0639
99%	0.0229	0.0864
max	0.0322	0.1538

Cross Sectional Volatility Over Time : BASE



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

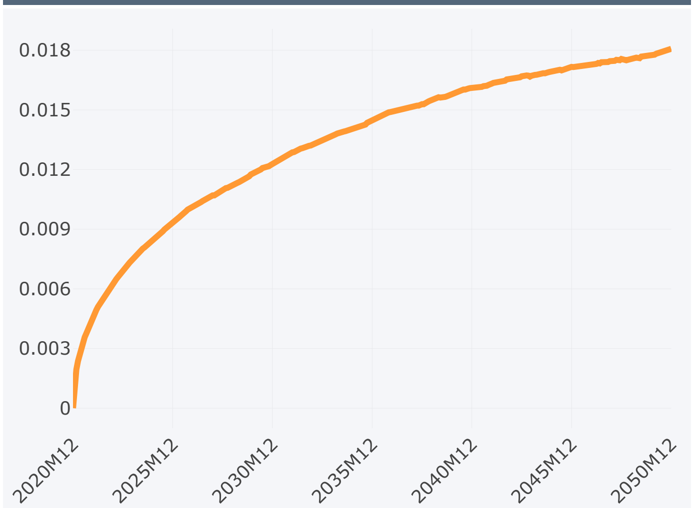


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

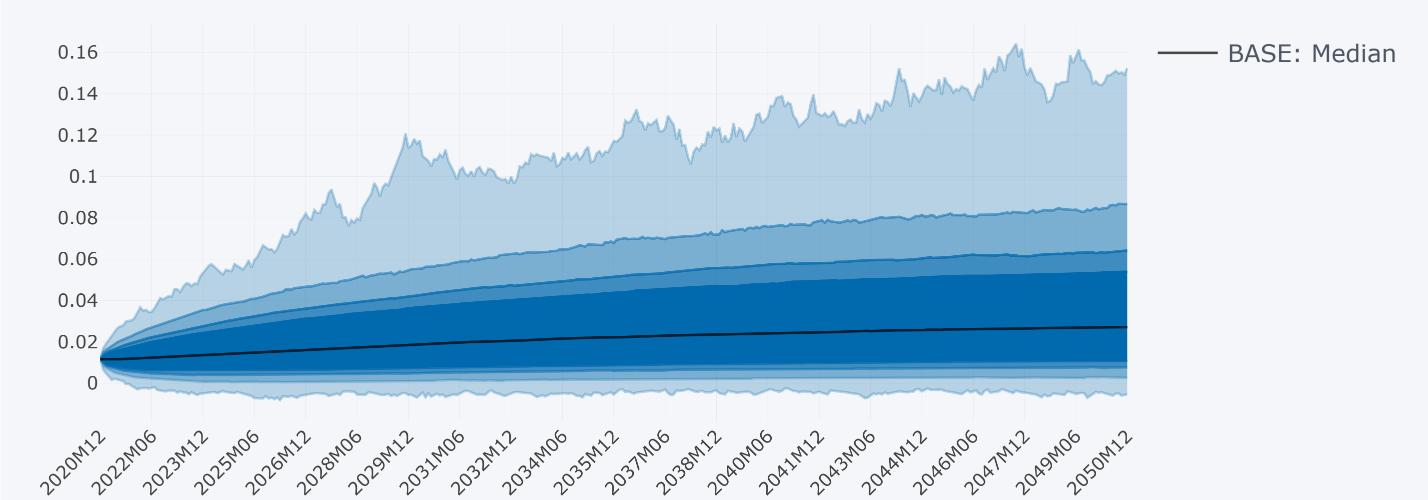
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0117	0.0300
std	0.0046	0.0181
min	-0.0036	-0.0067
1%	0.0021	0.0016
5%	0.0046	0.0070
10%	0.0060	0.0102
50%	0.0114	0.0267
90%	0.0177	0.0536
95%	0.0195	0.0642
99%	0.0233	0.0865
max	0.0319	0.1532

Cross Sectional Volatility Over Time : BASE



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

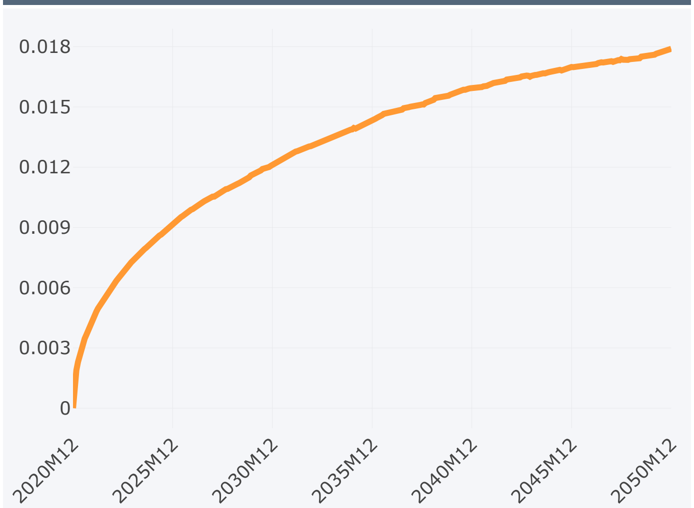


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0122	0.0304
std	0.0045	0.0179
min	-0.0025	-0.0054
1%	0.0029	0.0026
5%	0.0053	0.0077
10%	0.0067	0.0108
50%	0.0120	0.0271
90%	0.0180	0.0539
95%	0.0199	0.0642
99%	0.0236	0.0866
max	0.0316	0.1525

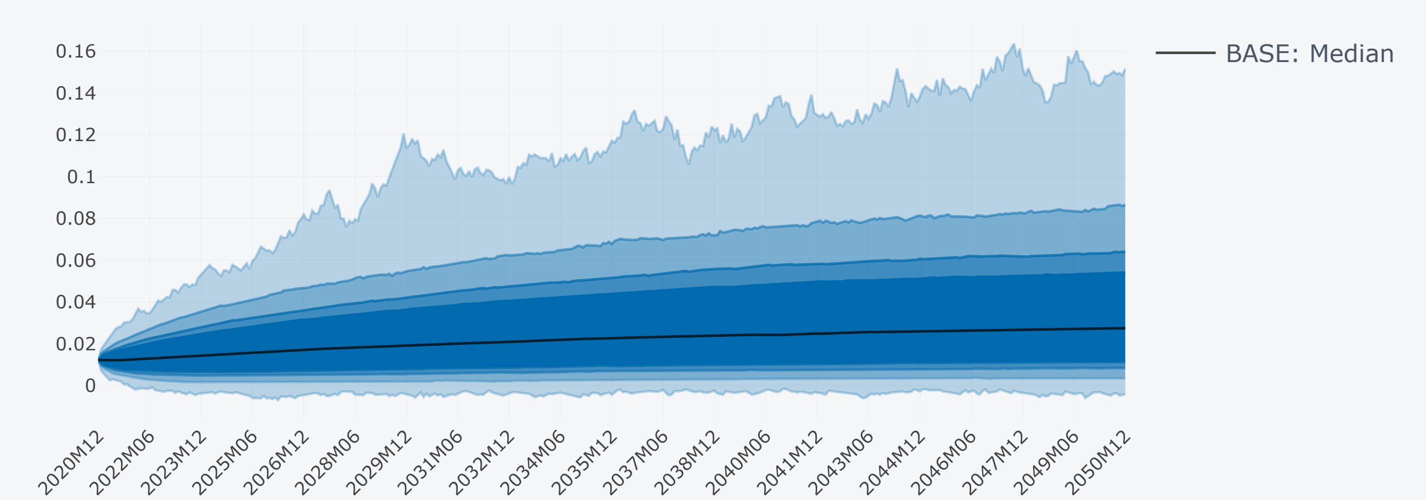
Cross Sectional Volatility Over Time : BASE



US Treasury 15 Year Yield - Spot
Conning | Risk Solutions

2020 Q4
Validation Report

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

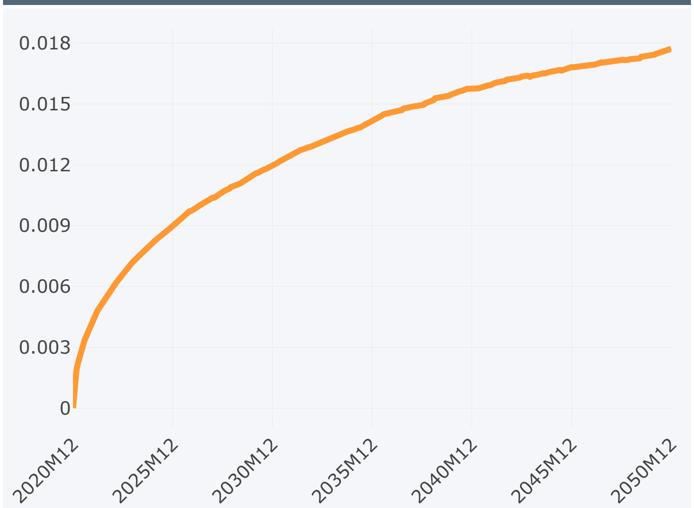


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0127	0.0308
std	0.0043	0.0177
min	-0.0015	-0.0041
1%	0.0038	0.0034
5%	0.0060	0.0084
10%	0.0073	0.0114
50%	0.0125	0.0275
90%	0.0184	0.0541
95%	0.0203	0.0641
99%	0.0237	0.0865
max	0.0318	0.1518

Cross Sectional Volatility Over Time : BASE



US Treasury 16 Year Yield - Spot
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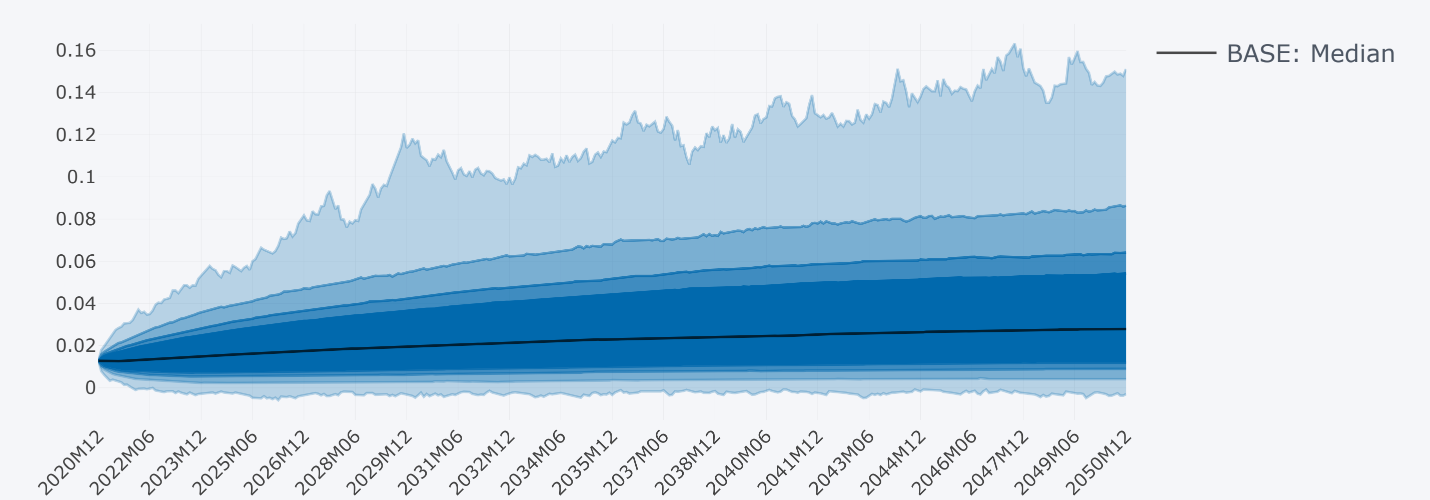
Validation Report

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

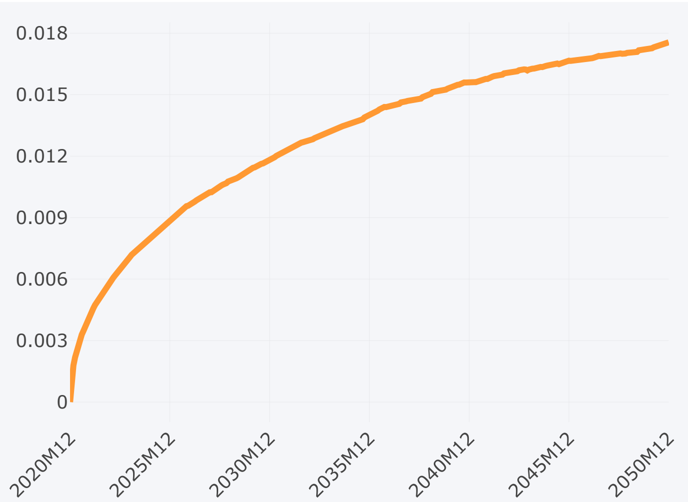


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0132	0.0311
std	0.0042	0.0176
min	-0.0006	-0.0030
1%	0.0045	0.0041
5%	0.0067	0.0090
10%	0.0080	0.0119
50%	0.0130	0.0279
90%	0.0188	0.0542
95%	0.0206	0.0641
99%	0.0240	0.0863
max	0.0321	0.1511

Cross Sectional Volatility Over Time : BASE



US Treasury 17 Year Yield - Spot

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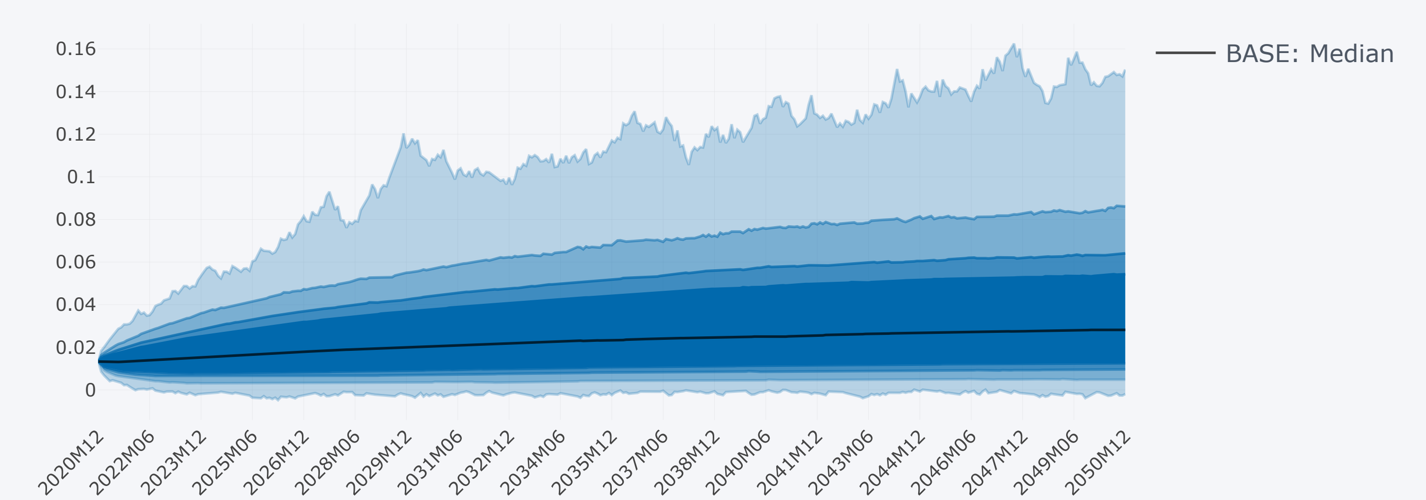
2020 Q4

Validation Report

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

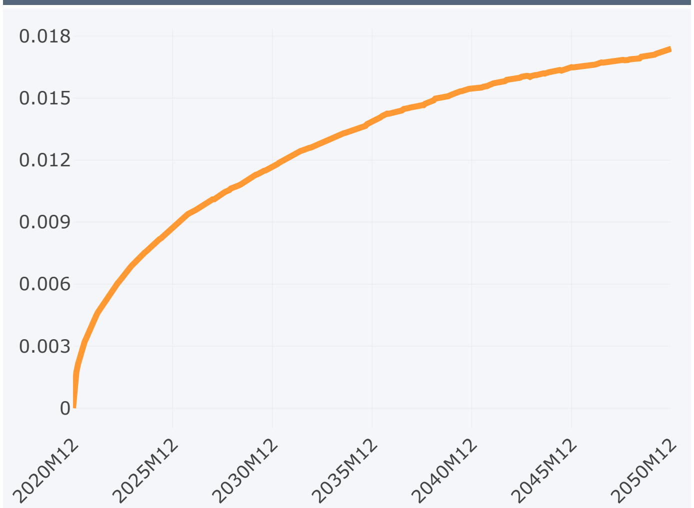


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0137	0.0314
std	0.0042	0.0174
min	0.0003	-0.0019
1%	0.0052	0.0048
5%	0.0074	0.0096
10%	0.0086	0.0125
50%	0.0134	0.0282
90%	0.0192	0.0543
95%	0.0209	0.0641
99%	0.0243	0.0861
max	0.0324	0.1503

Cross Sectional Volatility Over Time : BASE



US Treasury 18 Year Yield - Spot

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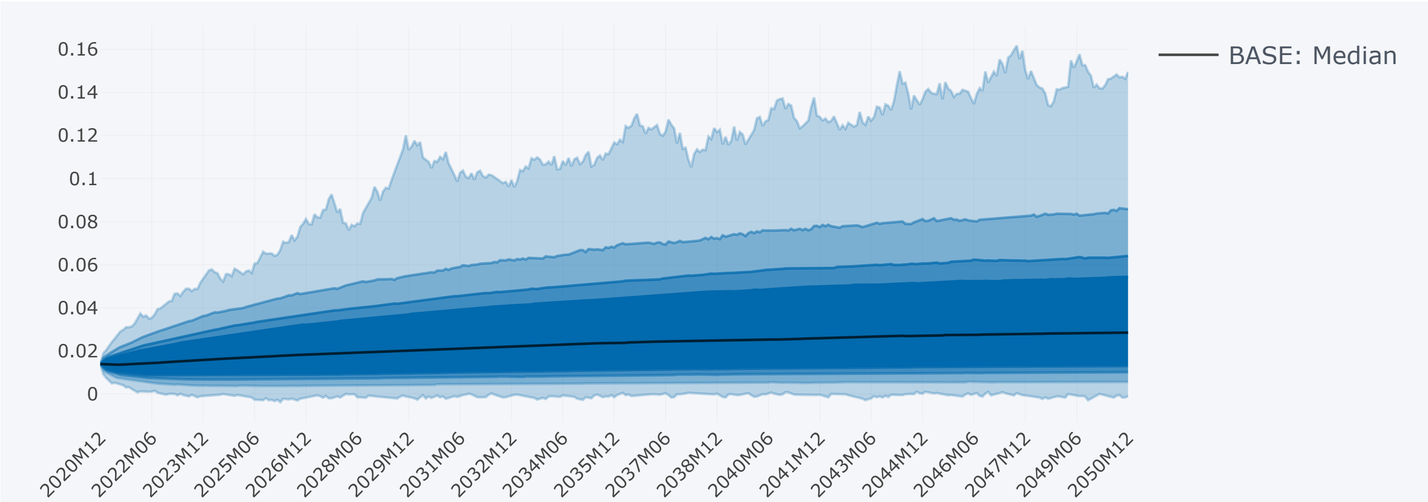
2020 Q4

Validation Report

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

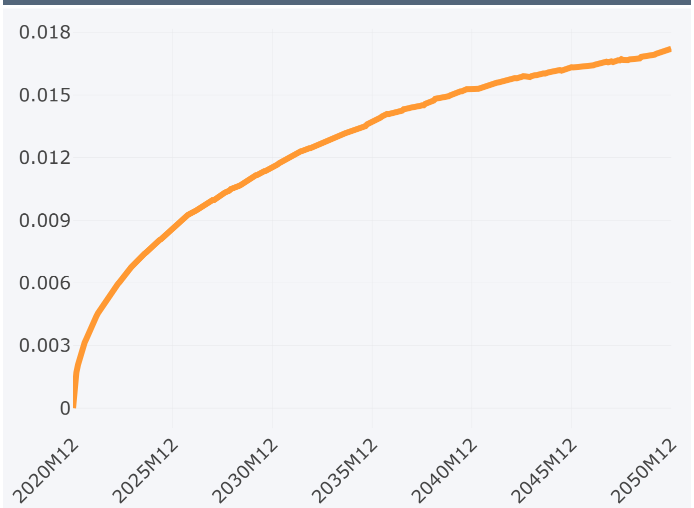


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

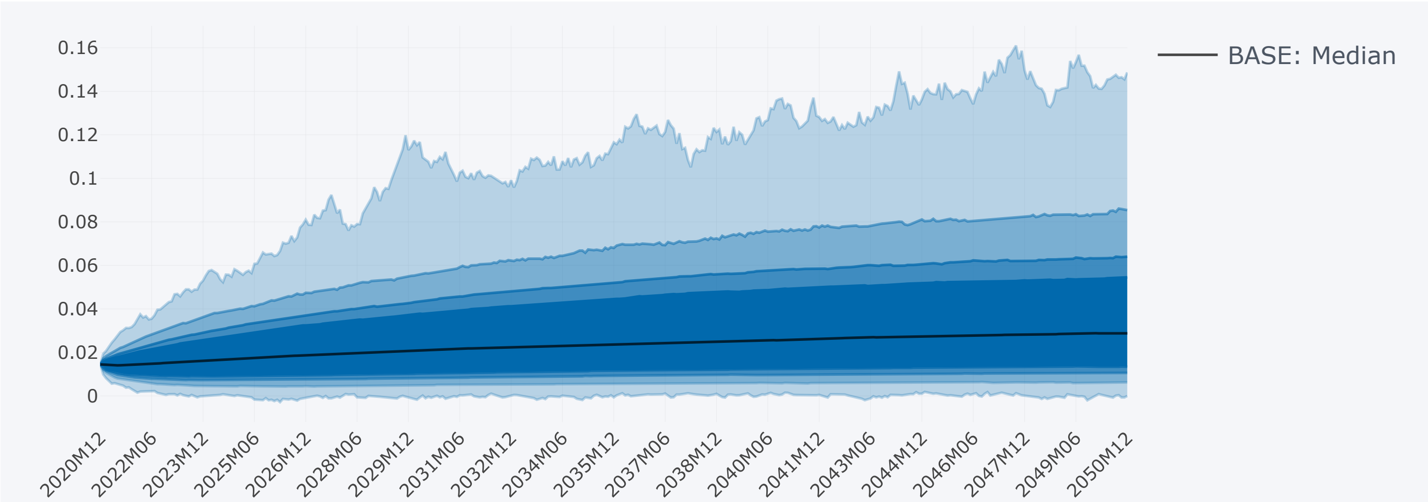
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0142	0.0317
std	0.0041	0.0172
min	0.0011	-0.0009
1%	0.0059	0.0056
5%	0.0079	0.0101
10%	0.0091	0.0130
50%	0.0139	0.0285
90%	0.0195	0.0544
95%	0.0213	0.0641
99%	0.0246	0.0858
max	0.0327	0.1495

Cross Sectional Volatility Over Time : BASE



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

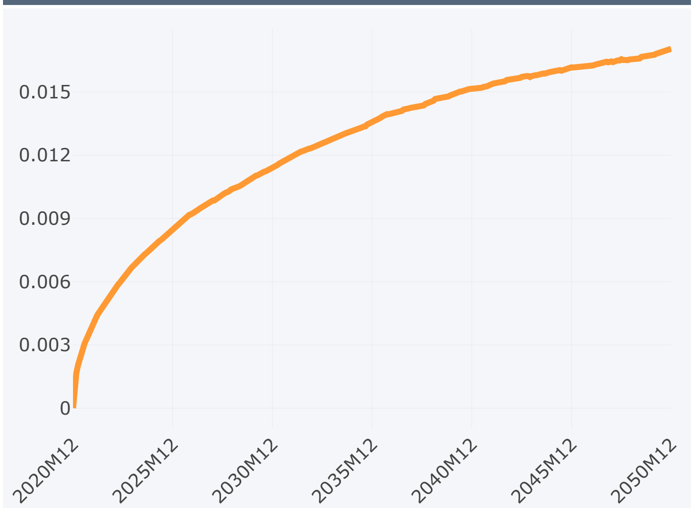


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0146	0.0320
std	0.0040	0.0170
min	0.0019	0.0000
1%	0.0065	0.0062
5%	0.0085	0.0106
10%	0.0097	0.0134
50%	0.0143	0.0288
90%	0.0199	0.0545
95%	0.0216	0.0640
99%	0.0248	0.0854
max	0.0330	0.1487

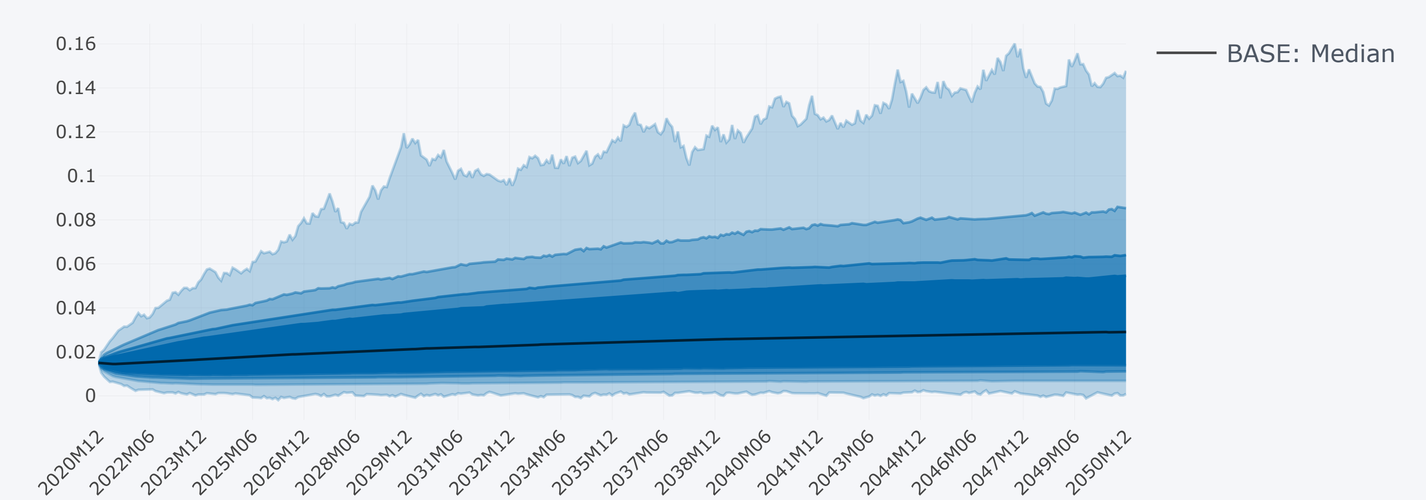
Cross Sectional Volatility Over Time : BASE



US Treasury 20 Year Yield - Spot
Conning | Risk Solutions

2020 Q4
Validation Report

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

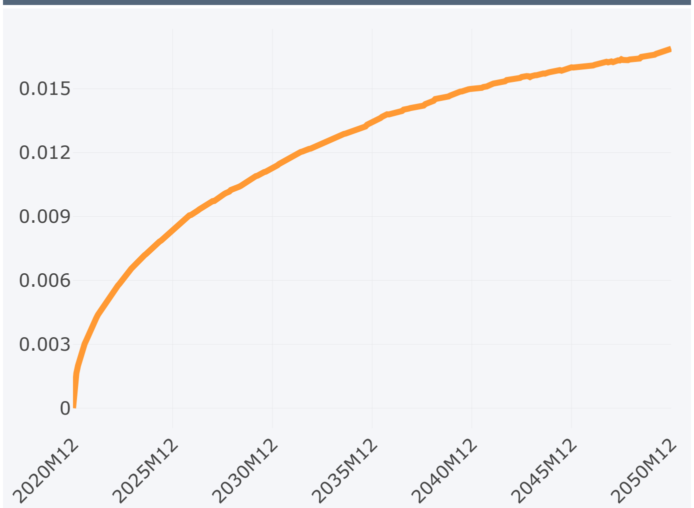


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0150	0.0322
std	0.0039	0.0169
min	0.0027	0.0009
1%	0.0070	0.0068
5%	0.0091	0.0111
10%	0.0102	0.0139
50%	0.0147	0.0290
90%	0.0202	0.0546
95%	0.0219	0.0640
99%	0.0250	0.0853
max	0.0332	0.1478

Cross Sectional Volatility Over Time : BASE



US Treasury 21 Year Yield - Spot
Conning | Risk Solutions

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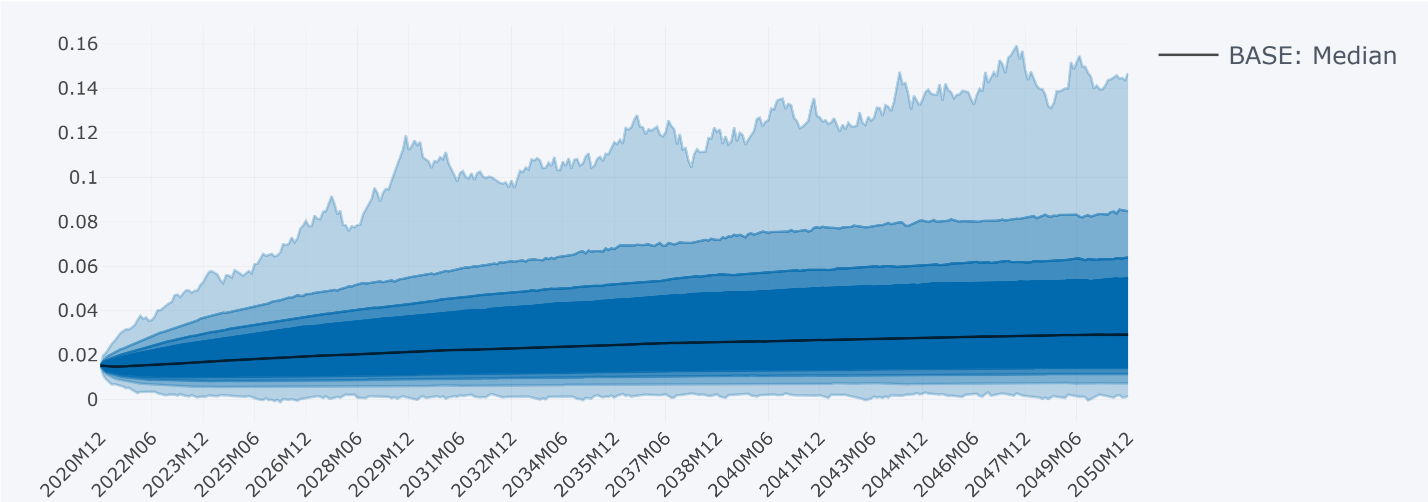
Validation Report

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

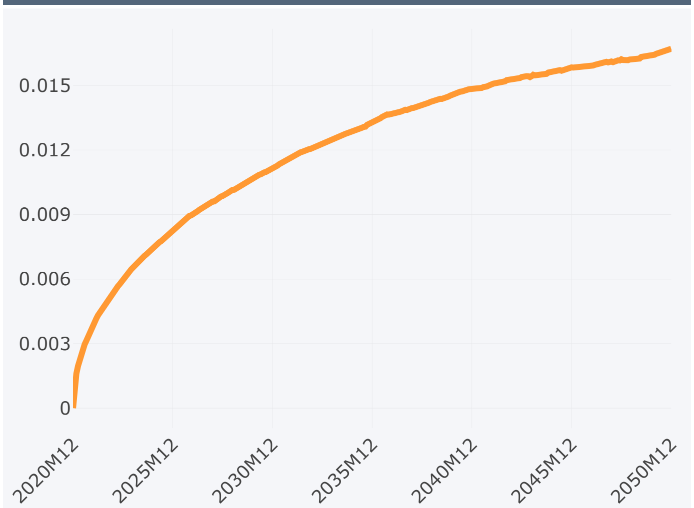


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0154	0.0325
std	0.0039	0.0167
min	0.0034	0.0017
1%	0.0076	0.0073
5%	0.0096	0.0115
10%	0.0107	0.0143
50%	0.0151	0.0293
90%	0.0205	0.0545
95%	0.0222	0.0639
99%	0.0253	0.0848
max	0.0335	0.1469

Cross Sectional Volatility Over Time : BASE



US Treasury 22 Year Yield - Spot
Conning | Risk Solutions

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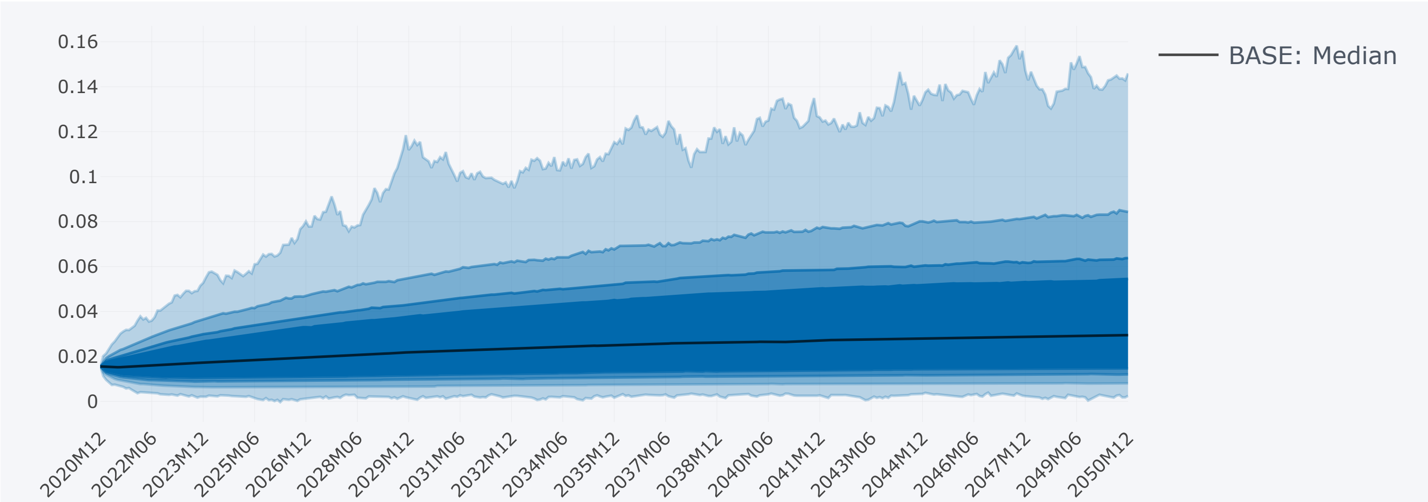
Simulated Data in Percentiles : US Treasury 22 Year Yield - Spot

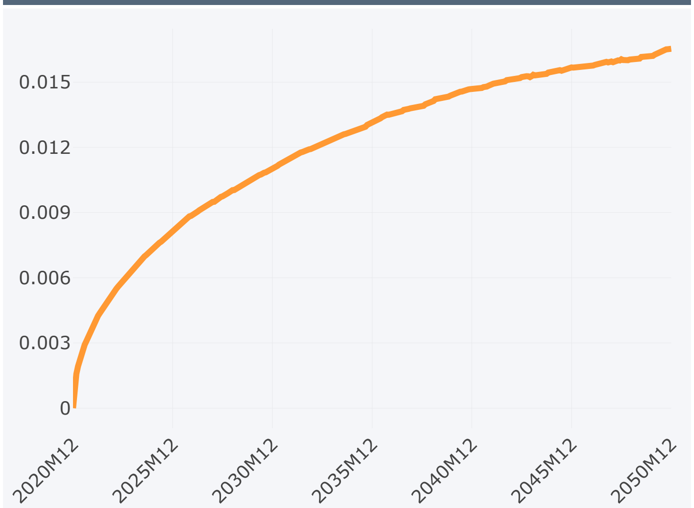


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

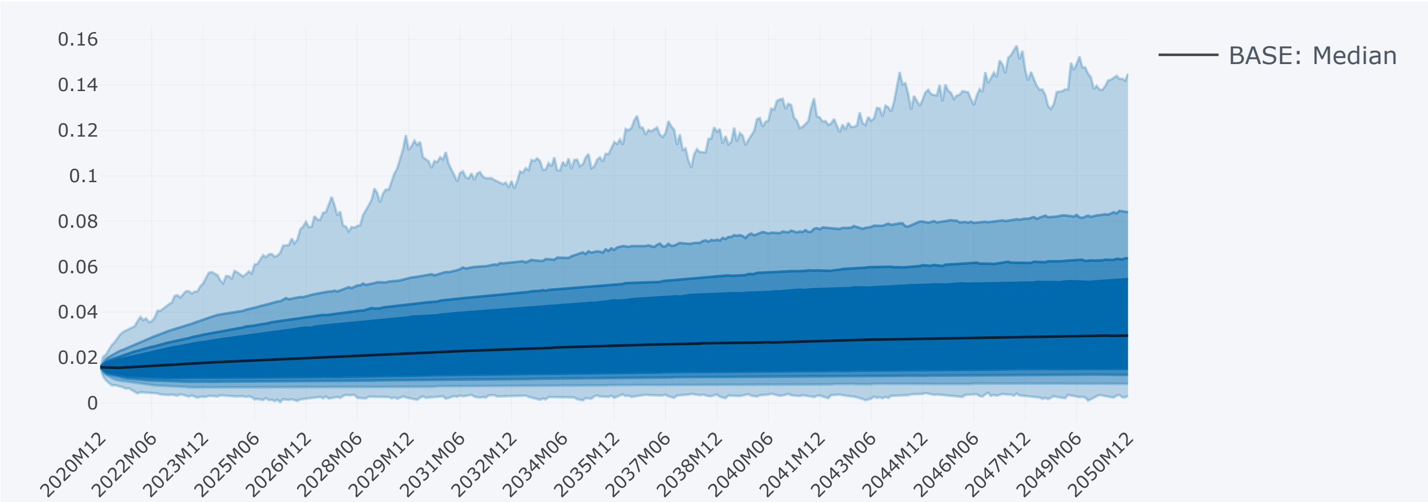
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0158	0.0327
std	0.0038	0.0165
min	0.0040	0.0025
1%	0.0081	0.0080
5%	0.0100	0.0120
10%	0.0111	0.0147
50%	0.0155	0.0295
90%	0.0208	0.0545
95%	0.0224	0.0638
99%	0.0255	0.0843
max	0.0337	0.1460

Cross Sectional Volatility Over Time : BASE



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

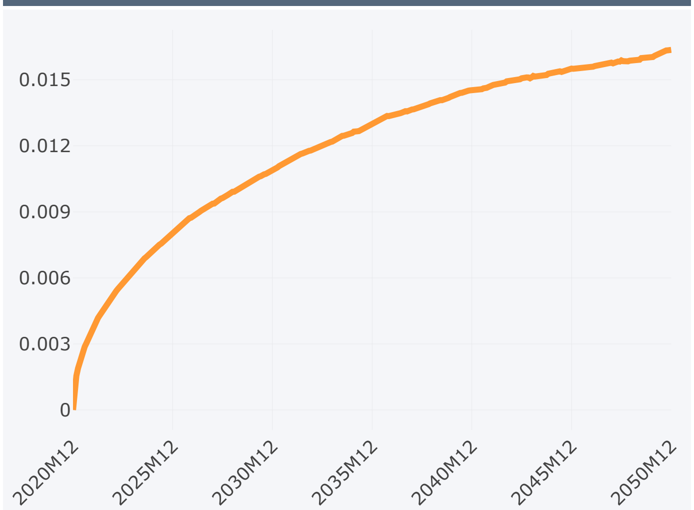


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0162	0.0329
std	0.0037	0.0164
min	0.0047	0.0032
1%	0.0086	0.0085
5%	0.0105	0.0124
10%	0.0116	0.0151
50%	0.0159	0.0297
90%	0.0211	0.0545
95%	0.0227	0.0637
99%	0.0257	0.0840
max	0.0338	0.1450

Cross Sectional Volatility Over Time : BASE



US Treasury 24 Year Yield - Spot
Conning | Risk Solutions

2020 Q4
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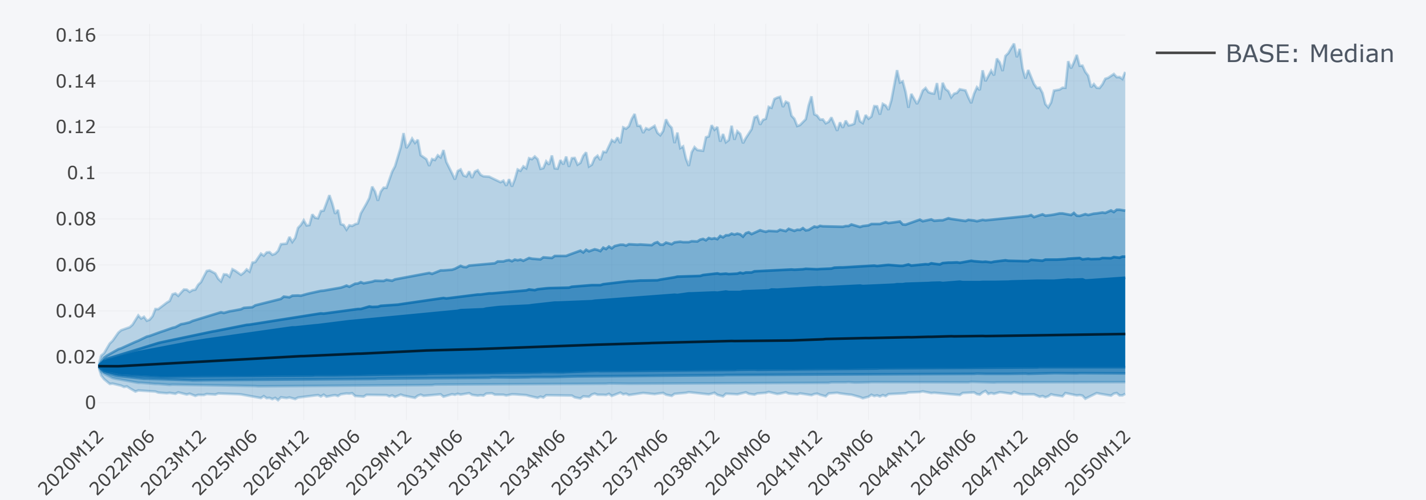
Simulated Data in Percentiles : US Treasury 24 Year Yield - Spot

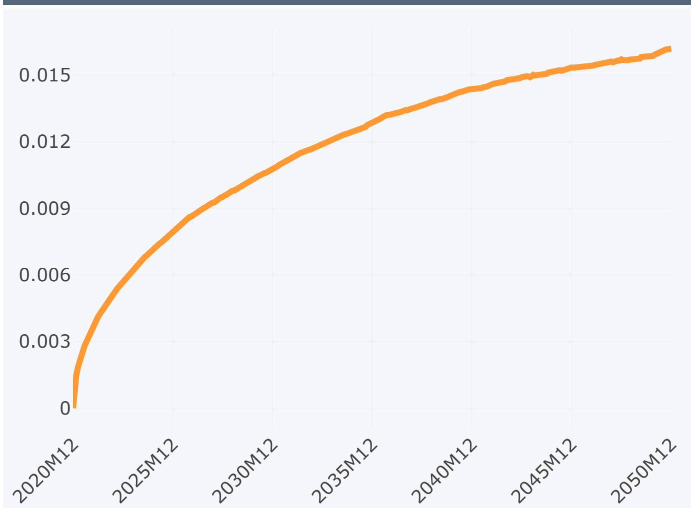


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0165	0.0331
std	0.0037	0.0162
min	0.0053	0.0039
1%	0.0091	0.0090
5%	0.0109	0.0128
10%	0.0120	0.0155
50%	0.0162	0.0299
90%	0.0214	0.0544
95%	0.0230	0.0636
99%	0.0260	0.0836
max	0.0340	0.1440

Cross Sectional Volatility Over Time : BASE



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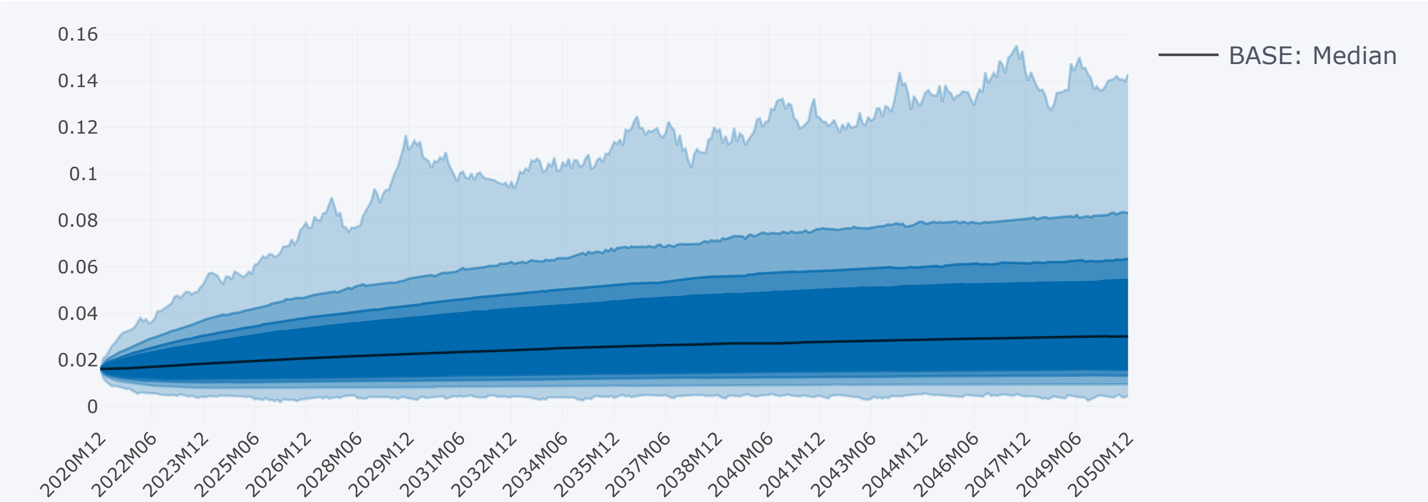
Simulated Data in Percentiles : US Treasury 25 Year Yield - Spot

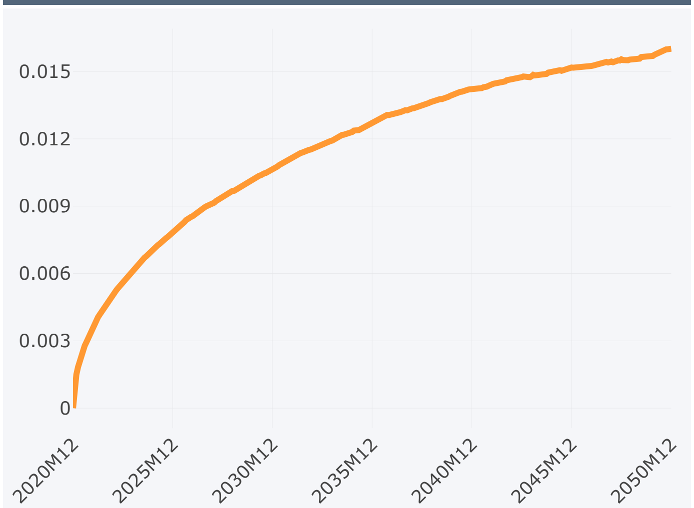


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0169	0.0332
std	0.0036	0.0160
min	0.0059	0.0046
1%	0.0096	0.0095
5%	0.0114	0.0132
10%	0.0124	0.0158
50%	0.0166	0.0301
90%	0.0216	0.0544
95%	0.0232	0.0635
99%	0.0262	0.0832
max	0.0342	0.1430

Cross Sectional Volatility Over Time : BASE



US Treasury 26 Year Yield - Spot

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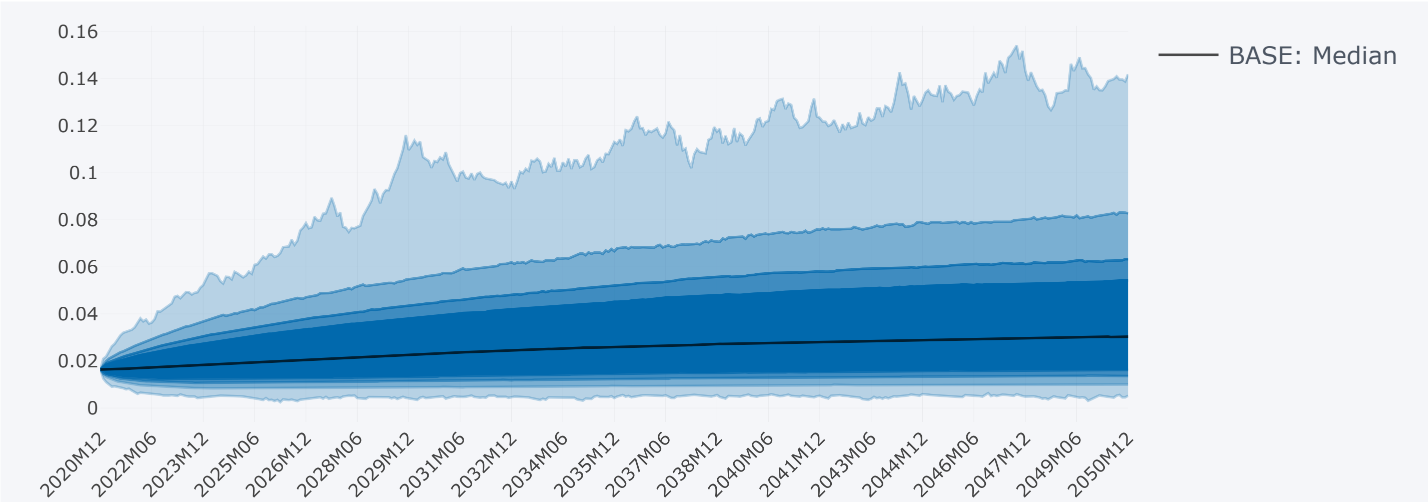
Simulated Data in Percentiles : US Treasury 26 Year Yield - Spot

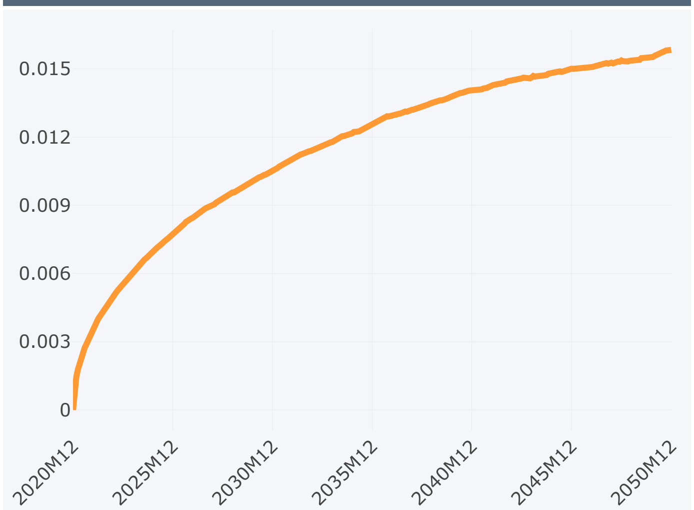


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

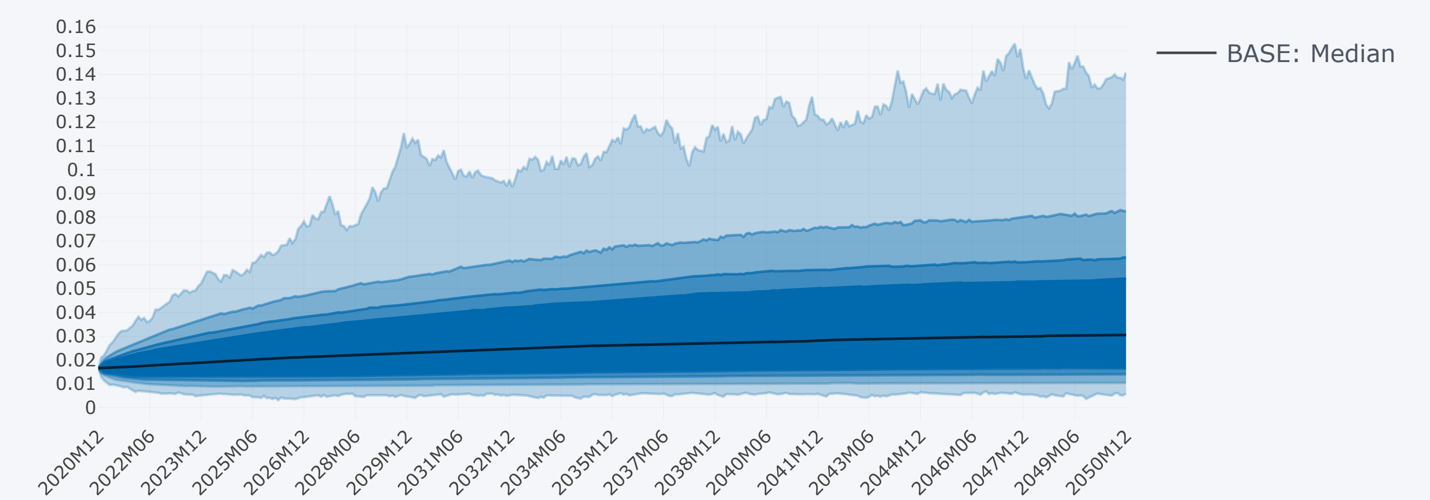
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0172	0.0334
std	0.0036	0.0158
min	0.0064	0.0052
1%	0.0100	0.0100
5%	0.0118	0.0136
10%	0.0128	0.0162
50%	0.0169	0.0304
90%	0.0219	0.0543
95%	0.0234	0.0633
99%	0.0264	0.0828
max	0.0343	0.1419

