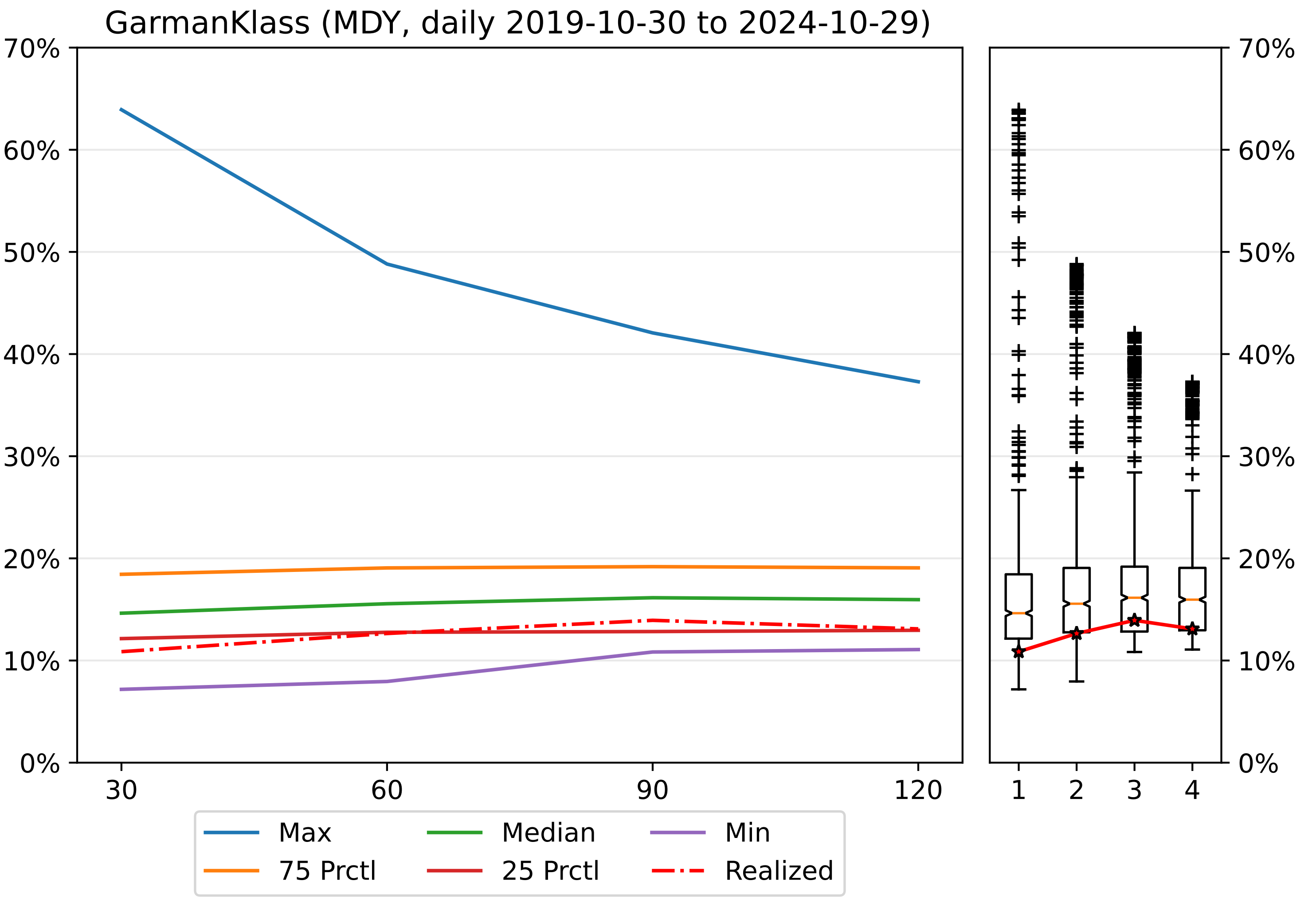