Cross Sectional Volatility Over Time : BASE



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

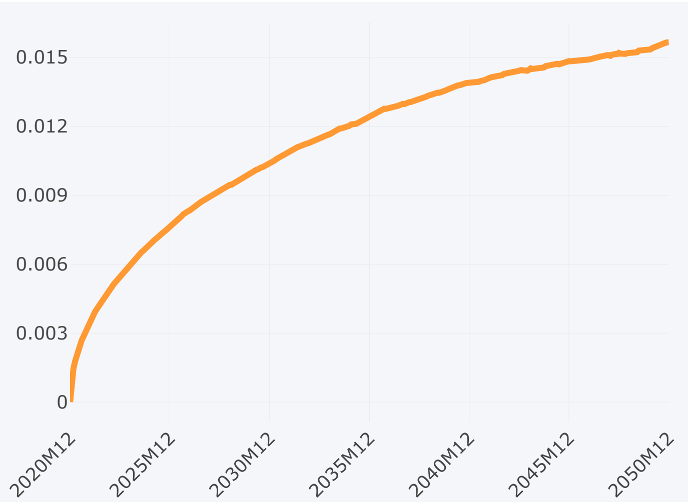


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0175	0.0335
std	0.0035	0.0157
min	0.0070	0.0058
1%	0.0105	0.0104
5%	0.0122	0.0140
10%	0.0132	0.0165
50%	0.0172	0.0305
90%	0.0222	0.0542
95%	0.0237	0.0631
99%	0.0265	0.0824
max	0.0345	0.1408

Cross Sectional Volatility Over Time : BASE



US Treasury 28 Year Yield - Spot
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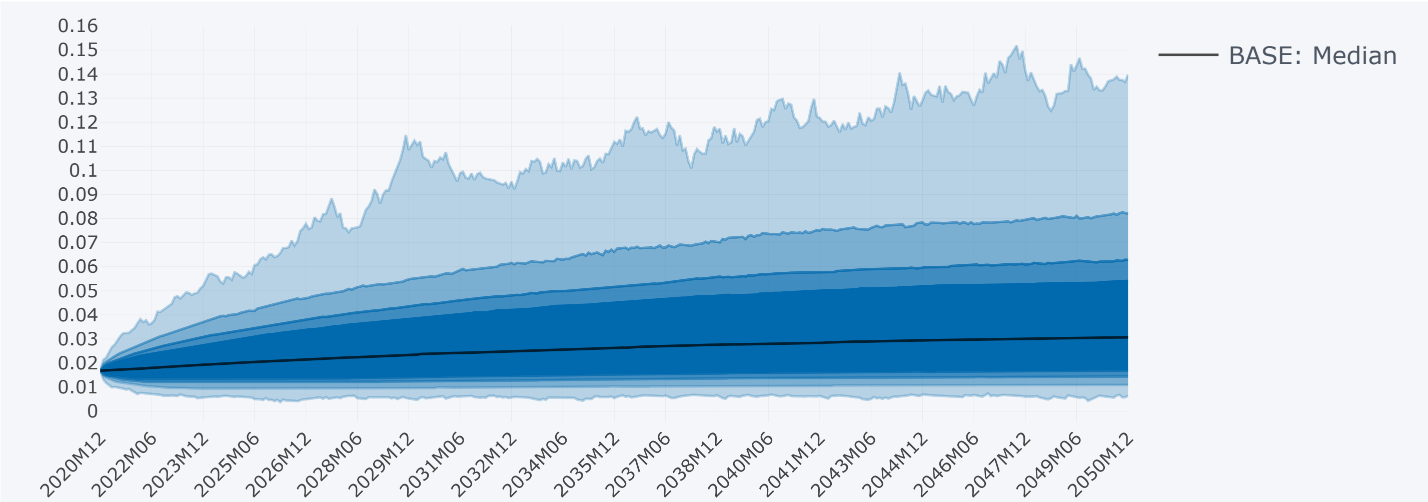
2020 Q4
Validation Report

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

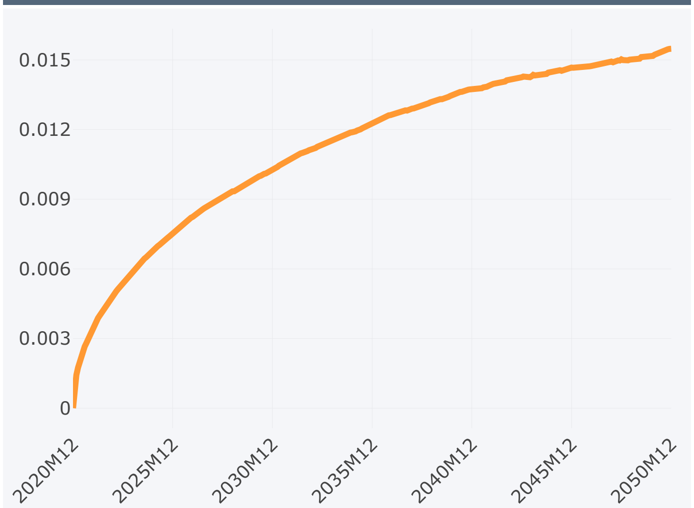


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0178	0.0337
std	0.0035	0.0155
min	0.0075	0.0064
1%	0.0109	0.0109
5%	0.0126	0.0144
10%	0.0136	0.0169
50%	0.0176	0.0307
90%	0.0224	0.0541
95%	0.0239	0.0628
99%	0.0267	0.0820
max	0.0346	0.1398

Cross Sectional Volatility Over Time : BASE



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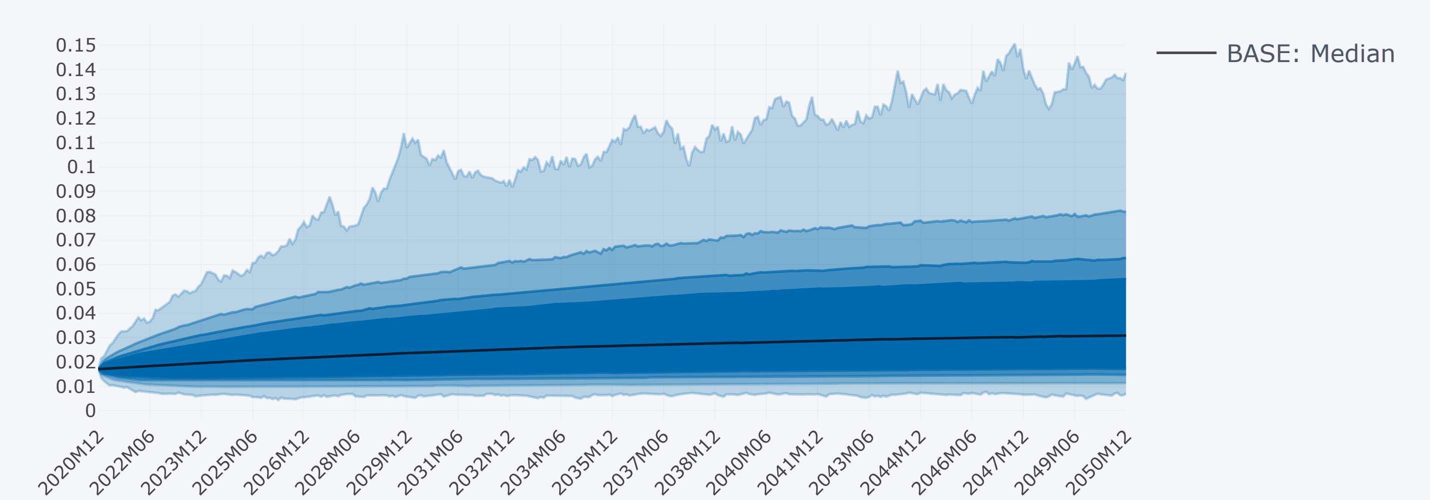
Simulated Data in Percentiles : US Treasury 29 Year Yield - Spot

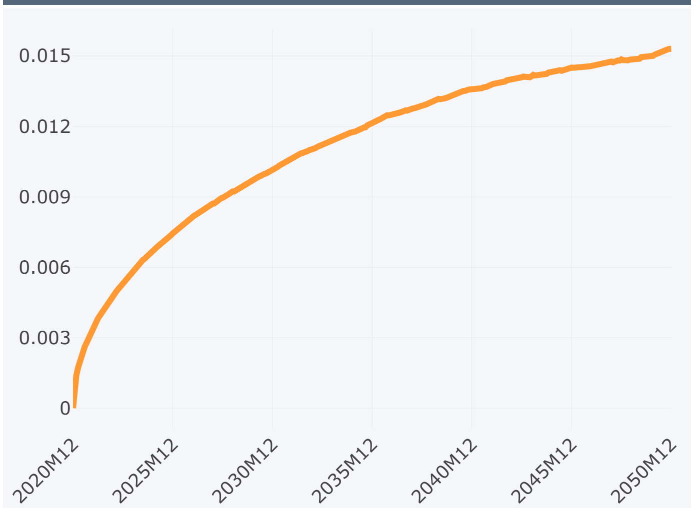


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0181	0.0338
std	0.0034	0.0153
min	0.0080	0.0070
1%	0.0113	0.0113
5%	0.0130	0.0147
10%	0.0139	0.0172
50%	0.0179	0.0308
90%	0.0226	0.0540
95%	0.0241	0.0626
99%	0.0269	0.0816
max	0.0347	0.1387

Cross Sectional Volatility Over Time : BASE



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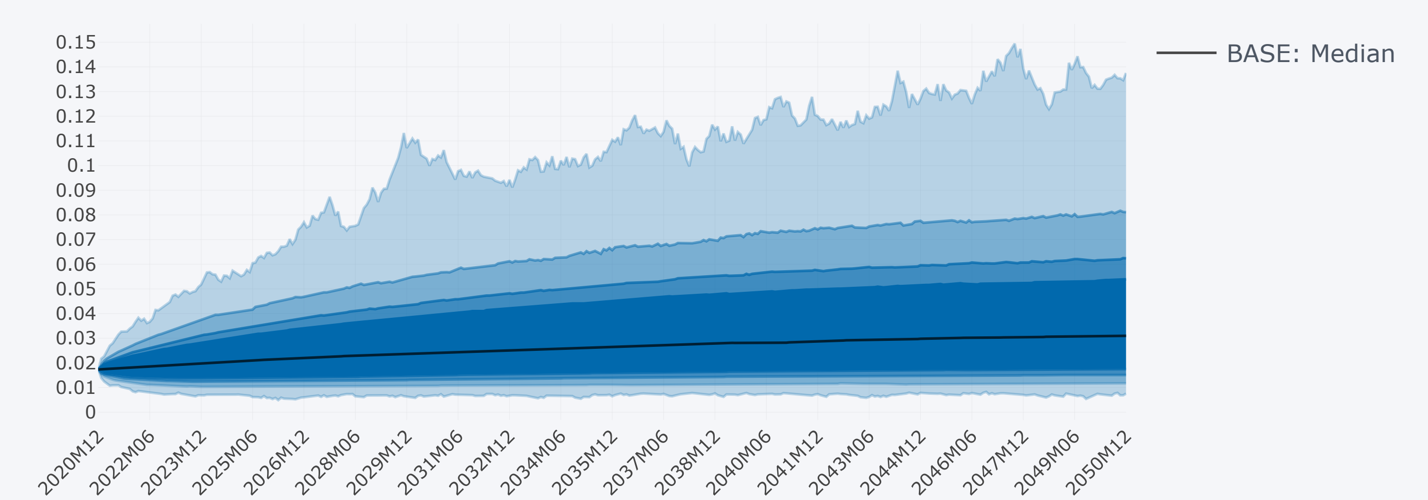
Simulated Data in Percentiles : US Treasury 30 Year Yield - Spot

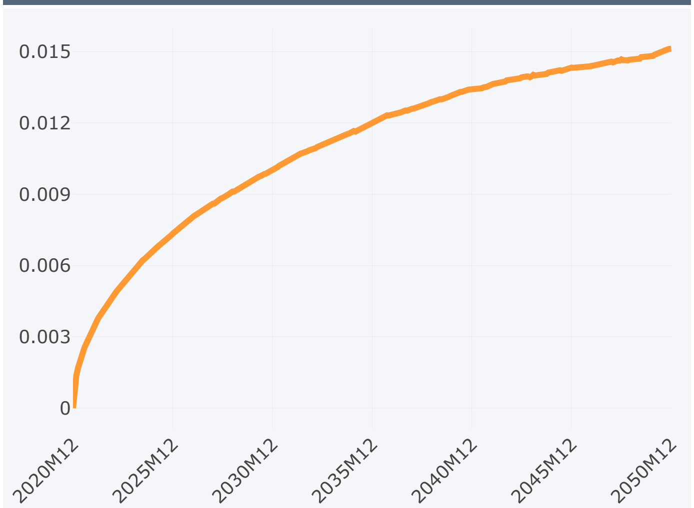


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0184	0.0339
std	0.0034	0.0151
min	0.0085	0.0075
1%	0.0117	0.0117
5%	0.0134	0.0151
10%	0.0143	0.0175
50%	0.0182	0.0310
90%	0.0229	0.0539
95%	0.0243	0.0624
99%	0.0271	0.0811
max	0.0348	0.1375

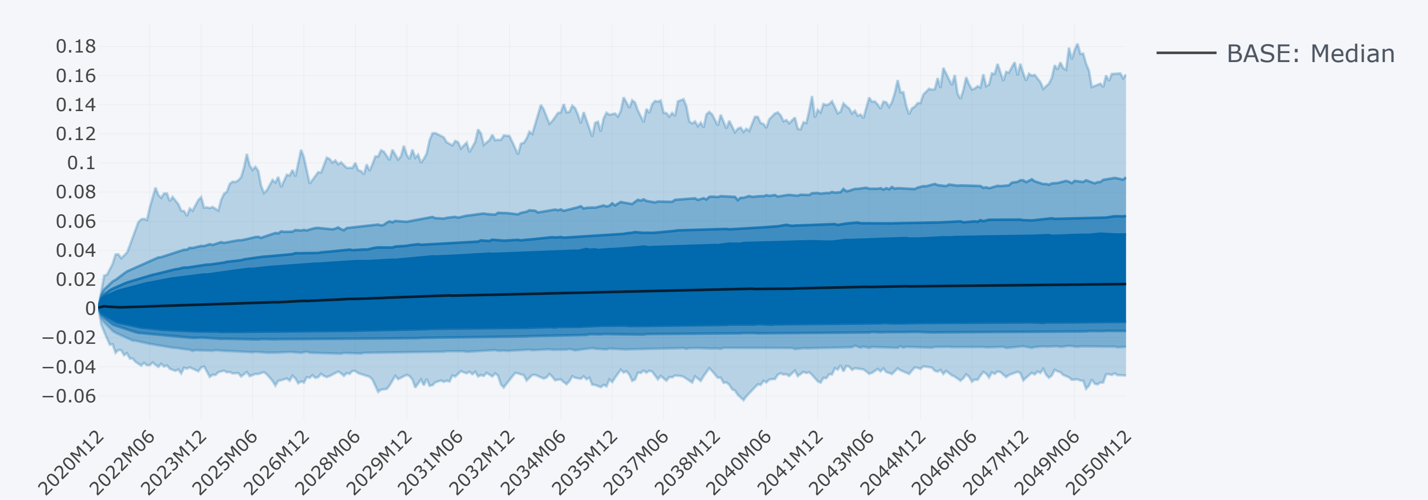
Cross Sectional Volatility Over Time : BASE



US Treasury 1 Month Yield - Coupon
Conning | Risk Solutions

2020 Q4
Validation Report

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

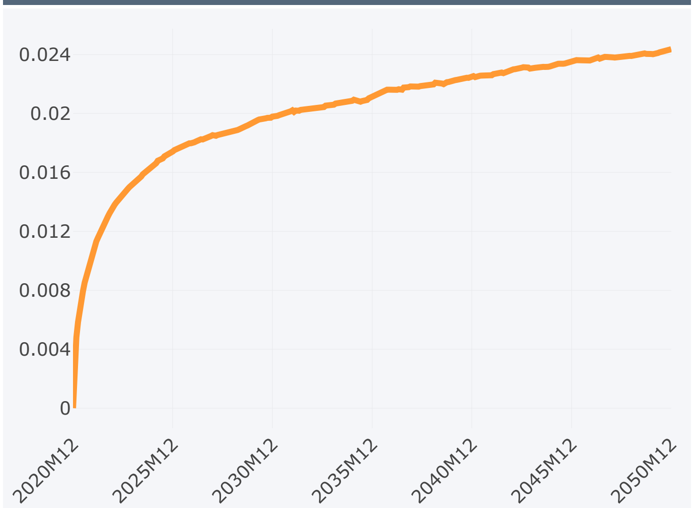


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

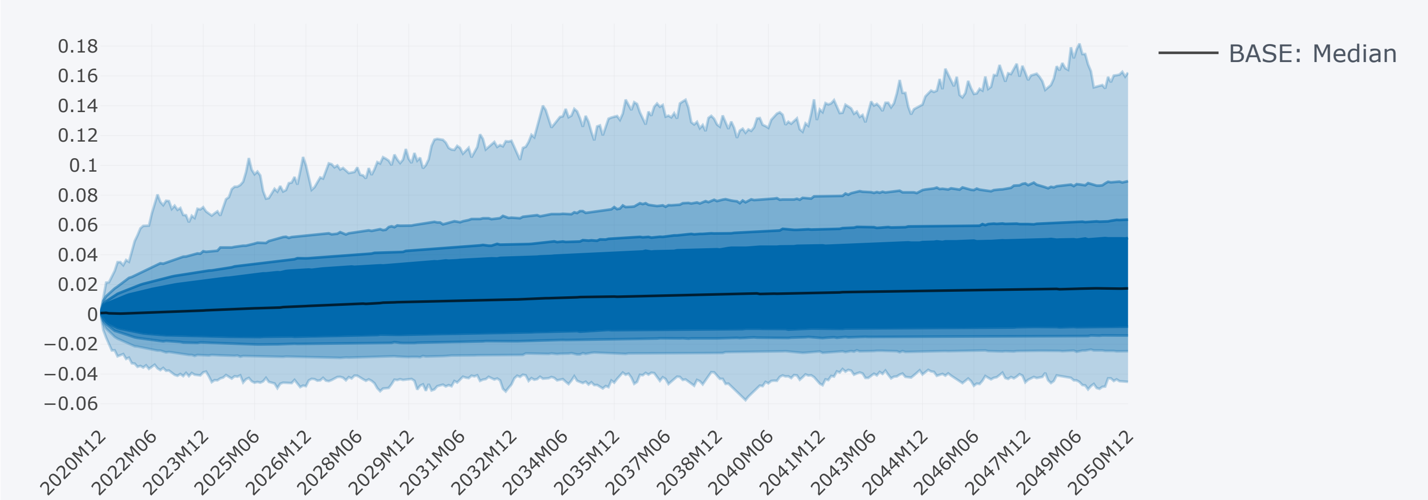
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0014	0.0195
std	0.0107	0.0244
min	-0.0343	-0.0460
1%	-0.0220	-0.0263
5%	-0.0157	-0.0154
10%	-0.0121	-0.0091
50%	0.0011	0.0168
90%	0.0152	0.0509
95%	0.0192	0.0637
99%	0.0270	0.0902
max	0.0500	0.1608

Cross Sectional Volatility Over Time : BASE



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

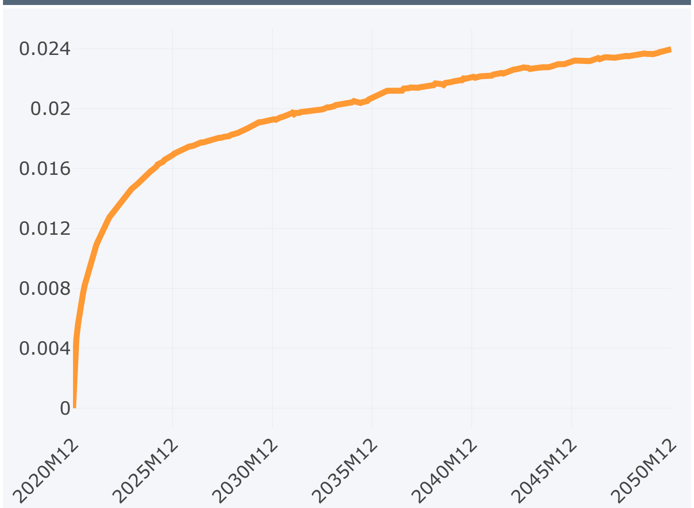


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0011	0.0200
std	0.0103	0.0240
min	-0.0330	-0.0452
1%	-0.0214	-0.0247
5%	-0.0154	-0.0142
10%	-0.0118	-0.0082
50%	0.0009	0.0175
90%	0.0143	0.0512
95%	0.0183	0.0636
99%	0.0260	0.0894
max	0.0491	0.1622

Cross Sectional Volatility Over Time : BASE



US Treasury 6 Month Yield - Coupon

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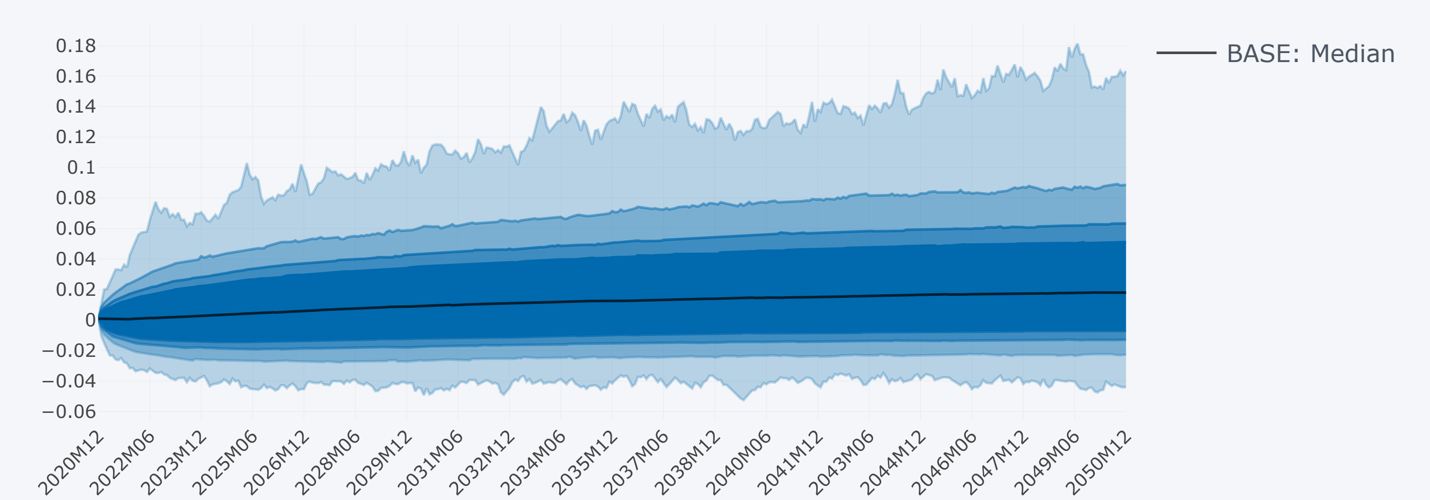
Simulated Data in Percentiles : US Treasury 6 Month Yield - Coupon

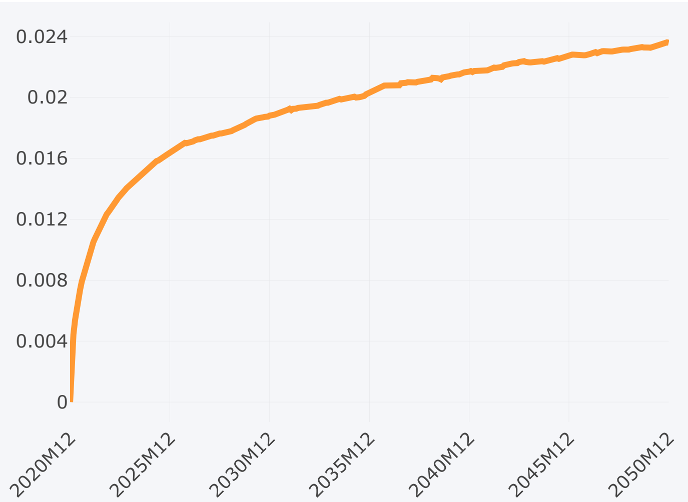


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0011	0.0206
std	0.0099	0.0236
min	-0.0314	-0.0439
1%	-0.0209	-0.0229
5%	-0.0147	-0.0129
10%	-0.0114	-0.0071
50%	0.0008	0.0180
90%	0.0139	0.0511
95%	0.0178	0.0633
99%	0.0252	0.0886
max	0.0481	0.1633

Cross Sectional Volatility Over Time : BASE



US Treasury 1 Year Yield - Coupon

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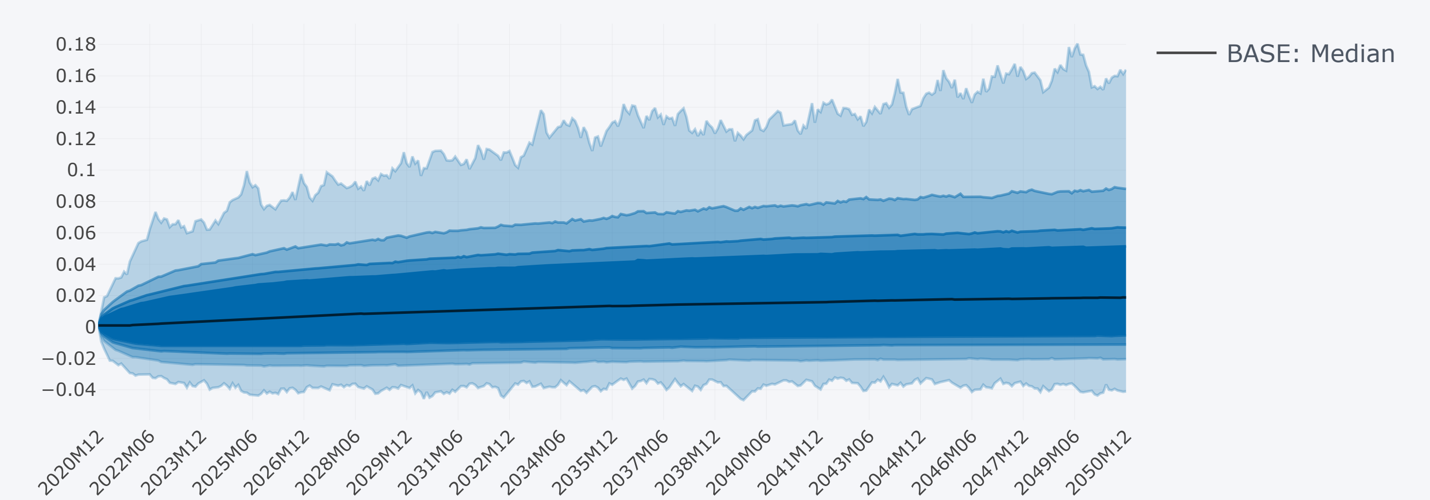
Simulated Data in Percentiles : US Treasury 1 Year Yield - Coupon

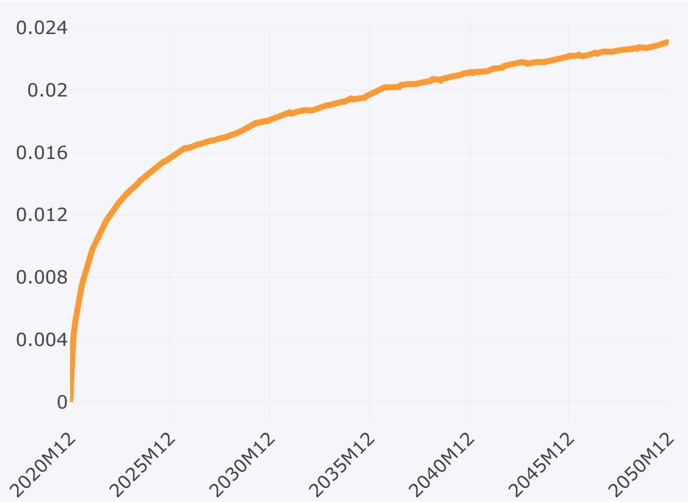


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

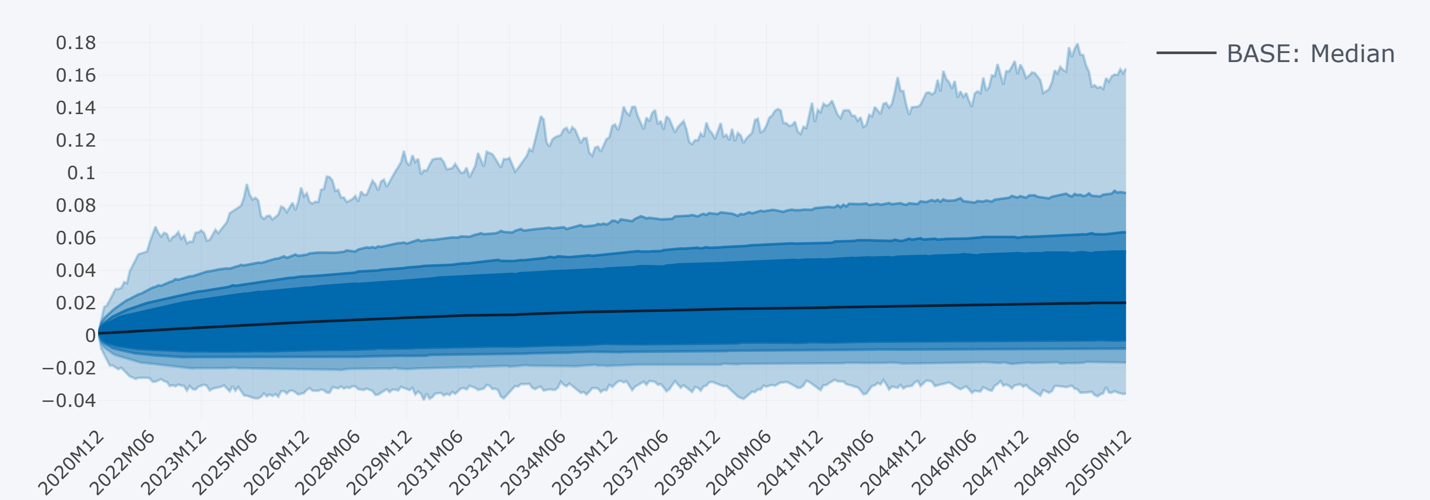
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0015	0.0214
std	0.0093	0.0230
min	-0.0295	-0.0411
1%	-0.0192	-0.0205
5%	-0.0134	-0.0112
10%	-0.0102	-0.0053
50%	0.0013	0.0188
90%	0.0136	0.0514
95%	0.0172	0.0633
99%	0.0244	0.0880
max	0.0464	0.1639

Cross Sectional Volatility Over Time : BASE



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

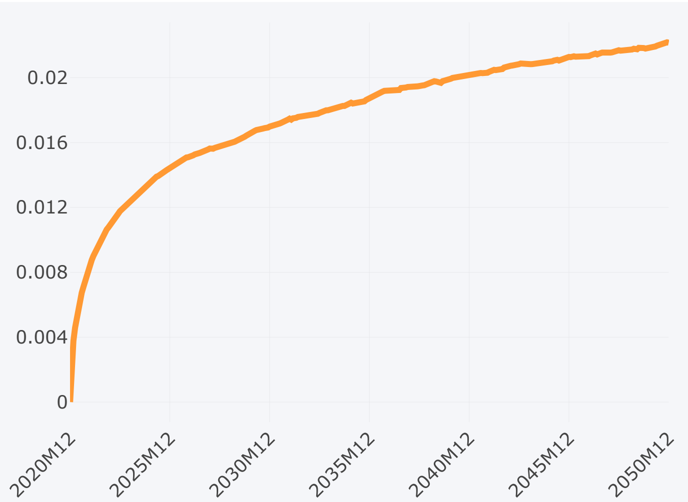


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

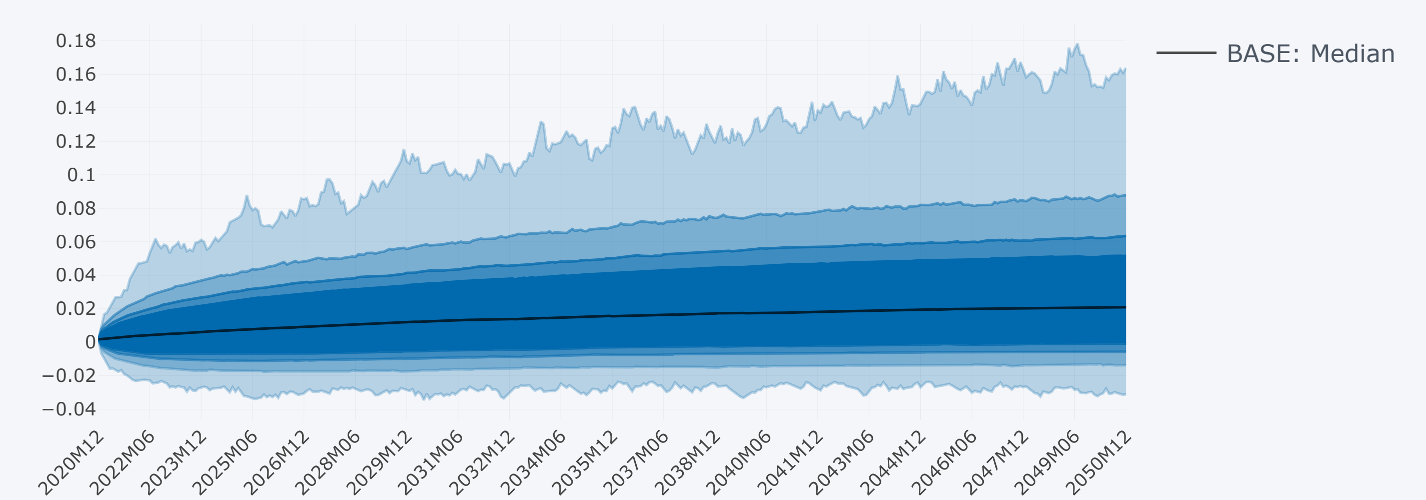
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0027	0.0227
std	0.0085	0.0222
min	-0.0259	-0.0357
1%	-0.0160	-0.0167
5%	-0.0107	-0.0081
10%	-0.0079	-0.0029
50%	0.0024	0.0200
90%	0.0137	0.0515
95%	0.0170	0.0633
99%	0.0235	0.0875
max	0.0436	0.1641

Cross Sectional Volatility Over Time : BASE



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

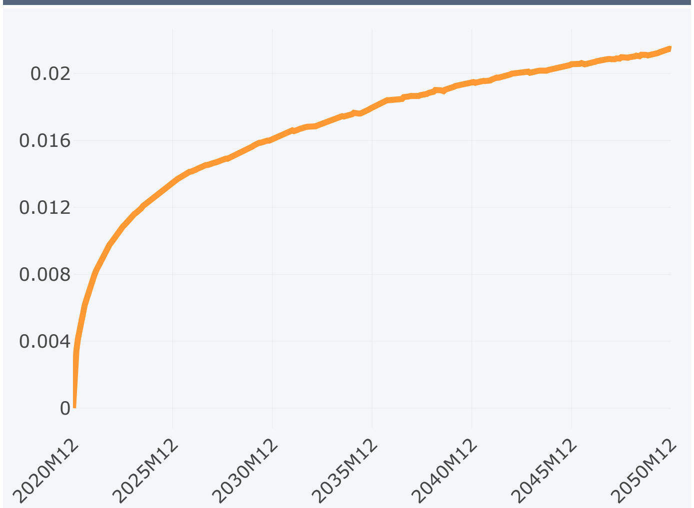


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0038	0.0238
std	0.0077	0.0215
min	-0.0225	-0.0311
1%	-0.0132	-0.0136
5%	-0.0084	-0.0057
10%	-0.0059	-0.0008
50%	0.0036	0.0209
90%	0.0139	0.0516
95%	0.0170	0.0635
99%	0.0229	0.0879
max	0.0415	0.1639

Cross Sectional Volatility Over Time : BASE



US Treasury 4 Year Yield - Coupon

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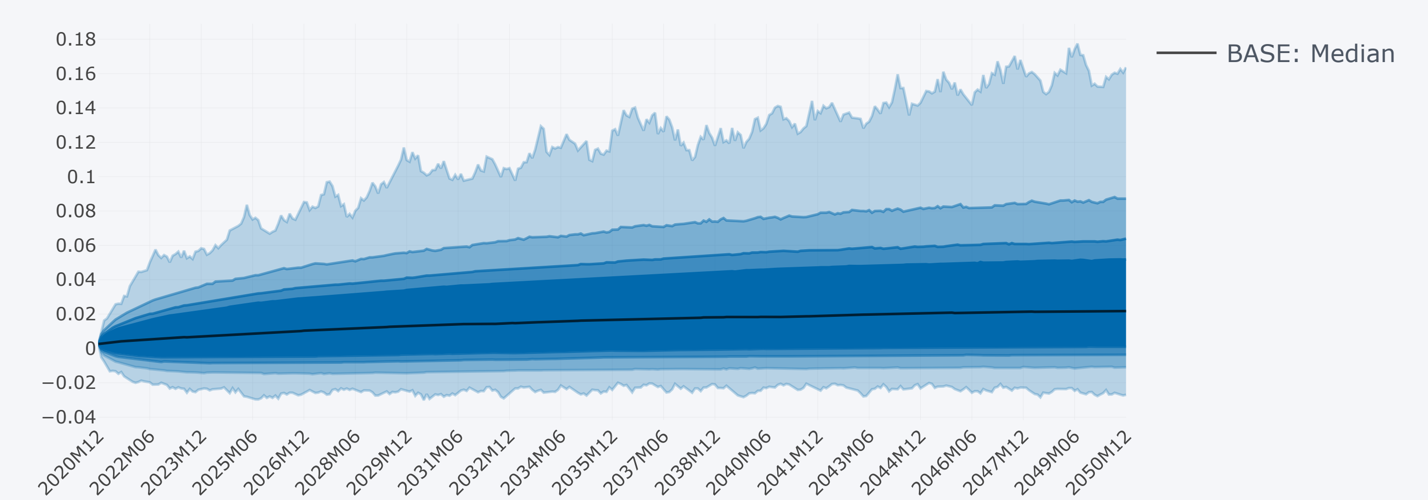
Simulated Data in Percentiles : US Treasury 4 Year Yield - Coupon

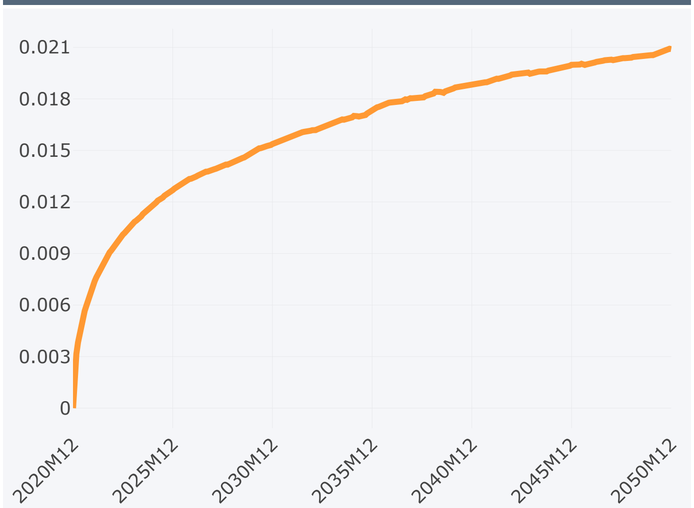


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

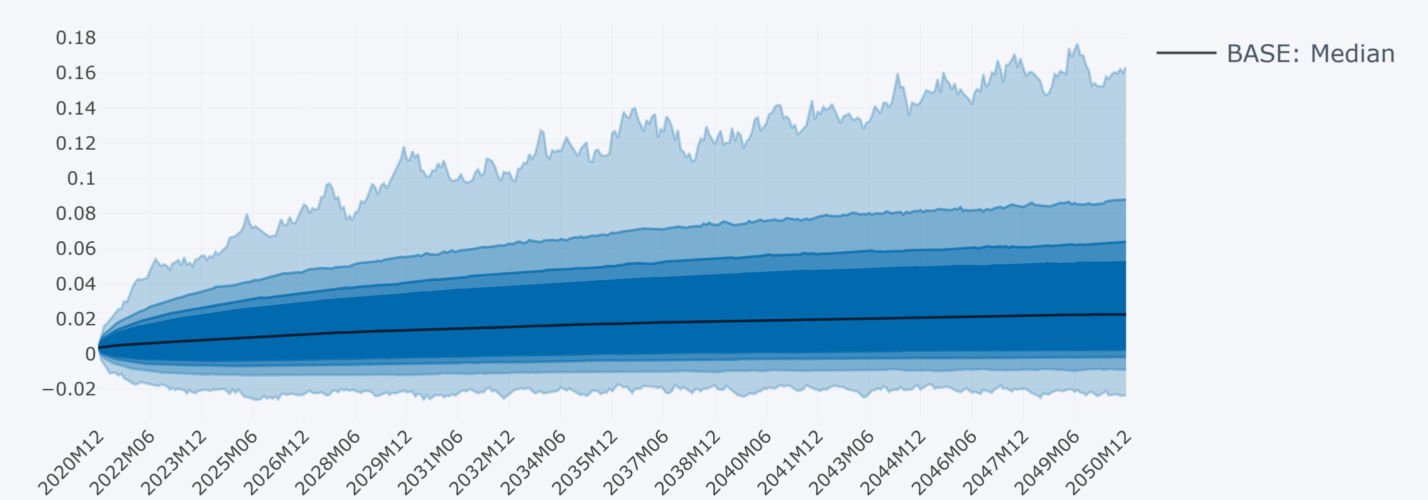
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0049	0.0248
std	0.0071	0.0209
min	-0.0194	-0.0270
1%	-0.0107	-0.0110
5%	-0.0063	-0.0037
10%	-0.0040	0.0010
50%	0.0047	0.0217
90%	0.0143	0.0518
95%	0.0170	0.0639
99%	0.0225	0.0872
max	0.0397	0.1636

Cross Sectional Volatility Over Time : BASE



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

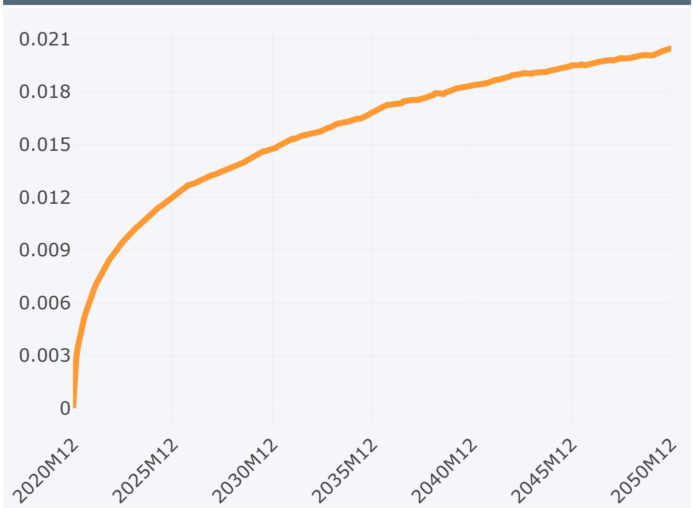


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

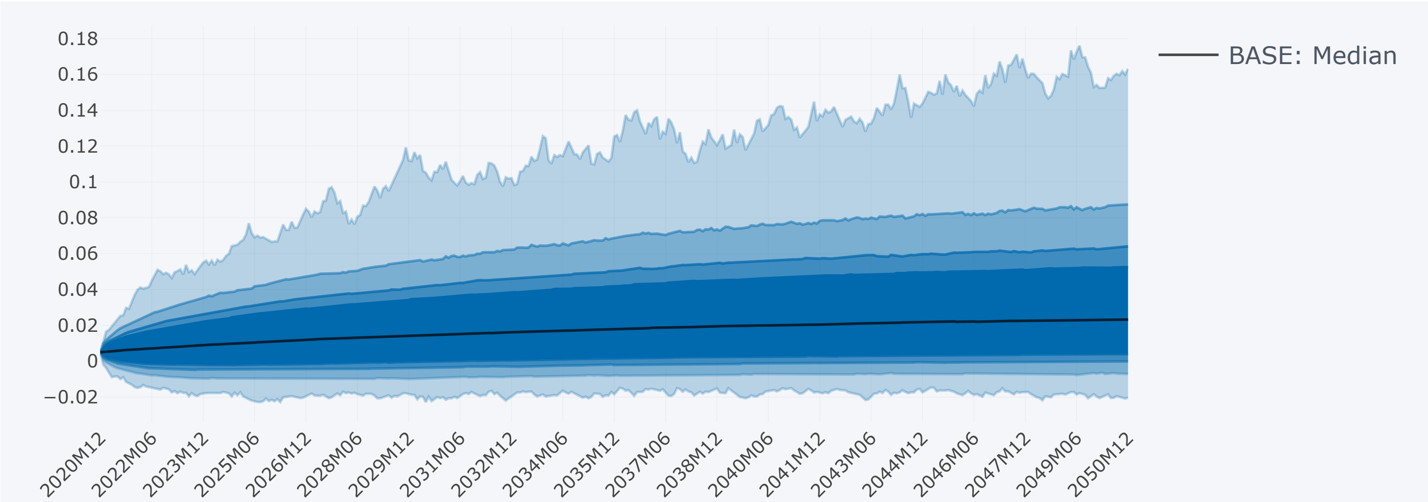
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0059	0.0256
std	0.0066	0.0204
min	-0.0167	-0.0234
1%	-0.0085	-0.0090
5%	-0.0045	-0.0017
10%	-0.0024	0.0027
50%	0.0058	0.0226
90%	0.0146	0.0521
95%	0.0172	0.0639
99%	0.0222	0.0879
max	0.0382	0.1634

Cross Sectional Volatility Over Time : BASE



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

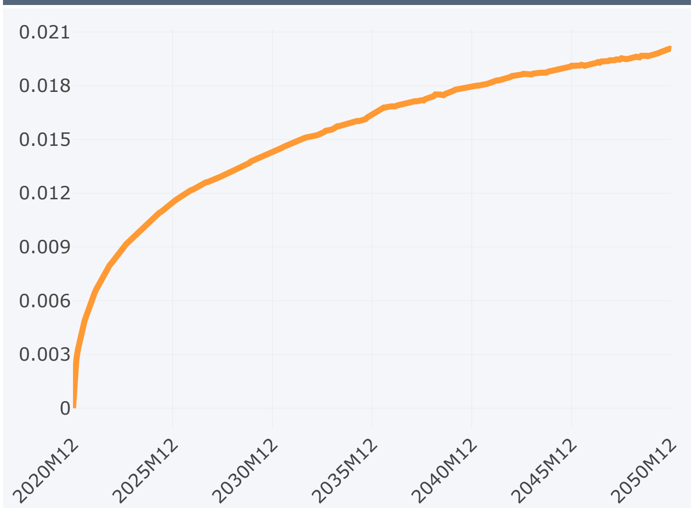


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

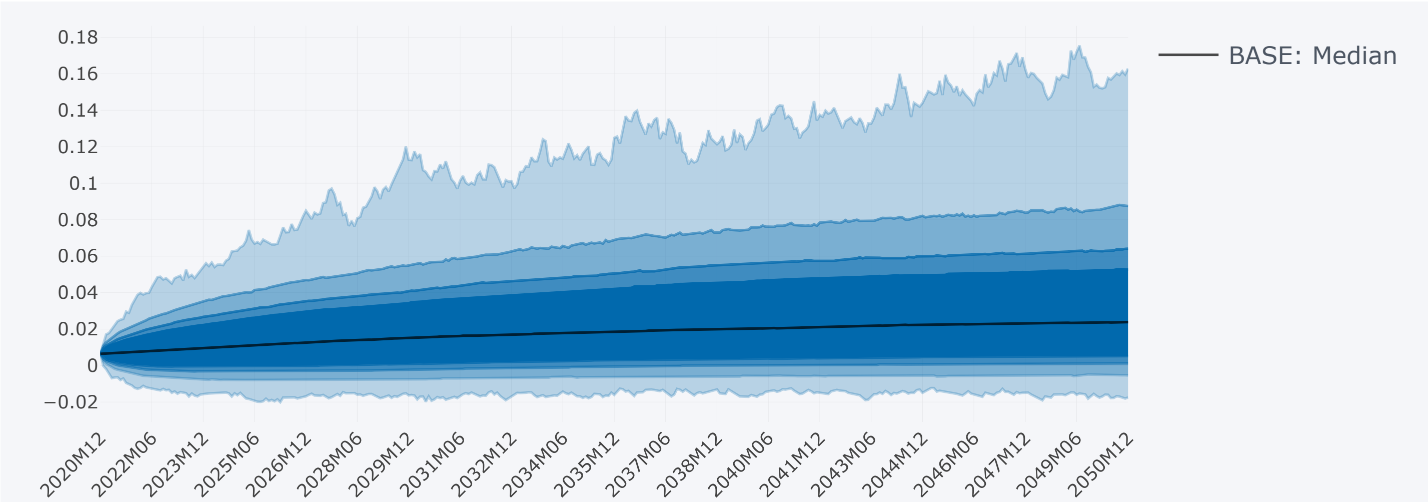
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0069	0.0263
std	0.0062	0.0201
min	-0.0143	-0.0203
1%	-0.0065	-0.0071
5%	-0.0028	-0.0001
10%	-0.0009	0.0040
50%	0.0067	0.0232
90%	0.0149	0.0524
95%	0.0174	0.0641
99%	0.0221	0.0875
max	0.0370	0.1631

Cross Sectional Volatility Over Time : BASE



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

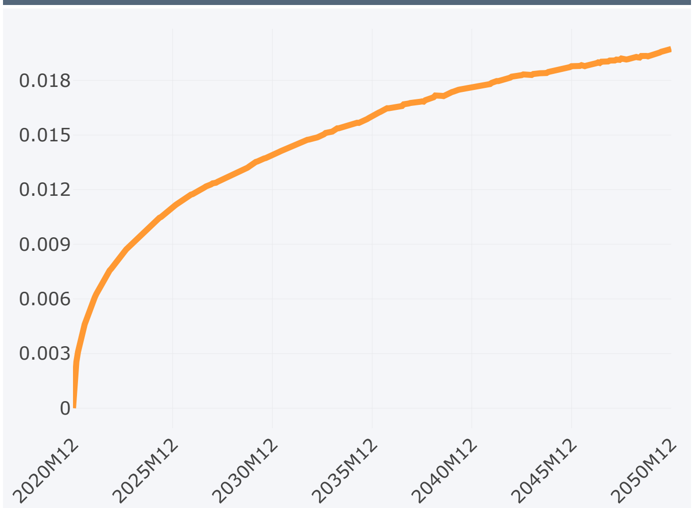


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0077	0.0270
std	0.0059	0.0197
min	-0.0122	-0.0175
1%	-0.0049	-0.0054
5%	-0.0014	0.0012
10%	0.0004	0.0052
50%	0.0075	0.0238
90%	0.0152	0.0526
95%	0.0176	0.0641
99%	0.0221	0.0875
max	0.0360	0.1629

Cross Sectional Volatility Over Time : BASE



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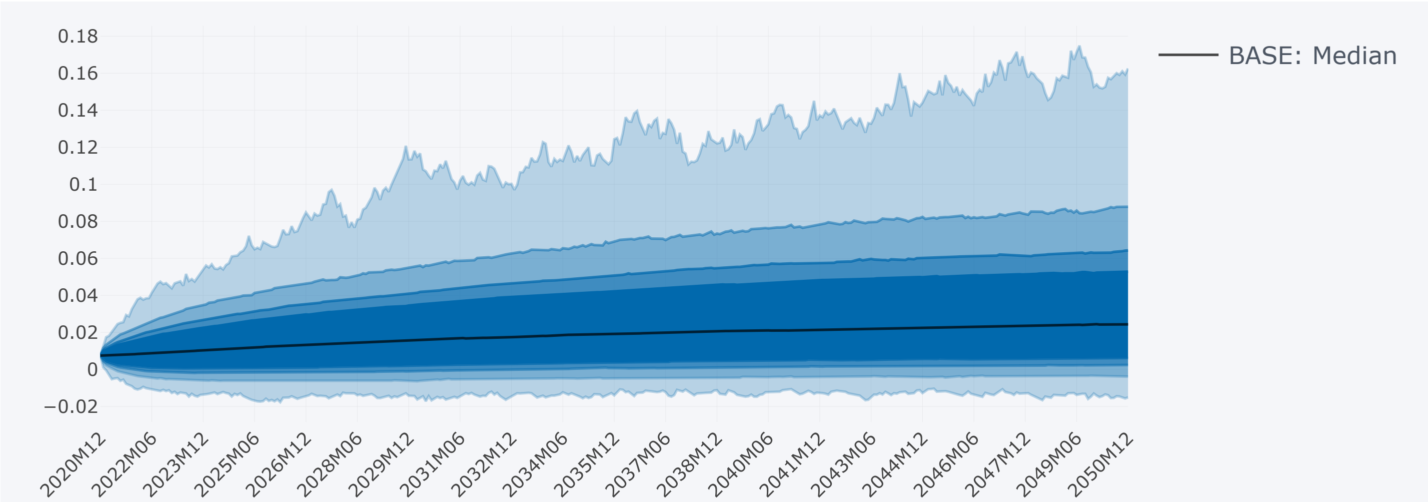
Simulated Data in Percentiles : US Treasury 8 Year Yield - Coupon

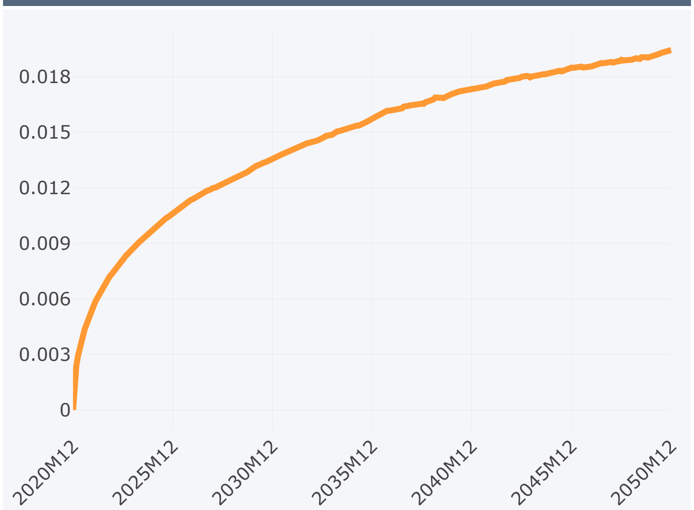


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

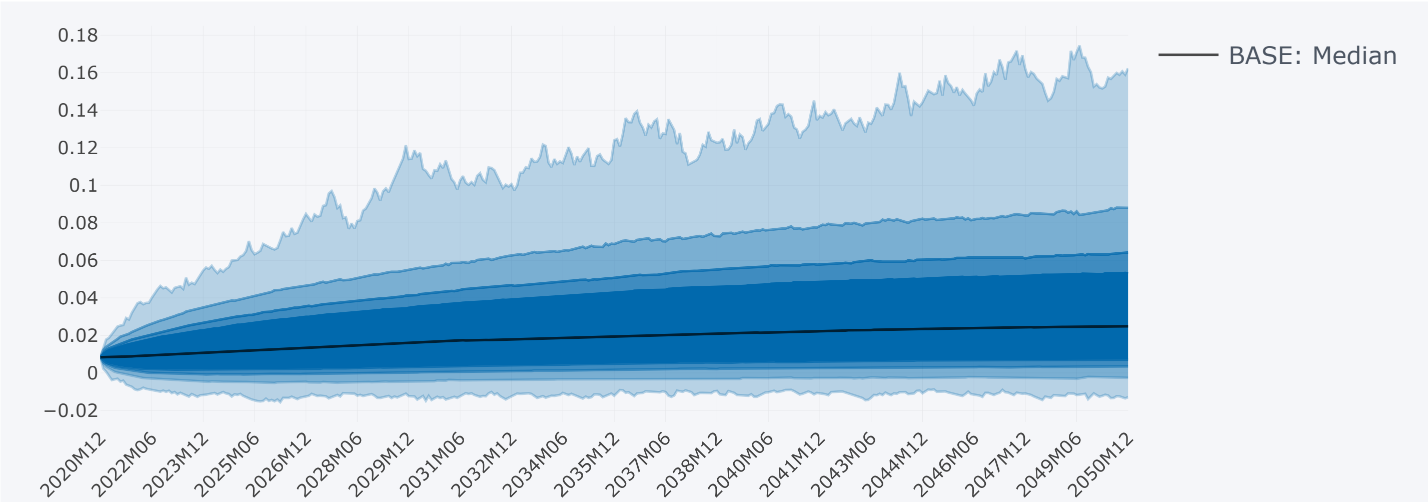
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0085	0.0276
std	0.0056	0.0194
min	-0.0104	-0.0151
1%	-0.0034	-0.0039
5%	-0.0002	0.0024
10%	0.0015	0.0062
50%	0.0082	0.0244
90%	0.0157	0.0528
95%	0.0179	0.0643
99%	0.0221	0.0879
max	0.0352	0.1626

Cross Sectional Volatility Over Time : BASE



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

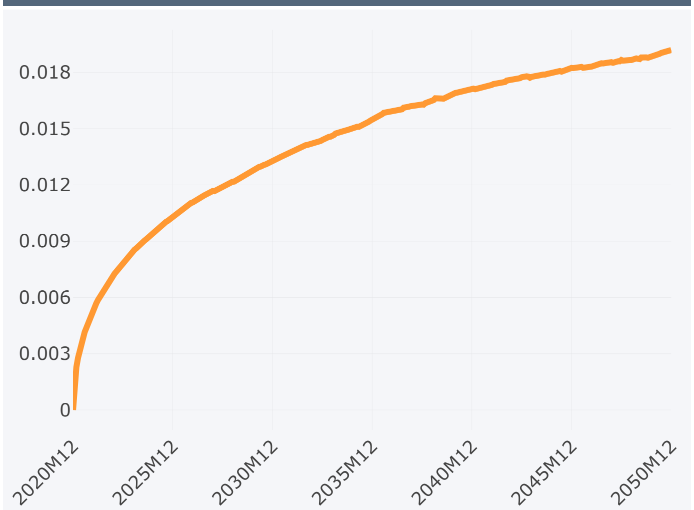


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

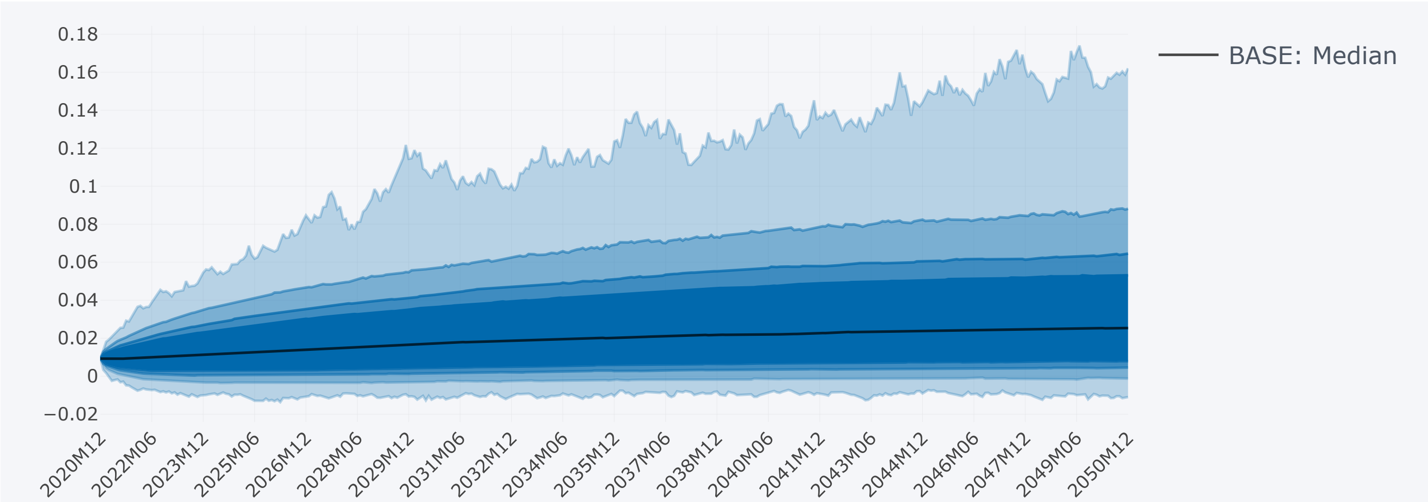
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0092	0.0282
std	0.0053	0.0192
min	-0.0087	-0.0129
1%	-0.0021	-0.0026
5%	0.0009	0.0035
10%	0.0025	0.0071
50%	0.0090	0.0249
90%	0.0161	0.0530
95%	0.0182	0.0642
99%	0.0223	0.0880
max	0.0345	0.1623

Cross Sectional Volatility Over Time : BASE



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

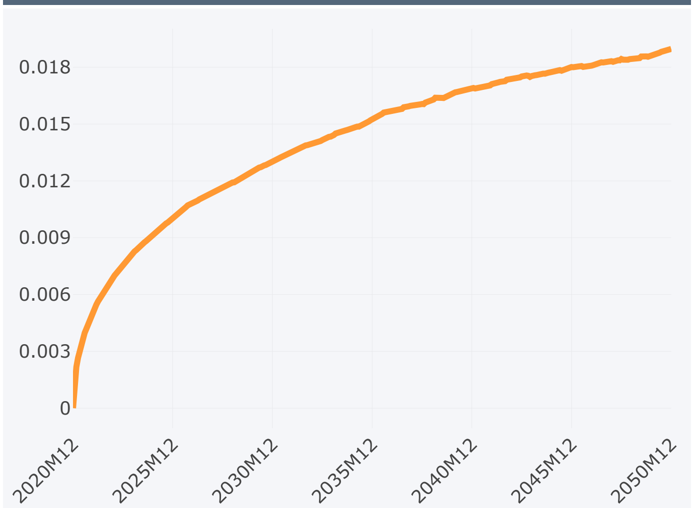


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

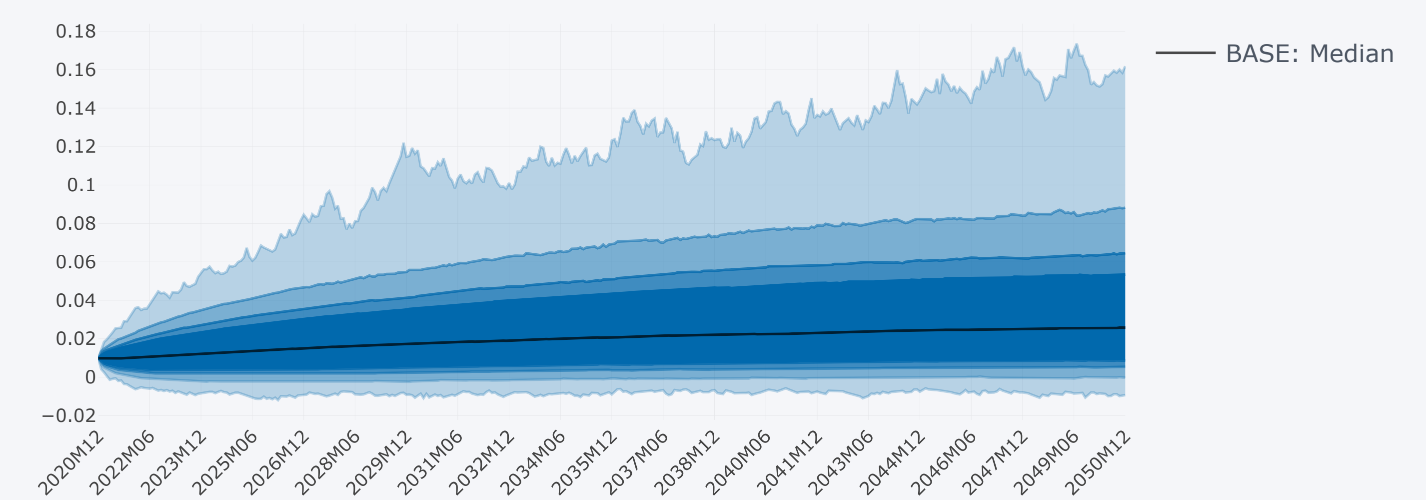
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0098	0.0287
std	0.0051	0.0190
min	-0.0072	-0.0110
1%	-0.0009	-0.0013
5%	0.0019	0.0045
10%	0.0034	0.0079
50%	0.0096	0.0253
90%	0.0164	0.0531
95%	0.0185	0.0645
99%	0.0225	0.0881
max	0.0339	0.1620

Cross Sectional Volatility Over Time : BASE



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

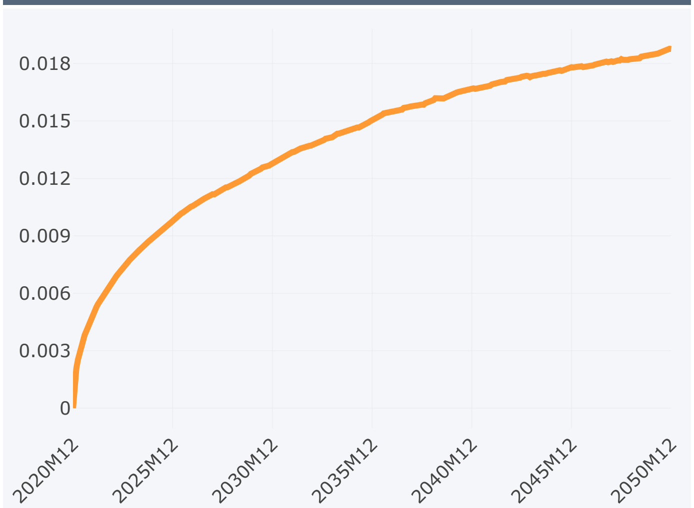


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

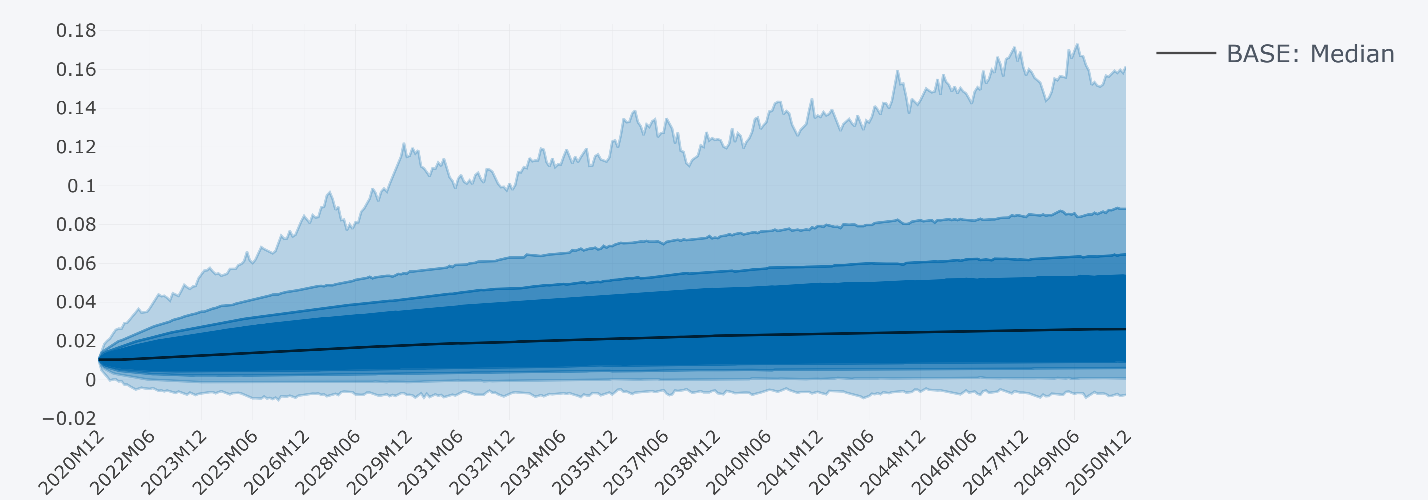
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0104	0.0291
std	0.0049	0.0188
min	-0.0058	-0.0093
1%	0.0002	-0.0003
5%	0.0028	0.0054
10%	0.0043	0.0086
50%	0.0102	0.0258
90%	0.0168	0.0534
95%	0.0188	0.0645
99%	0.0228	0.0882
max	0.0335	0.1618

Cross Sectional Volatility Over Time : BASE



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

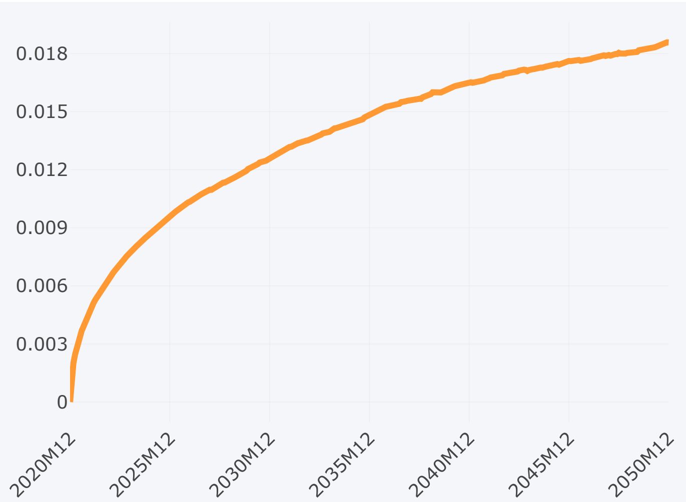


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0110	0.0296
std	0.0047	0.0186
min	-0.0046	-0.0077
1%	0.0012	0.0007
5%	0.0037	0.0061
10%	0.0051	0.0093
50%	0.0107	0.0261
90%	0.0172	0.0535
95%	0.0191	0.0646
99%	0.0229	0.0881
max	0.0331	0.1615

Cross Sectional Volatility Over Time : BASE



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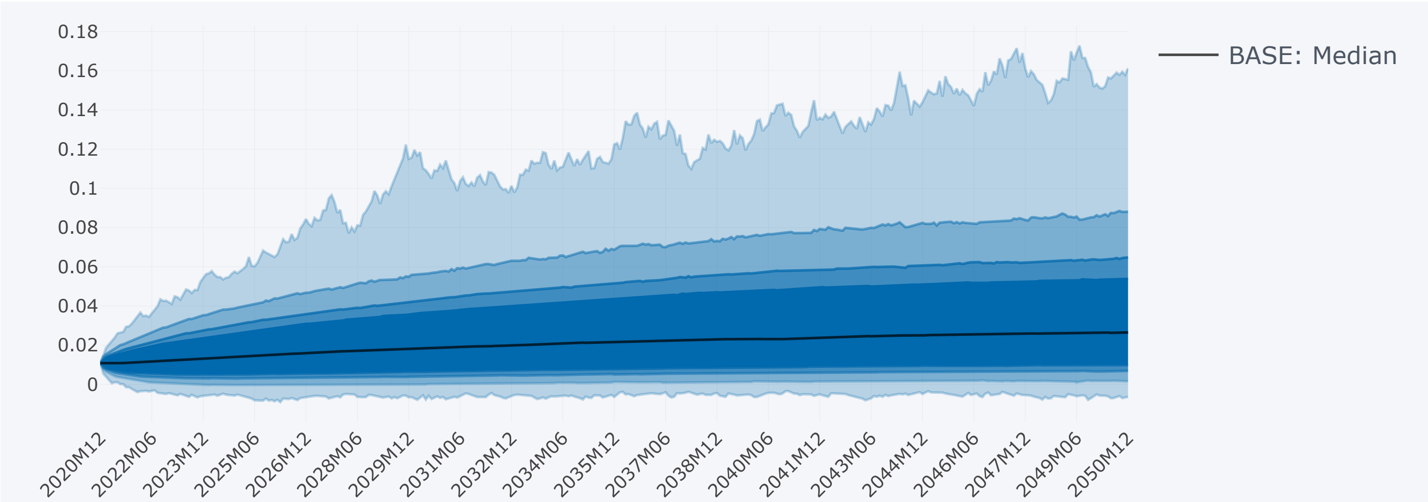
Simulated Data in Percentiles : US Treasury 13 Year Yield - Coupon

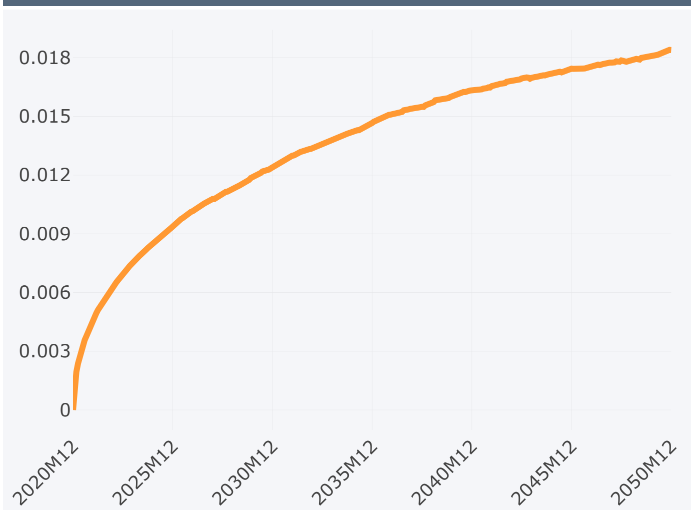


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

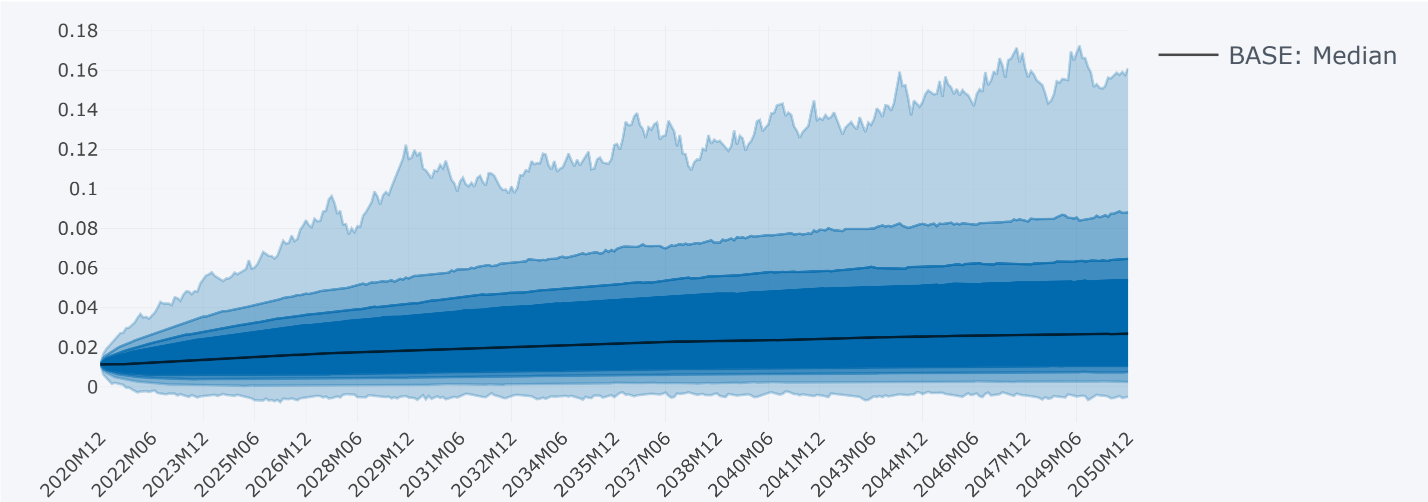
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0115	0.0299
std	0.0046	0.0184
min	-0.0035	-0.0063
1%	0.0020	0.0016
5%	0.0044	0.0069
10%	0.0058	0.0099
50%	0.0113	0.0265
90%	0.0175	0.0538
95%	0.0194	0.0648
99%	0.0231	0.0881
max	0.0328	0.1612

Cross Sectional Volatility Over Time : BASE



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

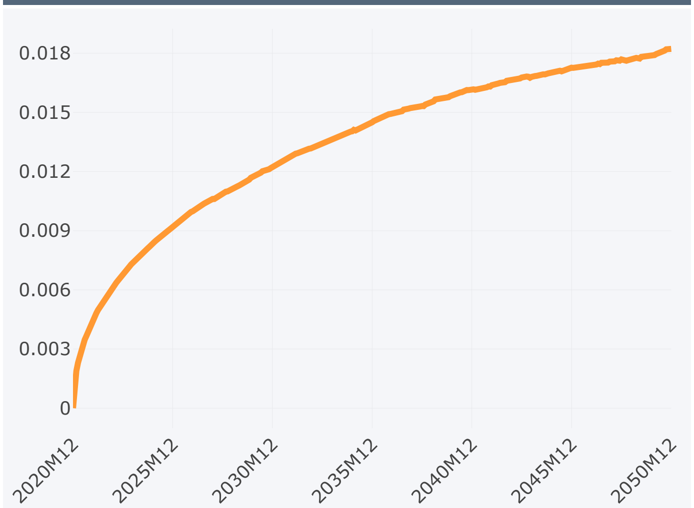


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0120	0.0303
std	0.0045	0.0182
min	-0.0024	-0.0050
1%	0.0028	0.0025
5%	0.0052	0.0075
10%	0.0065	0.0106
50%	0.0118	0.0269
90%	0.0179	0.0540
95%	0.0197	0.0647
99%	0.0234	0.0881
max	0.0325	0.1610

Cross Sectional Volatility Over Time : BASE



US Treasury 15 Year Yield - Coupon
Conning | Risk Solutions

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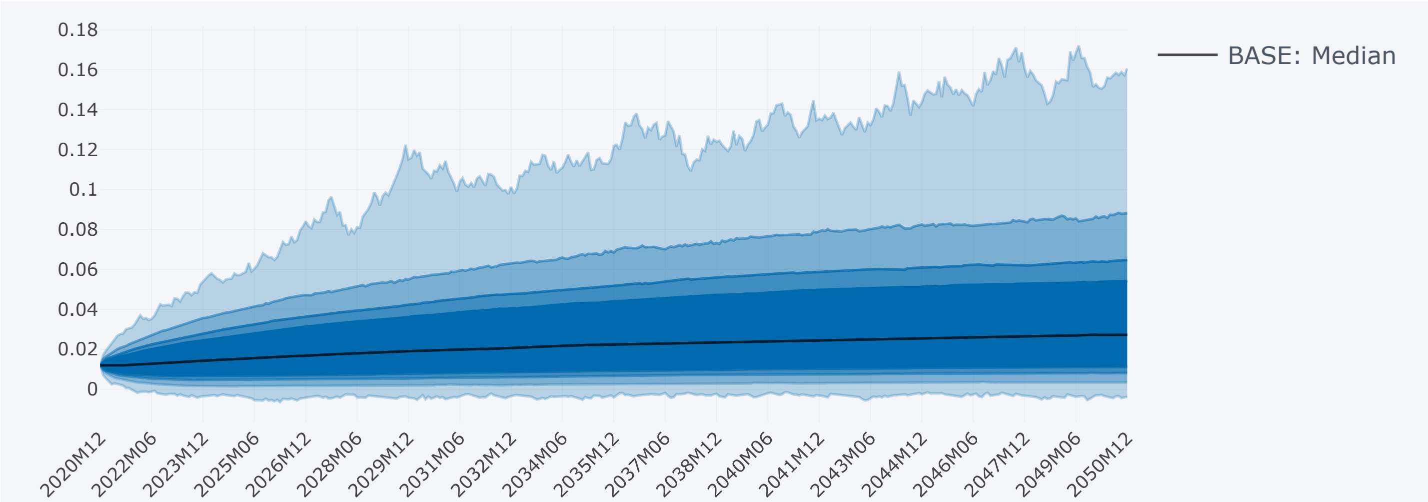
Simulated Data in Percentiles : US Treasury 15 Year Yield - Coupon

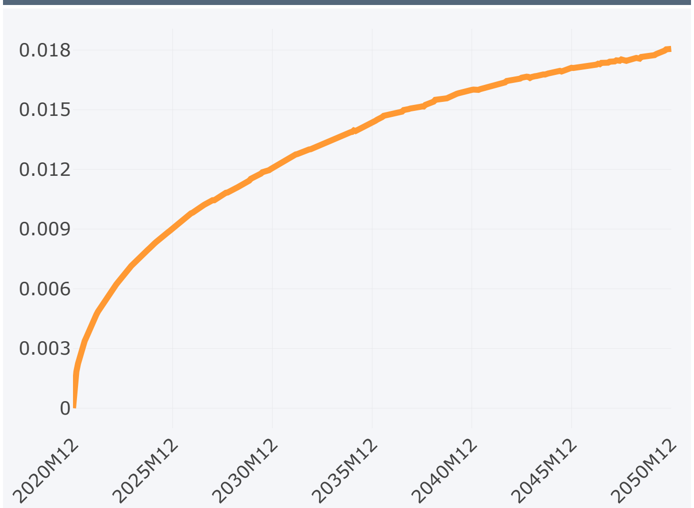


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

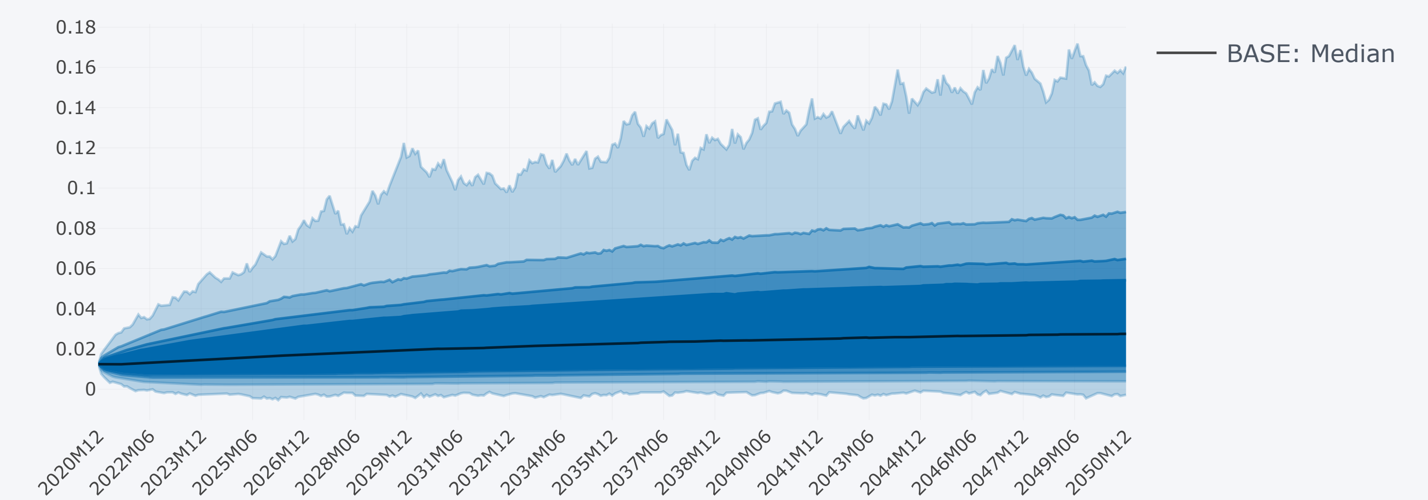
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0125	0.0306
std	0.0044	0.0181
min	-0.0014	-0.0039
1%	0.0036	0.0033
5%	0.0059	0.0081
10%	0.0071	0.0111
50%	0.0122	0.0272
90%	0.0182	0.0541
95%	0.0201	0.0647
99%	0.0237	0.0881
max	0.0323	0.1607

Cross Sectional Volatility Over Time : BASE



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

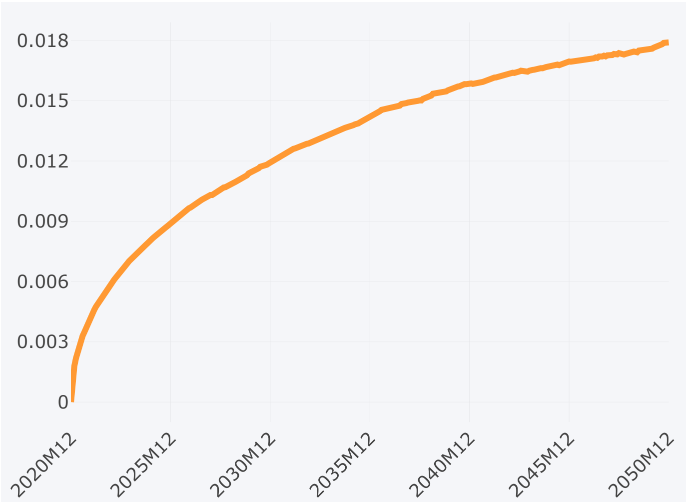


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0130	0.0309
std	0.0043	0.0179
min	-0.0005	-0.0028
1%	0.0043	0.0039
5%	0.0065	0.0087
10%	0.0077	0.0116
50%	0.0127	0.0275
90%	0.0185	0.0542
95%	0.0204	0.0648
99%	0.0239	0.0881
max	0.0321	0.1605

Cross Sectional Volatility Over Time : BASE



US Treasury 17 Year Yield - Coupon
Conning | Risk Solutions

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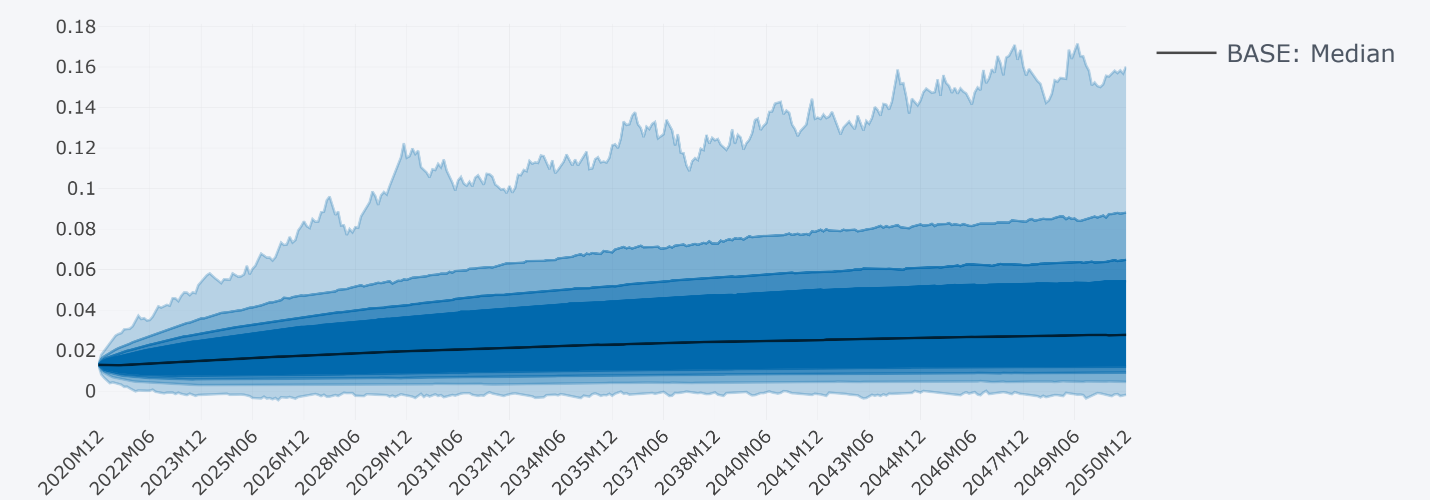
Validation Report

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

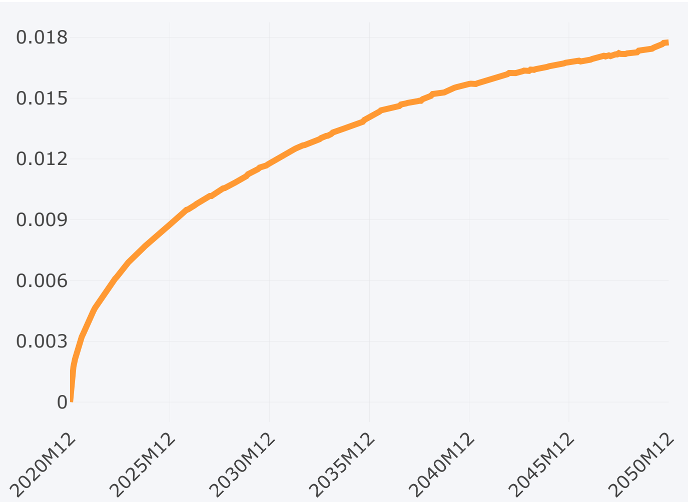


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

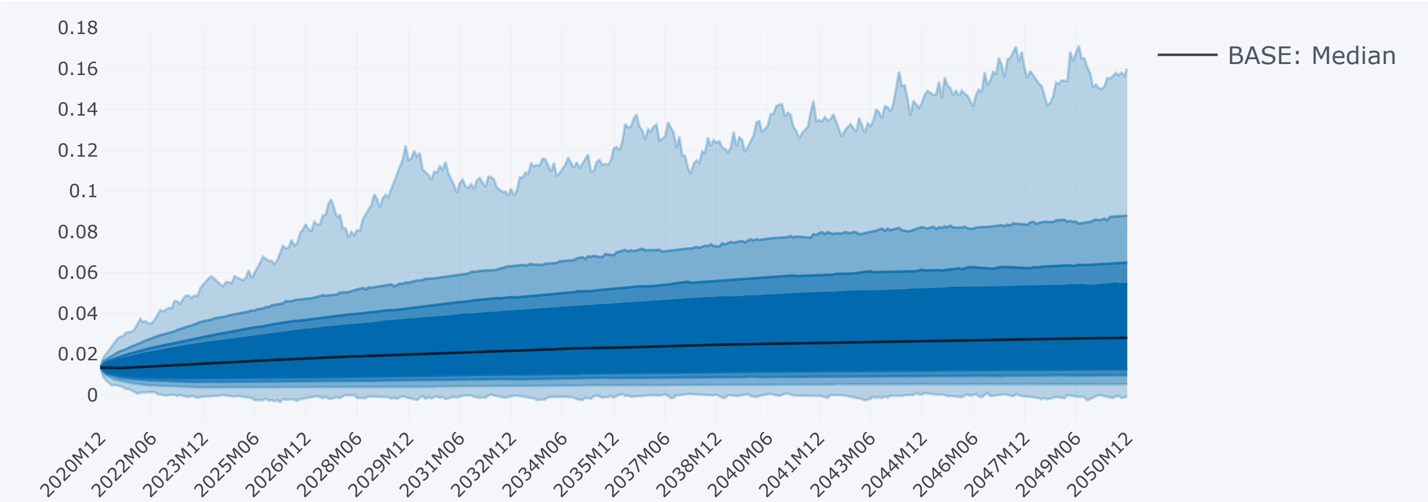
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0134	0.0312
std	0.0042	0.0178
min	0.0003	-0.0018
1%	0.0049	0.0046
5%	0.0071	0.0092
10%	0.0083	0.0121
50%	0.0131	0.0278
90%	0.0189	0.0543
95%	0.0207	0.0648
99%	0.0241	0.0881
max	0.0320	0.1602

Cross Sectional Volatility Over Time : BASE



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

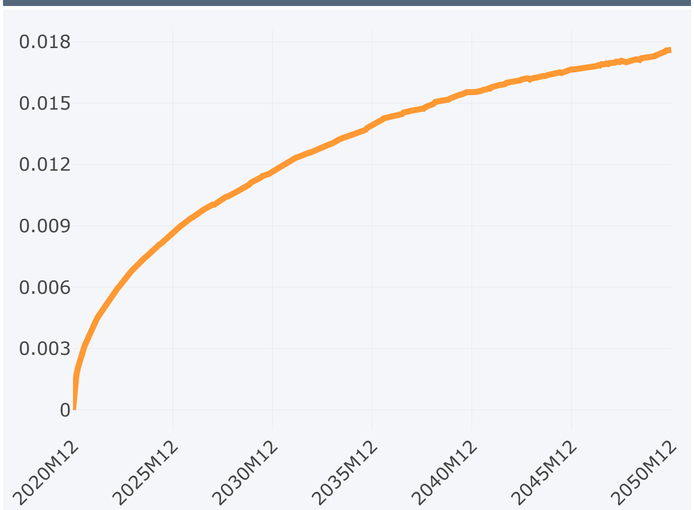


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

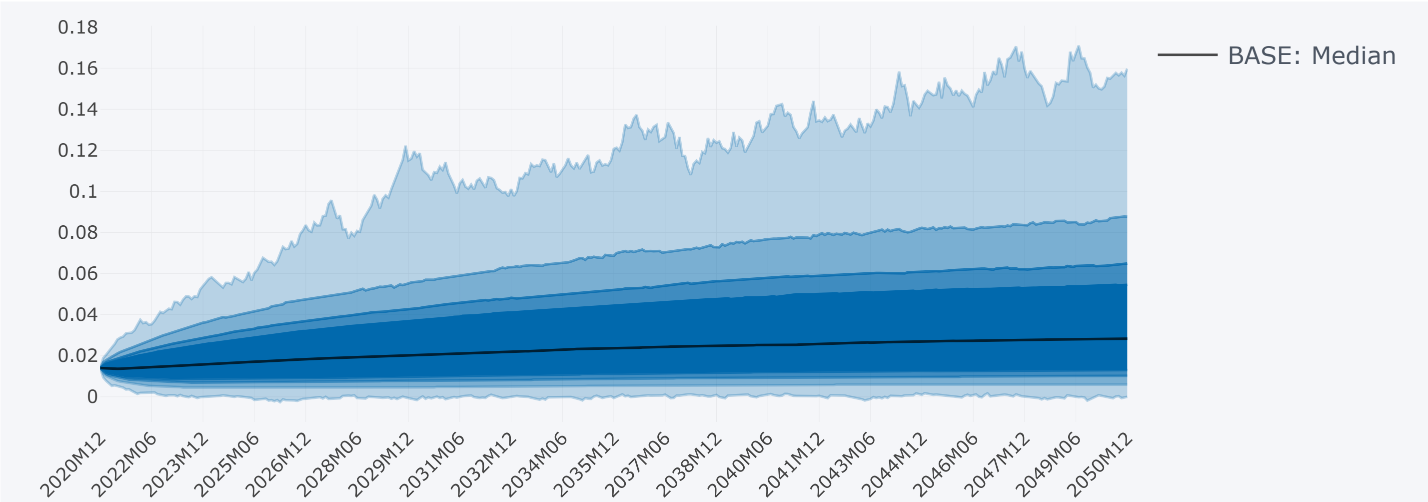
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0138	0.0315
std	0.0041	0.0176
min	0.0011	-0.0009
1%	0.0056	0.0053
5%	0.0076	0.0097
10%	0.0088	0.0126
50%	0.0135	0.0280
90%	0.0192	0.0544
95%	0.0210	0.0649
99%	0.0243	0.0879
max	0.0322	0.1600

Cross Sectional Volatility Over Time : BASE



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

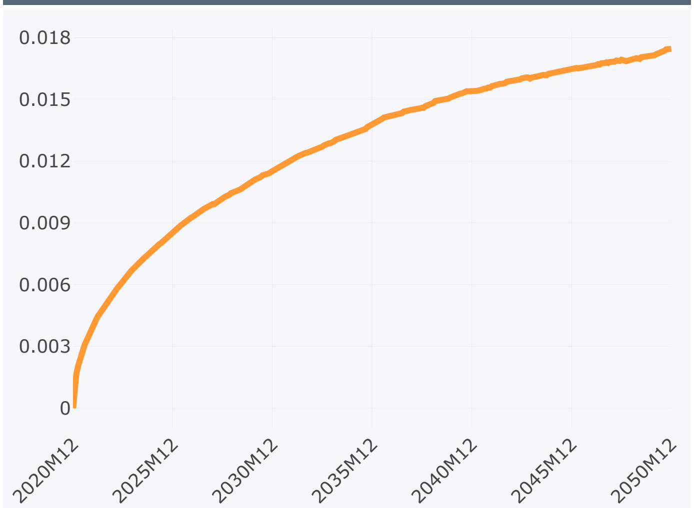


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0142	0.0317
std	0.0040	0.0175
min	0.0018	0.0000
1%	0.0062	0.0059
5%	0.0082	0.0102
10%	0.0093	0.0130
50%	0.0139	0.0283
90%	0.0195	0.0545
95%	0.0212	0.0649
99%	0.0245	0.0877
max	0.0324	0.1598

Cross Sectional Volatility Over Time : BASE



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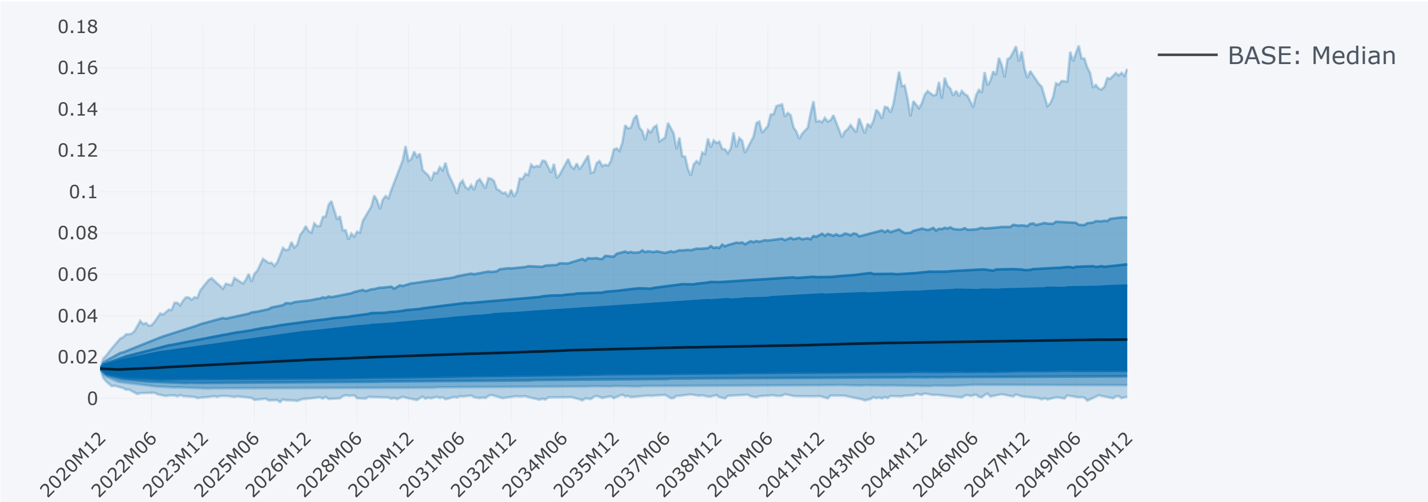
Simulated Data in Percentiles : US Treasury 20 Year Yield - Coupon

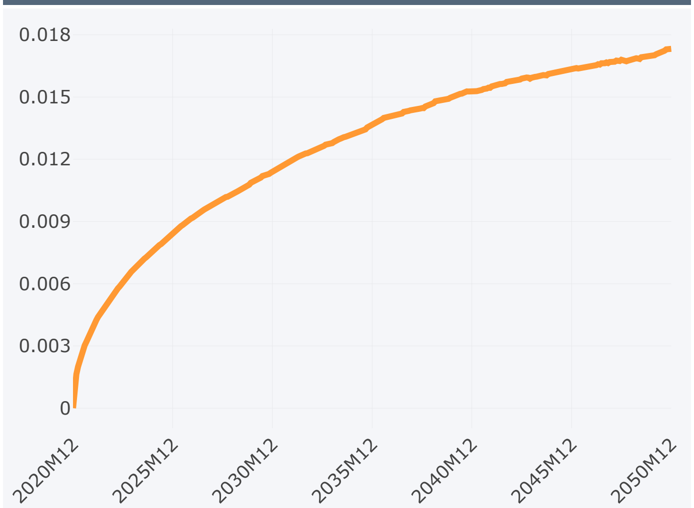


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0146	0.0319
std	0.0039	0.0173
min	0.0025	0.0008
1%	0.0067	0.0064
5%	0.0086	0.0107
10%	0.0097	0.0134
50%	0.0143	0.0285
90%	0.0198	0.0546
95%	0.0215	0.0649
99%	0.0247	0.0875
max	0.0326	0.1595

Cross Sectional Volatility Over Time : BASE



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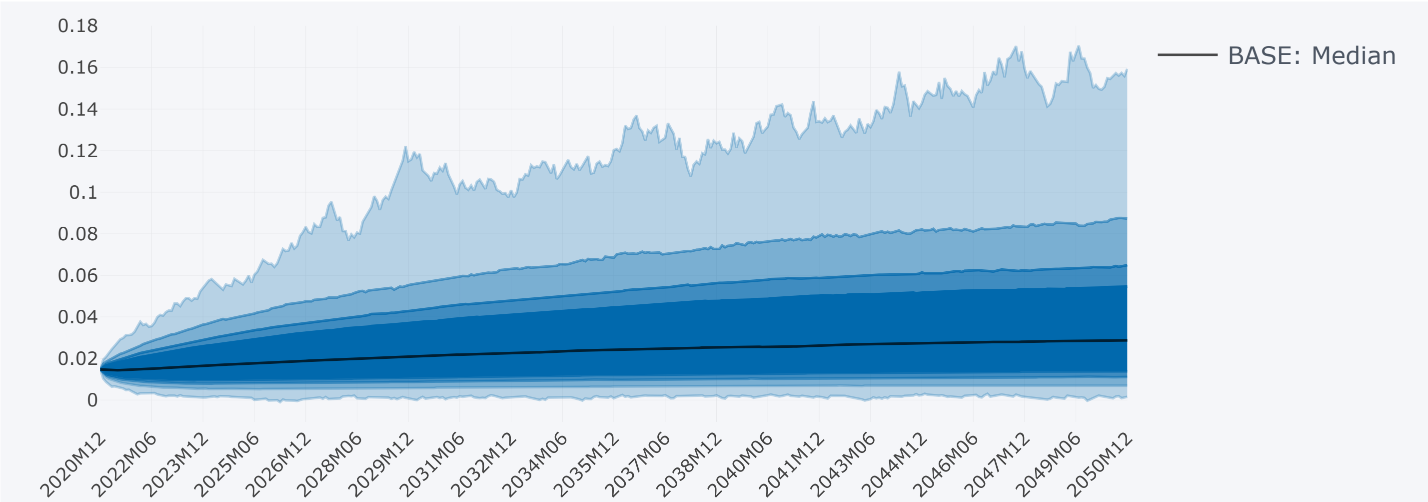
Simulated Data in Percentiles : US Treasury 21 Year Yield - Coupon