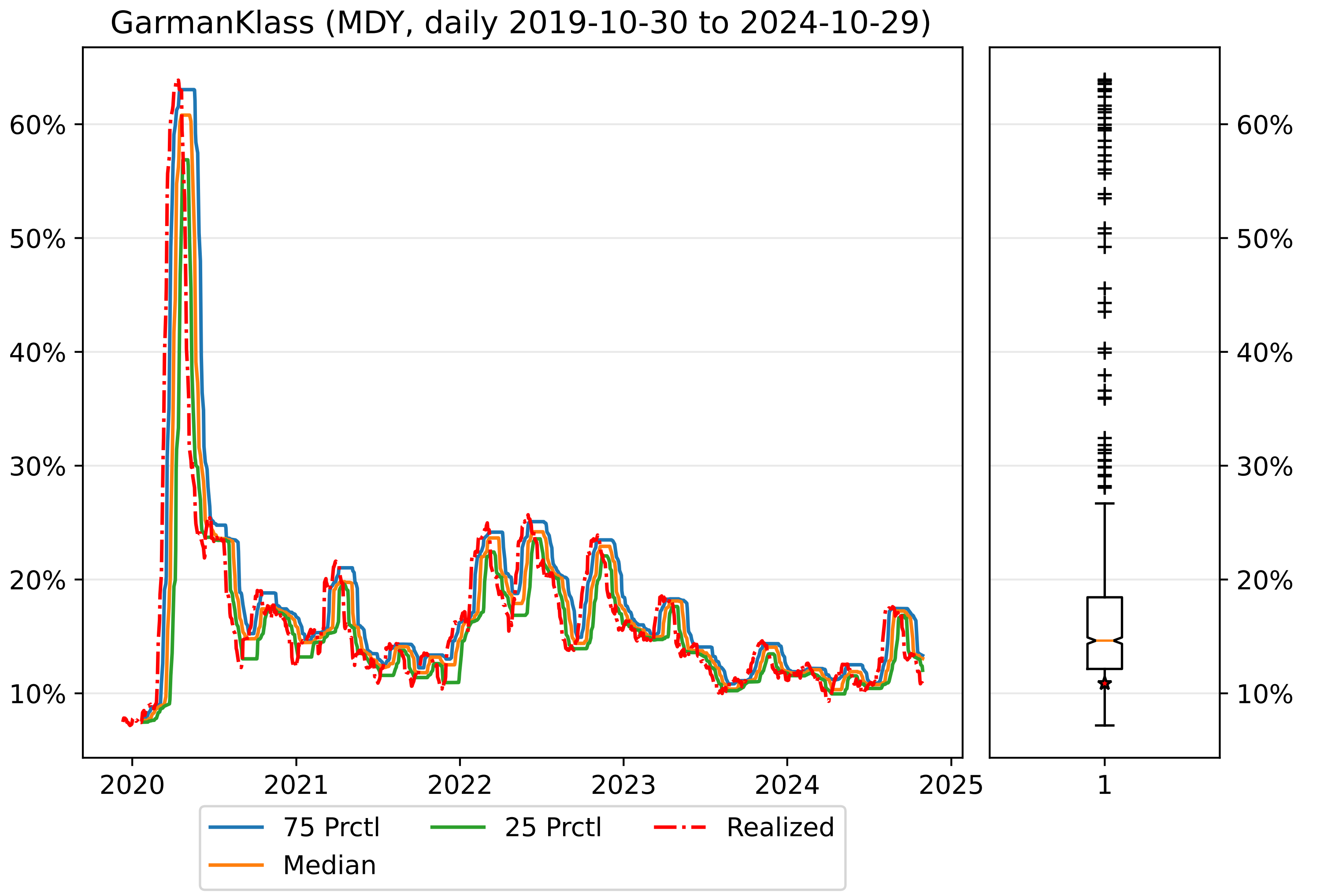
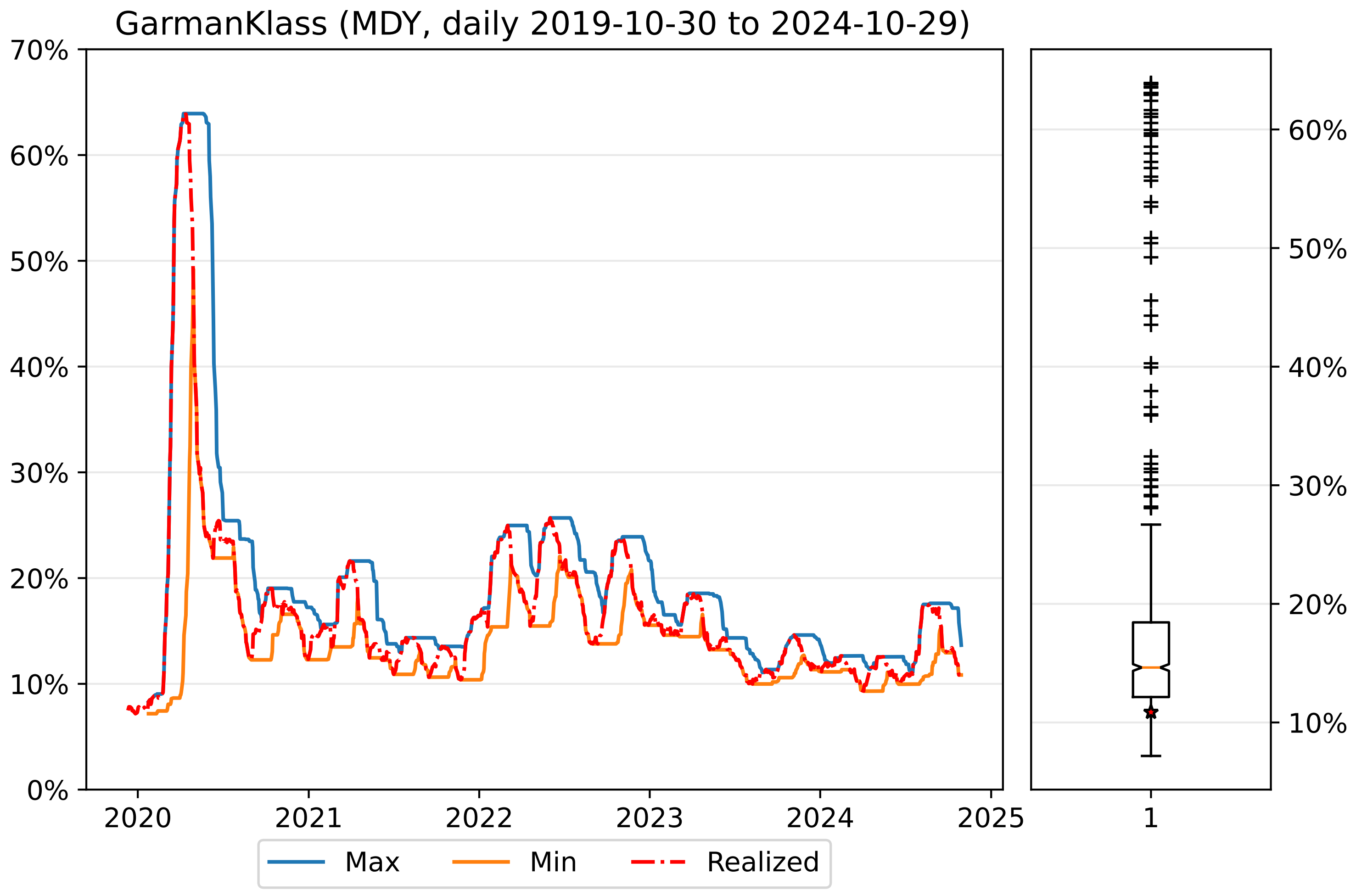