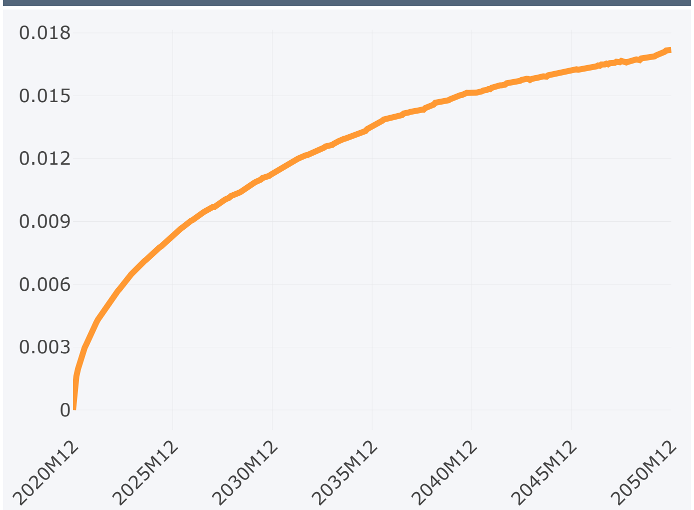


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0149	0.0321
std	0.0039	0.0172
min	0.0031	0.0015
1%	0.0072	0.0069
5%	0.0091	0.0111
10%	0.0102	0.0138
50%	0.0146	0.0287
90%	0.0200	0.0546
95%	0.0217	0.0649
99%	0.0249	0.0873
max	0.0328	0.1593

Cross Sectional Volatility Over Time : BASE



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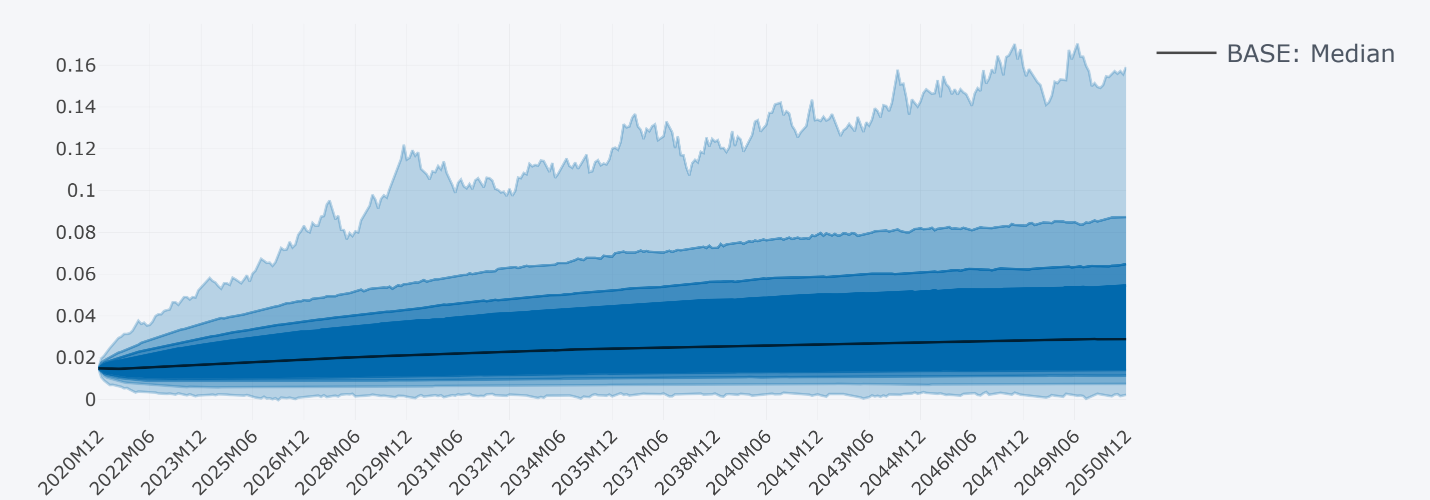
Simulated Data in Percentiles : US Treasury 22 Year Yield - Coupon

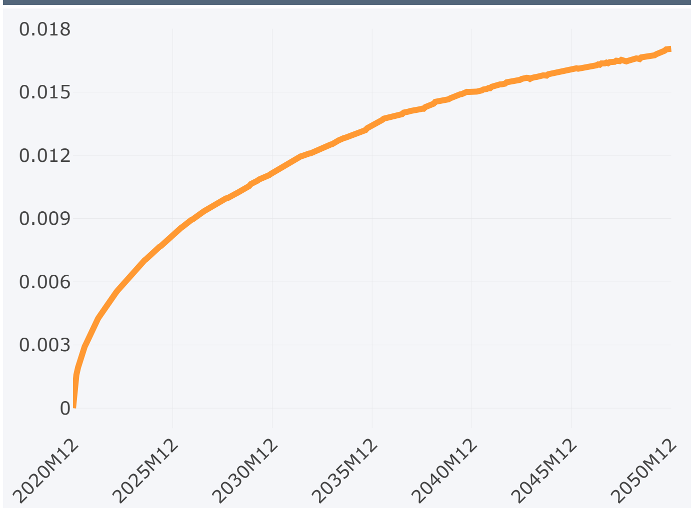


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

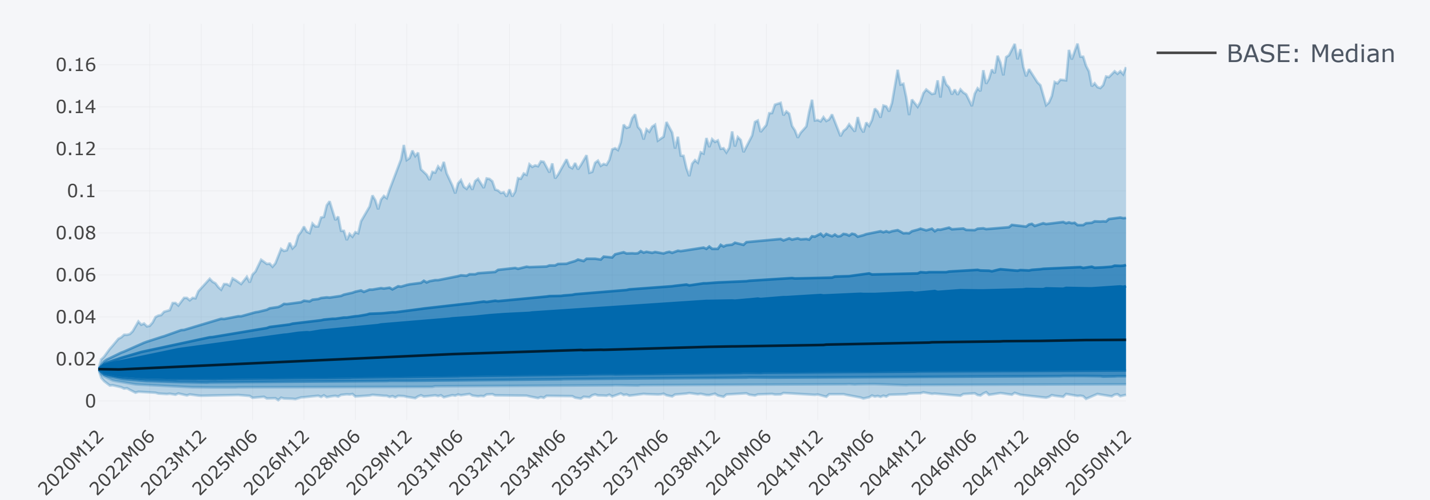
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0153	0.0323
std	0.0038	0.0171
min	0.0037	0.0022
1%	0.0077	0.0075
5%	0.0095	0.0115
10%	0.0106	0.0141
50%	0.0150	0.0289
90%	0.0203	0.0546
95%	0.0219	0.0648
99%	0.0251	0.0873
max	0.0330	0.1591

Cross Sectional Volatility Over Time : BASE



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

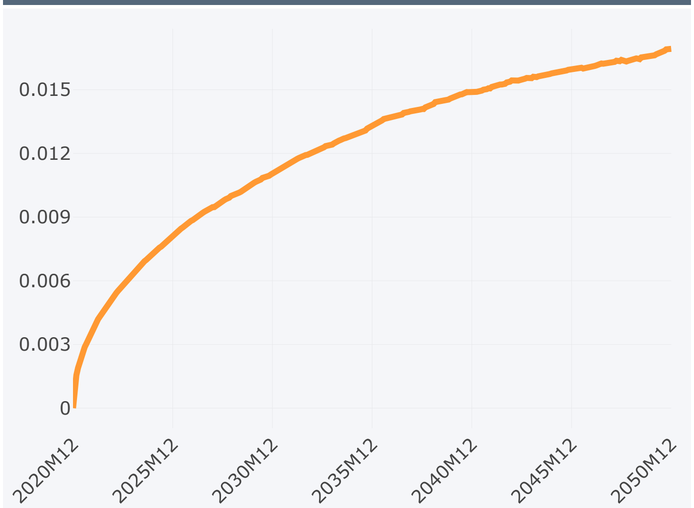


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

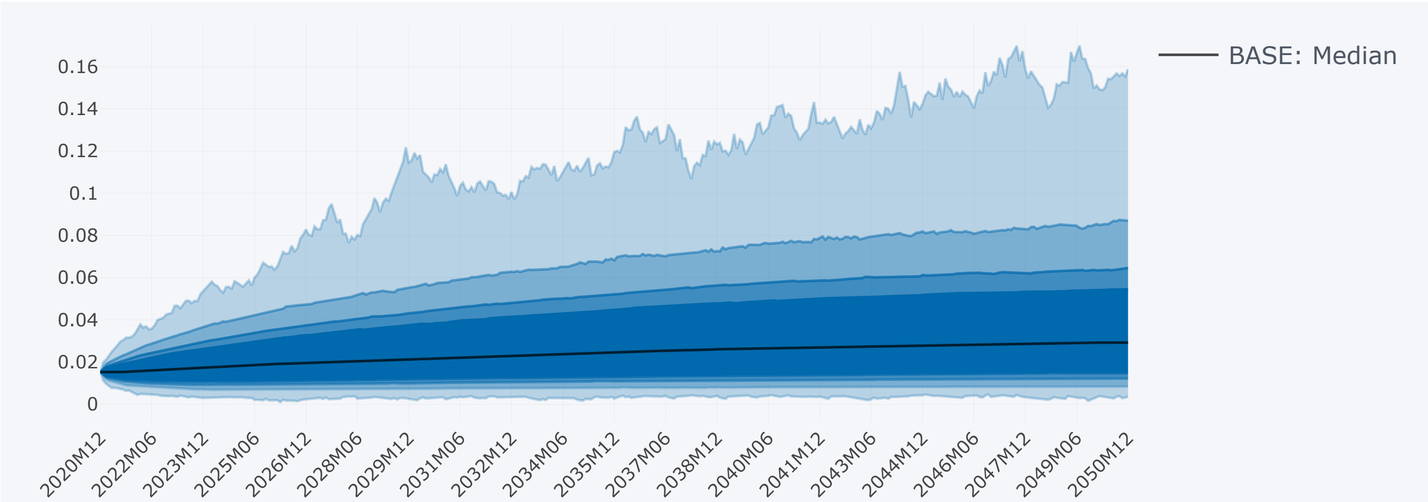
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0156	0.0325
std	0.0037	0.0169
min	0.0043	0.0029
1%	0.0081	0.0079
5%	0.0100	0.0118
10%	0.0110	0.0145
50%	0.0153	0.0291
90%	0.0205	0.0546
95%	0.0221	0.0647
99%	0.0253	0.0871
max	0.0331	0.1589

Cross Sectional Volatility Over Time : BASE



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

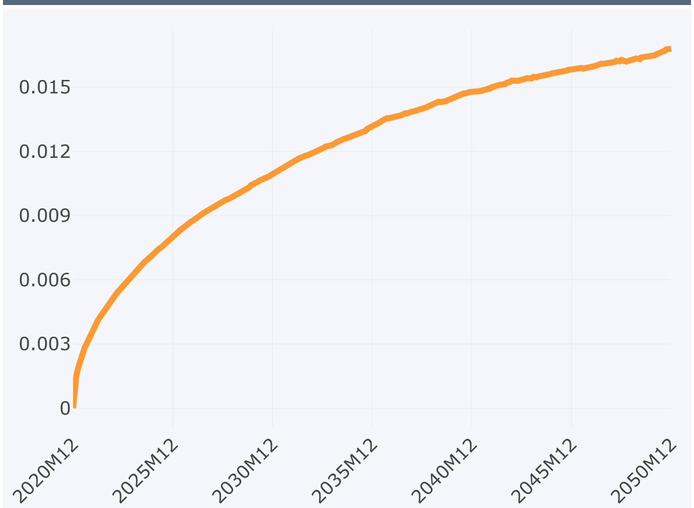


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

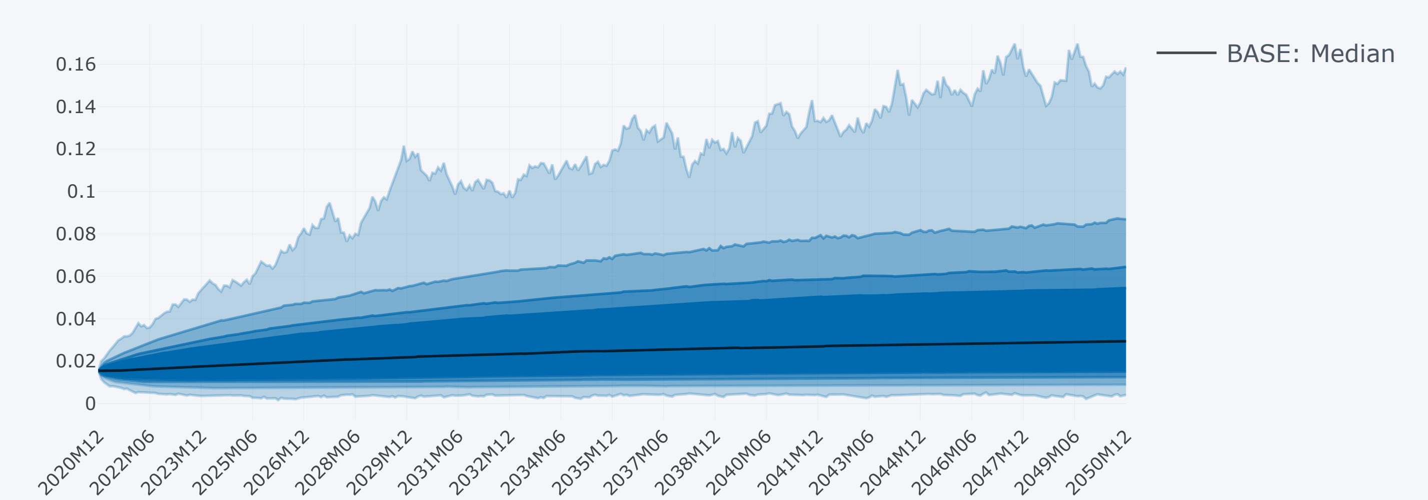
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0159	0.0327
std	0.0037	0.0168
min	0.0048	0.0035
1%	0.0085	0.0084
5%	0.0104	0.0122
10%	0.0114	0.0148
50%	0.0156	0.0293
90%	0.0207	0.0545
95%	0.0223	0.0646
99%	0.0254	0.0870
max	0.0333	0.1588

Cross Sectional Volatility Over Time : BASE



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

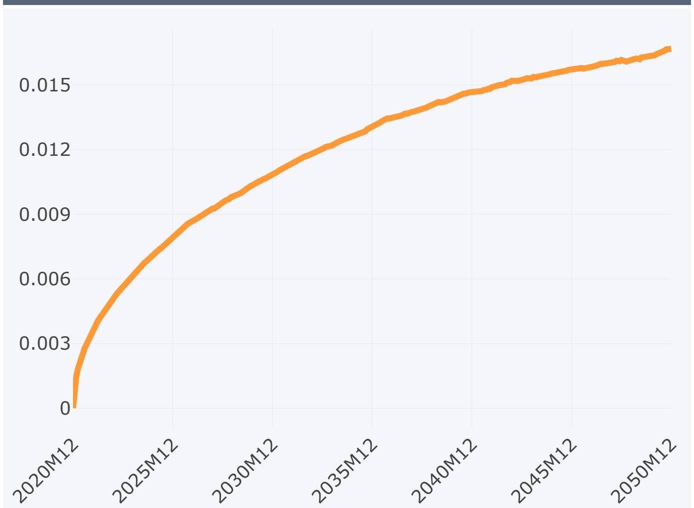


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

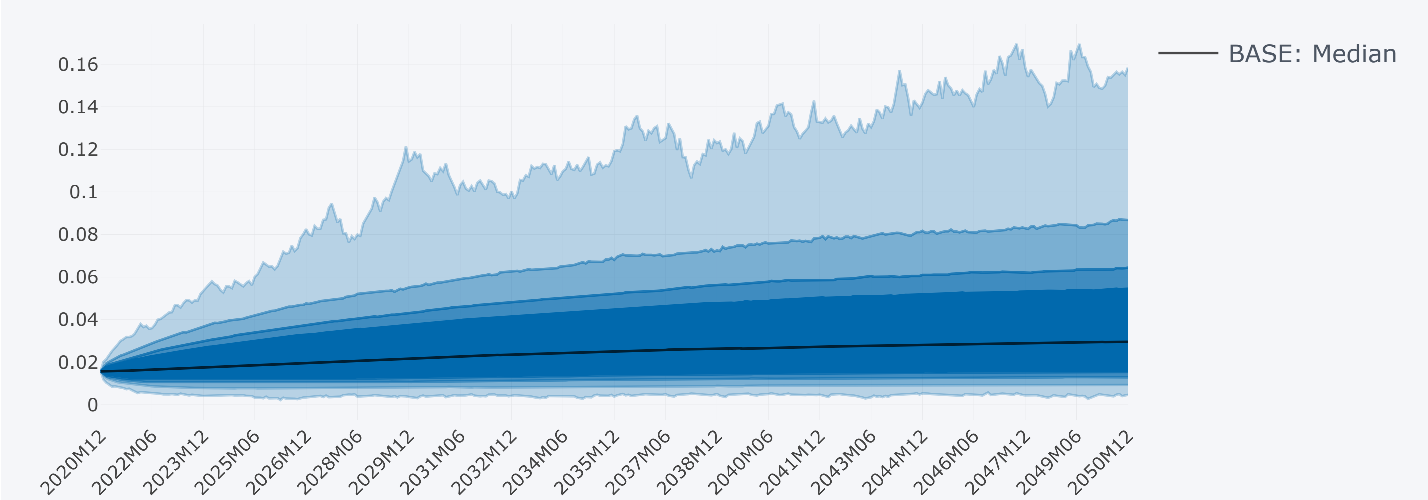
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0162	0.0328
std	0.0036	0.0167
min	0.0054	0.0041
1%	0.0090	0.0089
5%	0.0107	0.0125
10%	0.0117	0.0151
50%	0.0159	0.0294
90%	0.0210	0.0545
95%	0.0226	0.0645
99%	0.0256	0.0869
max	0.0334	0.1586

Cross Sectional Volatility Over Time : BASE



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

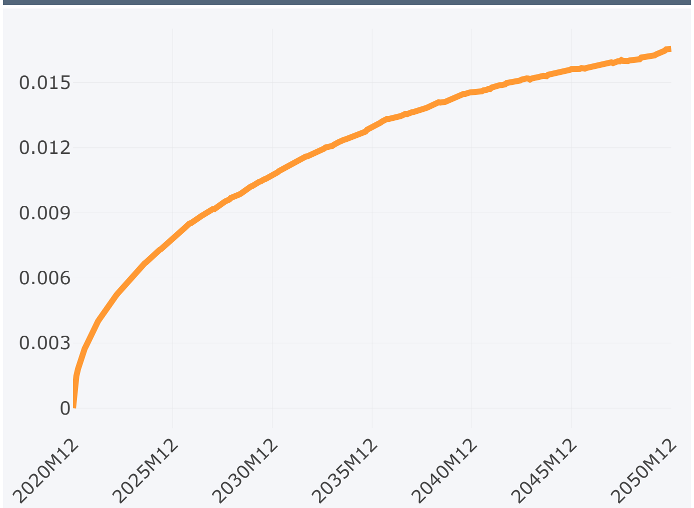


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

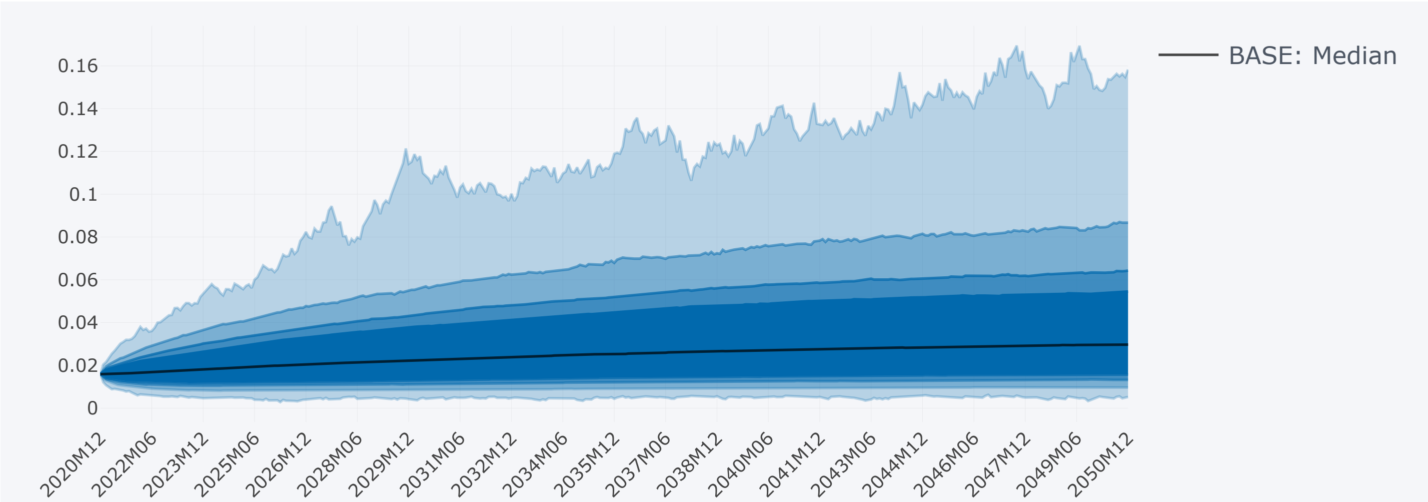
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0165	0.0329
std	0.0036	0.0166
min	0.0059	0.0047
1%	0.0094	0.0093
5%	0.0111	0.0129
10%	0.0121	0.0154
50%	0.0162	0.0296
90%	0.0212	0.0545
95%	0.0228	0.0644
99%	0.0257	0.0868
max	0.0335	0.1584

Cross Sectional Volatility Over Time : BASE



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

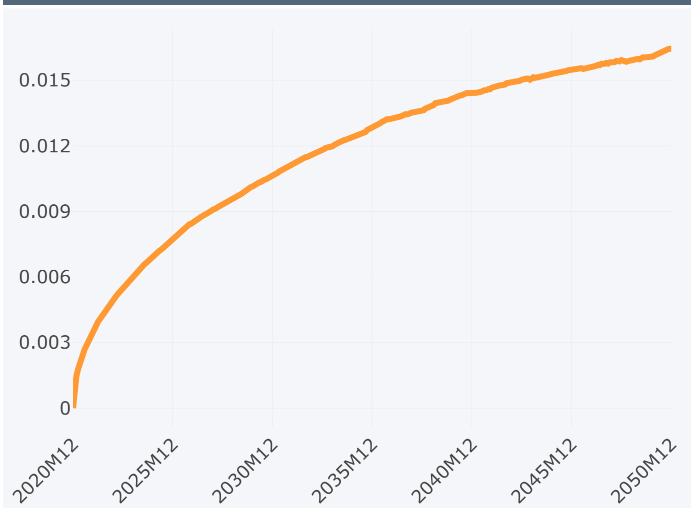


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0167	0.0331
std	0.0035	0.0164
min	0.0063	0.0052
1%	0.0097	0.0096
5%	0.0114	0.0132
10%	0.0124	0.0157
50%	0.0164	0.0297
90%	0.0214	0.0545
95%	0.0229	0.0643
99%	0.0259	0.0867
max	0.0336	0.1583

Cross Sectional Volatility Over Time : BASE



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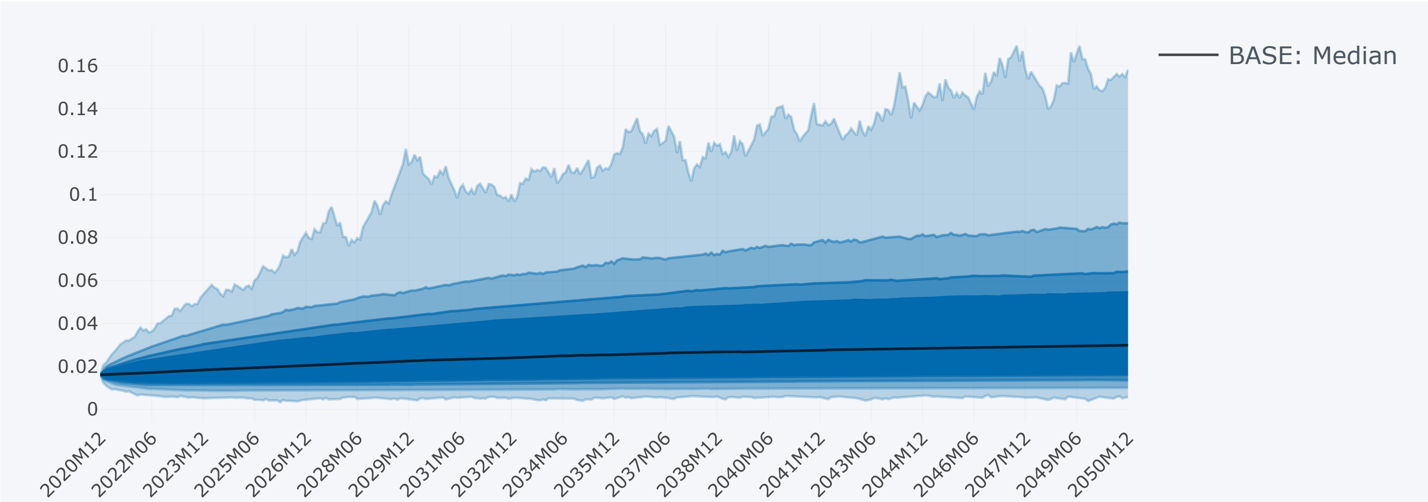
Simulated Data in Percentiles : US Treasury 28 Year Yield - Coupon

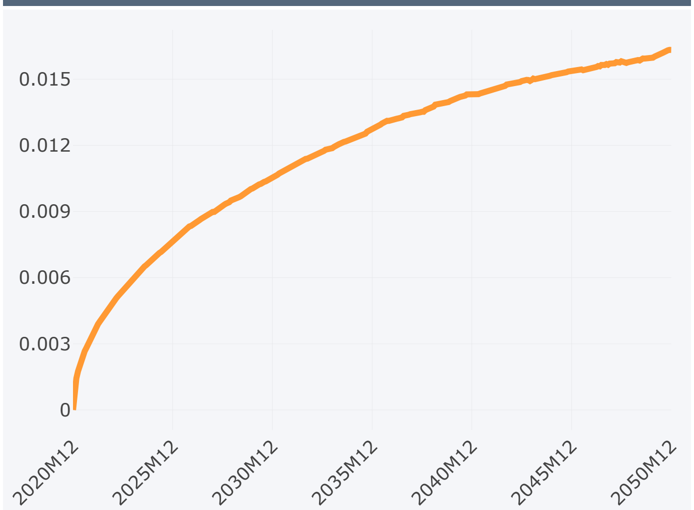


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0170	0.0332
std	0.0035	0.0163
min	0.0068	0.0057
1%	0.0101	0.0100
5%	0.0118	0.0135
10%	0.0127	0.0160
50%	0.0167	0.0298
90%	0.0216	0.0544
95%	0.0231	0.0642
99%	0.0260	0.0866
max	0.0337	0.1581

Cross Sectional Volatility Over Time : BASE



US Treasury 29 Year Yield - Coupon

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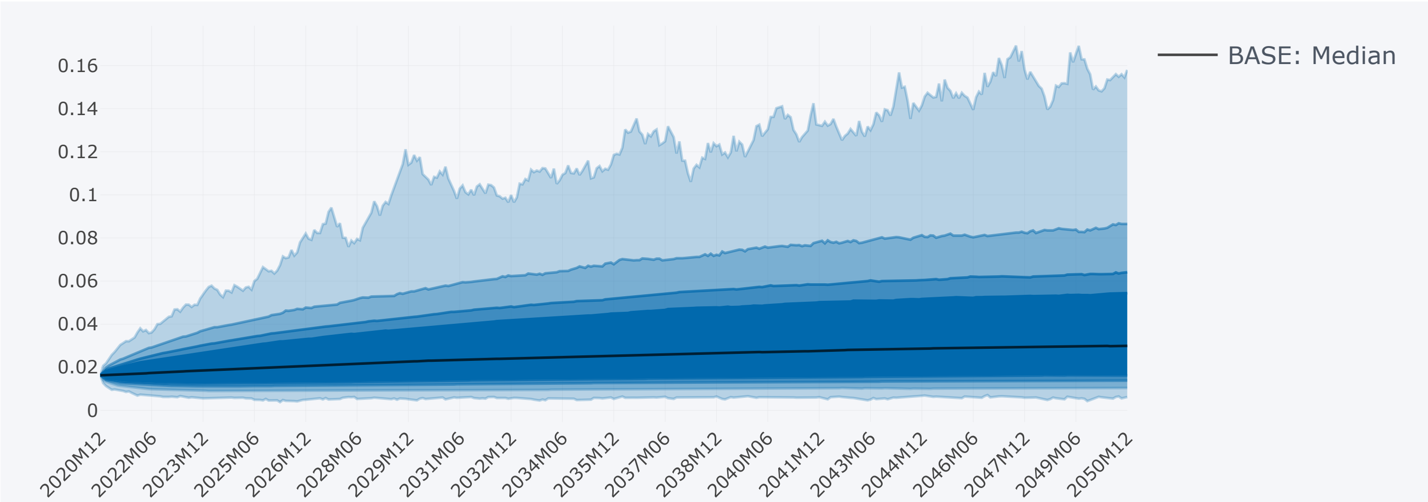
Simulated Data in Percentiles : US Treasury 29 Year Yield - Coupon



Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.

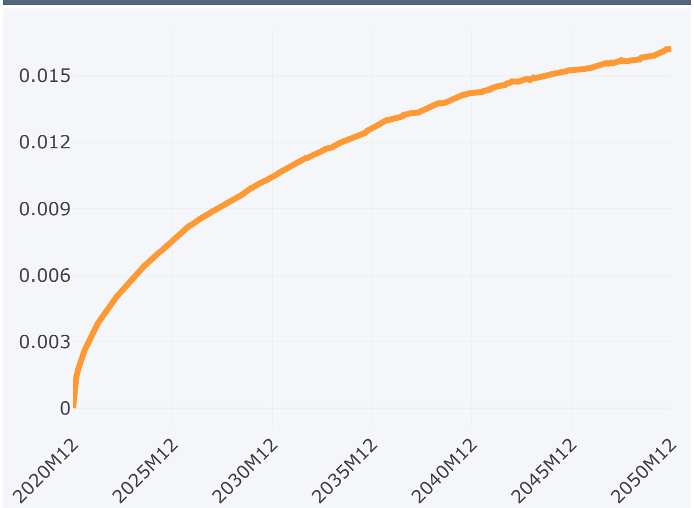
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max

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

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0172	0.0333
std	0.0034	0.0162
min	0.0072	0.0062
1%	0.0104	0.0104
5%	0.0121	0.0138
10%	0.0130	0.0162
50%	0.0169	0.0299
90%	0.0217	0.0544
95%	0.0233	0.0641
99%	0.0262	0.0865
max	0.0338	0.1580

Cross Sectional Volatility Over Time : BASE



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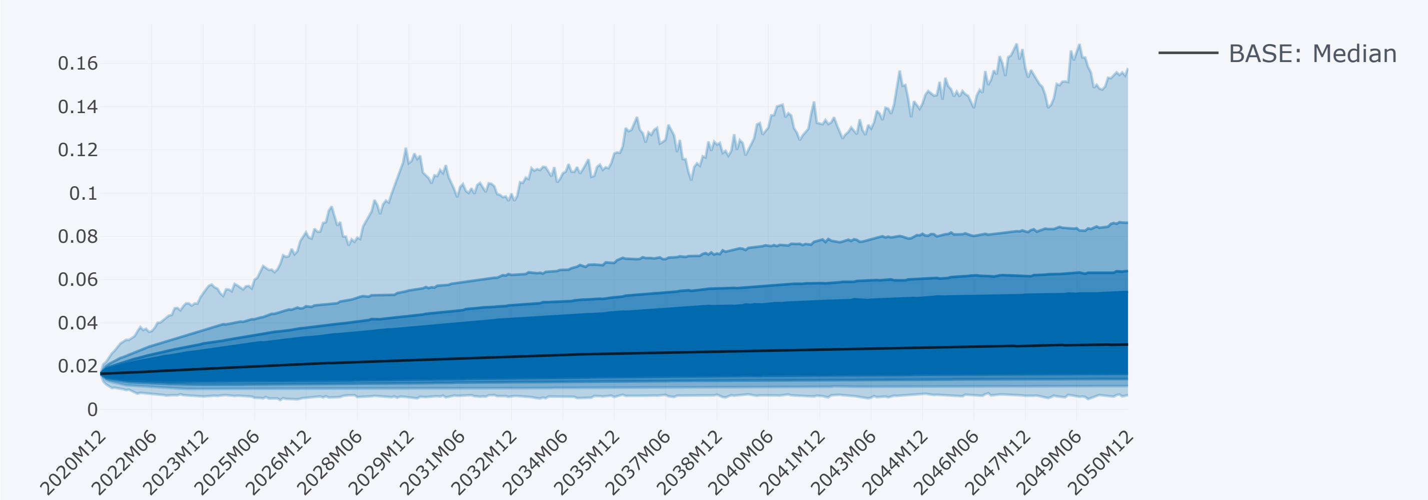
Simulated Data in Percentiles : US Treasury 30 Year Yield - Coupon

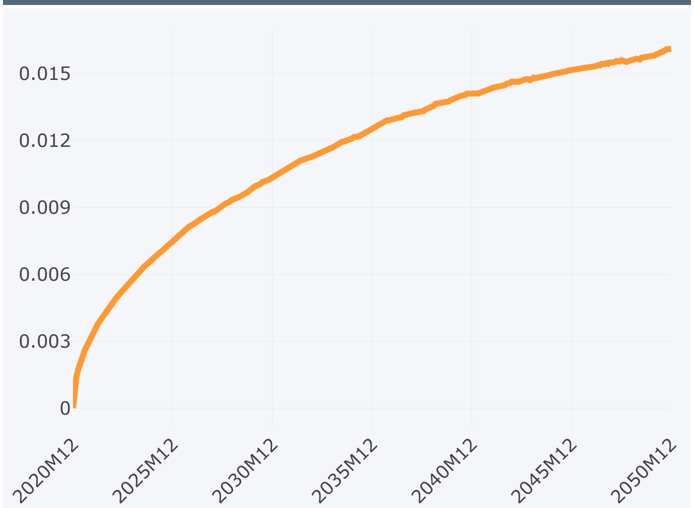


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

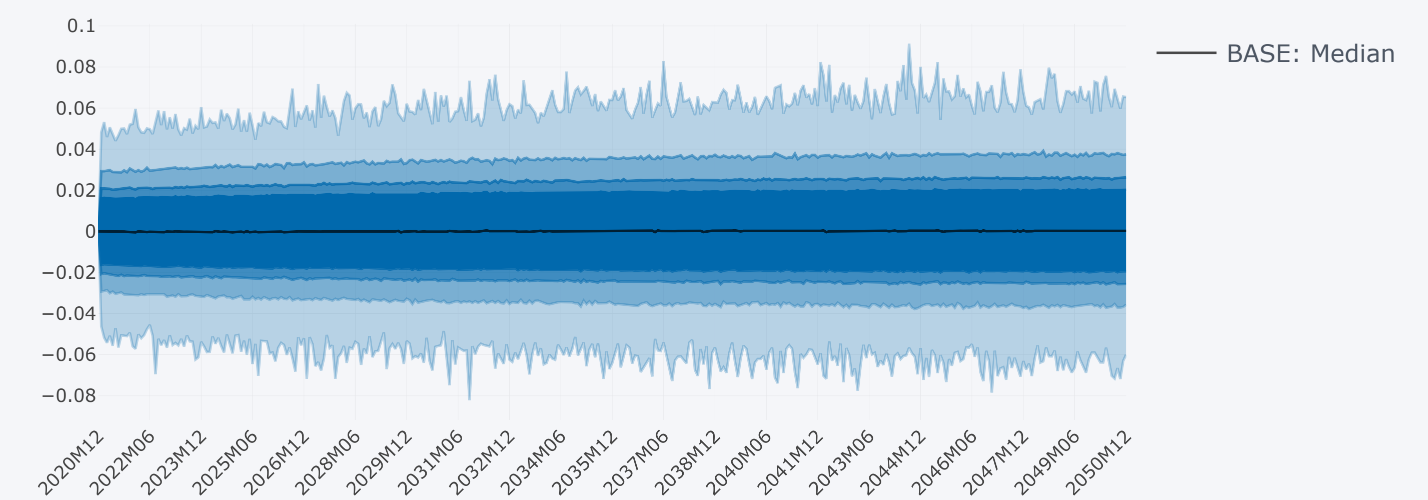
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0175	0.0334
std	0.0034	0.0161
min	0.0076	0.0066
1%	0.0108	0.0108
5%	0.0124	0.0141
10%	0.0134	0.0165
50%	0.0172	0.0300
90%	0.0219	0.0543
95%	0.0234	0.0640
99%	0.0263	0.0863
max	0.0339	0.1578

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Int Govt Bonds Price

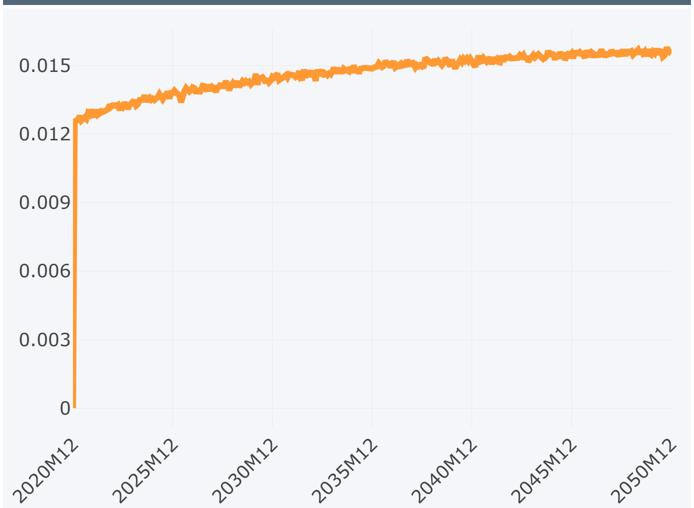


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

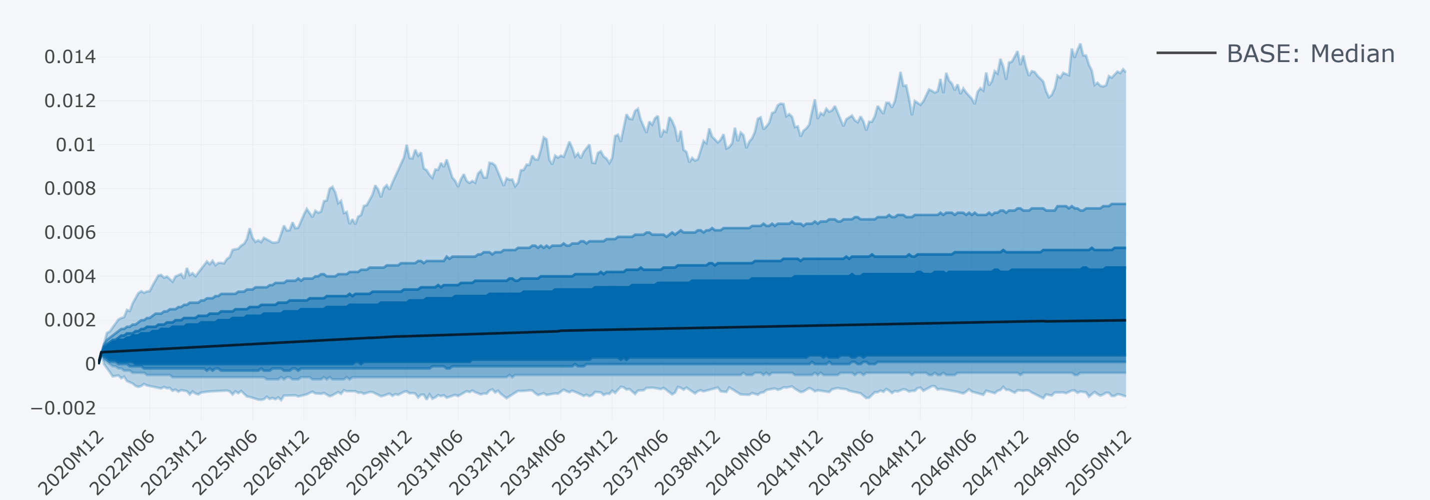
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	-0.0003	0.0003
std	0.0129	0.0155
min	-0.0559	-0.0601
1%	-0.0305	-0.0357
5%	-0.0217	-0.0256
10%	-0.0169	-0.0194
50%	-0.0002	0.0002
90%	0.0162	0.0202
95%	0.0207	0.0263
99%	0.0294	0.0375
max	0.0523	0.0654

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Int Govt Bonds Income

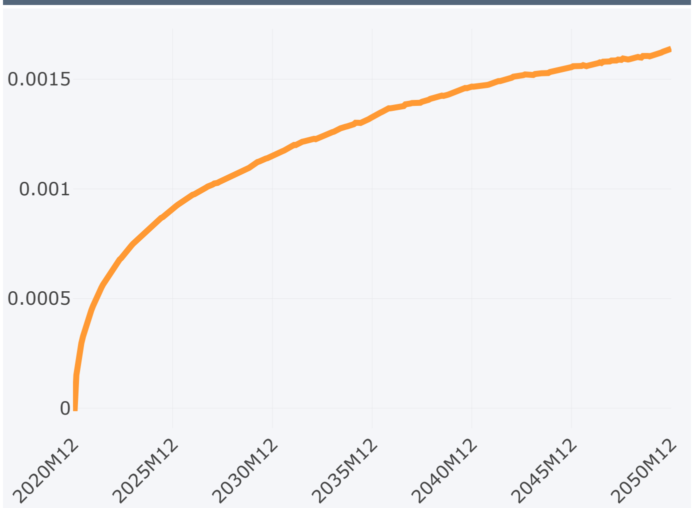


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

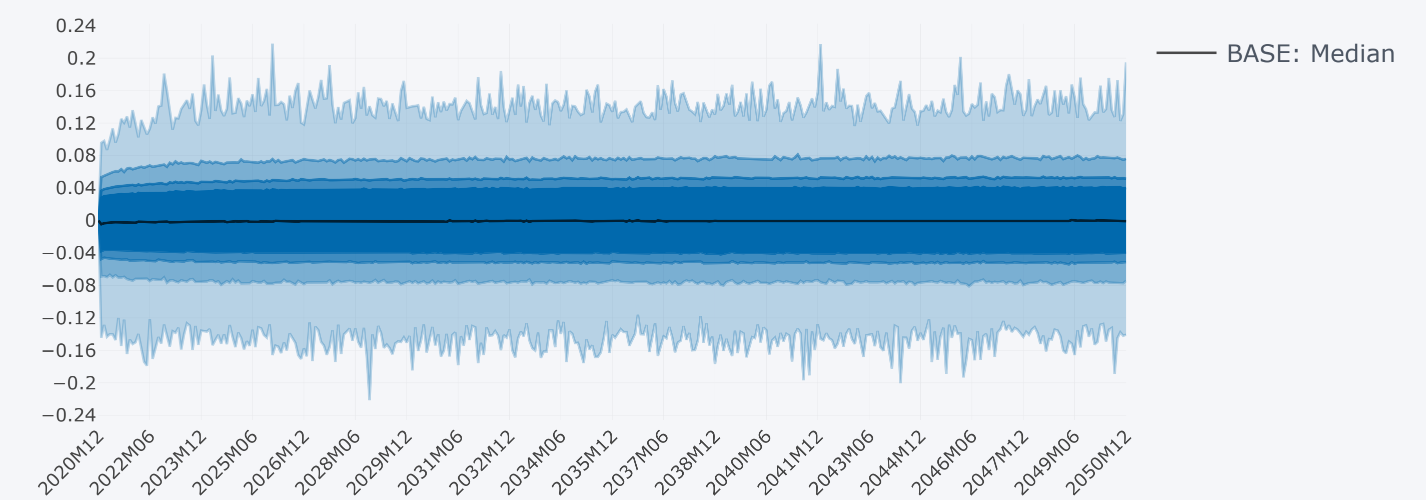
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0006	0.0023
std	0.0005	0.0016
min	-0.0009	-0.0015
1%	-0.0004	-0.0004
5%	-0.0001	0.0001
10%	0.0001	0.0004
50%	0.0006	0.0020
90%	0.0013	0.0044
95%	0.0014	0.0053
99%	0.0018	0.0073
max	0.0028	0.0133

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Long Inv Corp Bonds Price

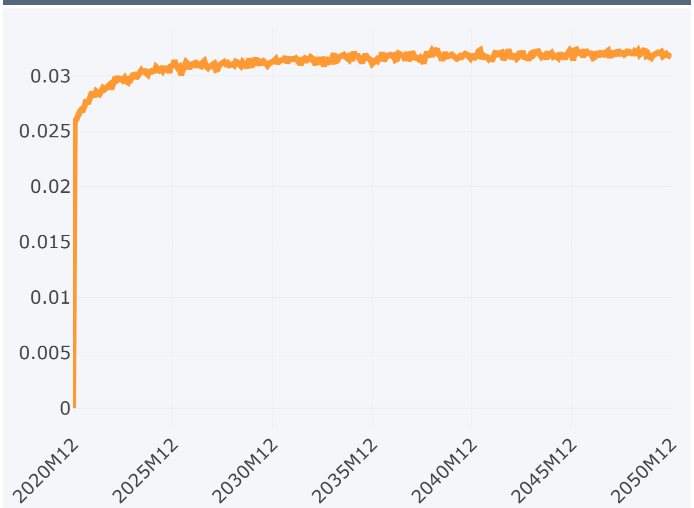


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

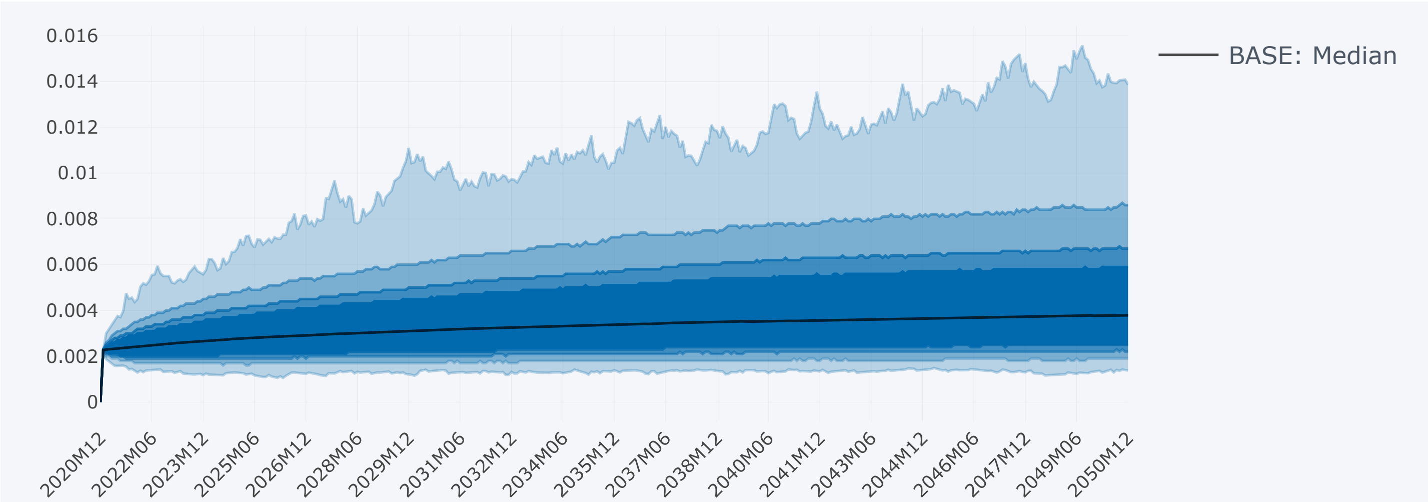
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	-0.0023	-0.0002
std	0.0284	0.0317
min	-0.1521	-0.1407
1%	-0.0742	-0.0745
5%	-0.0491	-0.0513
10%	-0.0373	-0.0399
50%	-0.0019	-0.0008
90%	0.0332	0.0400
95%	0.0439	0.0515
99%	0.0631	0.0759
max	0.1358	0.1949

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Long Inv Corp Bonds Income

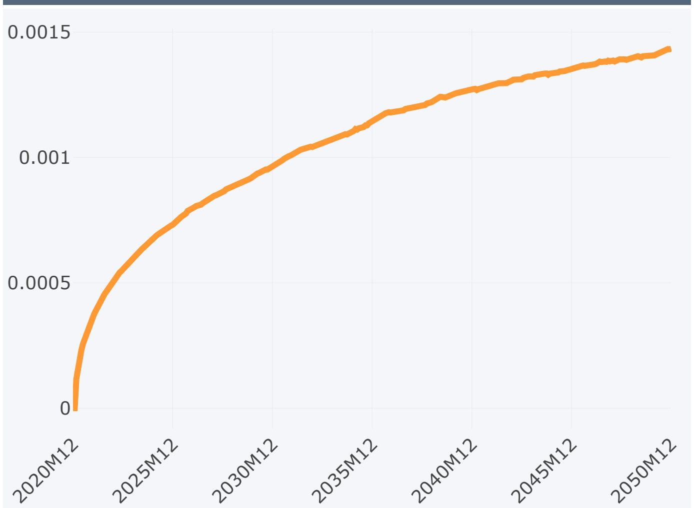


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

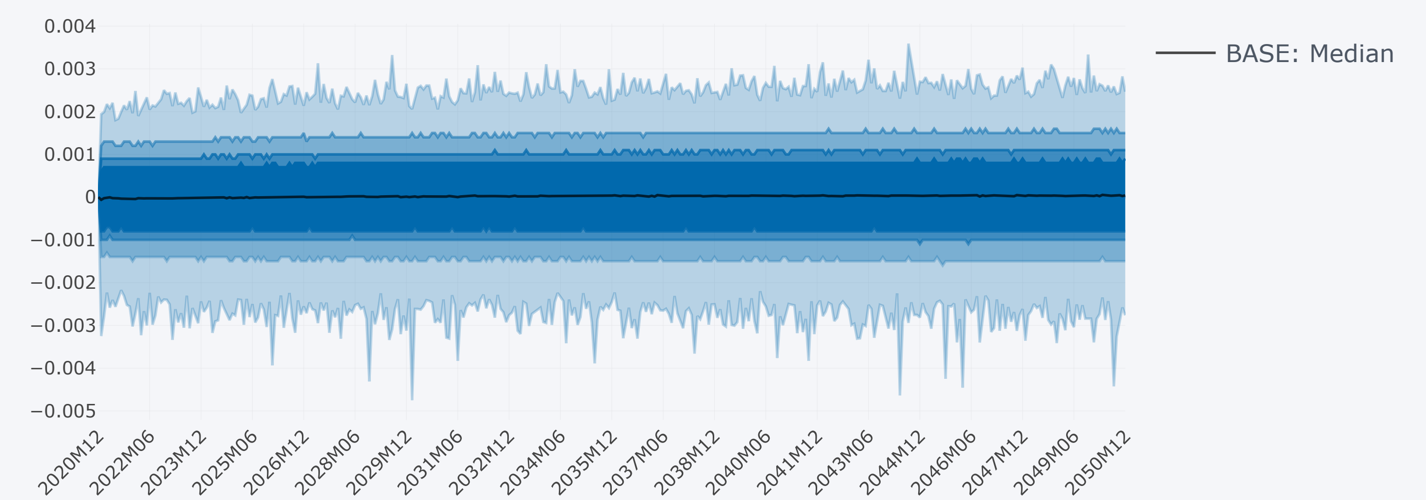
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0025	0.0040
std	0.0004	0.0014
min	0.0014	0.0014
1%	0.0017	0.0019
5%	0.0019	0.0022
10%	0.0020	0.0025
50%	0.0024	0.0038
90%	0.0029	0.0059
95%	0.0031	0.0067
99%	0.0035	0.0086
max	0.0044	0.0139