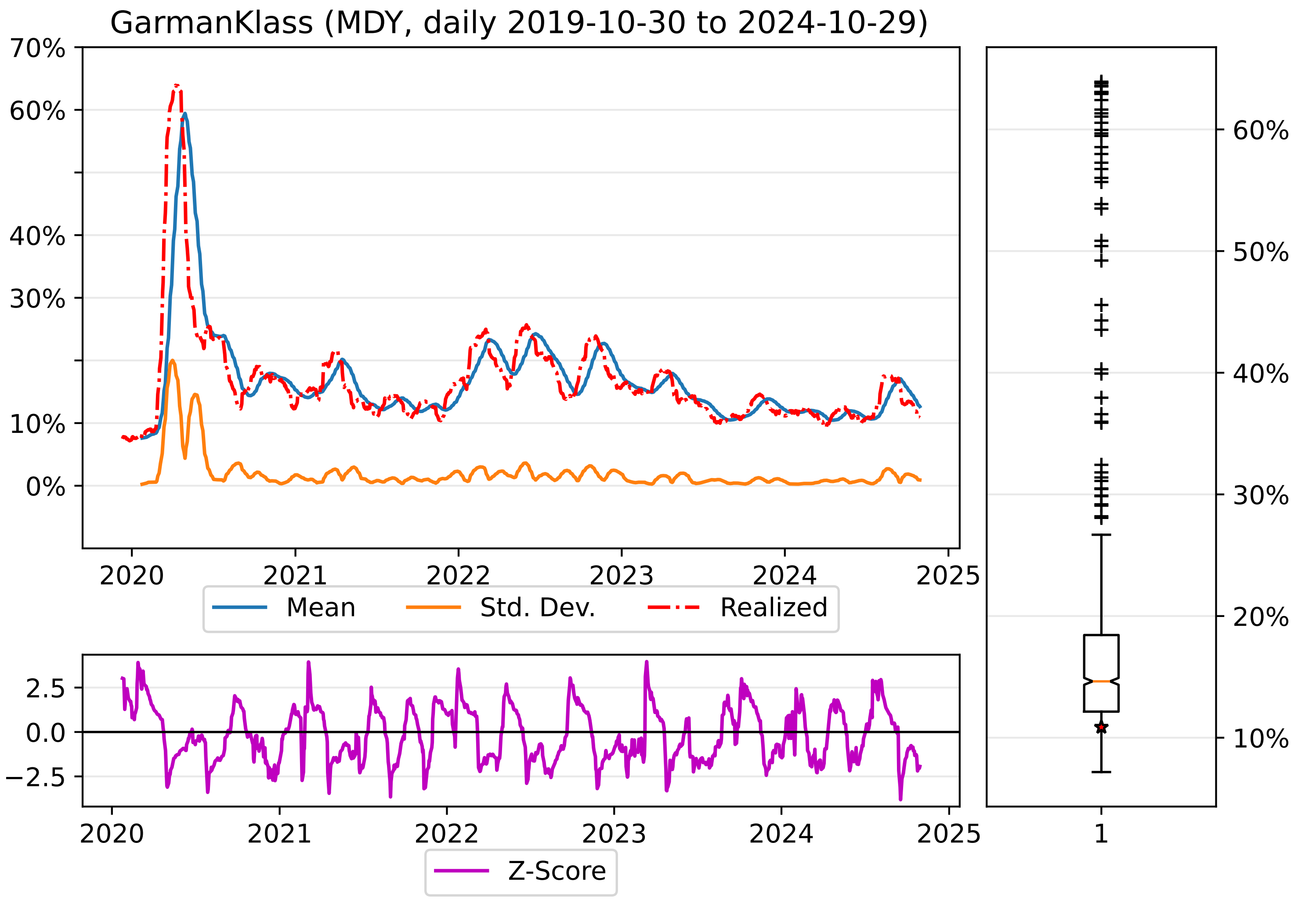