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Money Market Price

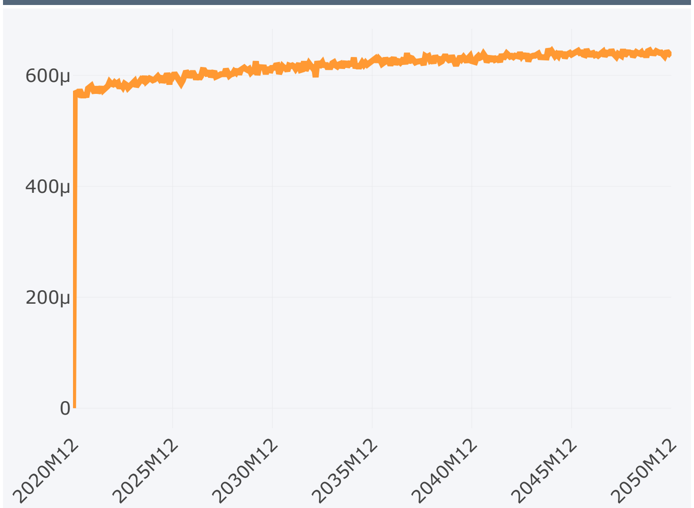


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

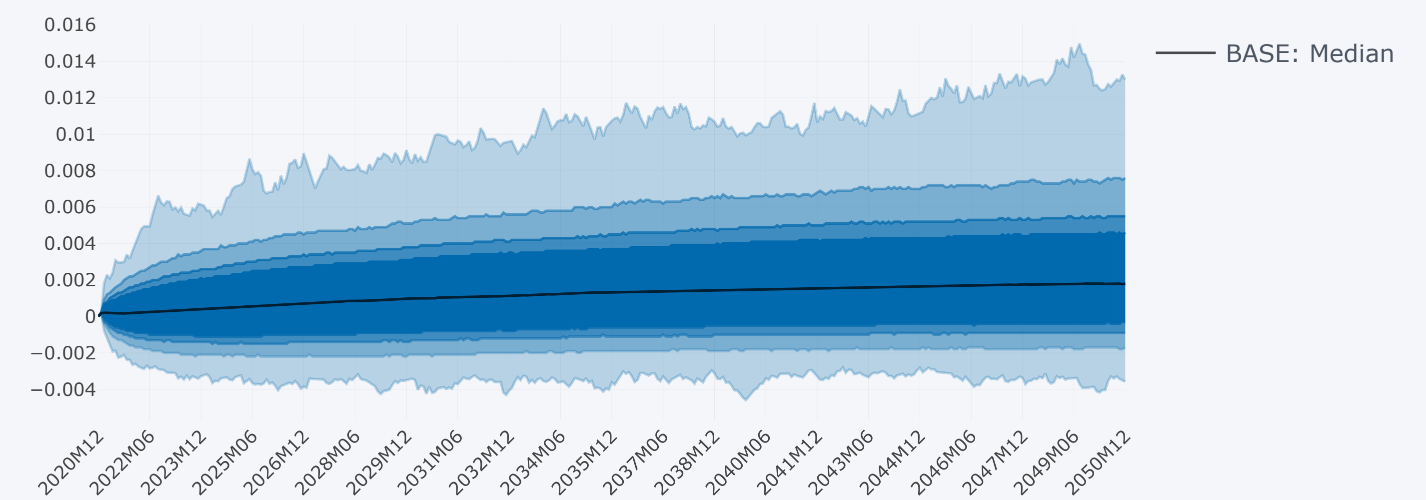
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0000	0.0000
std	0.0006	0.0006
min	-0.0030	-0.0028
1%	-0.0015	-0.0015
5%	-0.0010	-0.0010
10%	-0.0008	-0.0008
50%	0.0000	0.0000
90%	0.0007	0.0009
95%	0.0009	0.0011
99%	0.0012	0.0015
max	0.0020	0.0025

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Money Market Income

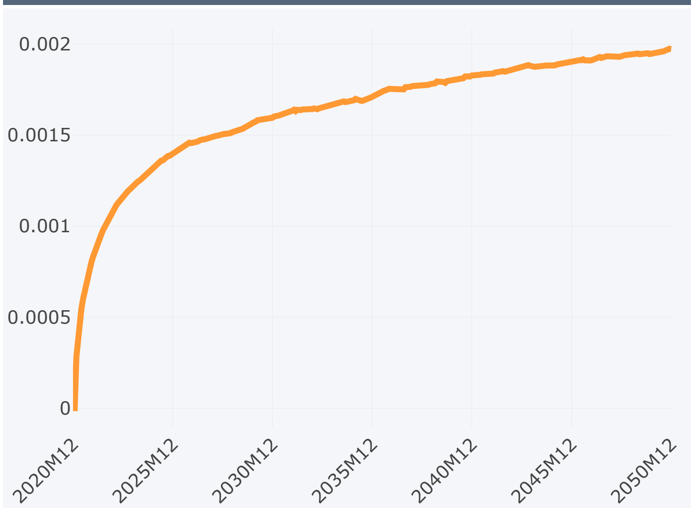


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0002	0.0020
std	0.0008	0.0020
min	-0.0027	-0.0036
1%	-0.0016	-0.0017
5%	-0.0011	-0.0009
10%	-0.0008	-0.0003
50%	0.0002	0.0018
90%	0.0013	0.0046
95%	0.0016	0.0055
99%	0.0022	0.0076
max	0.0036	0.0130

Cross Sectional Volatility Over Time : BASE



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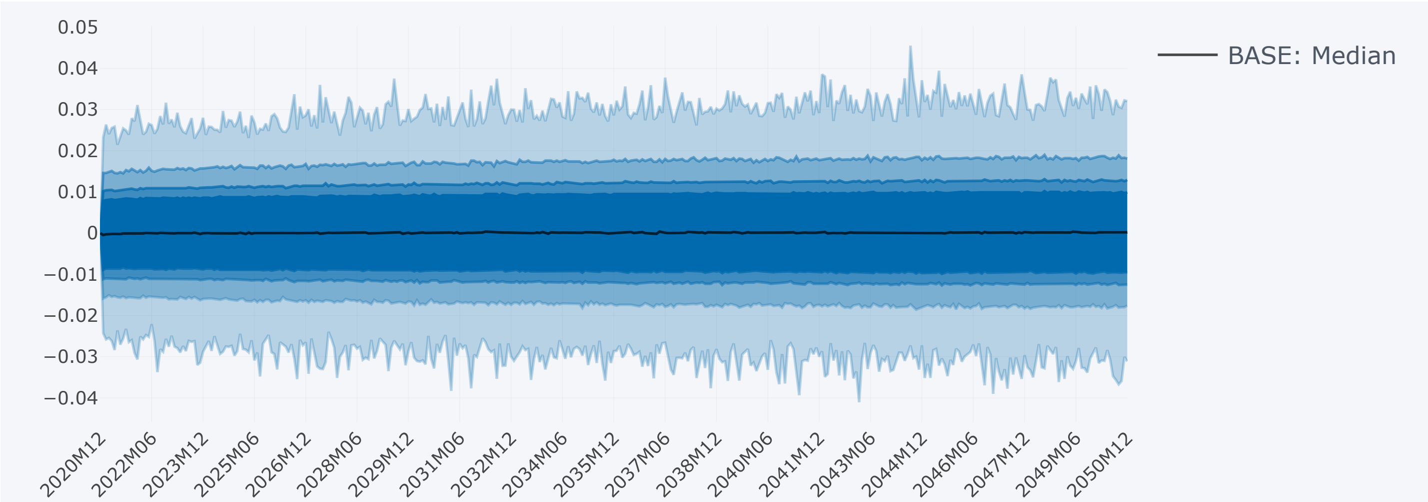
Simulated Data in Percentiles : Short Govt Bonds Price

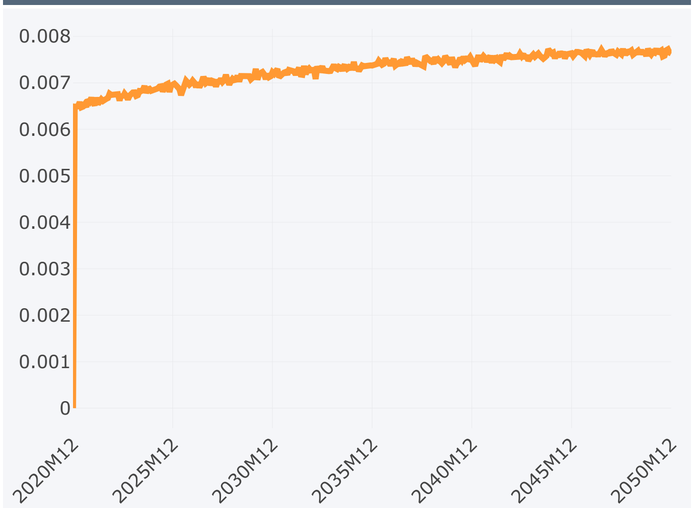


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

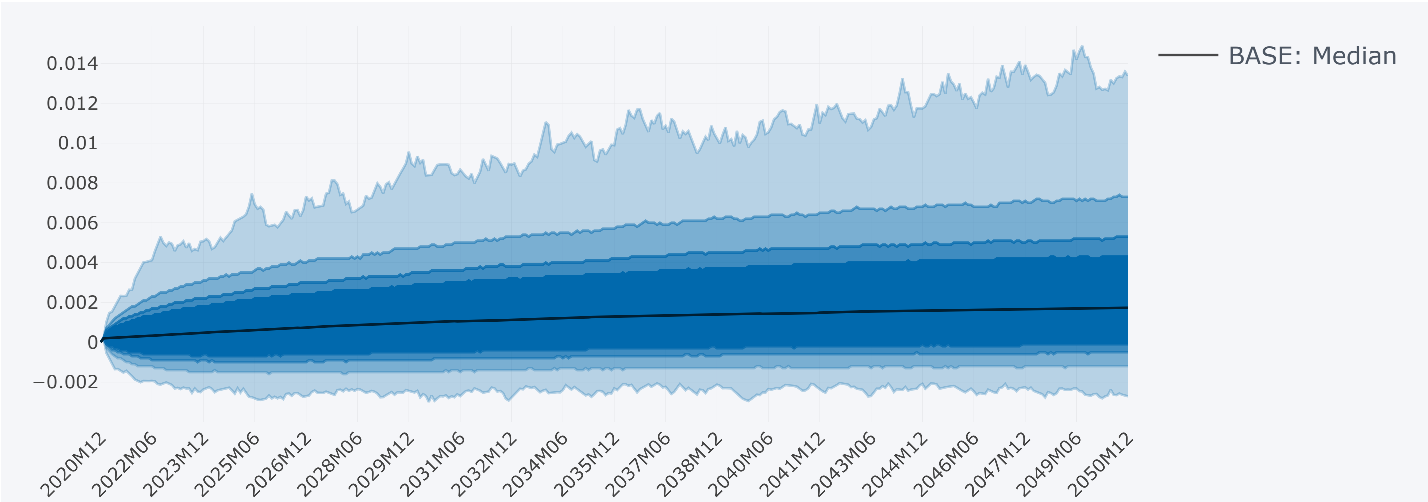
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	-0.0001	0.0002
std	0.0066	0.0076
min	-0.0291	-0.0311
1%	-0.0157	-0.0176
5%	-0.0111	-0.0125
10%	-0.0087	-0.0095
50%	-0.0001	0.0002
90%	0.0082	0.0099
95%	0.0106	0.0129
99%	0.0150	0.0181
max	0.0272	0.0320

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Short Govt Bonds Income

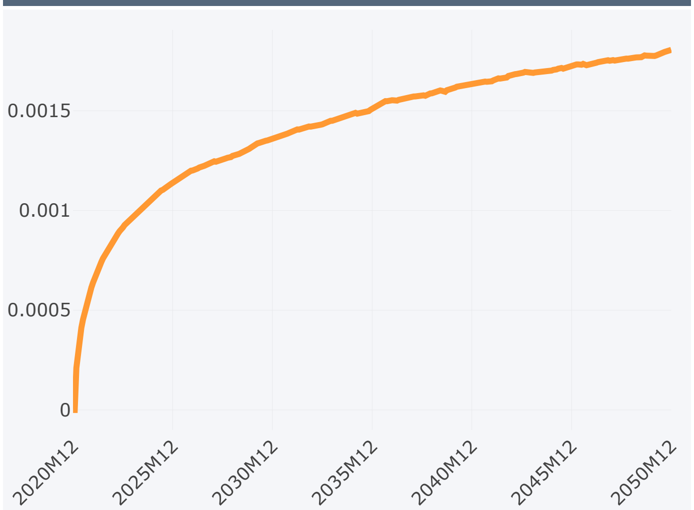


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

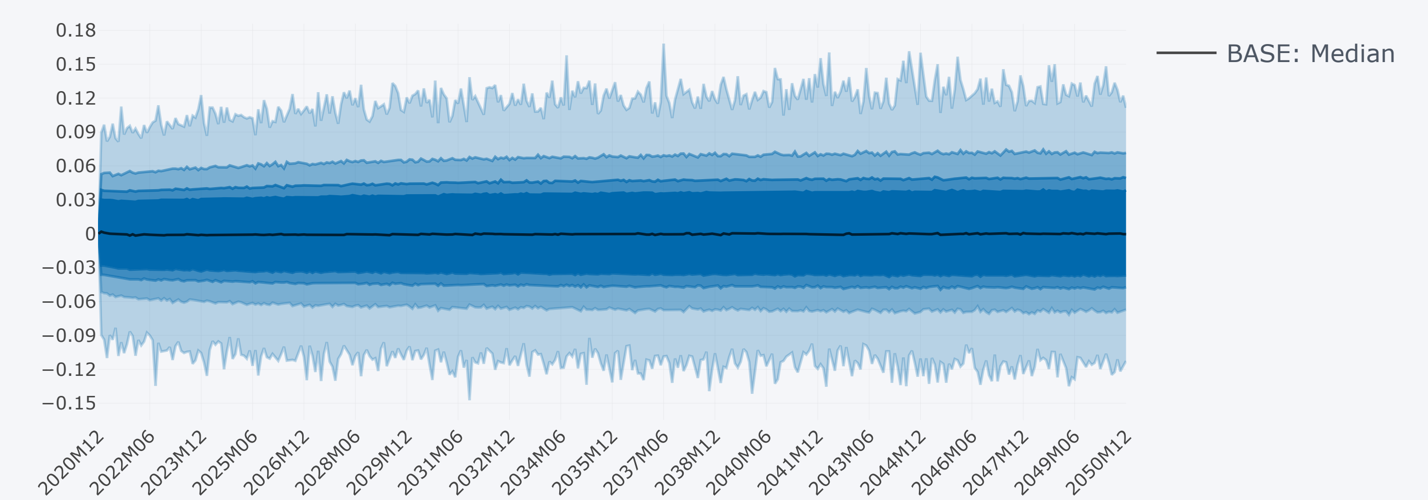
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0003	0.0020
std	0.0006	0.0018
min	-0.0019	-0.0027
1%	-0.0011	-0.0012
5%	-0.0007	-0.0005
10%	-0.0005	-0.0001
50%	0.0003	0.0017
90%	0.0011	0.0043
95%	0.0014	0.0053
99%	0.0018	0.0073
max	0.0032	0.0134

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Long Govt Bonds Price

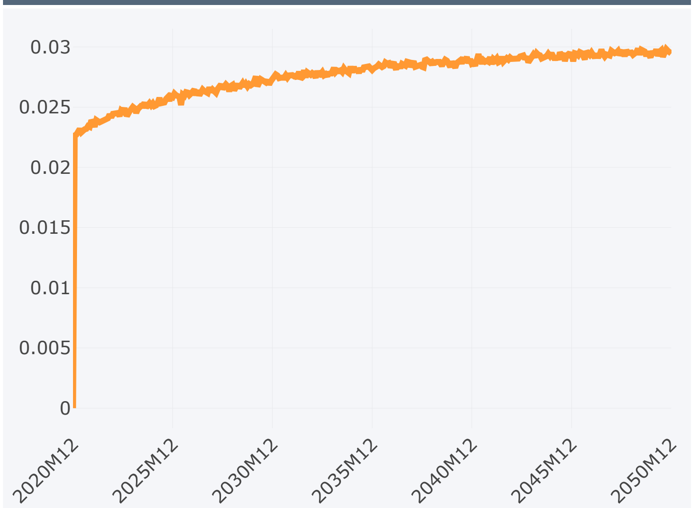


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

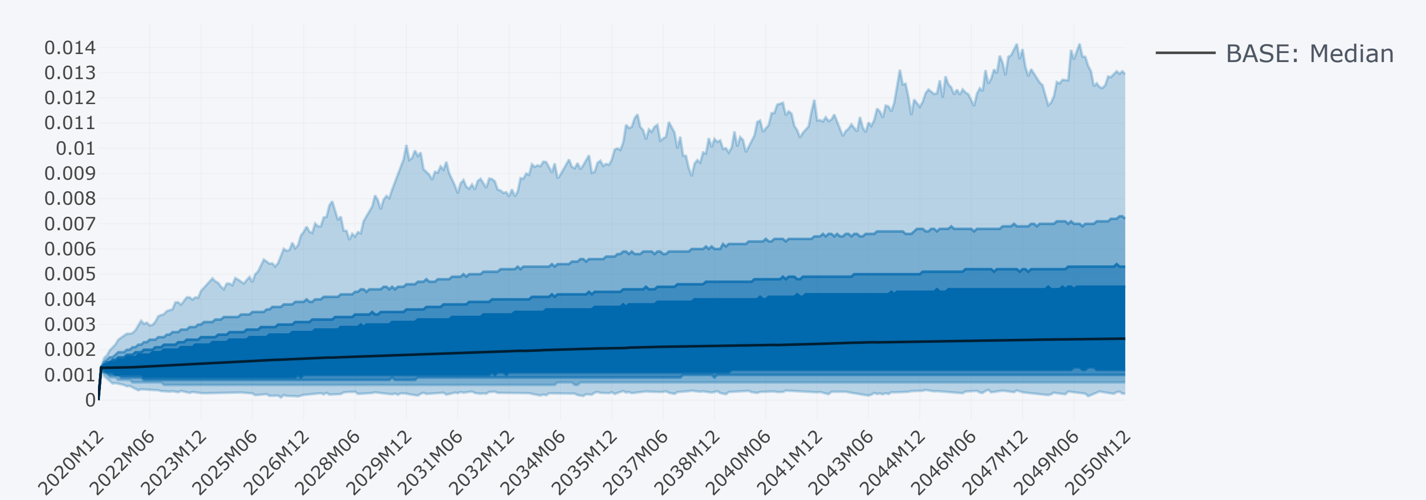
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	-0.0010	0.0003
std	0.0237	0.0295
min	-0.0905	-0.1126
1%	-0.0567	-0.0672
5%	-0.0401	-0.0473
10%	-0.0317	-0.0369
50%	-0.0005	-0.0004
90%	0.0289	0.0384
95%	0.0377	0.0493
99%	0.0540	0.0715
max	0.0893	0.1114

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Long Govt Bonds Income

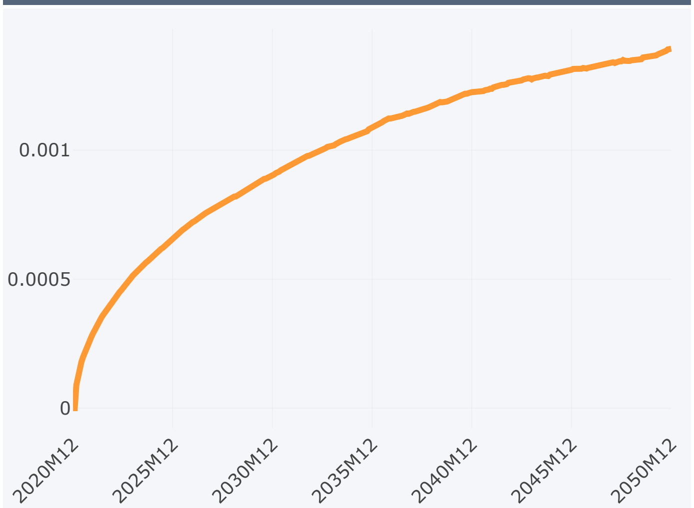


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

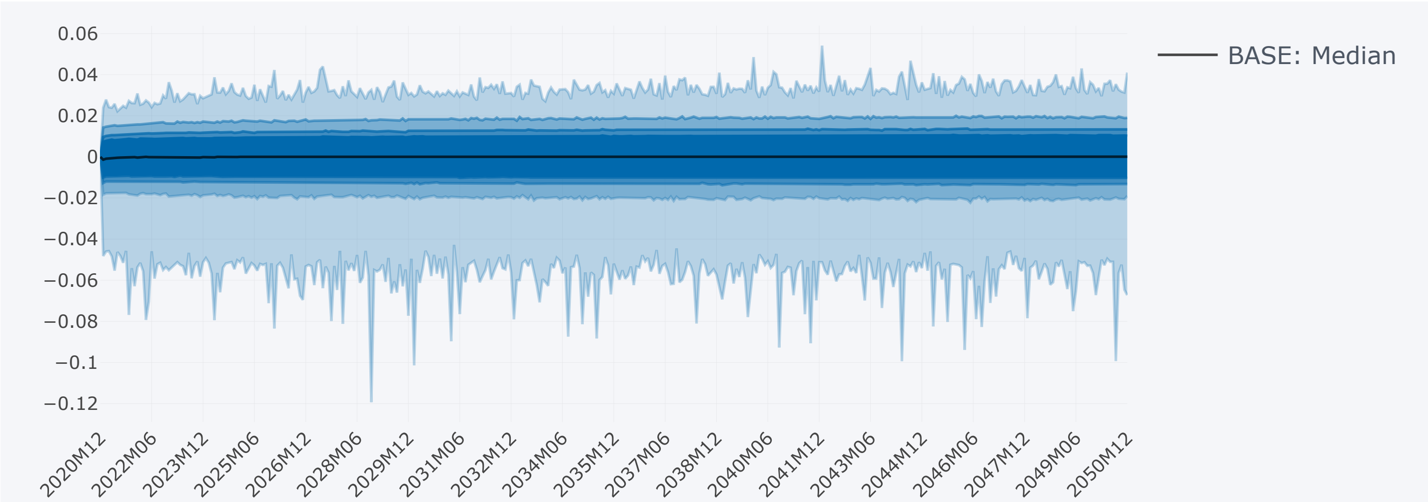
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0013	0.0027
std	0.0003	0.0014
min	0.0005	0.0003
1%	0.0007	0.0007
5%	0.0009	0.0010
10%	0.0010	0.0012
50%	0.0013	0.0024
90%	0.0017	0.0045
95%	0.0018	0.0053
99%	0.0021	0.0072
max	0.0027	0.0129

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Short Inv Corp Bonds Price

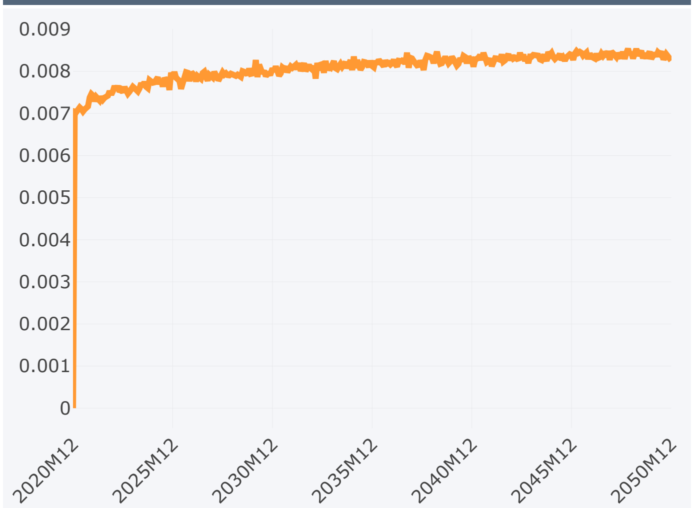


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

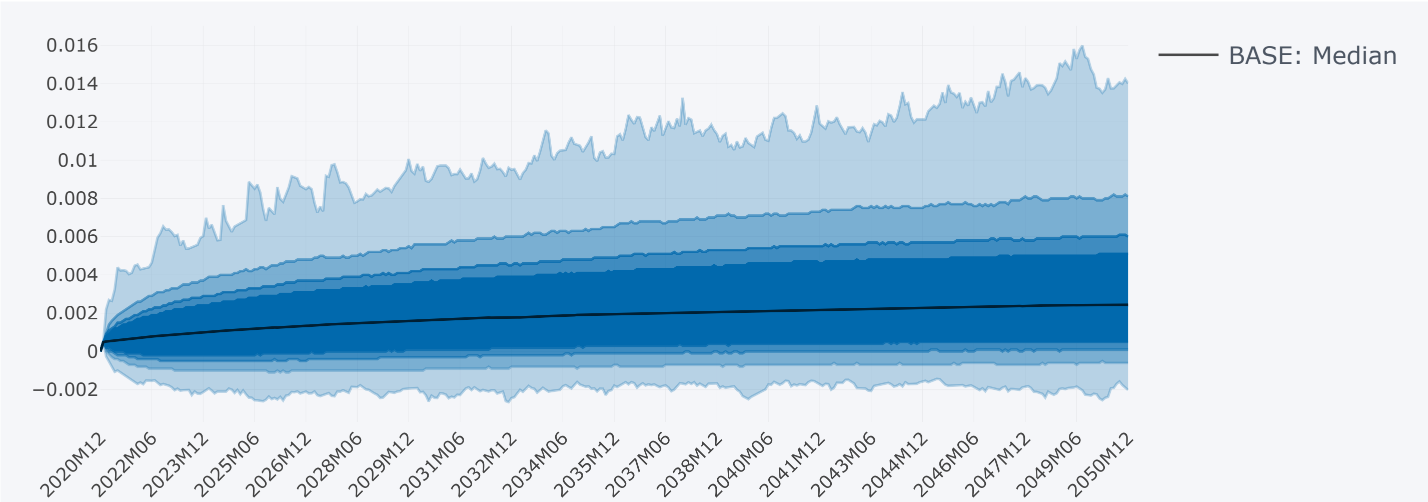
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	-0.0004	0.0001
std	0.0074	0.0083
min	-0.0629	-0.0672
1%	-0.0188	-0.0190
5%	-0.0121	-0.0132
10%	-0.0094	-0.0102
50%	-0.0001	0.0001
90%	0.0085	0.0103
95%	0.0110	0.0134
99%	0.0158	0.0190
max	0.0261	0.0410

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Short Inv Corp Bonds Income

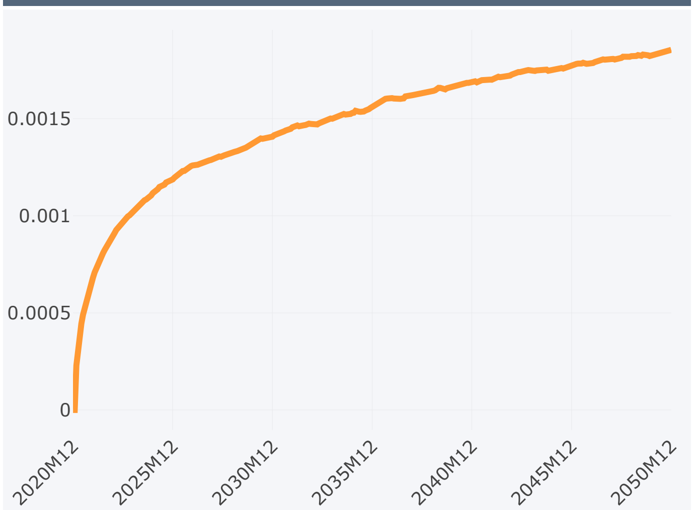


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0007	0.0027
std	0.0007	0.0019
min	-0.0016	-0.0020
1%	-0.0007	-0.0006
5%	-0.0003	0.0001
10%	-0.0001	0.0005
50%	0.0007	0.0024
90%	0.0016	0.0051
95%	0.0019	0.0060
99%	0.0025	0.0081
max	0.0045	0.0140

Cross Sectional Volatility Over Time : BASE



High Yield Corp Bonds Price
Conning | Risk Solutions

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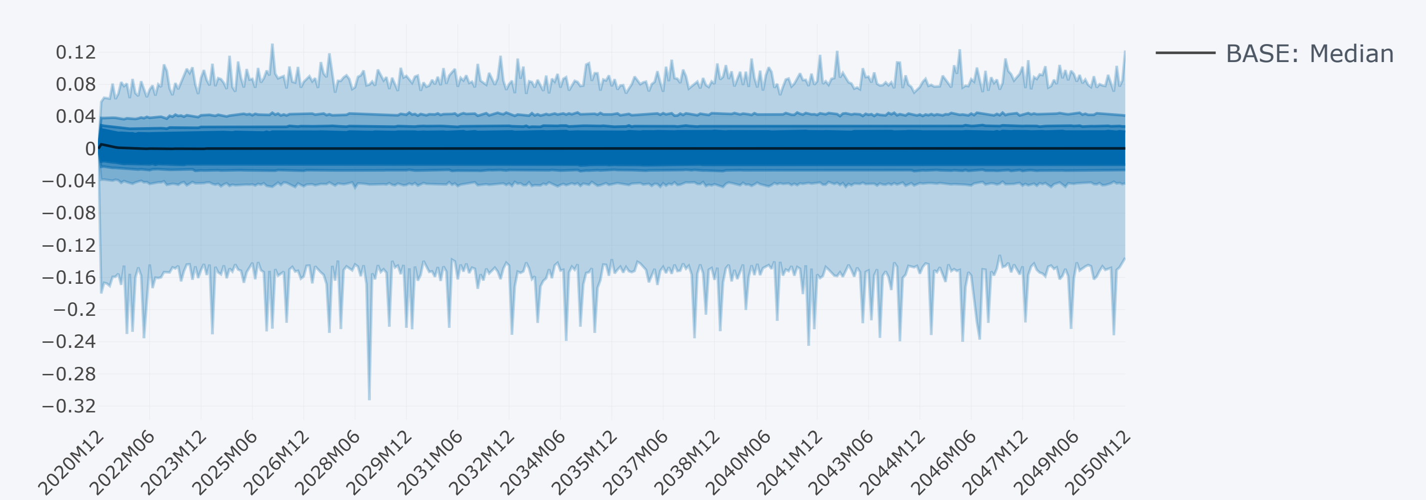
Simulated Data in Percentiles : High Yield Corp Bonds Price

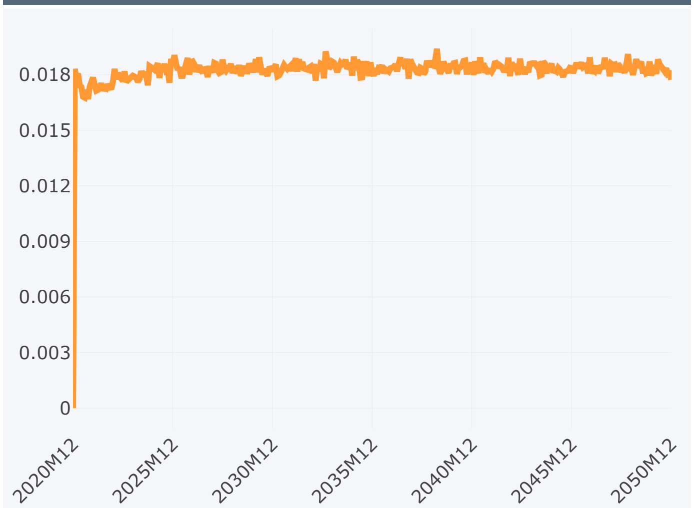


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

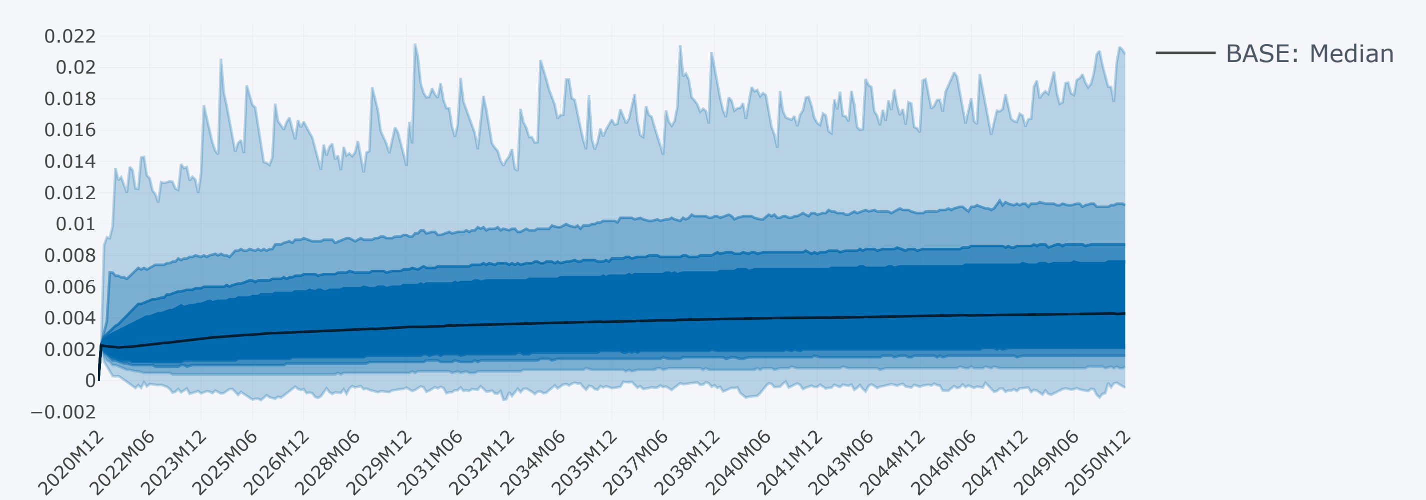
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	-0.0004	0.0003
std	0.0179	0.0177
min	-0.2276	-0.1356
1%	-0.0436	-0.0430
5%	-0.0254	-0.0265
10%	-0.0189	-0.0199
50%	0.0003	0.0005
90%	0.0191	0.0210
95%	0.0251	0.0278
99%	0.0381	0.0412
max	0.0868	0.1222

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : High Yield Corp Bonds Income

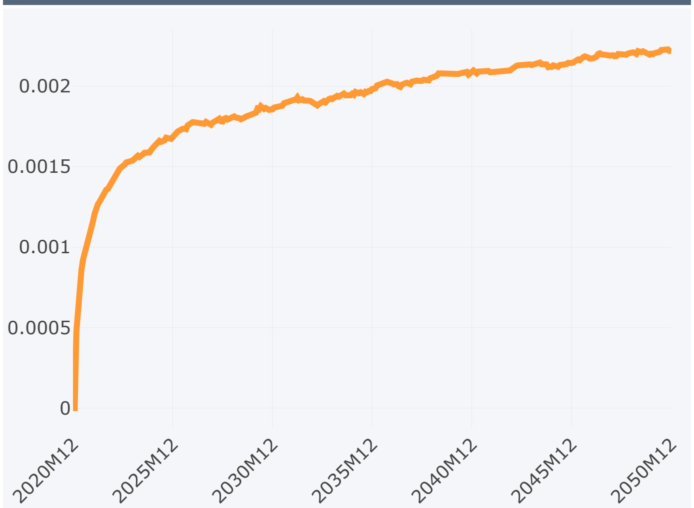


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0024	0.0046
std	0.0012	0.0022
min	-0.0003	-0.0004
1%	0.0006	0.0009
5%	0.0010	0.0016
10%	0.0012	0.0021
50%	0.0022	0.0043
90%	0.0036	0.0076
95%	0.0045	0.0087
99%	0.0069	0.0112
max	0.0134	0.0208

Cross Sectional Volatility Over Time : BASE



Int Inv Corp Bonds Price
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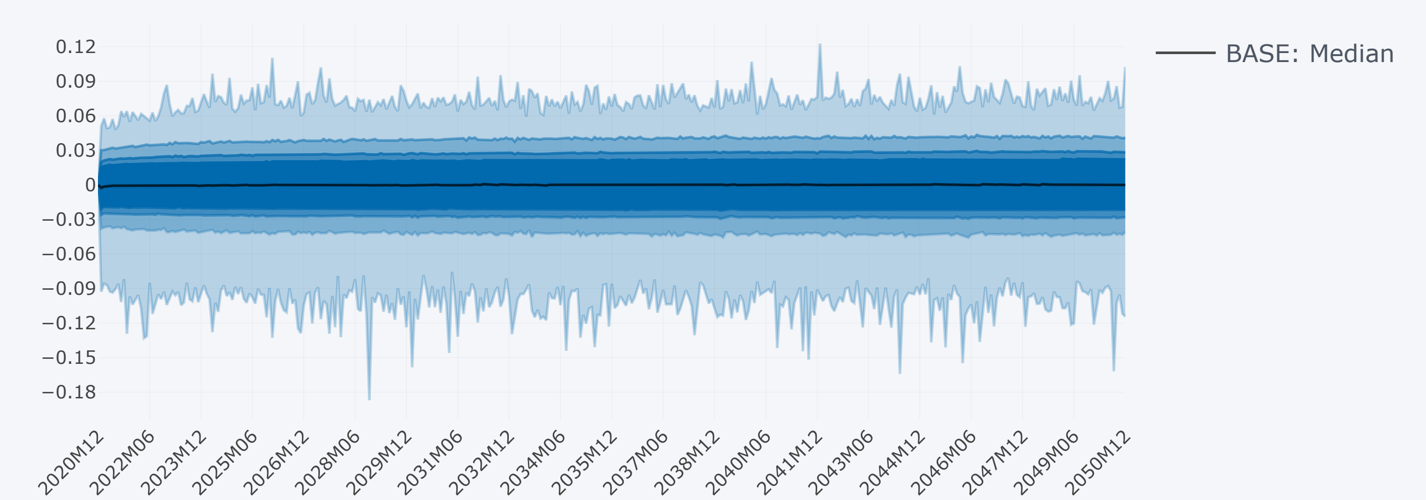
Simulated Data in Percentiles : Int Inv Corp Bonds Price

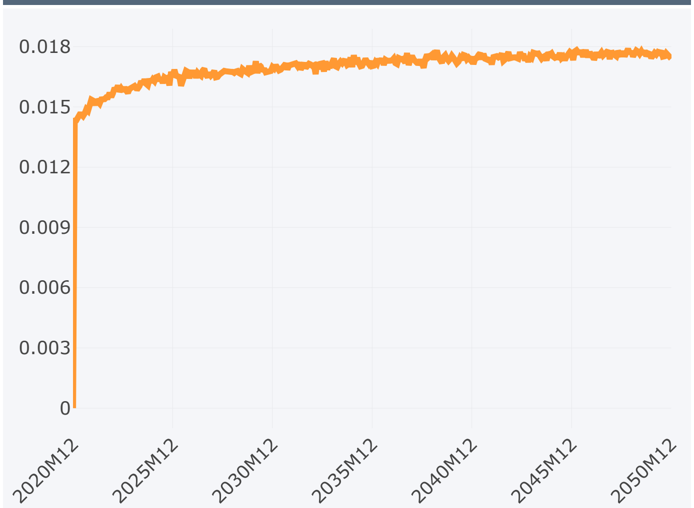


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

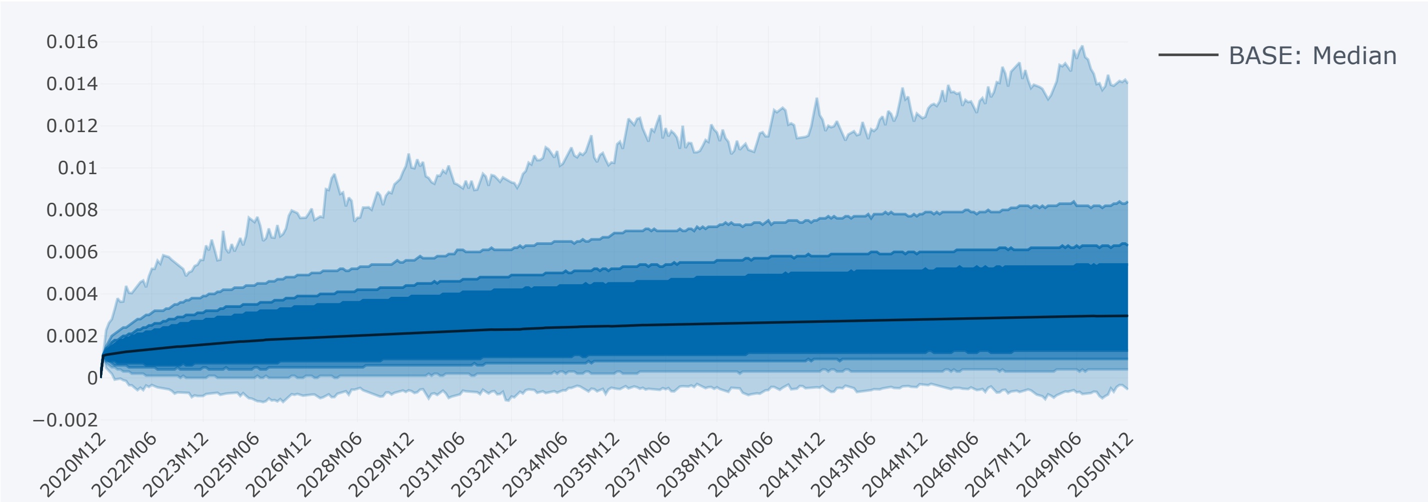
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	-0.0008	0.0001
std	0.0153	0.0174
min	-0.1039	-0.1143
1%	-0.0395	-0.0407
5%	-0.0256	-0.0281
10%	-0.0196	-0.0216
50%	-0.0003	0.0000
90%	0.0180	0.0221
95%	0.0229	0.0282
99%	0.0339	0.0411
max	0.0633	0.1025

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Int Inv Corp Bonds Income

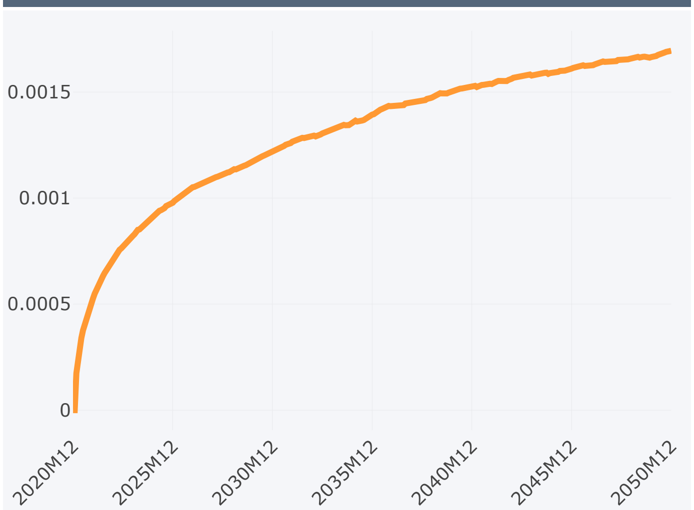


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

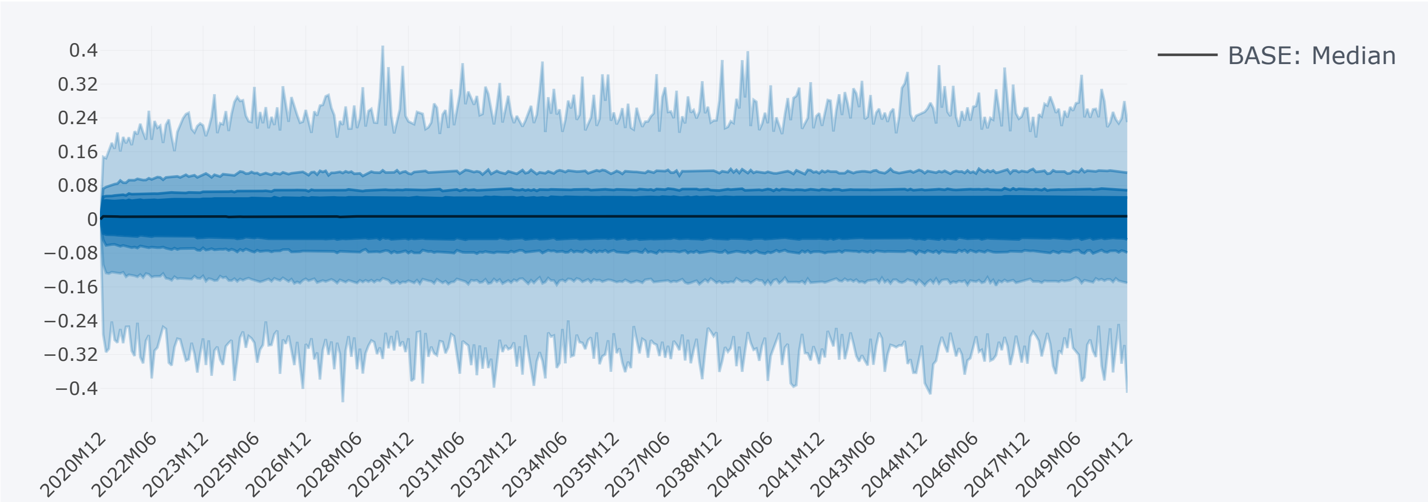
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0013	0.0032
std	0.0005	0.0017
min	-0.0005	-0.0006
1%	0.0002	0.0004
5%	0.0005	0.0009
10%	0.0007	0.0013
50%	0.0013	0.0030
90%	0.0020	0.0054
95%	0.0022	0.0063
99%	0.0027	0.0084
max	0.0043	0.0140

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Large Cap Price

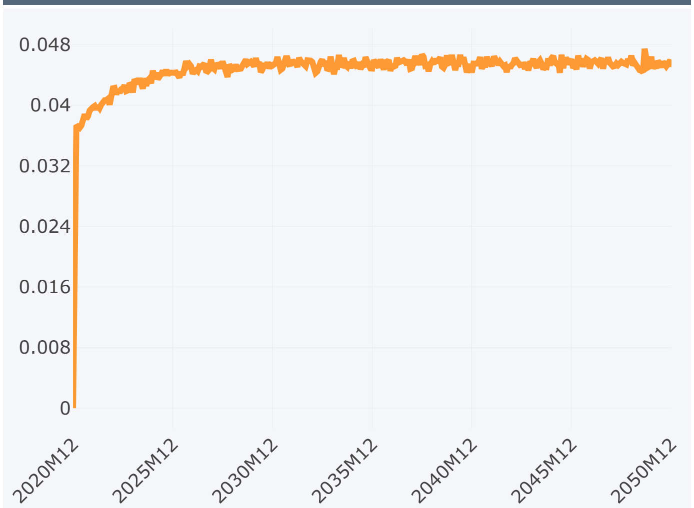


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

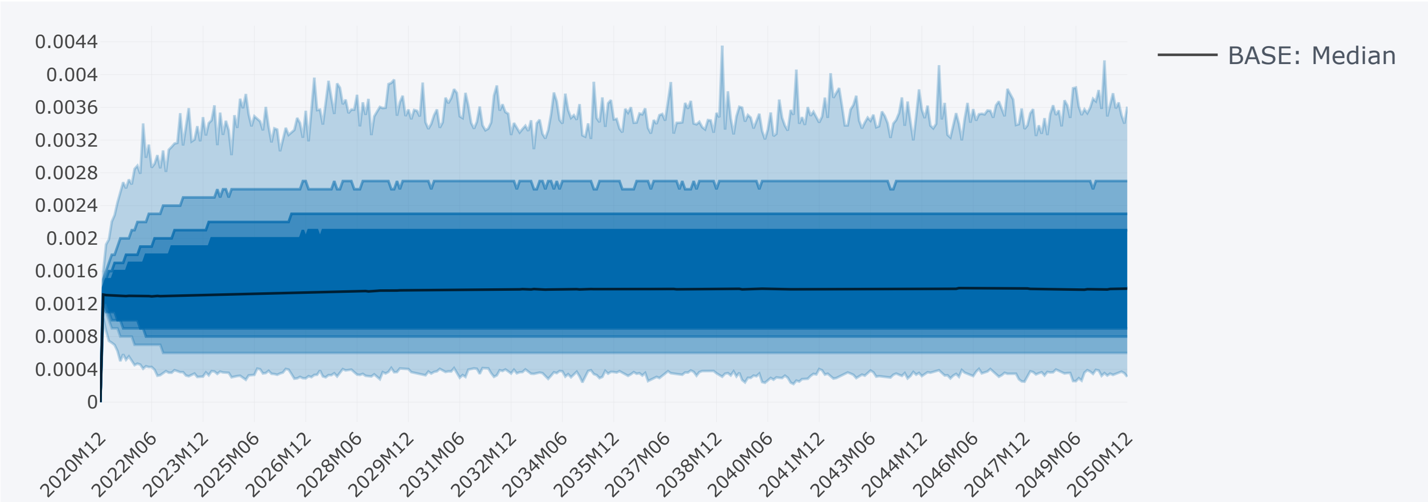
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0032	0.0037
std	0.0398	0.0461
min	-0.3234	-0.4105
1%	-0.1336	-0.1505
5%	-0.0655	-0.0787
10%	-0.0389	-0.0476
50%	0.0058	0.0074
90%	0.0454	0.0518
95%	0.0601	0.0688
99%	0.0925	0.1104
max	0.2081	0.2300

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Large Cap Income

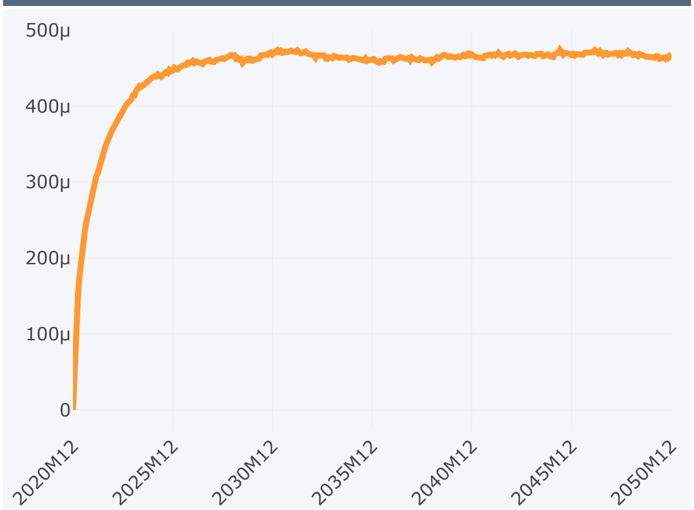


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

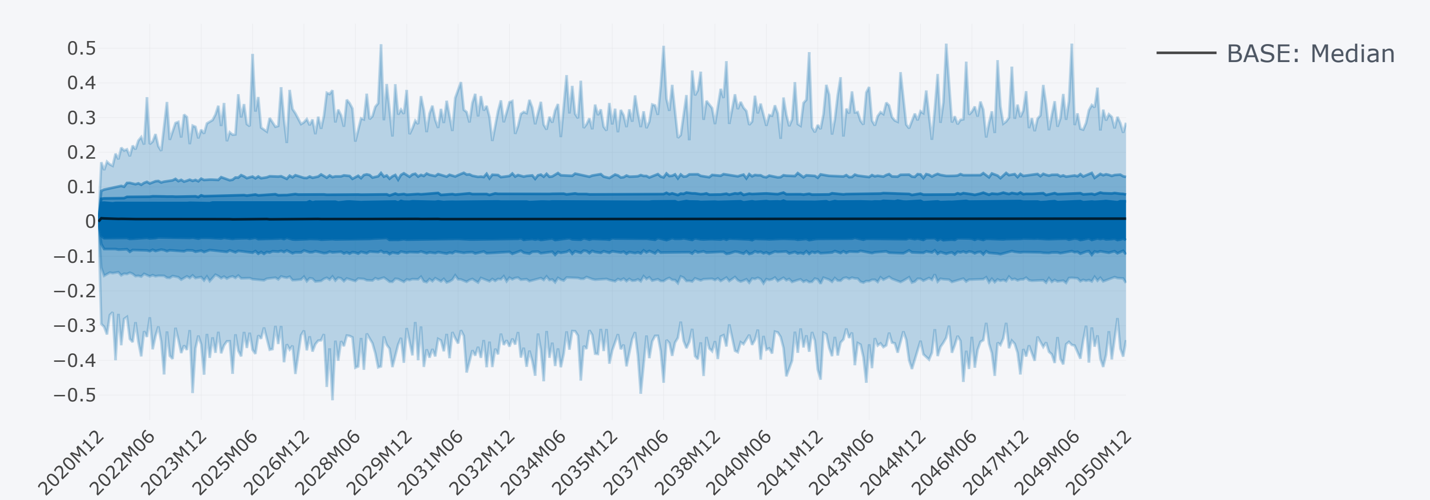
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0013	0.0014
std	0.0003	0.0005
min	0.0005	0.0003
1%	0.0007	0.0006
5%	0.0009	0.0008
10%	0.0010	0.0009
50%	0.0013	0.0014
90%	0.0017	0.0021
95%	0.0018	0.0023
99%	0.0021	0.0027
max	0.0028	0.0036

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Small Cap Price

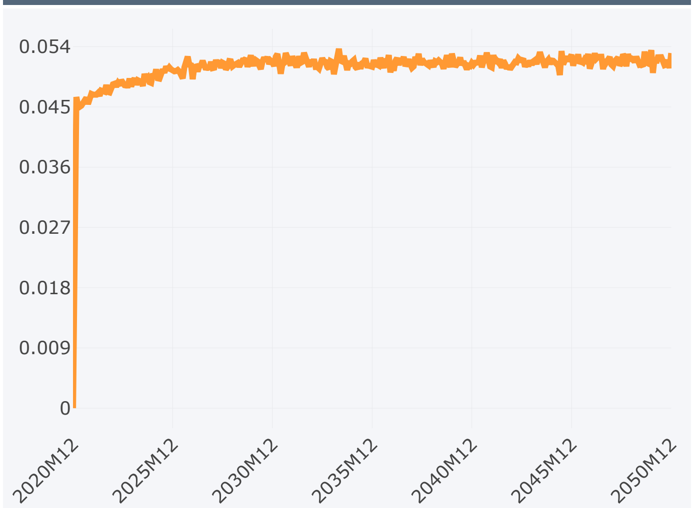


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

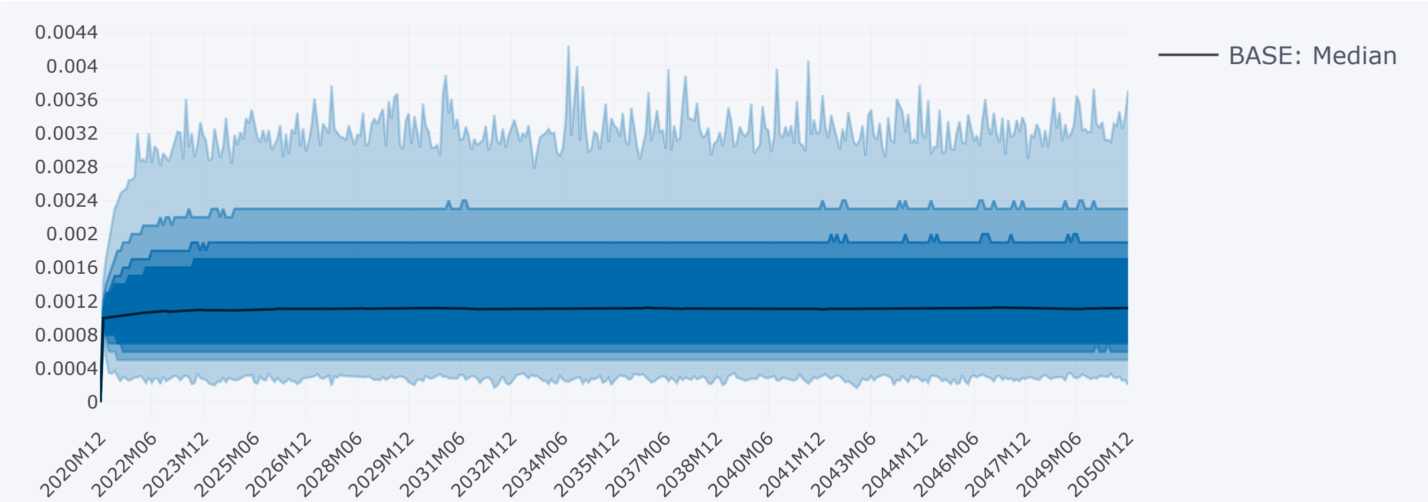
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0039	0.0044
std	0.0468	0.0530
min	-0.3474	-0.3418
1%	-0.1507	-0.1769
5%	-0.0818	-0.0947
10%	-0.0490	-0.0531
50%	0.0074	0.0086
90%	0.0539	0.0586
95%	0.0711	0.0782
99%	0.1095	0.1289
max	0.2191	0.2852

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Small Cap Income

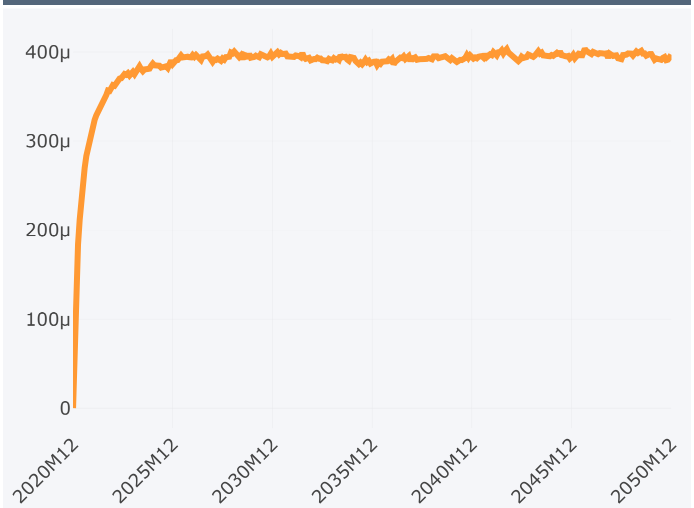


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

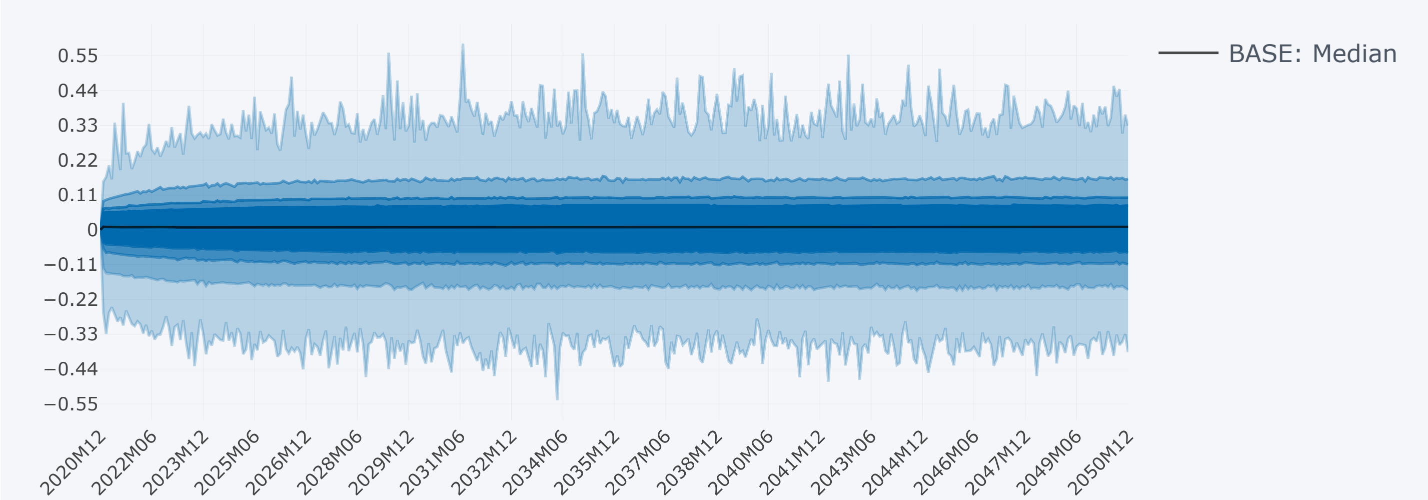
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0011	0.0012
std	0.0003	0.0004
min	0.0003	0.0002
1%	0.0005	0.0005
5%	0.0006	0.0006
10%	0.0007	0.0007
50%	0.0010	0.0011
90%	0.0015	0.0017
95%	0.0017	0.0019
99%	0.0020	0.0023
max	0.0027	0.0037

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Aggressive US Equity Price

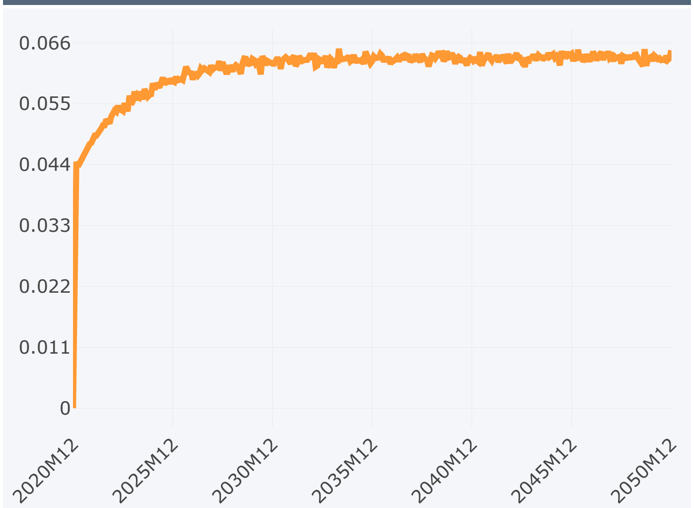


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0048	0.0049
std	0.0489	0.0647
min	-0.3042	-0.3871
1%	-0.1525	-0.1898
5%	-0.0818	-0.1087
10%	-0.0530	-0.0723
50%	0.0084	0.0091
90%	0.0585	0.0765
95%	0.0772	0.1015
99%	0.1153	0.1604
max	0.2161	0.3296

Cross Sectional Volatility Over Time : BASE



Aggressive US Equity Income
Conning | Risk Solutions

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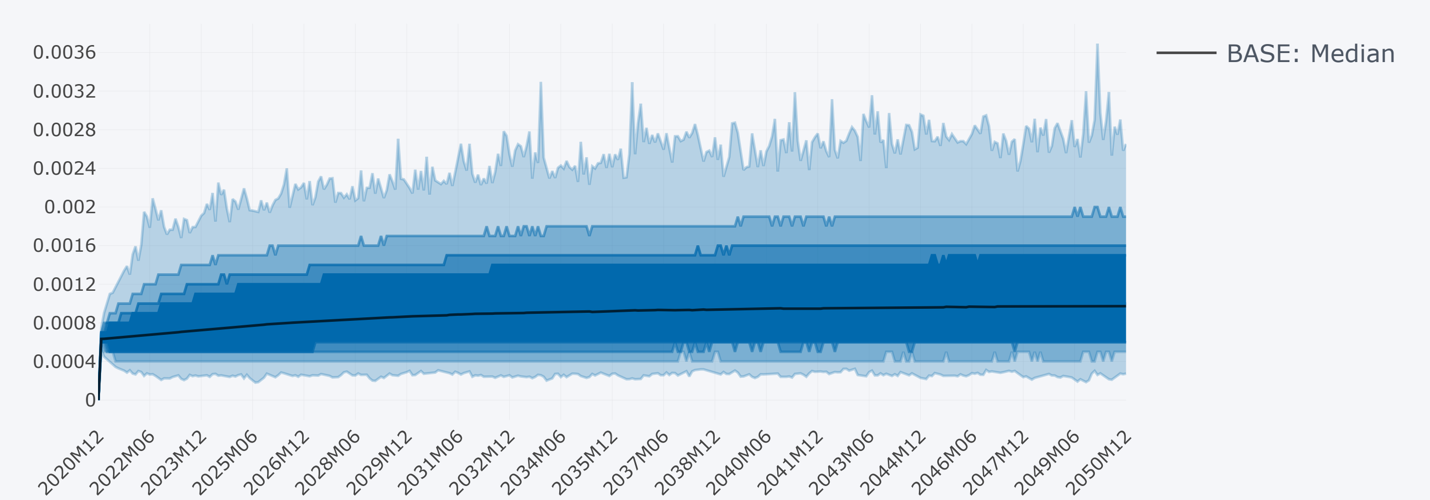
Validation Report

Simulated Data in Percentiles : Aggressive US Equity Income

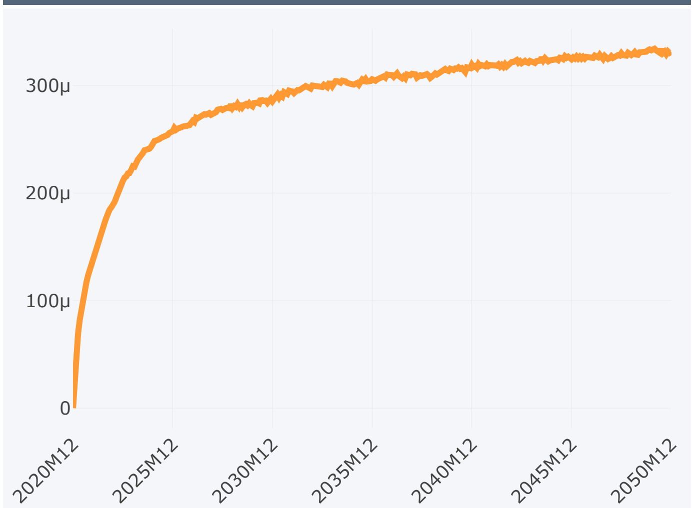


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

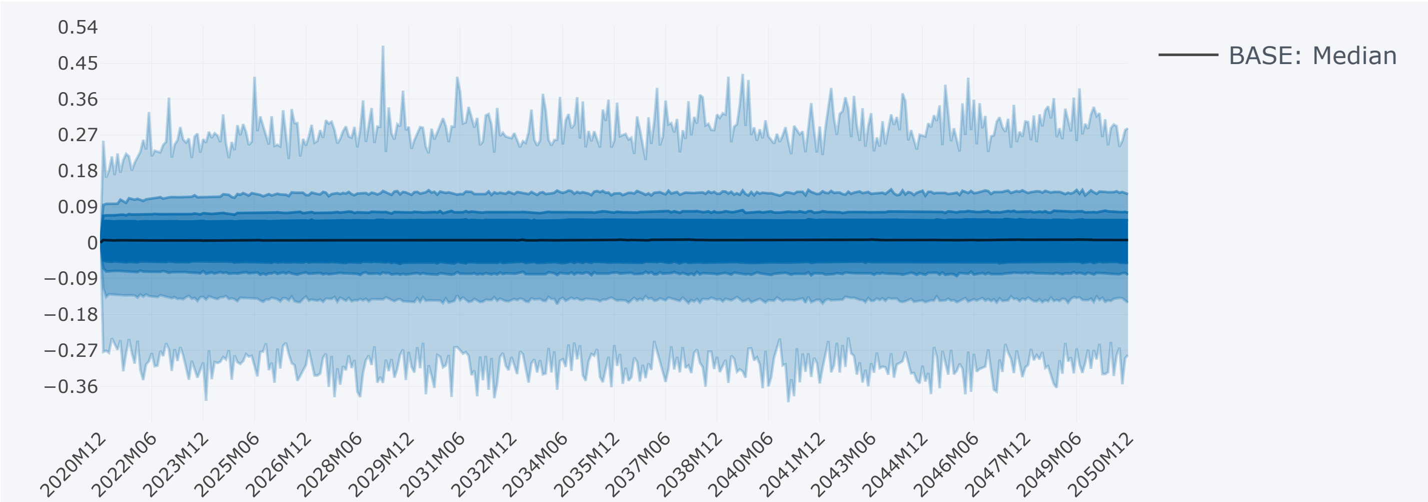
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0007	0.0010
std	0.0001	0.0003
min	0.0003	0.0003
1%	0.0004	0.0005
5%	0.0005	0.0006
10%	0.0005	0.0006
50%	0.0007	0.0010
90%	0.0009	0.0015
95%	0.0009	0.0016
99%	0.0011	0.0019
max	0.0015	0.0027

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : MidCap Price

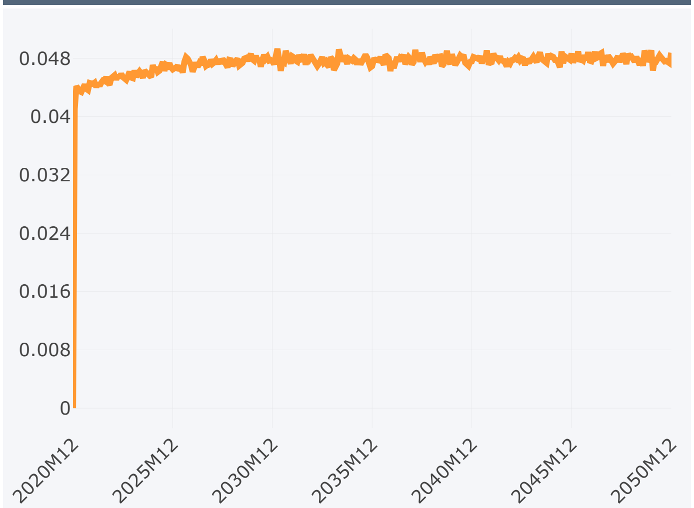


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

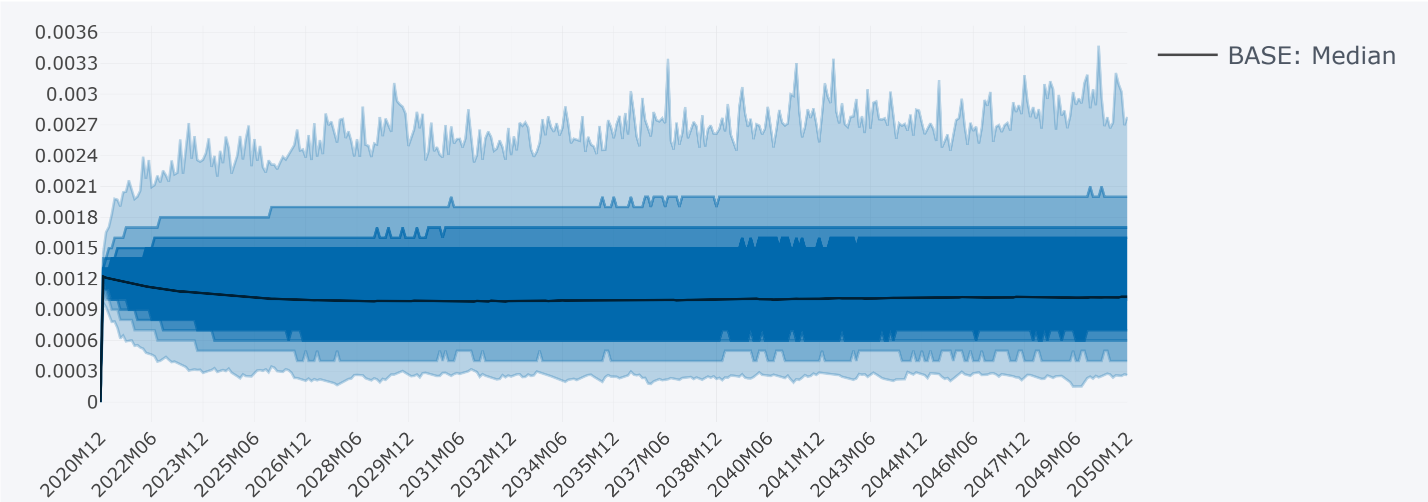
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0037	0.0043
std	0.0445	0.0488
min	-0.3029	-0.2816
1%	-0.1324	-0.1502
5%	-0.0731	-0.0806
10%	-0.0477	-0.0508
50%	0.0056	0.0069
90%	0.0541	0.0567
95%	0.0705	0.0753
99%	0.1079	0.1220
max	0.2009	0.2870

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : MidCap Income

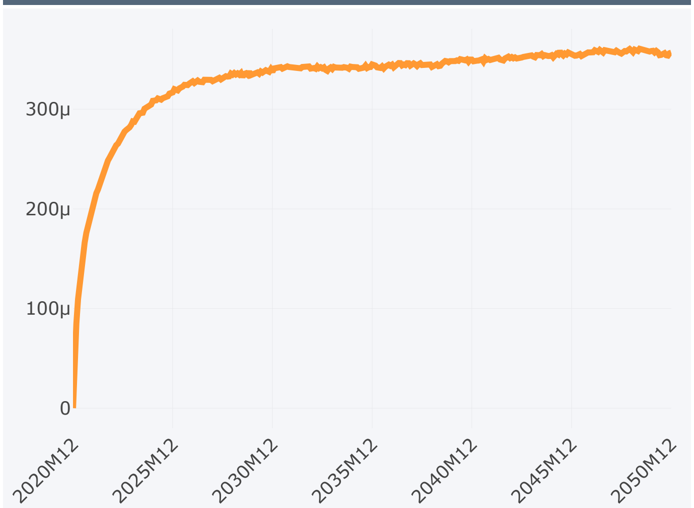


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0012	0.0011
std	0.0002	0.0004
min	0.0005	0.0003
1%	0.0007	0.0004
5%	0.0009	0.0006
10%	0.0009	0.0007
50%	0.0011	0.0010
90%	0.0014	0.0016
95%	0.0015	0.0017
99%	0.0017	0.0020
max	0.0020	0.0028

Cross Sectional Volatility Over Time : BASE



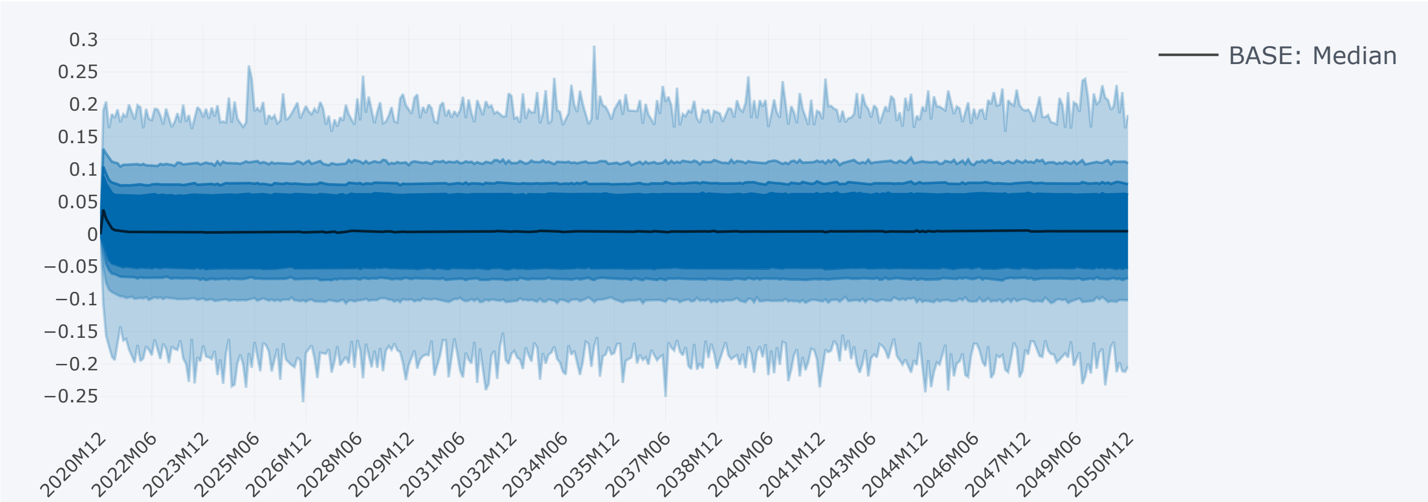
Aggressive Foreign Equity Price

Conning | Risk Solutions

2020 Q4

Validation Report

Simulated Data in Percentiles : Aggressive Foreign Equity Price

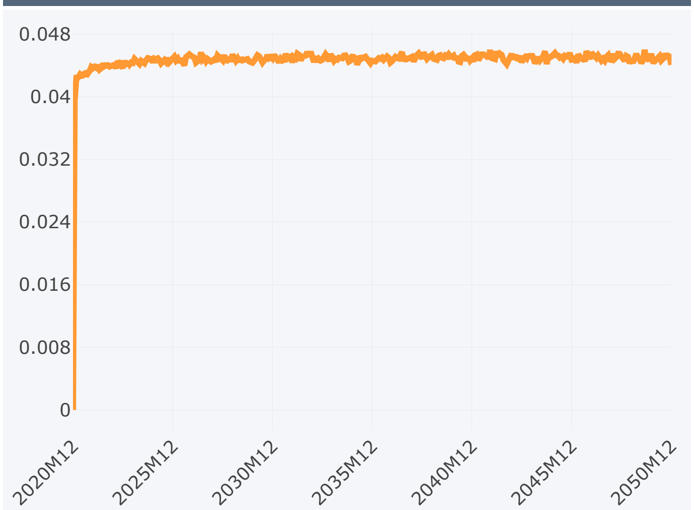


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

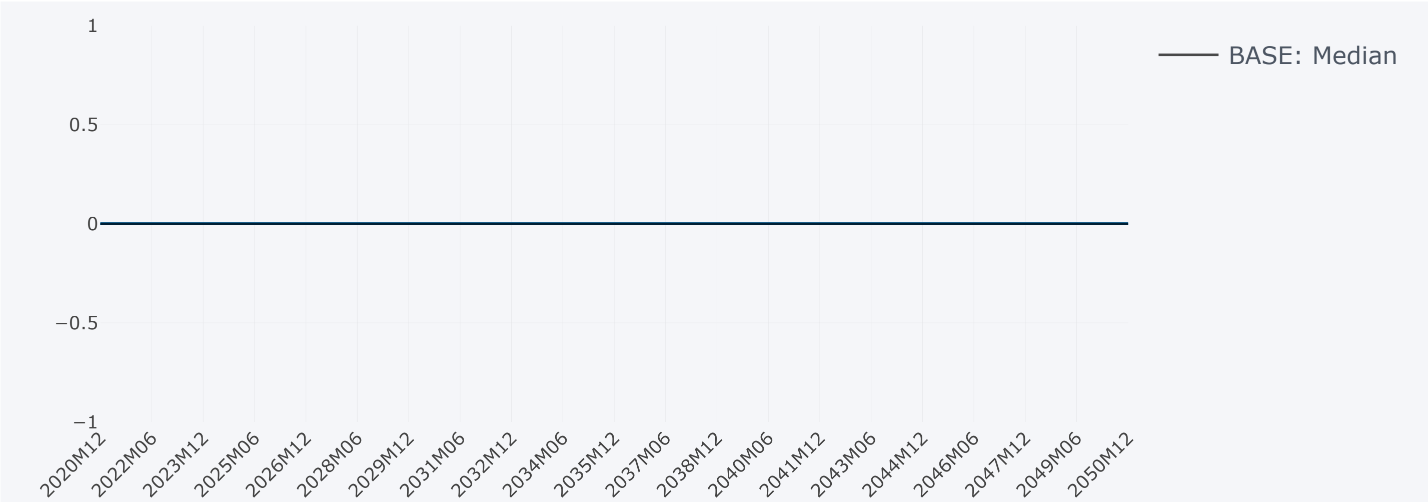
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0039	0.0044
std	0.0437	0.0441
min	-0.1979	-0.2038
1%	-0.0996	-0.1020
5%	-0.0665	-0.0675
10%	-0.0512	-0.0518
50%	0.0036	0.0046
90%	0.0591	0.0606
95%	0.0766	0.0771
99%	0.1085	0.1093
max	0.1768	0.1841

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Aggressive Foreign Equity Income

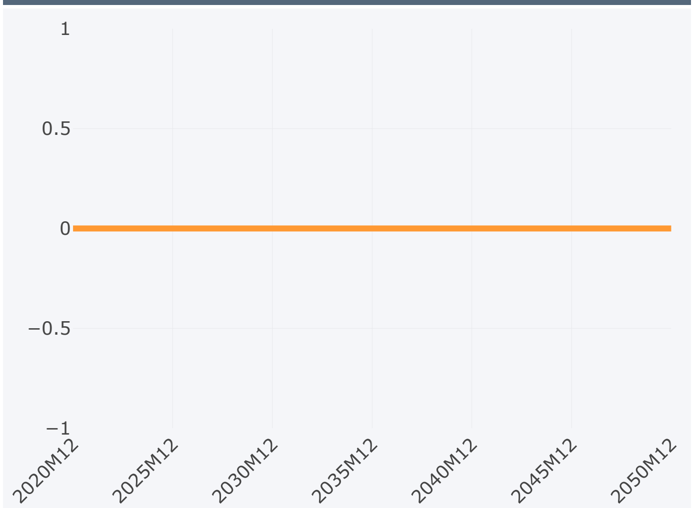


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

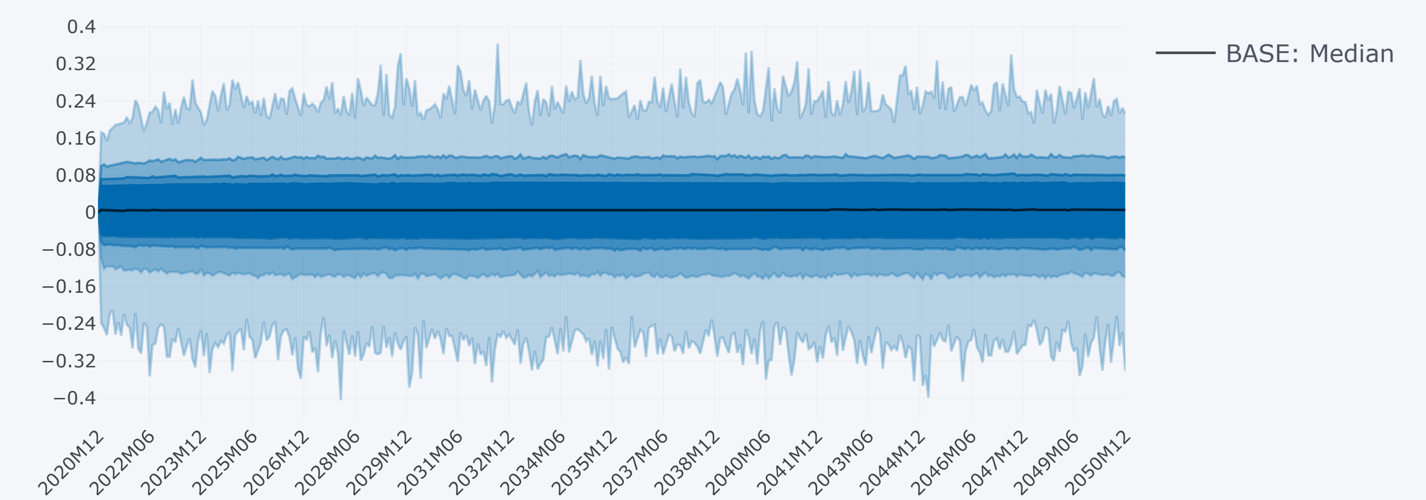
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0000	0.0000
std	0.0000	0.0000
min	0.0000	0.0000
1%	0.0000	0.0000
5%	0.0000	0.0000
10%	0.0000	0.0000
50%	0.0000	0.0000
90%	0.0000	0.0000
95%	0.0000	0.0000
99%	0.0000	0.0000
max	0.0000	0.0000

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : International Diversified Equity Price

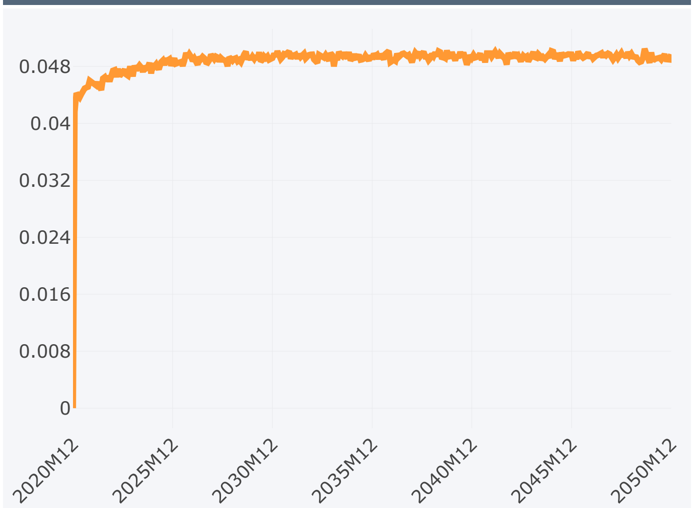


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

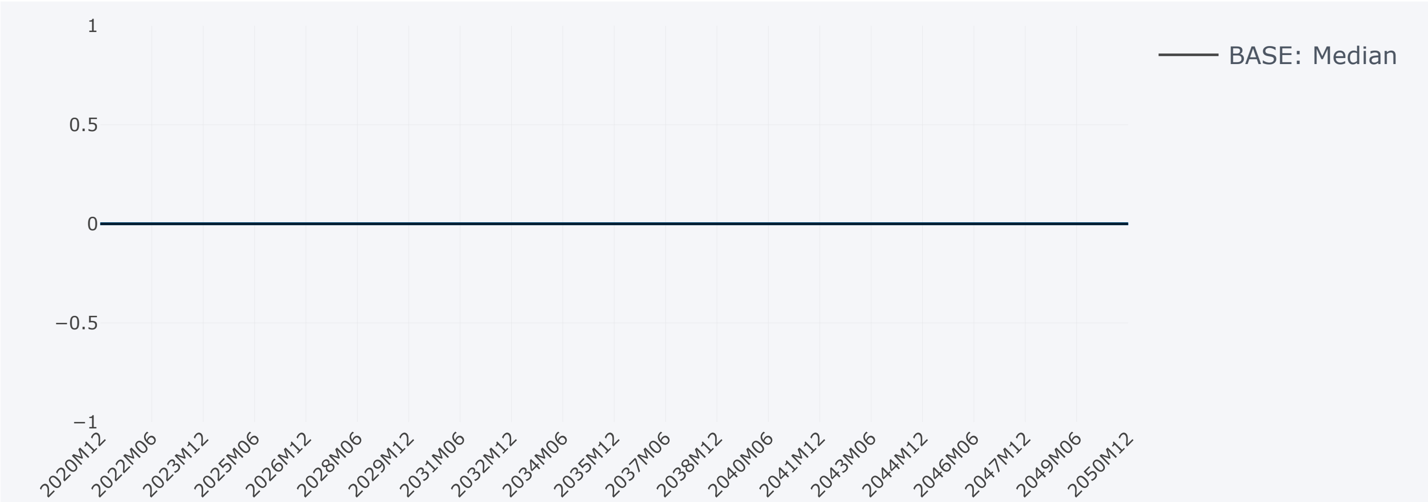
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0032	0.0036
std	0.0457	0.0497
min	-0.2933	-0.3417
1%	-0.1248	-0.1401
5%	-0.0729	-0.0819
10%	-0.0521	-0.0557
50%	0.0051	0.0053
90%	0.0580	0.0625
95%	0.0753	0.0790
99%	0.1052	0.1179
max	0.2046	0.2131

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : International Diversified Equity Income

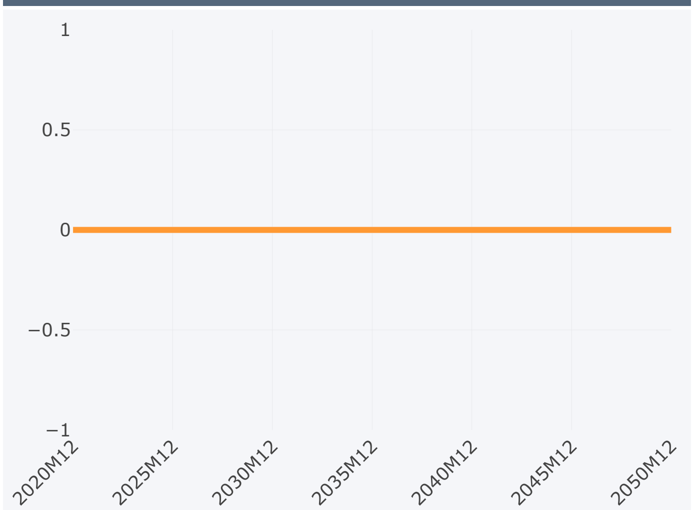


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

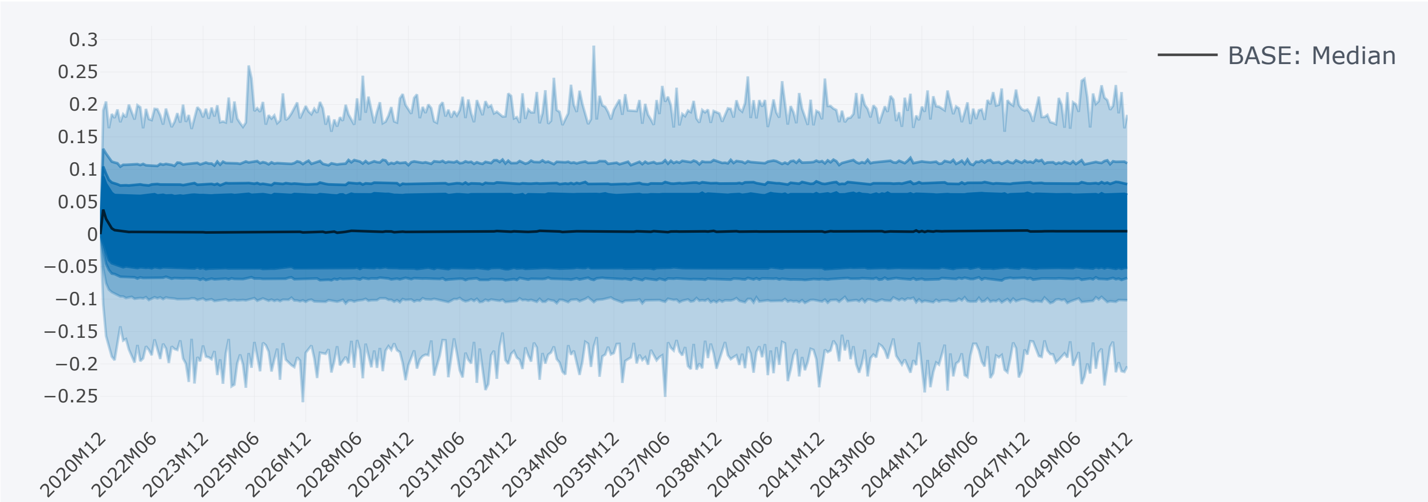
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0000	0.0000
std	0.0000	0.0000
min	0.0000	0.0000
1%	0.0000	0.0000
5%	-0.0000	0.0000
10%	0.0000	0.0000
50%	0.0000	0.0000
90%	-0.0000	0.0000
95%	0.0000	0.0000
99%	0.0000	0.0000
max	0.0000	0.0000

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Aggressive Foreign Equity Total Return

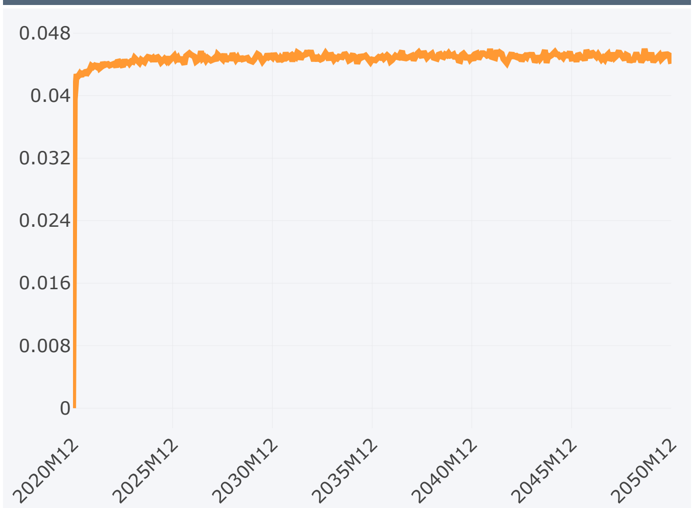


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

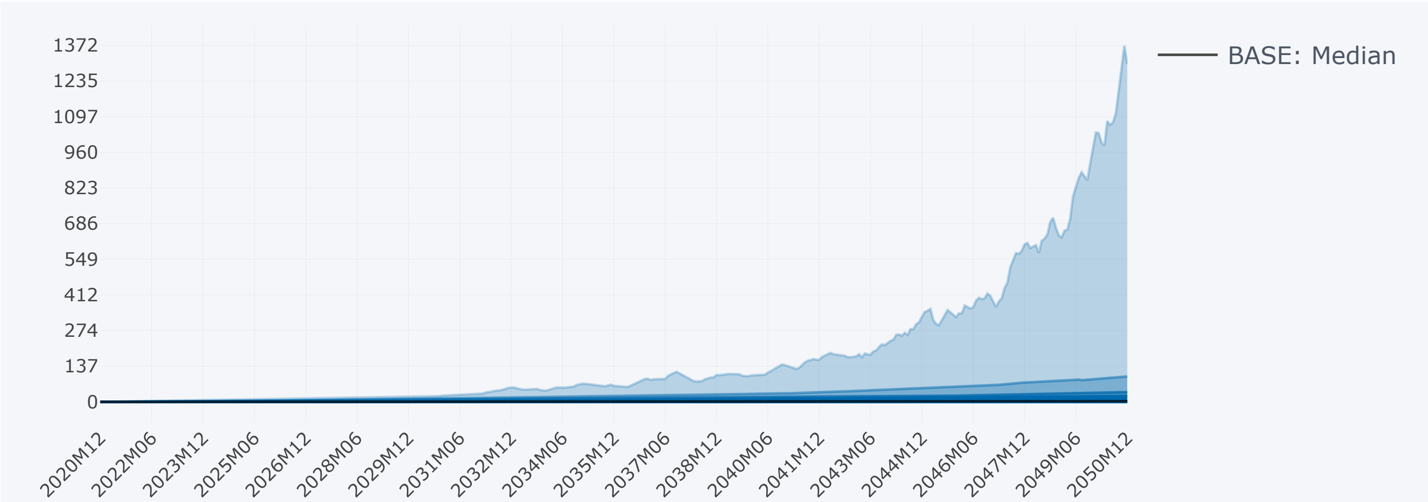
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0039	0.0044
std	0.0437	0.0441
min	-0.1979	-0.2038
1%	-0.0996	-0.1020
5%	-0.0665	-0.0675
10%	-0.0512	-0.0518
50%	0.0036	0.0046
90%	0.0591	0.0606
95%	0.0766	0.0771
99%	0.1085	0.1093
max	0.1768	0.1841

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Aggressive Foreign Equity Cumulative Return



Simulated Data: There are 360 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	0.1456	9.1800
std	0.2665	26.7013
min	-0.6036	-0.9946
1%	-0.3546	-0.8844
5%	-0.2404	-0.6999
10%	-0.1709	-0.4979
50%	0.1172	2.6228
90%	0.4948	22.0119
95%	0.6305	37.5198
99%	0.8914	97.6586
max	1.5340	1299.5653

Cross Sectional Volatility Over Time : BASE

Aggressive US Equity Total Return
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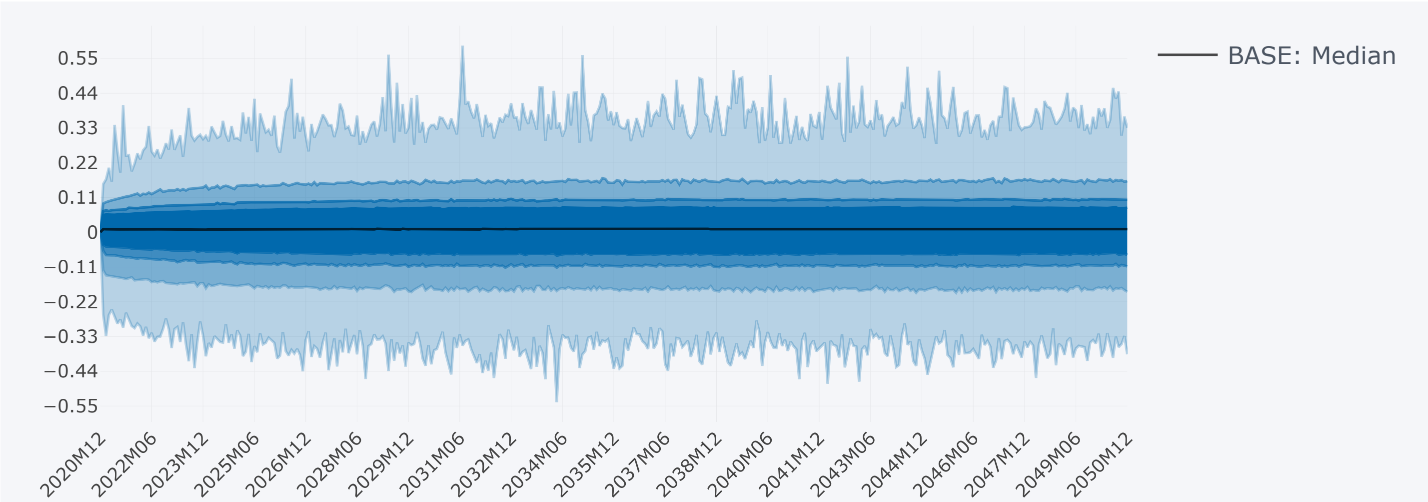
2020 Q4
Validation Report

Simulated Data in Percentiles : Aggressive US Equity Total Return

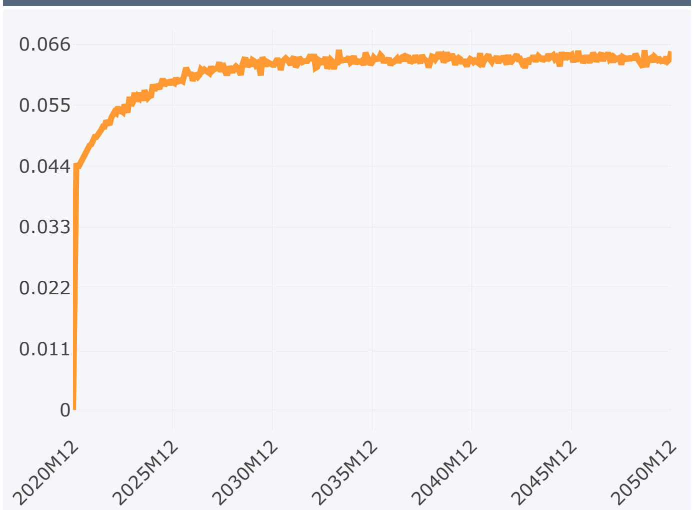


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

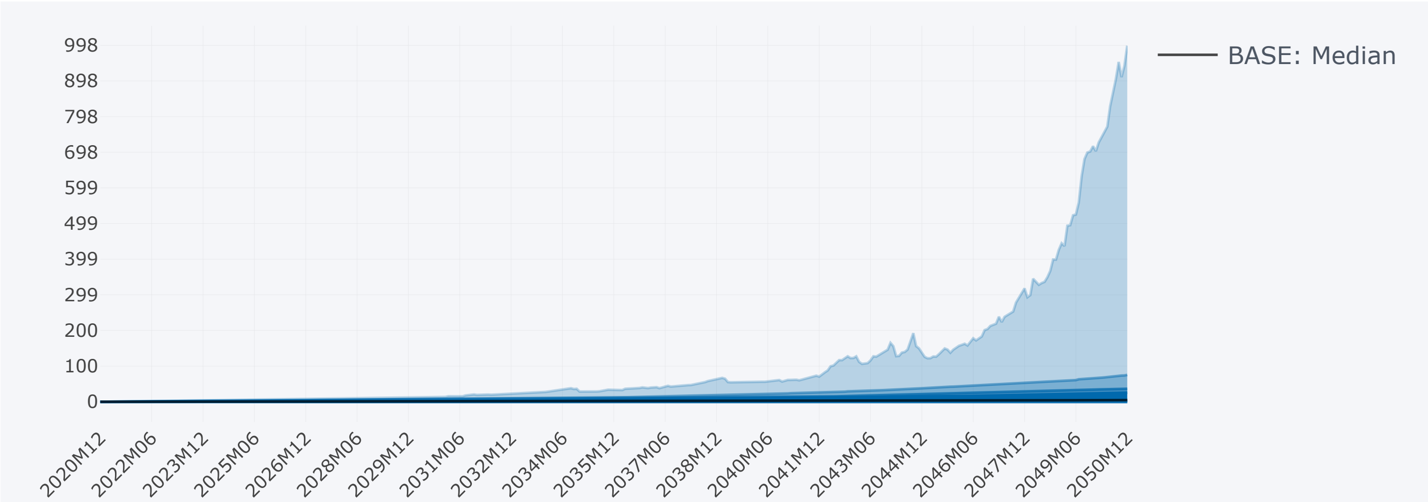
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0055	0.0059
std	0.0489	0.0647
min	-0.3033	-0.3862
1%	-0.1520	-0.1883
5%	-0.0813	-0.1078
10%	-0.0523	-0.0713
50%	0.0090	0.0101
90%	0.0593	0.0776
95%	0.0779	0.1027
99%	0.1161	0.1620
max	0.2171	0.3311

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Aggressive US Equity Cumulative Return

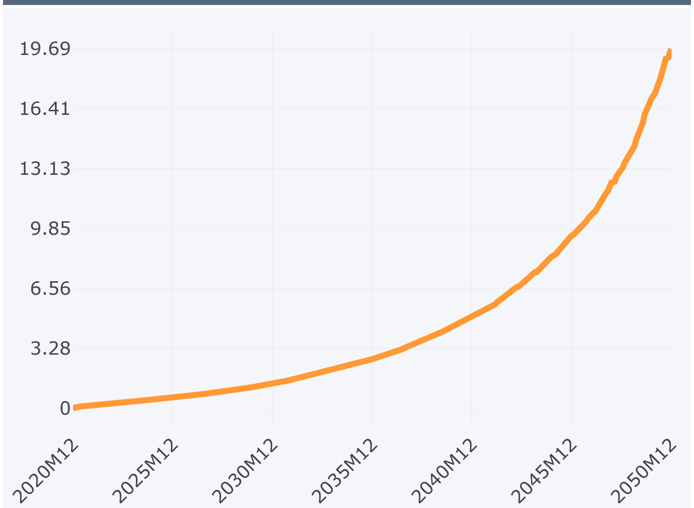


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0726	10.1226
std	0.1672	19.6938
min	-0.5892	-0.9848
1%	-0.3325	-0.8427
5%	-0.2117	-0.4825
10%	-0.1464	-0.0949
50%	0.0770	4.6806
90%	0.2806	25.4047
95%	0.3397	36.3891
99%	0.4551	75.1896
max	0.7287	996.6429

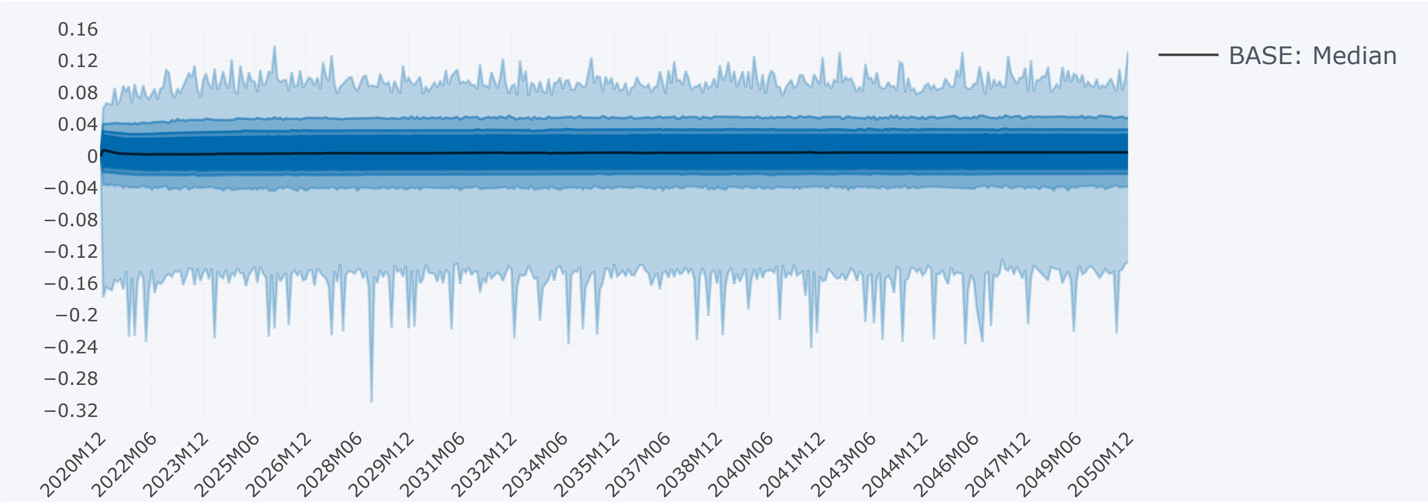
Cross Sectional Volatility Over Time : BASE