GarmanKlass (MDY, daily 2019-10-30 to 2024-10-29)
70%
60%
50%
40%
30%
20%
10%
0%
30
60
90
120
1
2
3
4
Max
75 Prctl
Median
25 Prctl
Min
Realized

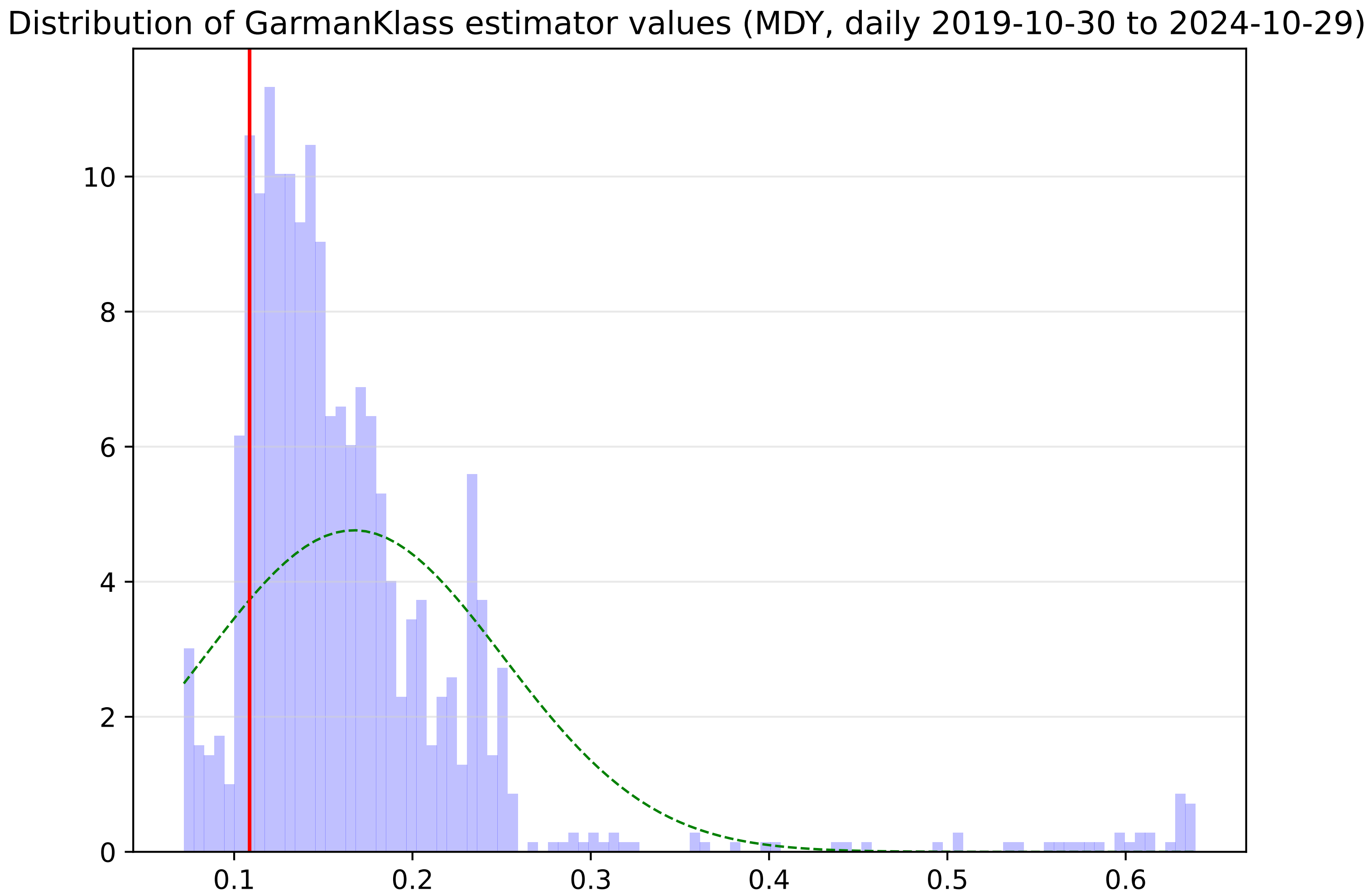

GarmanKlass (MDY, daily 2019-10-30 to 2024-10-29)
60%
50%
40%
30%
20%
10%
2020
2021
2022
2023
2024
2025
1
75 Prctl
25 Prctl
Realized
Median