High Yield Corp Bonds Total Return
Conning | Risk Solutions

2020 Q4
Validation Report

Simulated Data in Percentiles : High Yield Corp Bonds Total Return

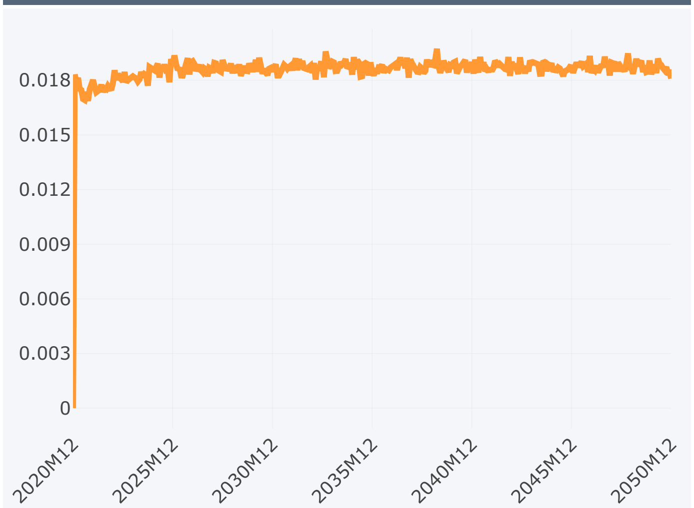


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

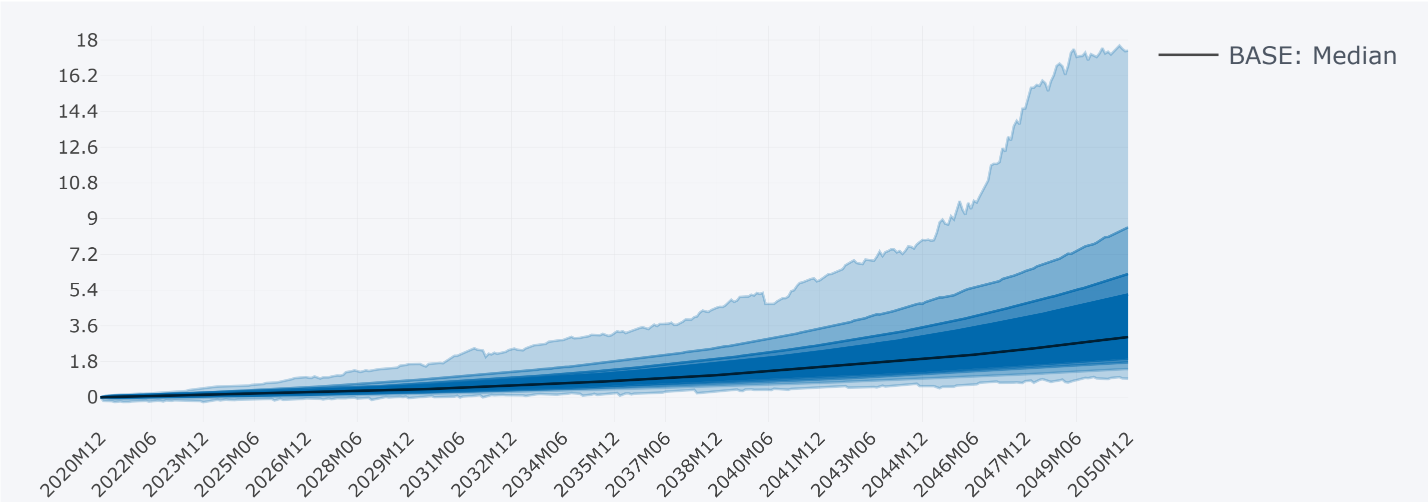
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0020	0.0050
std	0.0180	0.0181
min	-0.2259	-0.1326
1%	-0.0407	-0.0383
5%	-0.0231	-0.0222
10%	-0.0167	-0.0156
50%	0.0024	0.0050
90%	0.0218	0.0264
95%	0.0279	0.0336
99%	0.0417	0.0480
max	0.0913	0.1318

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : High Yield Corp Bonds Cumulative Return

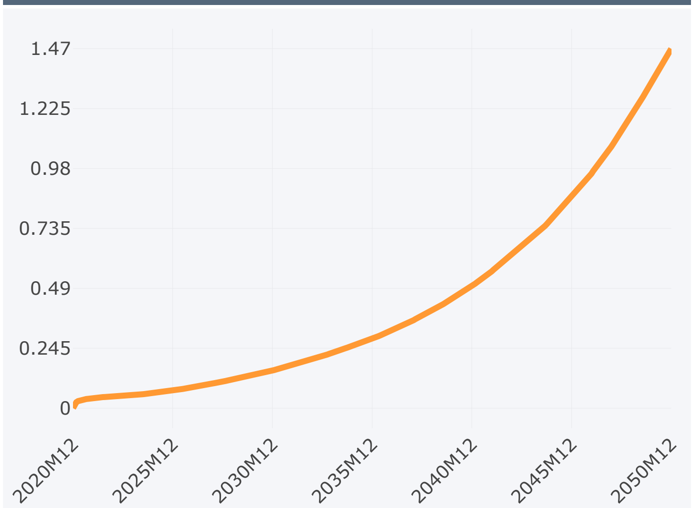


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0435	3.3776
std	0.0423	1.4695
min	-0.1936	0.9392
1%	-0.0829	1.4164
5%	-0.0328	1.7555
10%	-0.0102	1.9472
50%	0.0484	3.0333
90%	0.0927	5.1776
95%	0.1040	6.2099
99%	0.1241	8.5609
max	0.1777	17.4650

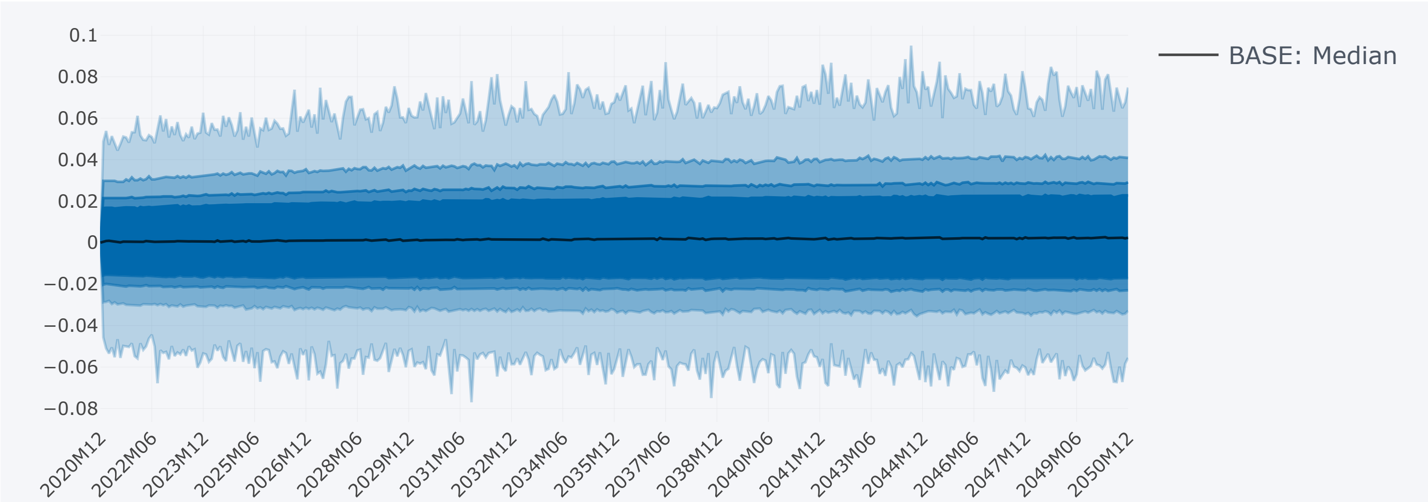
Cross Sectional Volatility Over Time : BASE



Int Govt Bonds Total Return
Conning | Risk Solutions

2020 Q4
Validation Report

Simulated Data in Percentiles : Int Govt Bonds Total Return

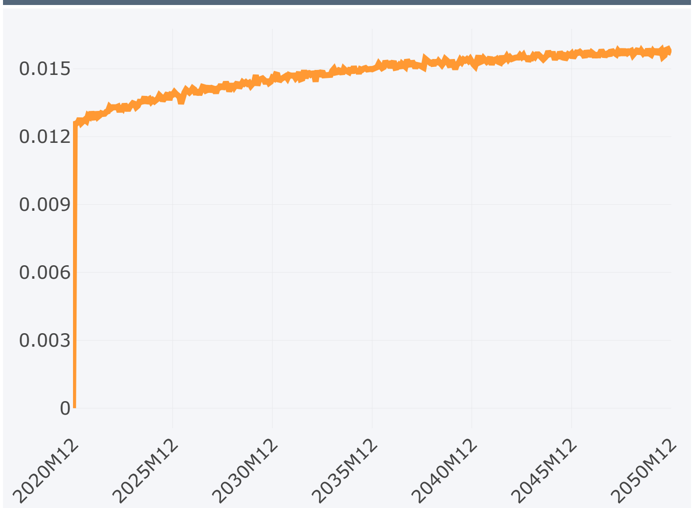


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

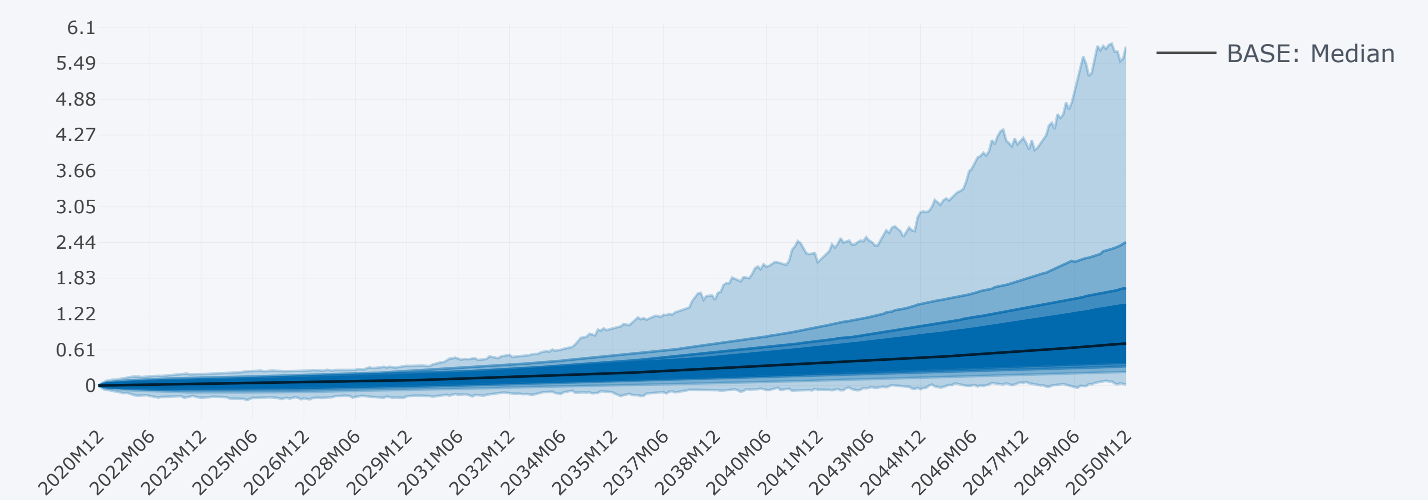
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0004	0.0026
std	0.0129	0.0157
min	-0.0547	-0.0556
1%	-0.0298	-0.0329
5%	-0.0211	-0.0230
10%	-0.0163	-0.0171
50%	0.0005	0.0023
90%	0.0169	0.0228
95%	0.0214	0.0291
99%	0.0301	0.0409
max	0.0533	0.0748

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Int Govt Bonds Cumulative Return

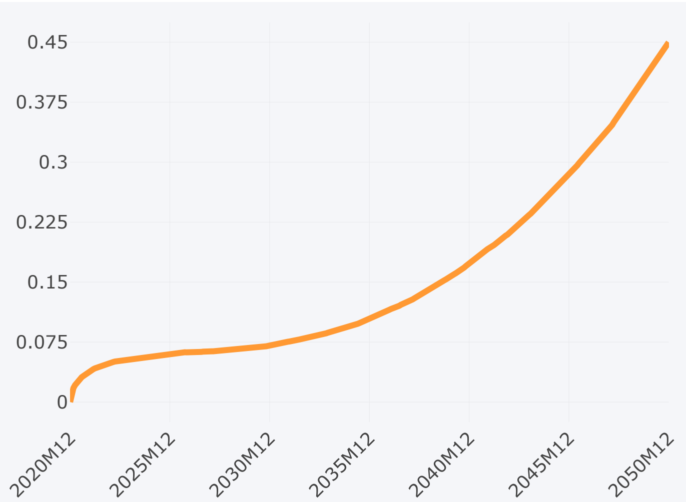


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

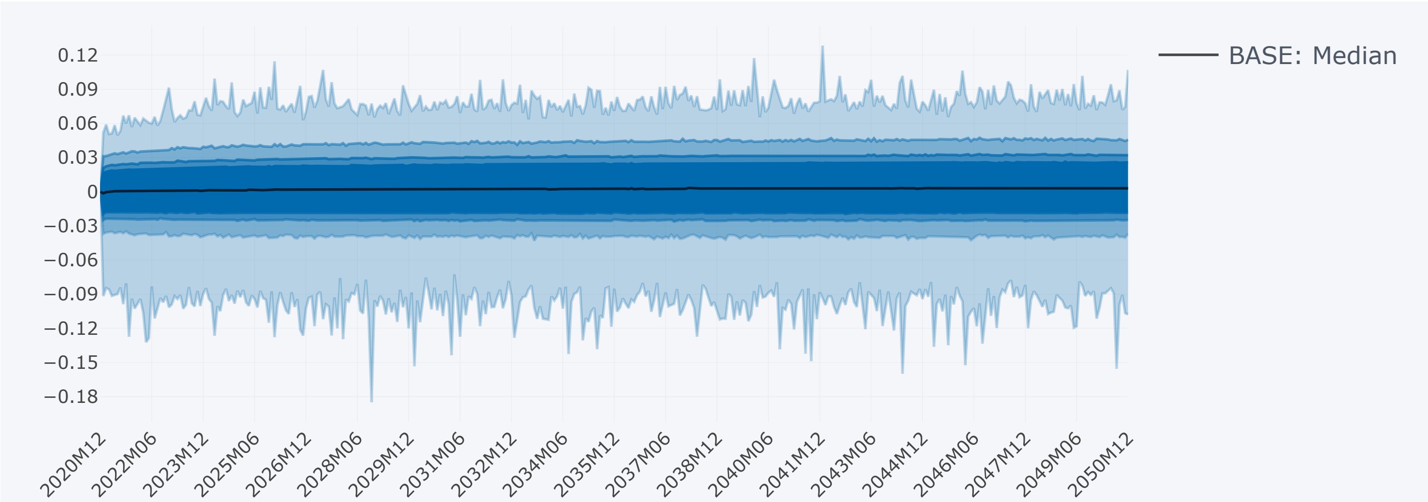
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0054	0.8209
std	0.0388	0.4498
min	-0.1567	0.0176
1%	-0.0845	0.2326
5%	-0.0585	0.3291
10%	-0.0441	0.3891
50%	0.0056	0.7164
90%	0.0549	1.3730
95%	0.0681	1.6640
99%	0.0940	2.4453
max	0.1525	5.7791

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Int Inv Corp Bonds Total Return

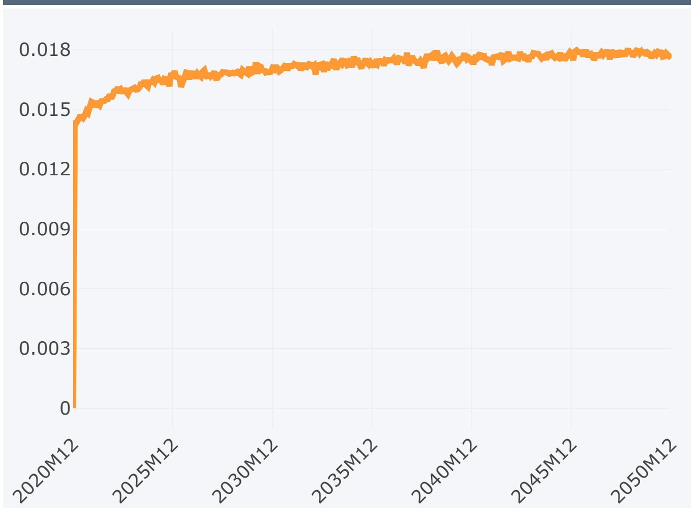


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

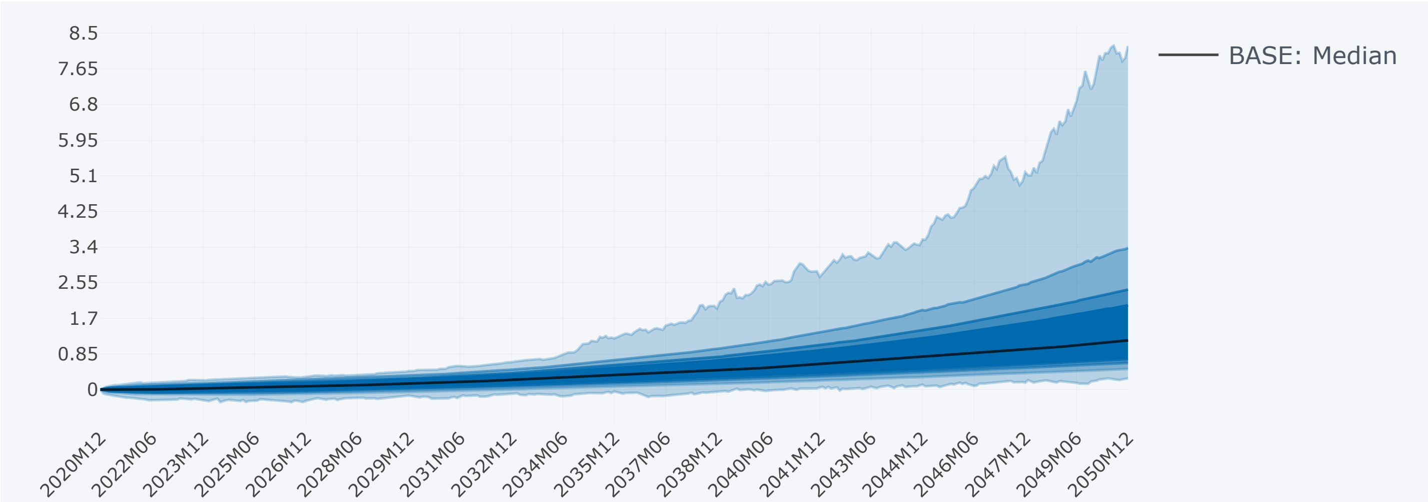
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0005	0.0033
std	0.0153	0.0176
min	-0.1026	-0.1078
1%	-0.0383	-0.0370
5%	-0.0242	-0.0248
10%	-0.0184	-0.0185
50%	0.0009	0.0030
90%	0.0193	0.0258
95%	0.0244	0.0321
99%	0.0354	0.0457
max	0.0650	0.1070

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Int Inv Corp Bonds Cumulative Return

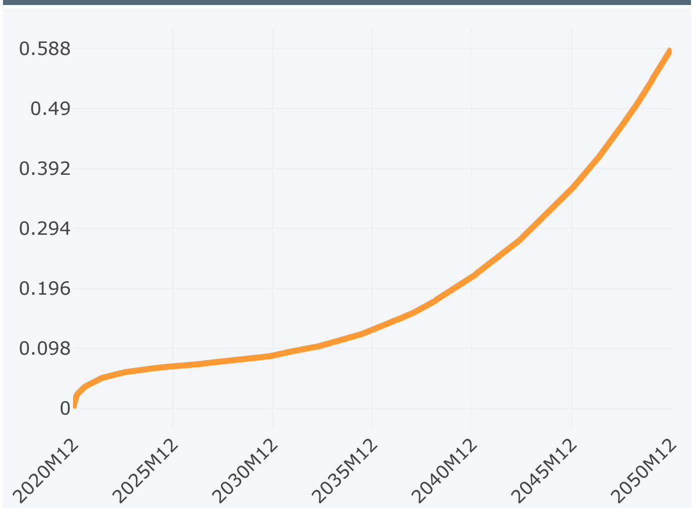


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

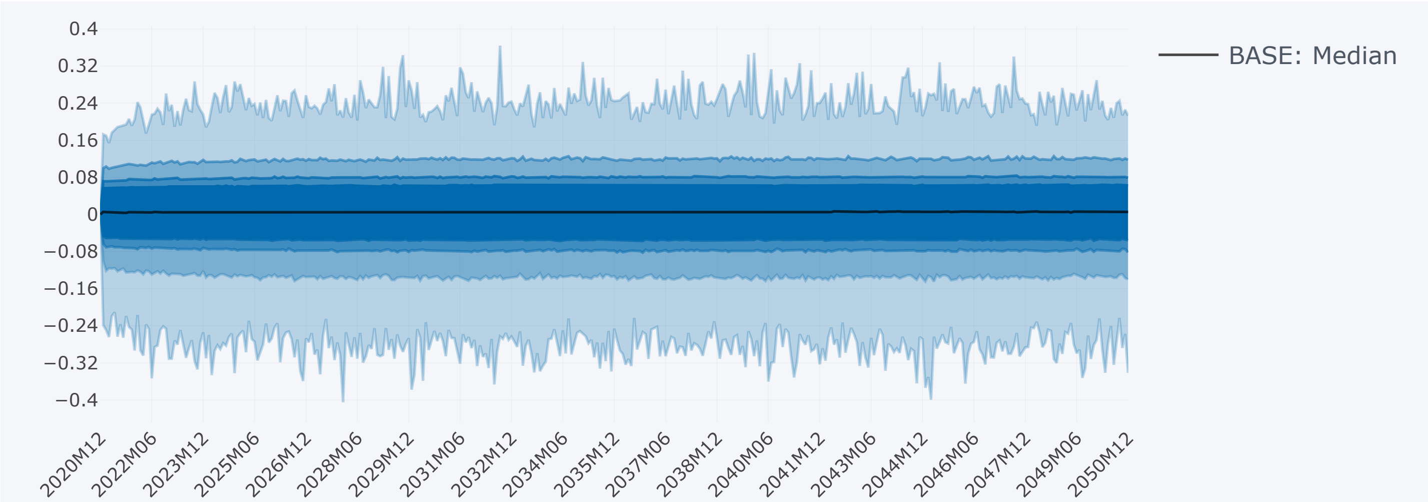
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0007	1.2983
std	0.0433	0.5876
min	-0.2026	0.2695
1%	-0.1079	0.4902
5%	-0.0716	0.6355
10%	-0.0552	0.7276
50%	0.0021	1.1737
90%	0.0551	2.0116
95%	0.0695	2.3853
99%	0.0951	3.3790
max	0.1705	8.1990

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : International Diversified Equity Total Return

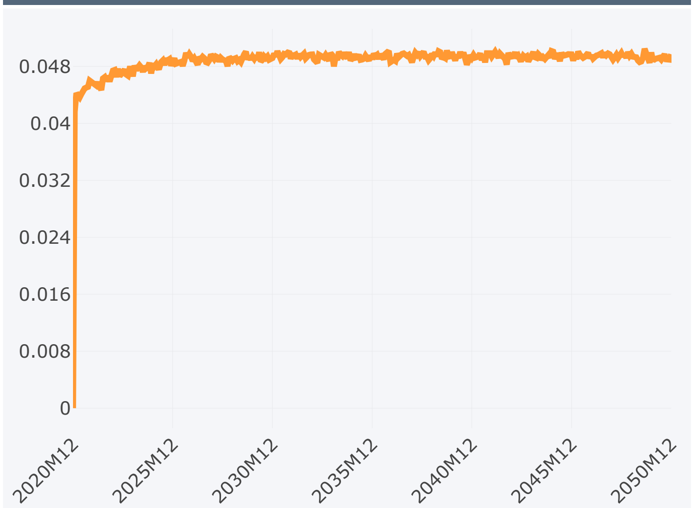


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

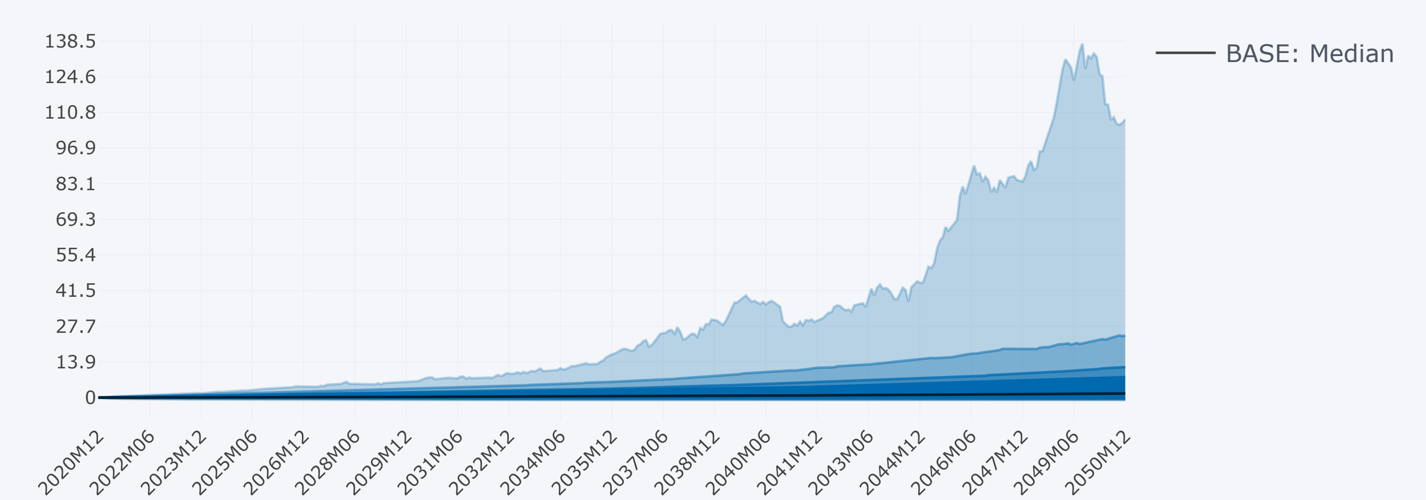
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0032	0.0036
std	0.0457	0.0497
min	-0.2933	-0.3417
1%	-0.1248	-0.1401
5%	-0.0729	-0.0819
10%	-0.0521	-0.0557
50%	0.0051	0.0053
90%	0.0580	0.0625
95%	0.0753	0.0790
99%	0.1052	0.1179
max	0.2046	0.2131

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : International Diversified Equity Cumulative Return

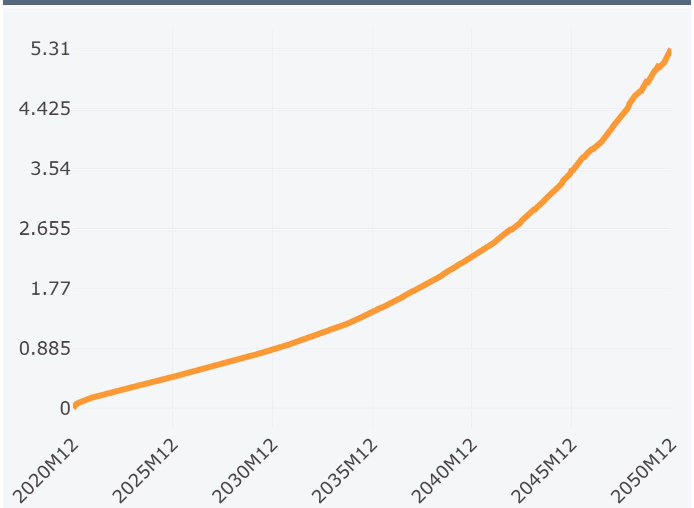


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

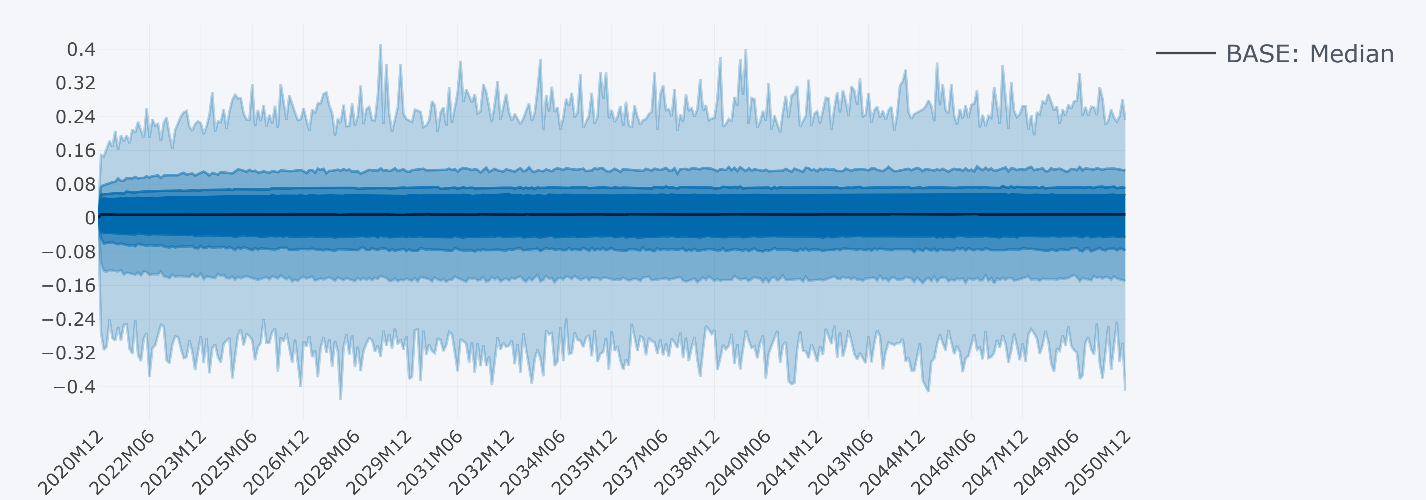
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0408	3.1571
std	0.1600	5.3097
min	-0.5388	-0.9604
1%	-0.3173	-0.8087
5%	-0.2146	-0.5839
10%	-0.1606	-0.3501
50%	0.0368	1.5998
90%	0.2456	7.9278
95%	0.3081	11.8469
99%	0.4364	24.1804
max	0.7240	108.0840

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Large Cap Total Return

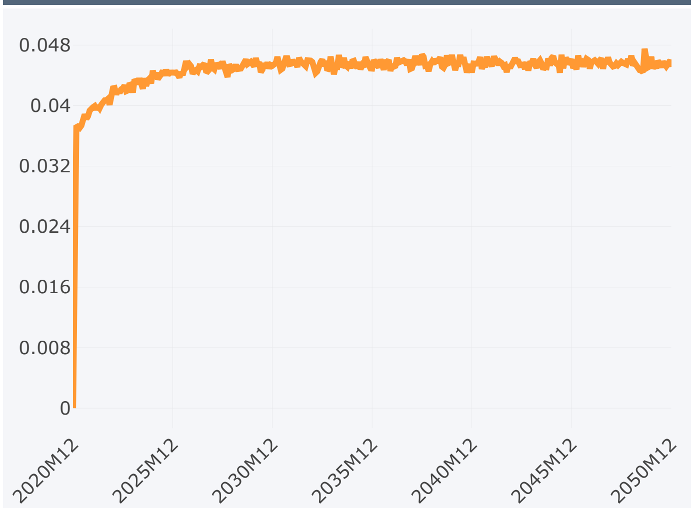


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

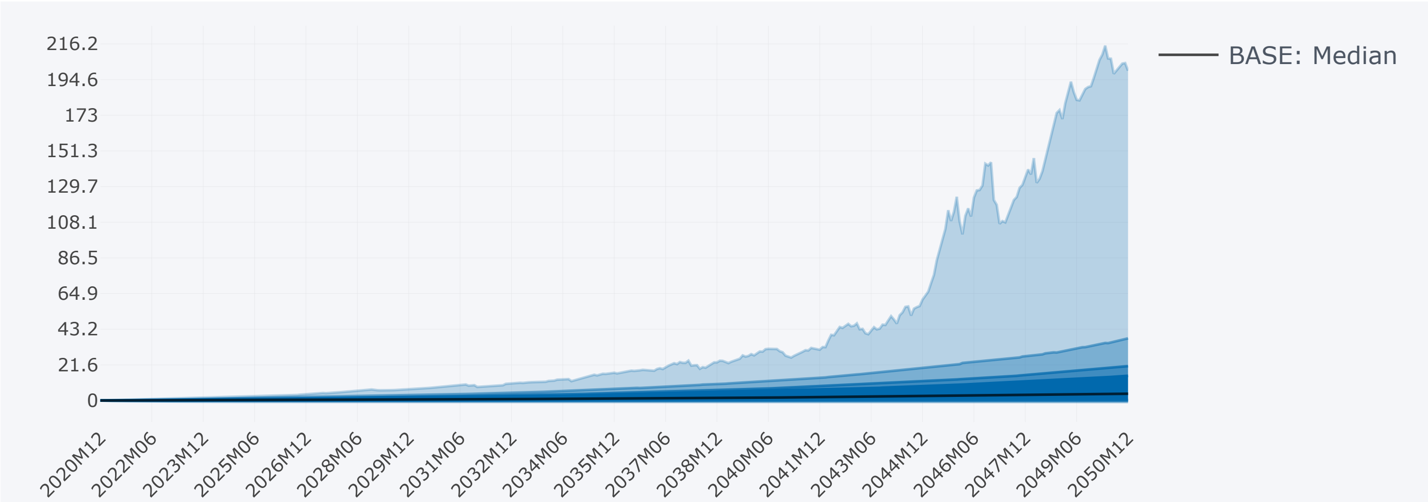
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0045	0.0051
std	0.0398	0.0461
min	-0.3217	-0.4093
1%	-0.1327	-0.1494
5%	-0.0643	-0.0773
10%	-0.0376	-0.0459
50%	0.0071	0.0087
90%	0.0469	0.0533
95%	0.0616	0.0706
99%	0.0938	0.1123
max	0.2098	0.2317

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Large Cap Cumulative Return

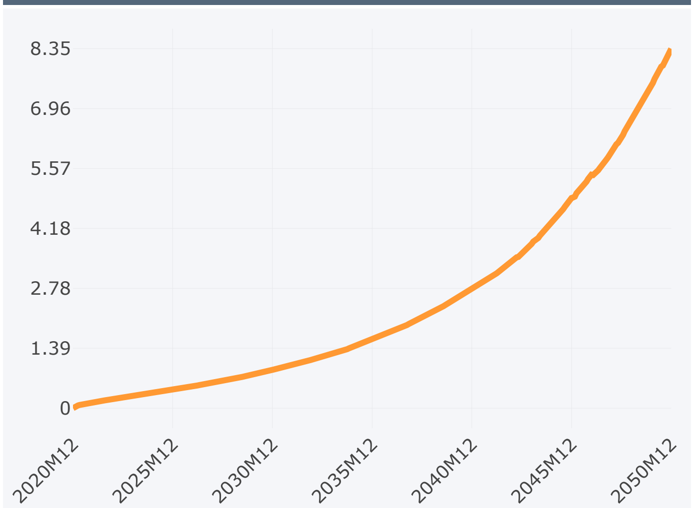


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

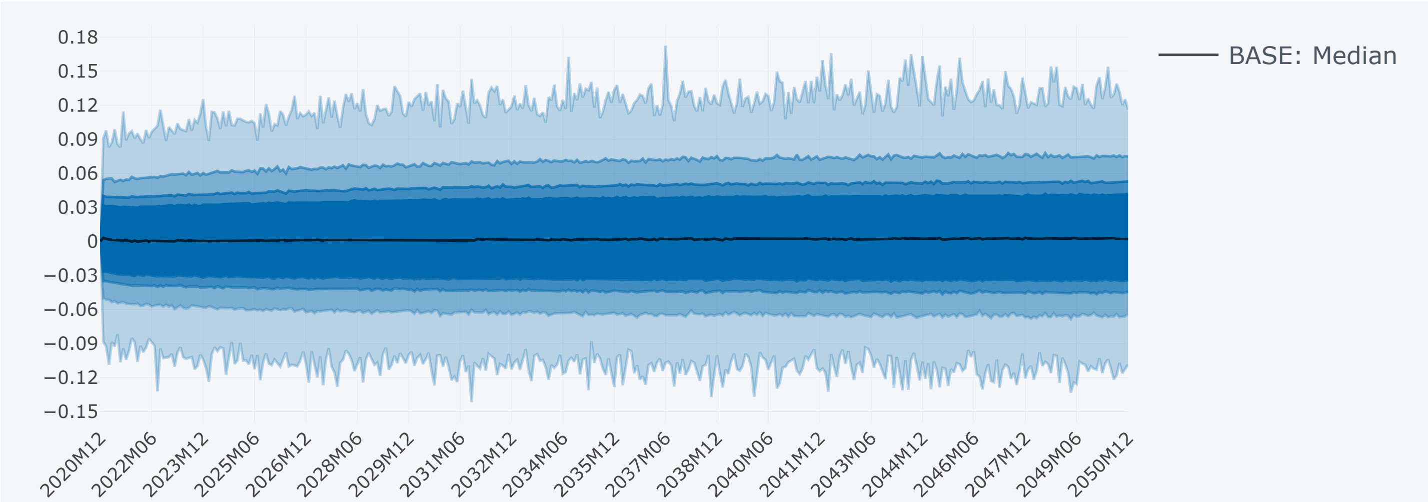
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0580	6.5005
std	0.1372	8.3495
min	-0.5328	-0.9517
1%	-0.2843	-0.6278
5%	-0.1767	-0.1105
10%	-0.1186	0.3526
50%	0.0641	4.1148
90%	0.2254	15.0027
95%	0.2716	20.8581
99%	0.3626	37.7023
max	0.6974	200.0180

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Long Govt Bonds Total Return

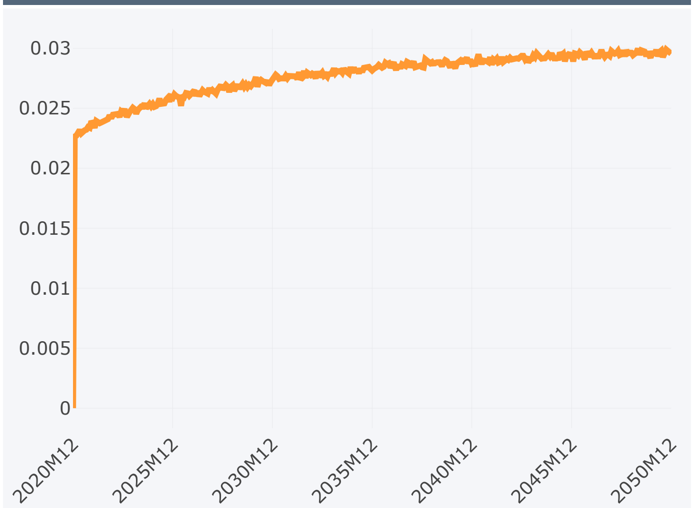


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

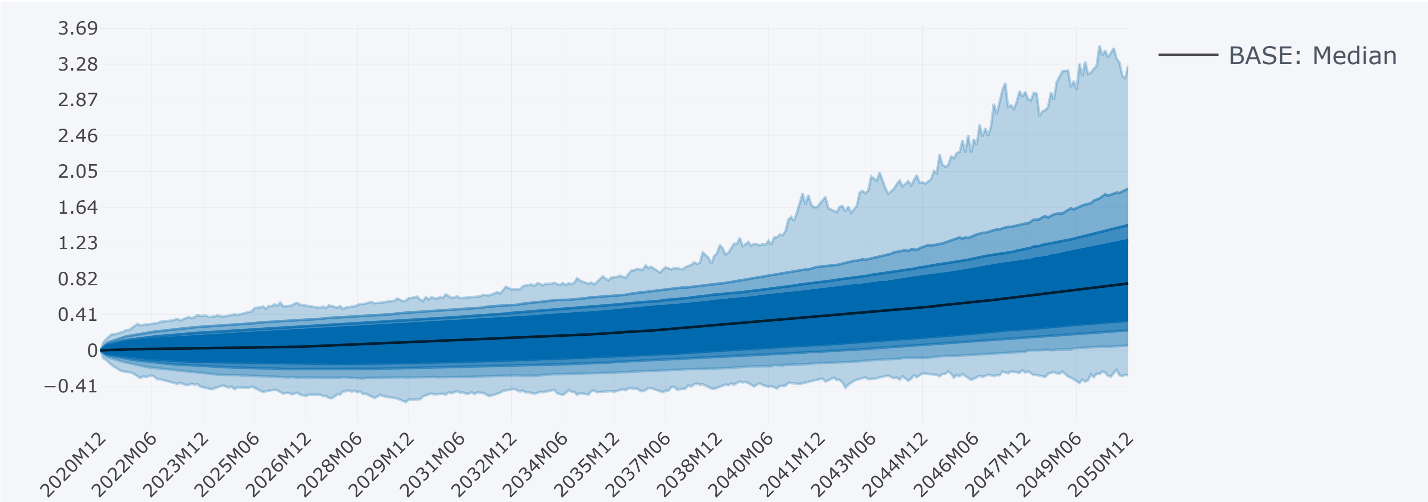
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0004	0.0031
std	0.0237	0.0296
min	-0.0888	-0.1086
1%	-0.0554	-0.0638
5%	-0.0388	-0.0444
10%	-0.0305	-0.0341
50%	0.0008	0.0021
90%	0.0303	0.0414
95%	0.0390	0.0528
99%	0.0556	0.0749
max	0.0909	0.1163

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Long Govt Bonds Cumulative Return

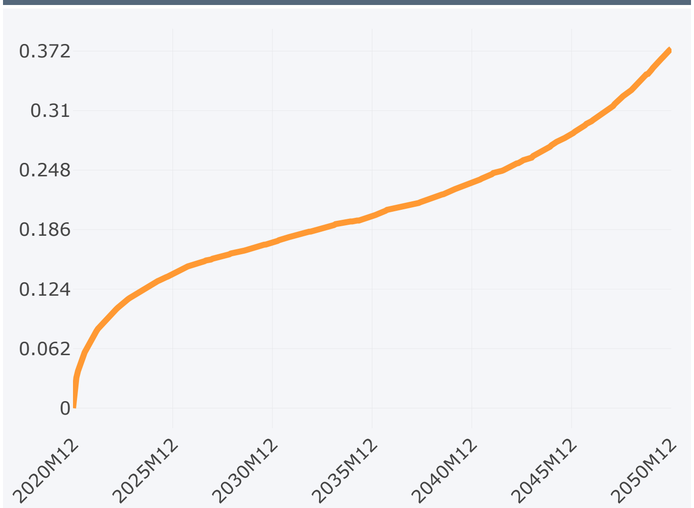


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

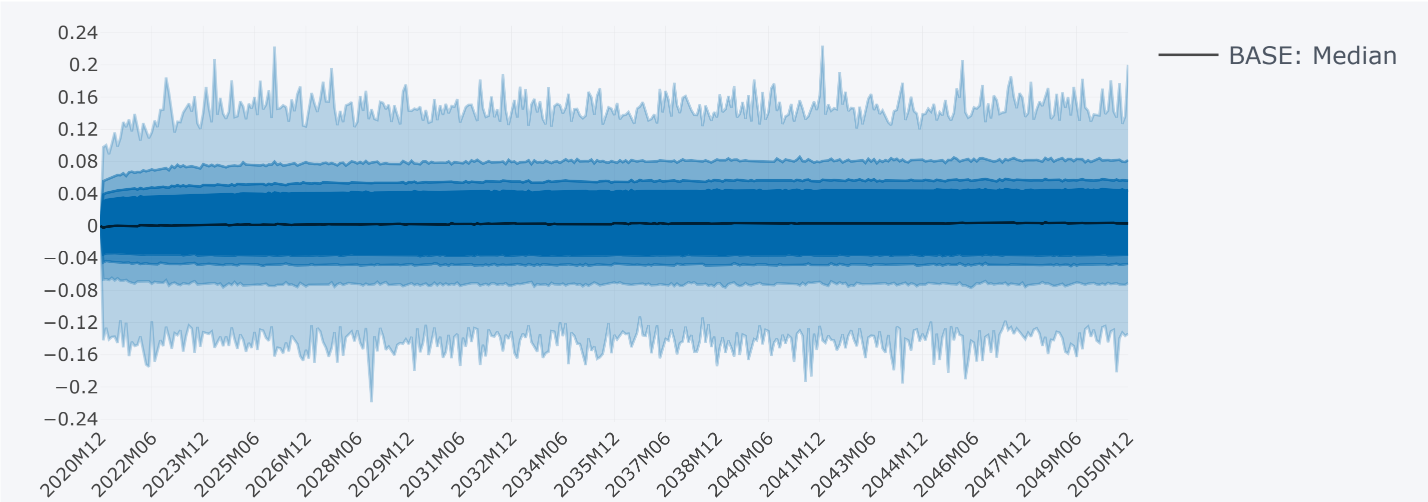
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0125	0.7915
std	0.0746	0.3745
min	-0.2688	-0.2860
1%	-0.1617	0.0565
5%	-0.1115	0.2298
10%	-0.0838	0.3404
50%	0.0140	0.7670
90%	0.1076	1.2617
95%	0.1329	1.4357
99%	0.1794	1.8542
max	0.2873	3.2613

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Long Inv Corp Bonds Total Return

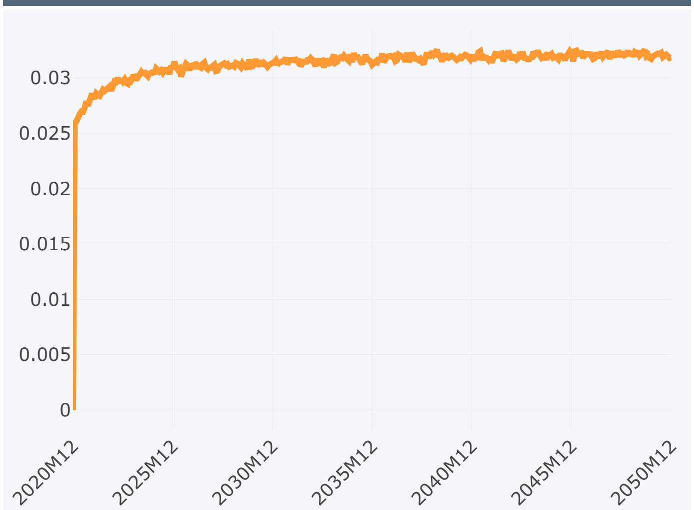


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

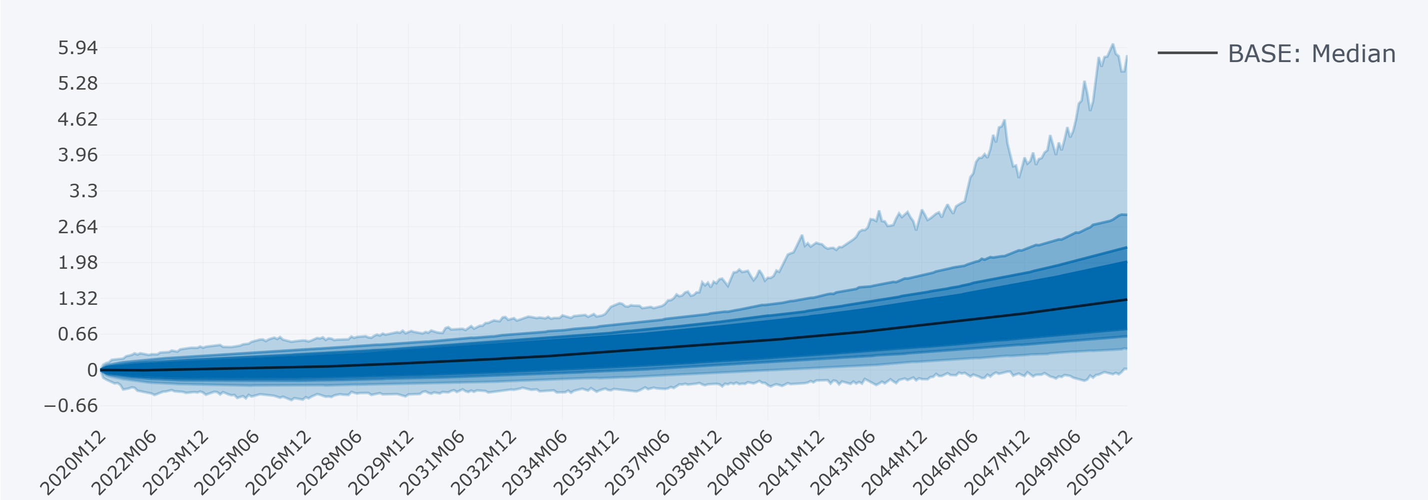
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0002	0.0038
std	0.0284	0.0318
min	-0.1490	-0.1340
1%	-0.0717	-0.0709
5%	-0.0466	-0.0472
10%	-0.0350	-0.0359
50%	0.0005	0.0031
90%	0.0356	0.0443
95%	0.0465	0.0562
99%	0.0659	0.0817
max	0.1391	0.2000

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Long Inv Corp Bonds Cumulative Return

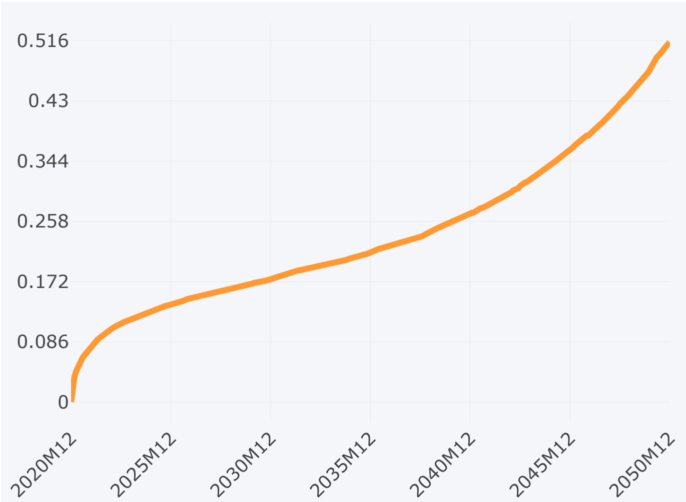


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

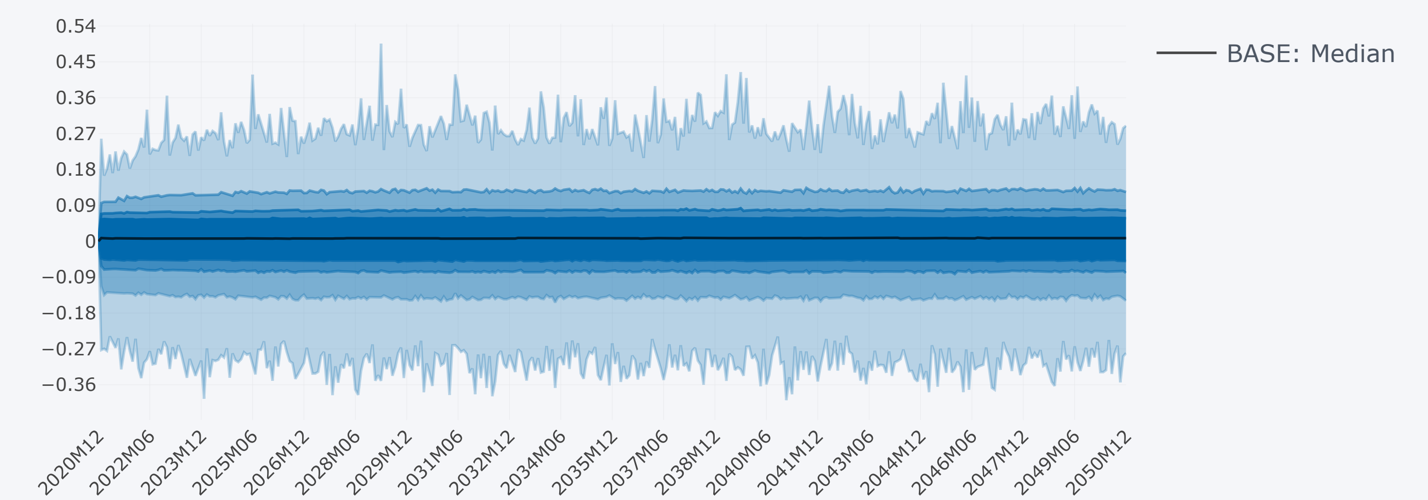
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	-0.0063	1.3512
std	0.0798	0.5137
min	-0.3274	0.0214
1%	-0.1975	0.3858
5%	-0.1423	0.6210
10%	-0.1101	0.7575
50%	-0.0046	1.2992
90%	0.0951	1.9959
95%	0.1222	2.2623
99%	0.1701	2.8604
max	0.3079	5.8040