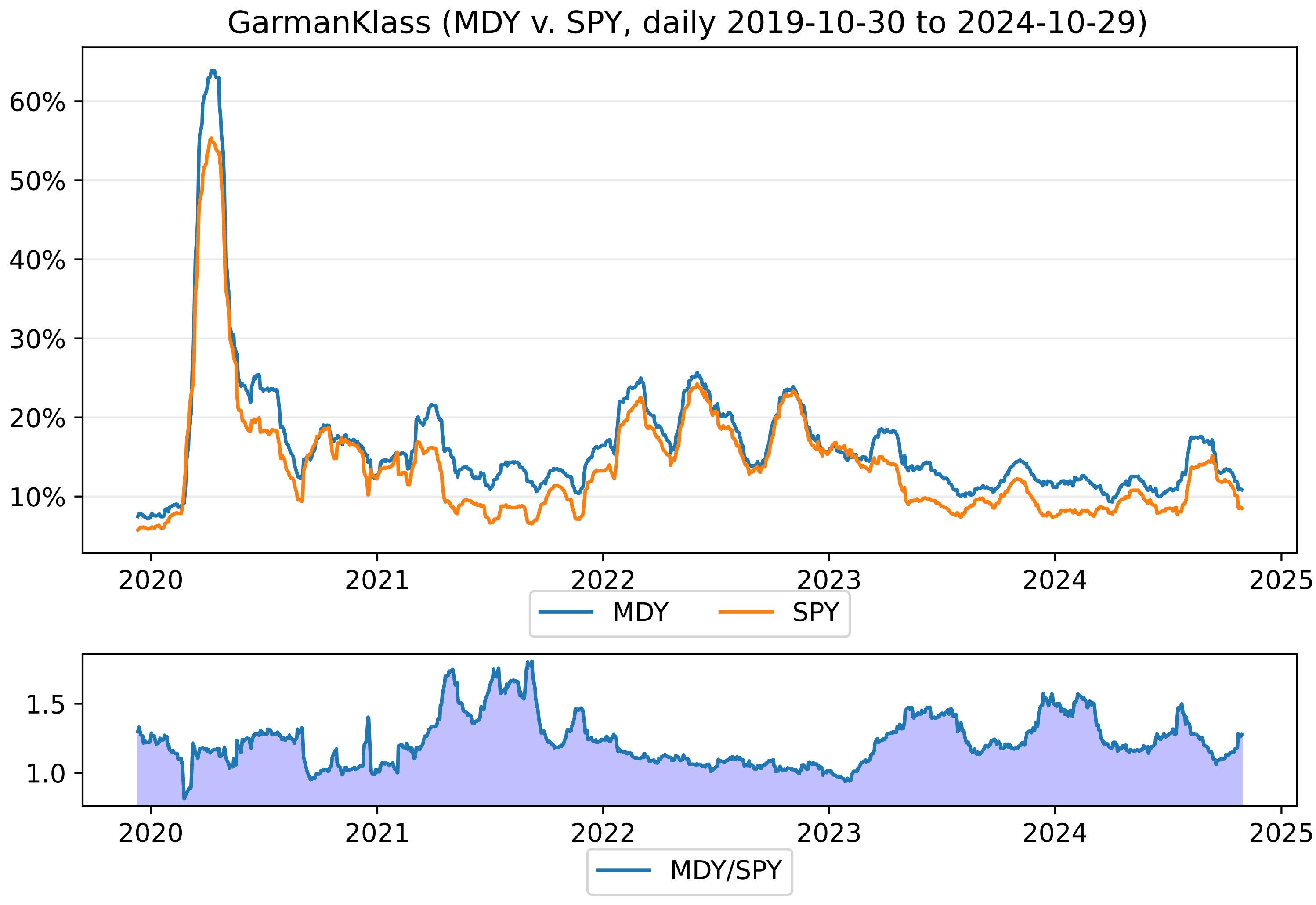


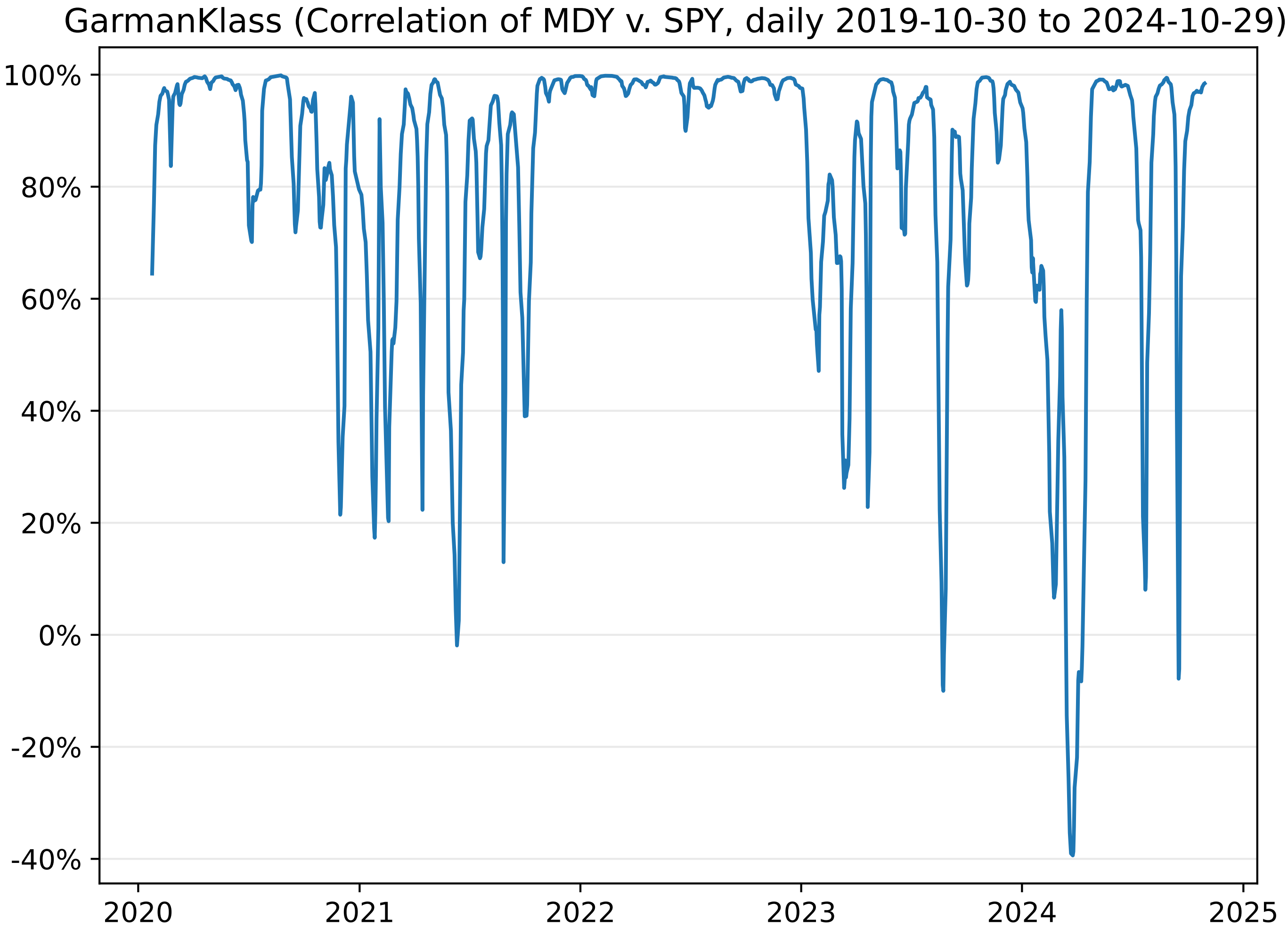
GarmanKlass (MDY, daily 2019-10-30 to 2024-10-29)
70%
60%
50%
40%
30%
20%
10%
0%
2020
2021
2022
2023
2024
2025
Max
Min
Realized
60%
50%
40%
30%
20%
10%
1



GarmanKlass (MDY, daily 2019-10-30 to 2024-10-29)
70%
60%
40%
30%
10%
0%
2020
2021
2022
2023
2024
2025
Mean
Std. Dev.
Realized
2.5
0.0
−2.5
Z-Score
60%
50%
40%
30%
20%
10%
1


Distribution of GarmanKlass estimator values (MDY, daily 2019-10-30 to 2024-10-29)
0
2
4
6
8
10
0.1
0.2
0.3
0.4
0.5
0.6


GarmanKlass (MDY v. SPY, daily 2019-10-30 to 2024-10-29)
60%
50%
40%
30%
20%
10%
2020
2021
2022
2023
2024
2025
MDY
SPY
1.5
1.0
2020
2021
2022
2023
2024
2025
MDY/SPY


GarmanKlass (Correlation of MDY v. SPY, daily 2019-10-30 to 2024-10-29)
100%
80%
60%
40%
20%
0%
-20%
-40%
2020
2021
2022
2023
2024
2025

OLS Regression Results

Dep. Variable:	y	R-squared (uncentered):	0.988
Model:	OLS	Adj. R-squared (uncentered):	0.988
Method:	Least Squares	F-statistic:	1.028e+05
Date:	Tue, 29 Oct 2024	Prob (F-statistic):	0.00
Time:	23:54:08	Log-Likelihood:	3045.1
No. Observations:	1229	AIC:	-6088.
Df Residuals:	1228	BIC:	-6083.
Df Model:	1		
Covariance Type:	nonrobust		

	coef	std err	t	P>|t|	[0.025	0.975]
x1	1.1535	0.004	320.556	0.000	1.146	1.161

Omnibus:	15.785	Durbin-Watson:	0.041
Prob(Omnibus):	0.000	Jarque-Bera (JB):	11.217
Skew:	-0.114	Prob(JB):	0.00367
Kurtosis:	2.591	Cond. No.	1.00

Notes:
[1] R^2 is computed without centering (uncentered) since the model does not contain a constant.
[2] Standard Errors assume that the covariance matrix of the errors is correctly specified.