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : MidCap Total Return

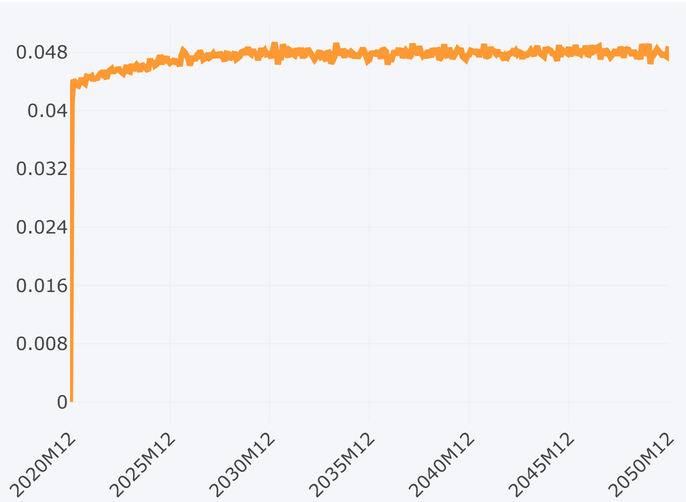


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0049	0.0054
std	0.0445	0.0488
min	-0.3018	-0.2807
1%	-0.1313	-0.1490
5%	-0.0721	-0.0792
10%	-0.0465	-0.0495
50%	0.0068	0.0079
90%	0.0554	0.0579
95%	0.0717	0.0767
99%	0.1093	0.1235
max	0.2027	0.2898

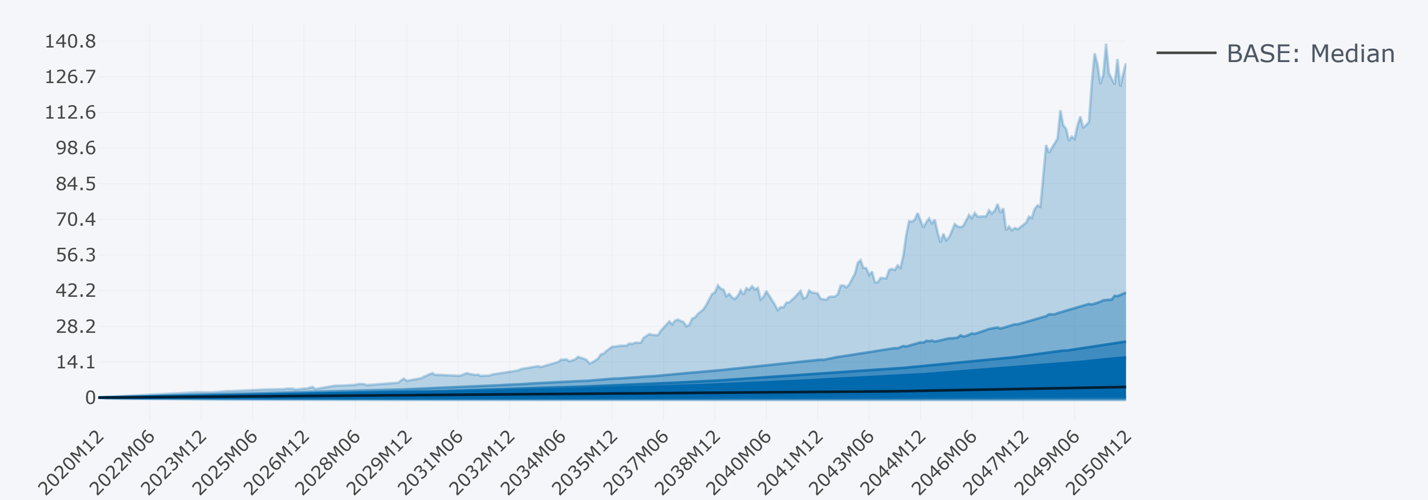
Cross Sectional Volatility Over Time : BASE



MidCap Cumulative Return
Conning | Risk Solutions

2020 Q4
Validation Report

Simulated Data in Percentiles : MidCap Cumulative Return

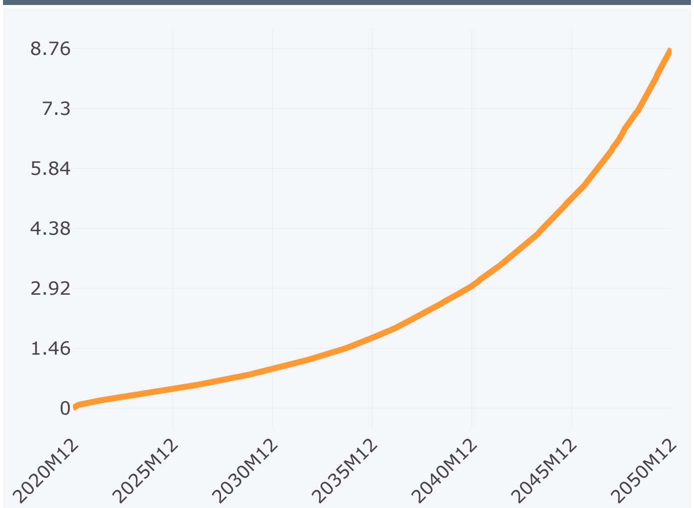


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0594	6.8218
std	0.1581	8.7570
min	-0.5331	-0.9759
1%	-0.3141	-0.7253
5%	-0.2055	-0.2241
10%	-0.1425	0.2416
50%	0.0612	4.2087
90%	0.2581	15.8959
95%	0.3153	22.1592
99%	0.4269	41.4709
max	0.6834	132.1168

Cross Sectional Volatility Over Time : BASE



Money Market Total Return
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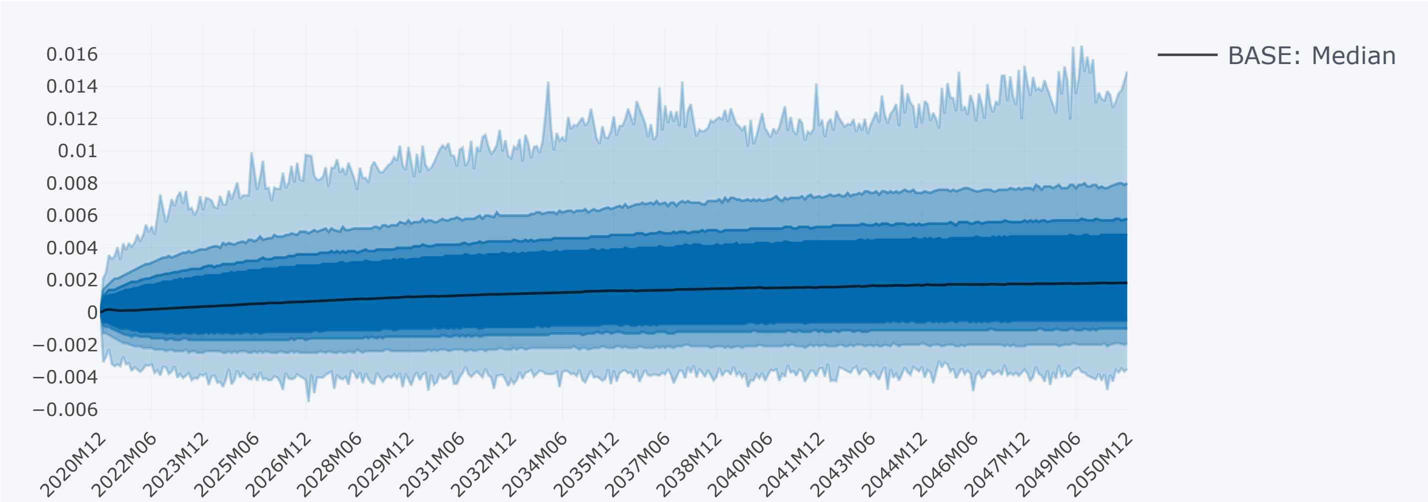
2020 Q4
Validation Report

Simulated Data in Percentiles : Money Market Total Return

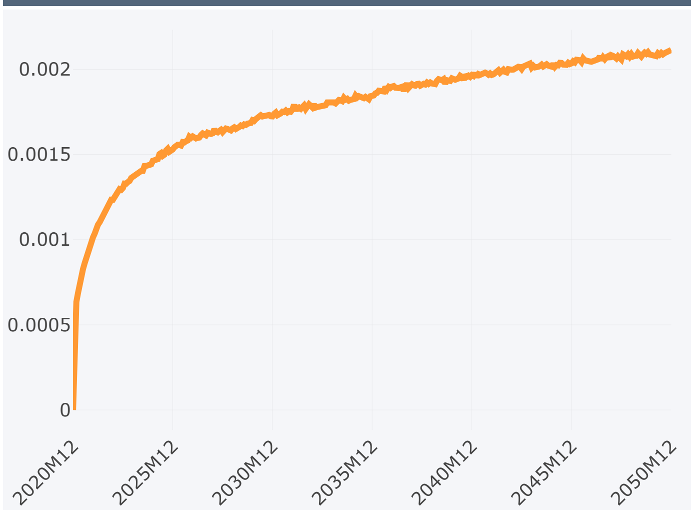


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

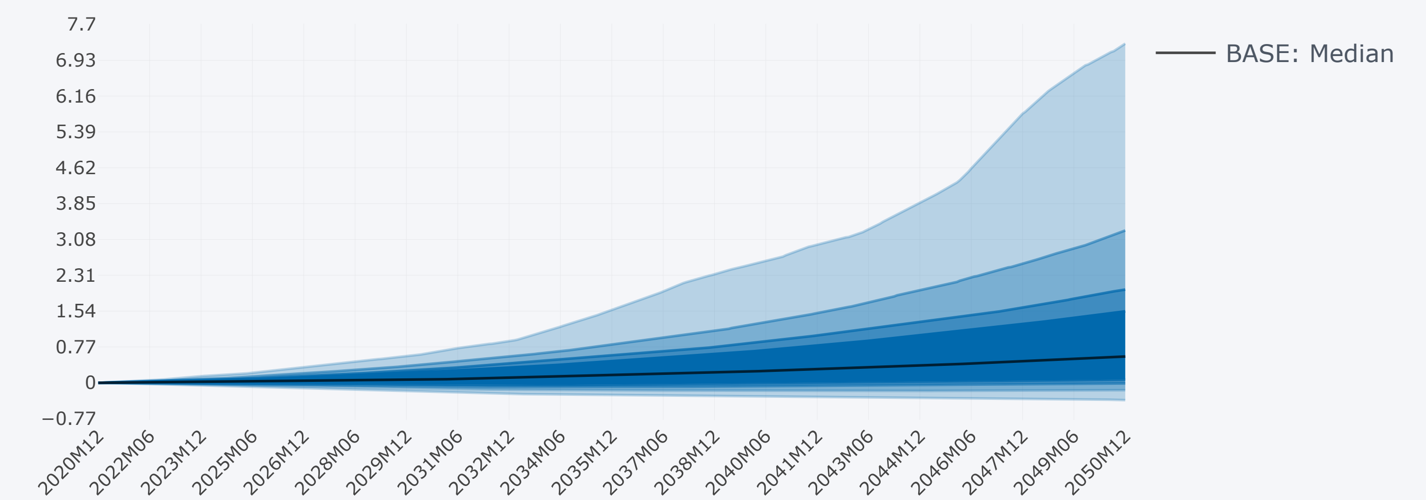
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0002	0.0020
std	0.0010	0.0021
min	-0.0034	-0.0035
1%	-0.0021	-0.0019
5%	-0.0014	-0.0010
10%	-0.0011	-0.0005
50%	0.0001	0.0018
90%	0.0015	0.0048
95%	0.0019	0.0058
99%	0.0026	0.0080
max	0.0043	0.0149

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Money Market Cumulative Return

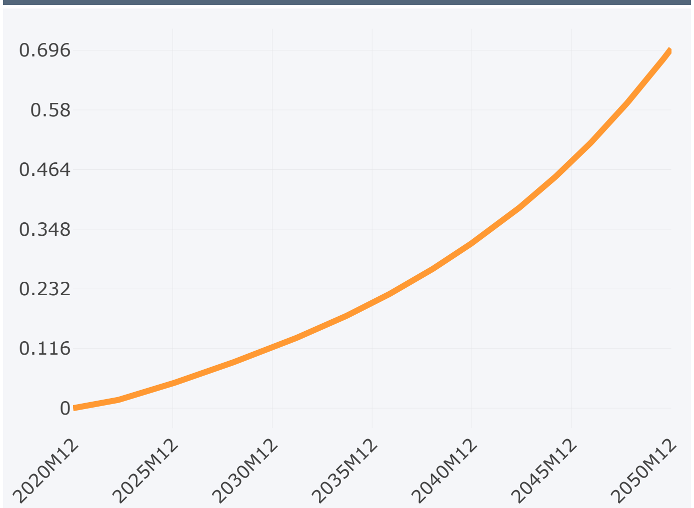


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

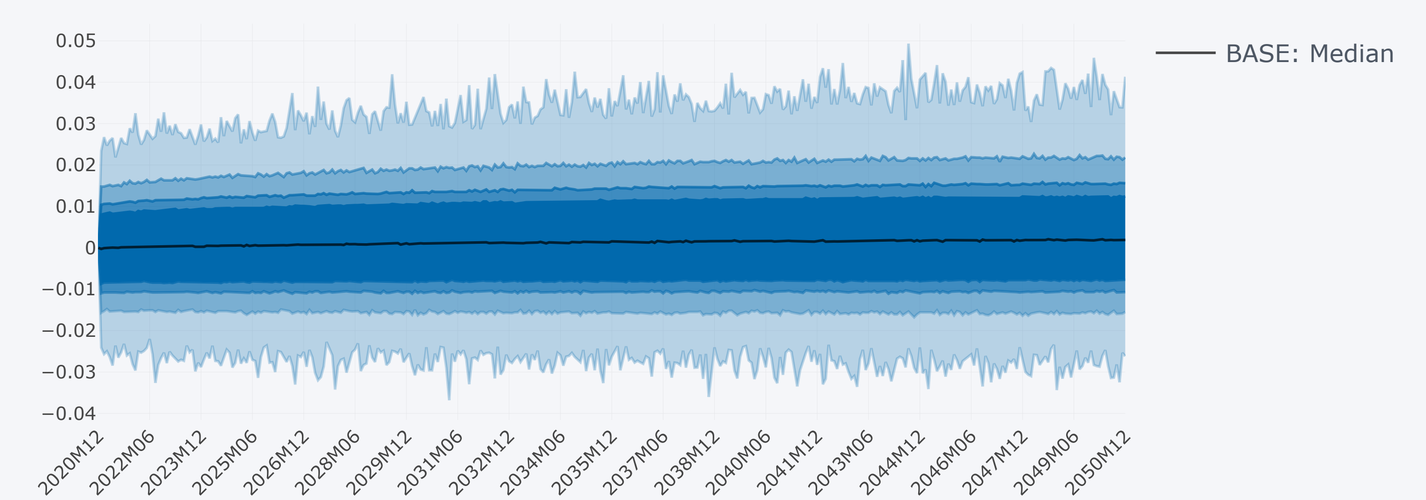
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0018	0.7251
std	0.0043	0.6989
min	-0.0117	-0.3724
1%	-0.0078	-0.1594
5%	-0.0052	-0.0152
10%	-0.0036	0.0701
50%	0.0017	0.5647
90%	0.0074	1.5354
95%	0.0091	2.0031
99%	0.0122	3.2731
max	0.0190	7.2880

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Short Govt Bonds Total Return

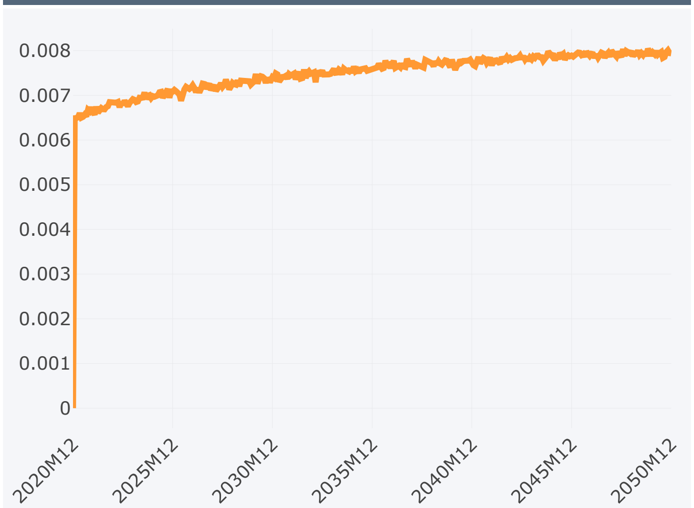


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0002	0.0021
std	0.0066	0.0079
min	-0.0281	-0.0262
1%	-0.0155	-0.0155
5%	-0.0108	-0.0107
10%	-0.0085	-0.0077
50%	0.0002	0.0019
90%	0.0086	0.0124
95%	0.0111	0.0156
99%	0.0156	0.0218
max	0.0278	0.0413

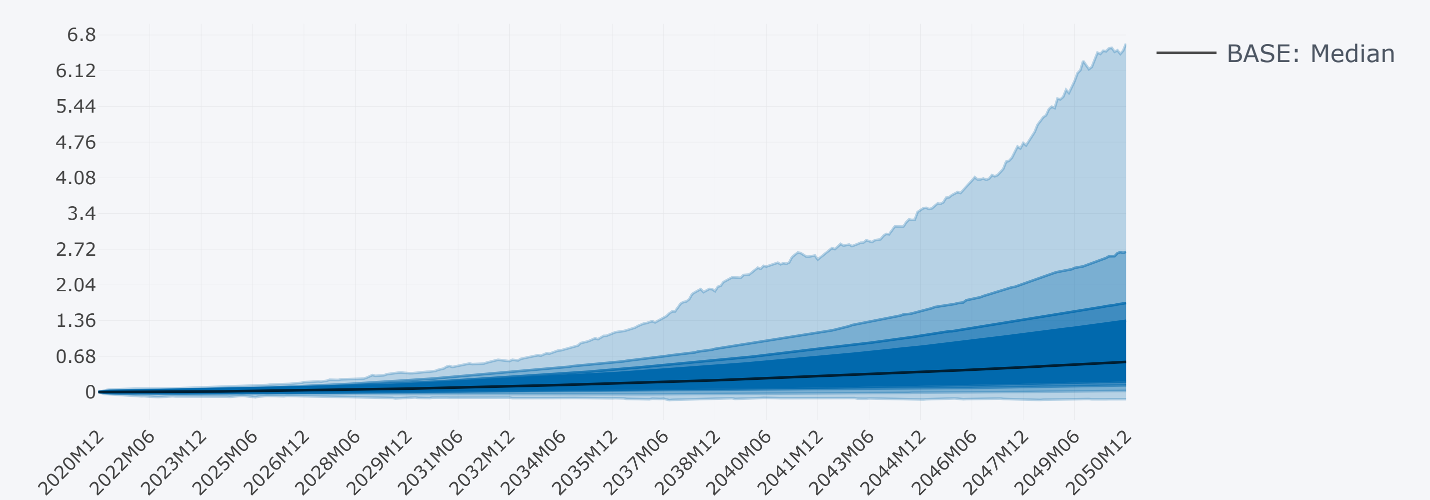
Cross Sectional Volatility Over Time : BASE



Short Govt Bonds Cumulative Return
Conning | Risk Solutions

2020 Q4
Validation Report

Simulated Data in Percentiles : Short Govt Bonds Cumulative Return

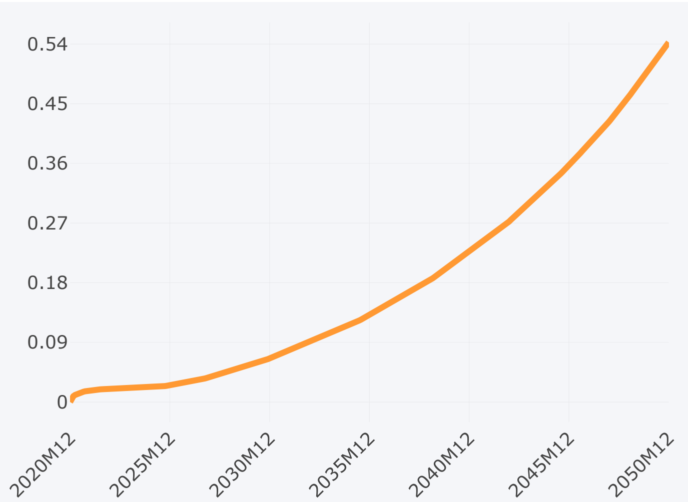


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

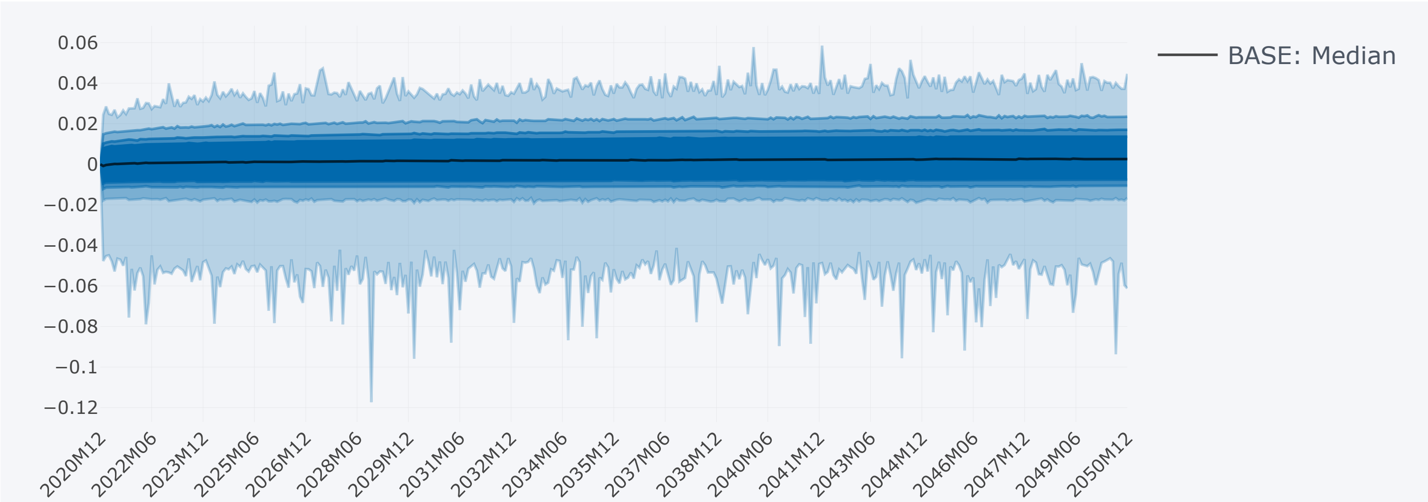
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0004	0.7050
std	0.0177	0.5427
min	-0.0779	-0.1362
1%	-0.0418	0.0229
5%	-0.0291	0.1278
10%	-0.0222	0.2020
50%	0.0006	0.5734
90%	0.0229	1.3567
95%	0.0291	1.6951
99%	0.0403	2.6696
max	0.0638	6.6357

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Short Inv Corp Bonds Total Return

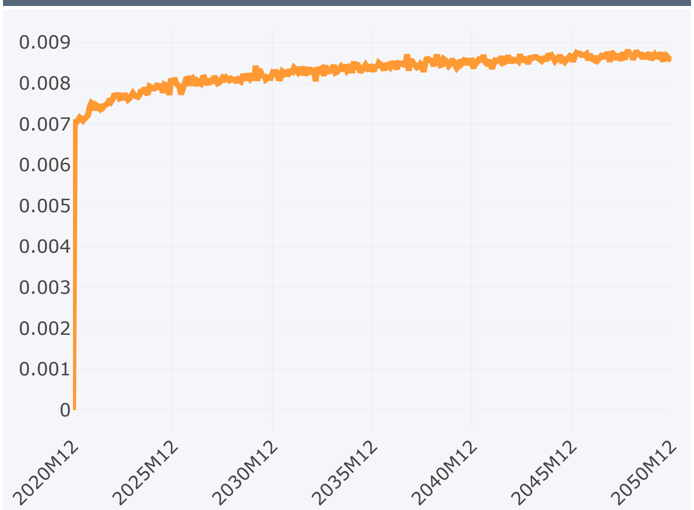


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0004	0.0028
std	0.0075	0.0086
min	-0.0622	-0.0612
1%	-0.0176	-0.0166
5%	-0.0114	-0.0106
10%	-0.0087	-0.0076
50%	0.0005	0.0026
90%	0.0093	0.0136
95%	0.0119	0.0170
99%	0.0169	0.0235
max	0.0276	0.0446

Cross Sectional Volatility Over Time : BASE



Short Inv Corp Bonds Cumulative Return 2020 Q4

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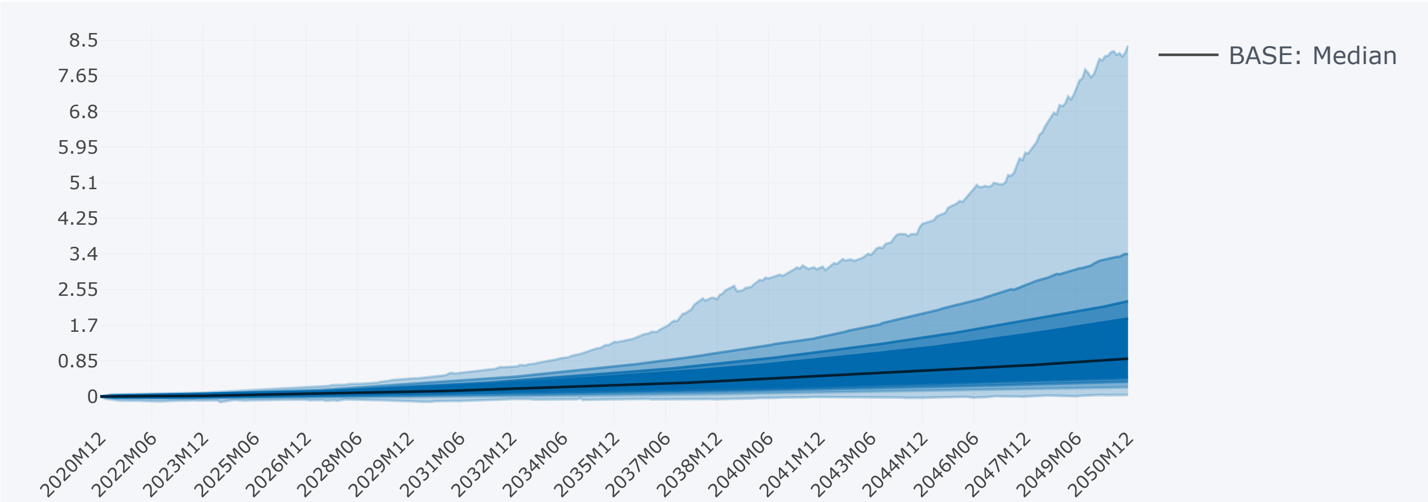
Simulated Data in Percentiles : Short Inv Corp Bonds Cumulative Return

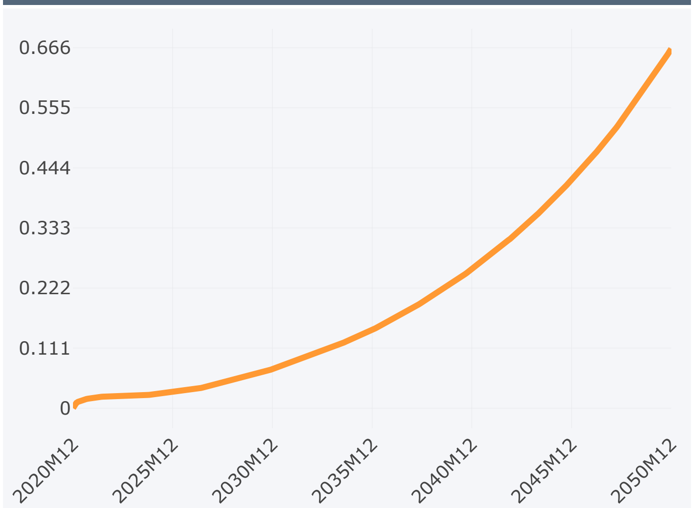


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

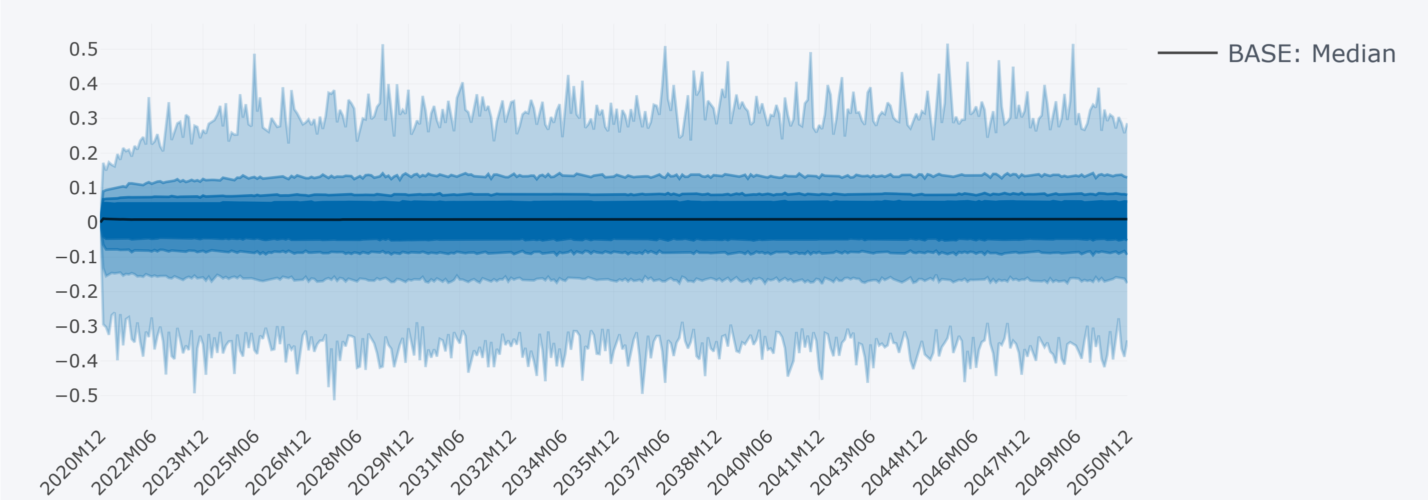
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0003	1.0608
std	0.0195	0.6641
min	-0.1027	0.0386
1%	-0.0489	0.2181
5%	-0.0323	0.3534
10%	-0.0245	0.4424
50%	0.0009	0.9032
90%	0.0246	1.8595
95%	0.0308	2.2746
99%	0.0426	3.3943
max	0.0709	8.3742

Cross Sectional Volatility Over Time : BASE



Simulated Data in Percentiles : Small Cap Total Return

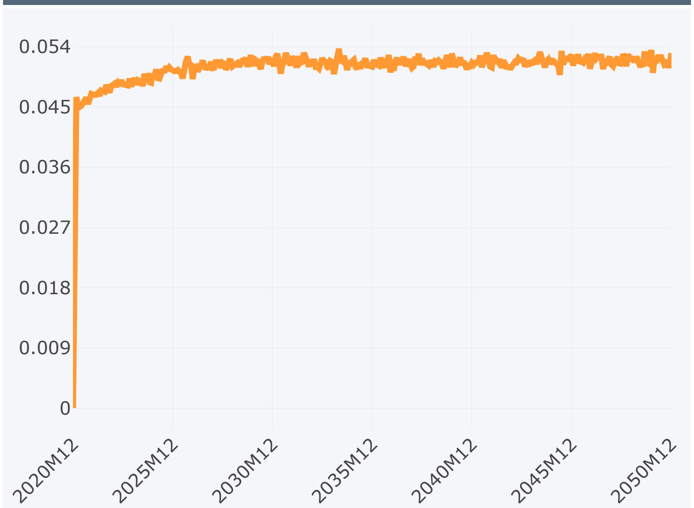


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0050	0.0056
std	0.0468	0.0531
min	-0.3460	-0.3406
1%	-0.1496	-0.1757
5%	-0.0807	-0.0936
10%	-0.0480	-0.0517
50%	0.0084	0.0095
90%	0.0549	0.0600
95%	0.0722	0.0795
99%	0.1112	0.1301
max	0.2208	0.2868

Cross Sectional Volatility Over Time : BASE



Small Cap Cumulative Return

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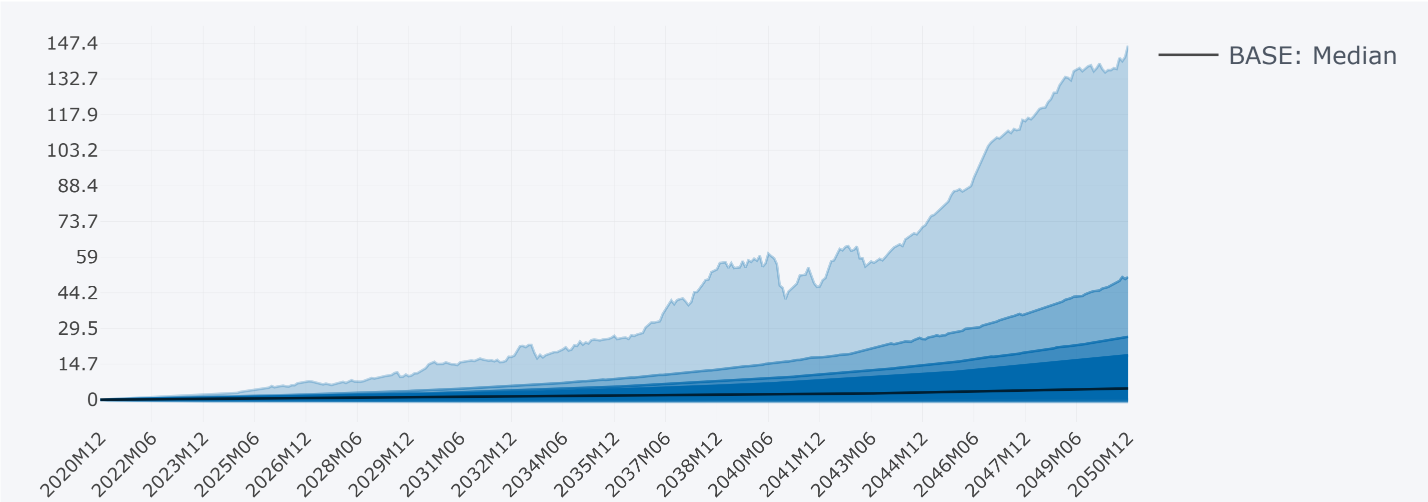
2020 Q4

Validation Report

Simulated Data in Percentiles : Small Cap Cumulative Return

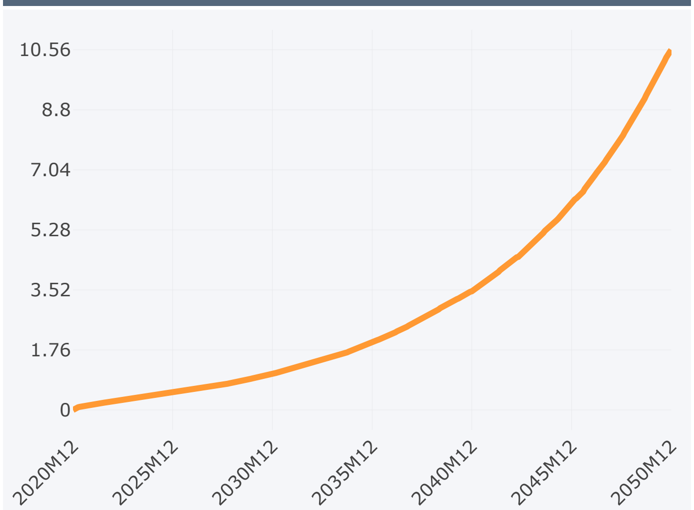


Simulated Data: There are 360 Time Periods. Percentiles, Mean and Median are calculated across 10000 PATHS.
Percentiles Plotted : Min, 1%, 5%, 10%, 50%, 90%, 95%, 99%, Max
The distributions shown are across the paths for a given time period.

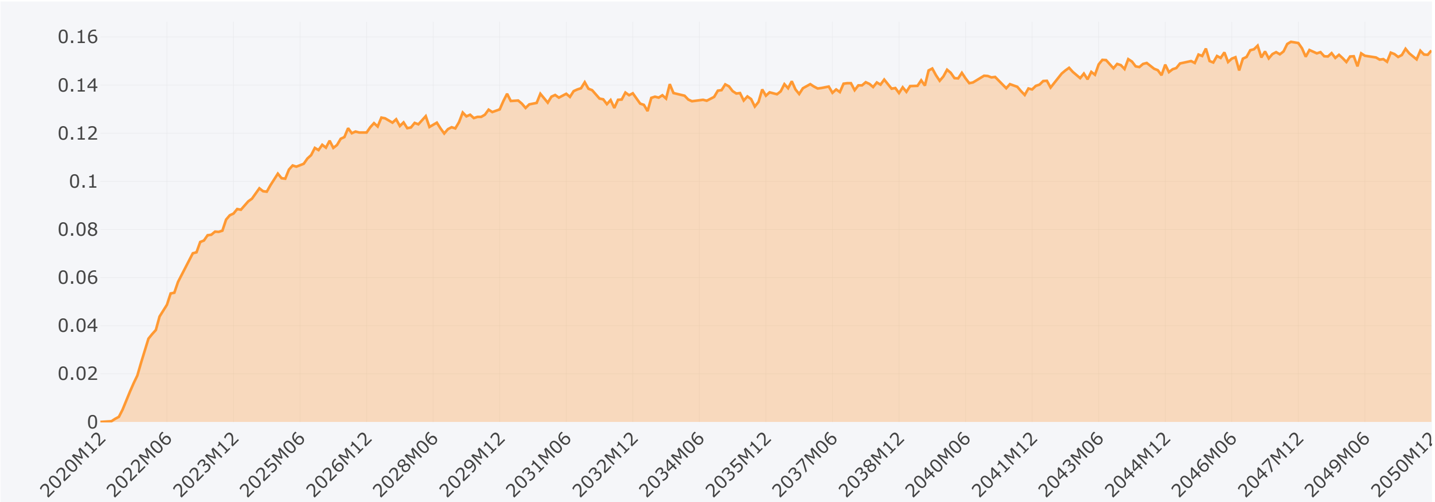
Simulation Summary

	BASE: 2021M12	BASE: 2050M12
mean	0.0640	7.8674
std	0.1657	10.5600
min	-0.6066	-0.9919
1%	-0.3422	-0.7996
5%	-0.2211	-0.3521
10%	-0.1518	0.1265
50%	0.0700	4.6621
90%	0.2673	18.3781
95%	0.3245	25.9959
99%	0.4443	50.7368
max	0.7349	146.4504

Cross Sectional Volatility Over Time : BASE

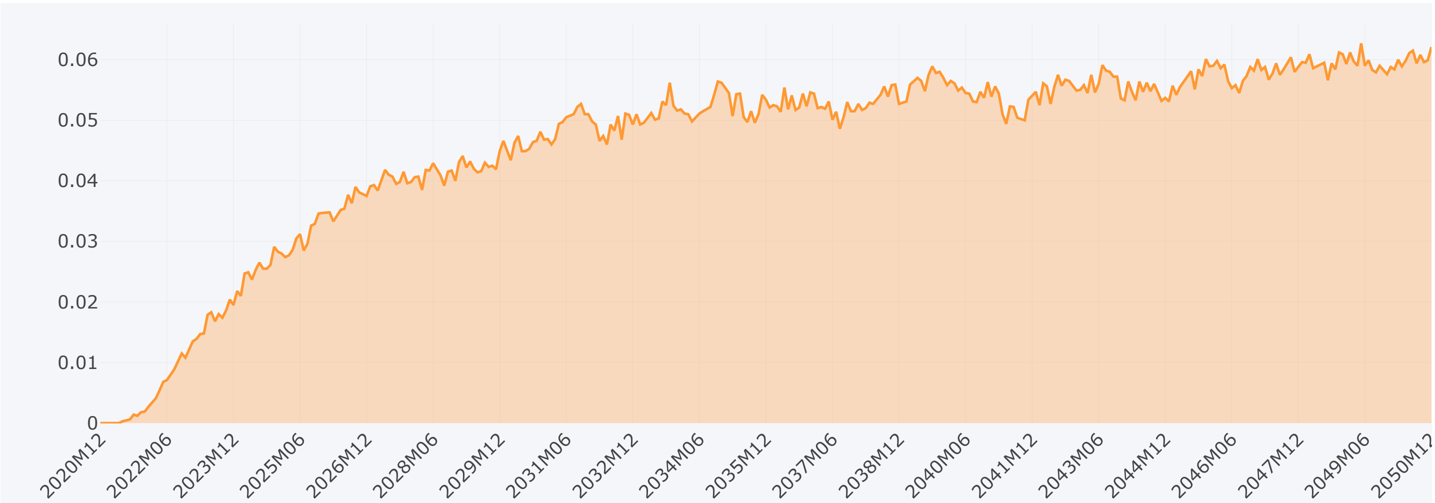


Term Structure Inversion Probability



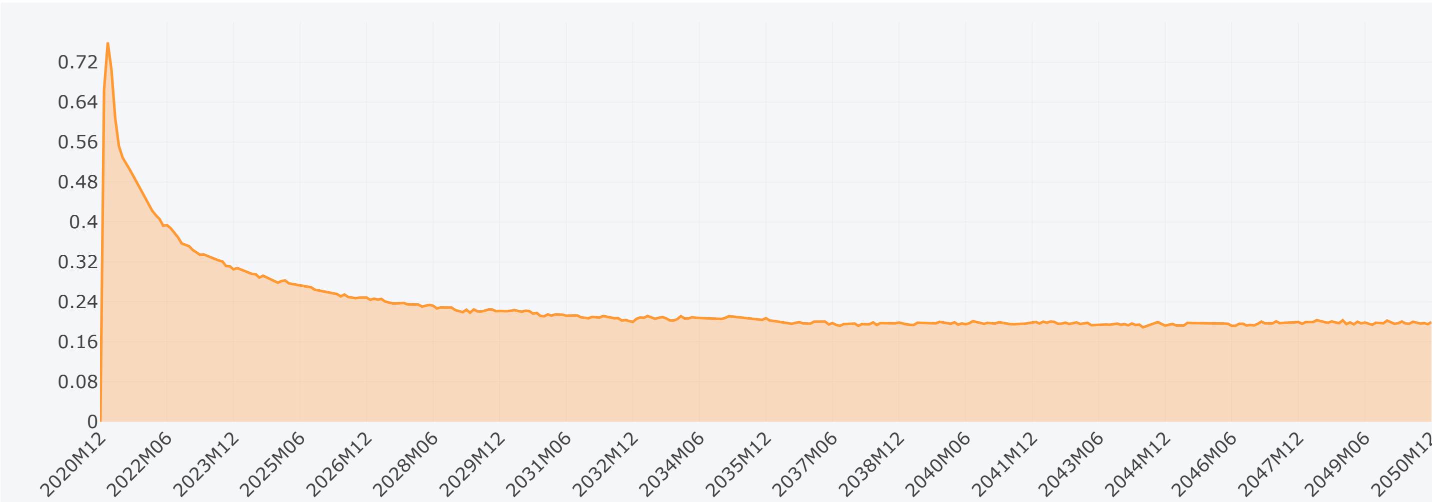
Probability that 1 Year yield is higher than 20 Year Yield.

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.

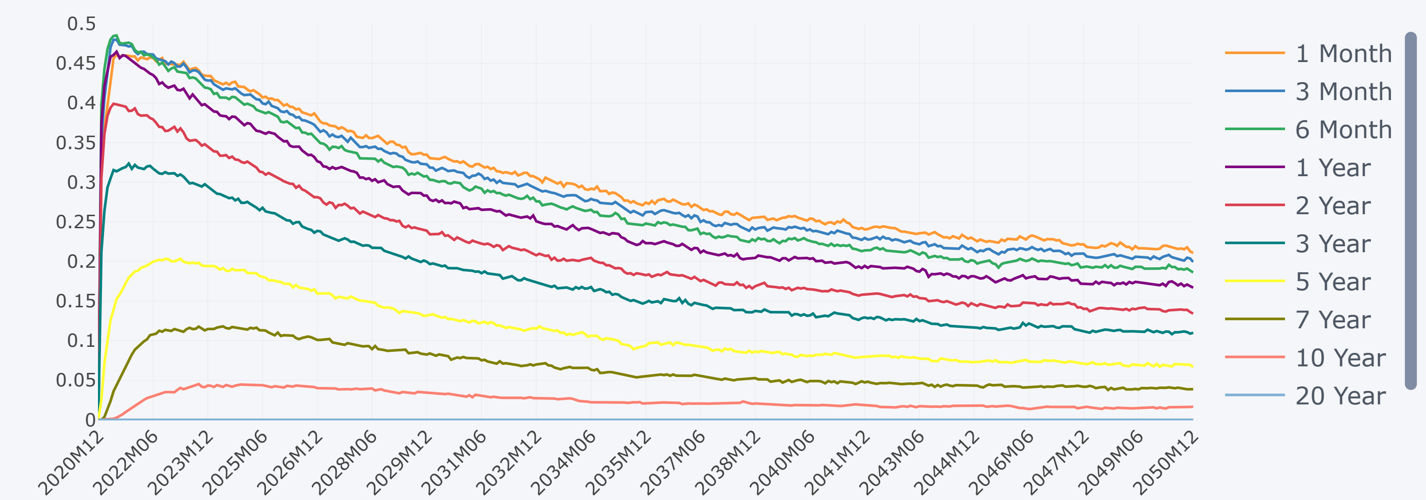
Correlation Matrix of Total Return in the 1st Simulation Year

	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	MidCap	Money Market	Short Govt Bonds	Short Inv Corp Bonds	Small Cap
Aggressive Foreign Equity	1.00	0.36	0.17	-0.01	0.10	0.31	0.41	-0.01	0.14	0.36	0.01	-0.01	0.06	0.36
Aggressive US Equity	0.36	1.00	0.40	-0.05	0.22	0.63	0.88	-0.04	0.32	0.85	0.03	-0.04	0.13	0.85
High Yield Corp Bonds	0.17	0.40	1.00	0.58	0.90	0.29	0.41	0.54	0.91	0.43	-0.33	0.57	0.84	0.39
Int Govt Bonds	-0.01	-0.05	0.58	1.00	0.86	-0.04	-0.05	0.93	0.76	-0.04	-0.59	0.98	0.88	-0.04
Int Inv Corp Bonds	0.10	0.22	0.90	0.86	1.00	0.15	0.22	0.80	0.94	0.24	-0.53	0.85	0.98	0.21
International Diversified Equity	0.31	0.63	0.29	-0.04	0.15	1.00	0.73	-0.04	0.23	0.66	0.03	-0.04	0.09	0.65
Large Cap	0.41	0.88	0.41	-0.05	0.22	0.73	1.00	-0.05	0.33	0.90	0.04	-0.04	0.13	0.89
Long Govt Bonds	-0.01	-0.04	0.54	0.93	0.80	-0.04	-0.05	1.00	0.80	-0.03	-0.48	0.86	0.77	-0.04
Long Inv Corp Bonds	0.14	0.32	0.91	0.76	0.94	0.23	0.33	0.80	1.00	0.35	-0.42	0.70	0.86	0.31
MidCap	0.36	0.85	0.43	-0.04	0.24	0.66	0.90	-0.03	0.35	1.00	0.03	-0.04	0.14	0.92
Money Market	0.01	0.03	-0.33	-0.59	-0.53	0.03	0.04	-0.48	-0.42	0.03	1.00	-0.54	-0.50	0.03
Short Govt Bonds	-0.01	-0.04	0.57	0.98	0.85	-0.04	-0.04	0.86	0.70	-0.04	-0.54	1.00	0.90	-0.04
Short Inv Corp Bonds	0.06	0.13	0.84	0.88	0.98	0.09	0.13	0.77	0.86	0.14	-0.50	0.90	1.00	0.12
Small Cap	0.36	0.85	0.39	-0.04	0.21	0.65	0.89	-0.04	0.31	0.92	0.03	-0.04	0.12	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	MidCap	Money Market	Short Govt Bonds	Short Inv Corp Bonds	Small Cap
Aggressive Foreign Equity	1.00	0.41	0.14	0.00	0.10	0.40	0.49	-0.01	0.12	0.44	0.08	0.03	0.09	0.42
Aggressive US Equity	0.41	1.00	0.30	0.02	0.22	0.65	0.82	0.00	0.27	0.79	0.11	0.06	0.17	0.79
High Yield Corp Bonds	0.14	0.30	1.00	0.59	0.85	0.24	0.32	0.53	0.83	0.33	0.34	0.59	0.79	0.29
Int Govt Bonds	0.00	0.02	0.59	1.00	0.88	0.02	0.03	0.95	0.80	0.03	0.34	0.93	0.87	0.03
Int Inv Corp Bonds	0.10	0.22	0.85	0.88	1.00	0.18	0.24	0.83	0.96	0.25	0.32	0.82	0.93	0.23
International Diversified Equity	0.40	0.65	0.24	0.02	0.18	1.00	0.79	0.00	0.22	0.69	0.12	0.06	0.14	0.66
Large Cap	0.49	0.82	0.32	0.03	0.24	0.79	1.00	0.01	0.29	0.88	0.15	0.08	0.19	0.84
Long Govt Bonds	-0.01	0.00	0.53	0.95	0.83	0.00	0.01	1.00	0.83	0.01	0.17	0.79	0.74	0.01
Long Inv Corp Bonds	0.12	0.27	0.83	0.80	0.96	0.22	0.29	0.83	1.00	0.30	0.17	0.68	0.80	0.28
MidCap	0.44	0.79	0.33	0.03	0.25	0.69	0.88	0.01	0.30	1.00	0.14	0.08	0.20	0.91
Money Market	0.08	0.11	0.34	0.34	0.32	0.12	0.15	0.17	0.17	0.14	1.00	0.64	0.62	0.13
Short Govt Bonds	0.03	0.06	0.59	0.93	0.82	0.06	0.08	0.79	0.68	0.08	0.64	1.00	0.94	0.07
Short Inv Corp Bonds	0.09	0.17	0.79	0.87	0.93	0.14	0.19	0.74	0.80	0.20	0.62	0.94	1.00	0.18
Small Cap	0.42	0.79	0.29	0.03	0.23	0.66	0.84	0.01	0.28	0.91	0.13	0.07	0.18	1.00

Negative Yields Probability



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

Negative Probability Summary

	2021-12-31	2030-12-31	2040-12-31	2050-12-31
1 Month	0.4588	0.3264	0.2492	0.2108
3 Month	0.4653	0.3118	0.2344	0.1994
6 Month	0.4670	0.2939	0.2197	0.1861
1 Year	0.4495	0.2674	0.1993	0.1669
2 Year	0.3932	0.2276	0.1624	0.1342
3 Year	0.3219	0.1893	0.1308	0.1100
5 Year	0.1874	0.1261	0.0825	0.0668
7 Year	0.0886	0.0795	0.0492	0.0388
10 Year	0.0186	0.0301	0.0174	0.0168
20 Year	0.0000	0.0000	0.0000	0.0000
30 Year	0.0000	0.0000	0.0000	0.0000