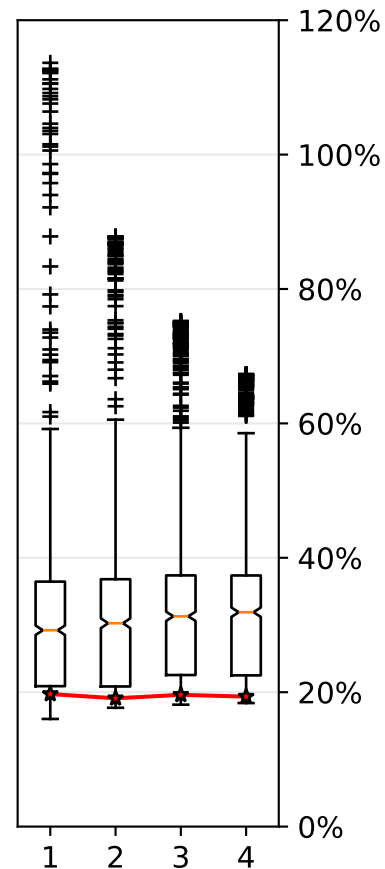
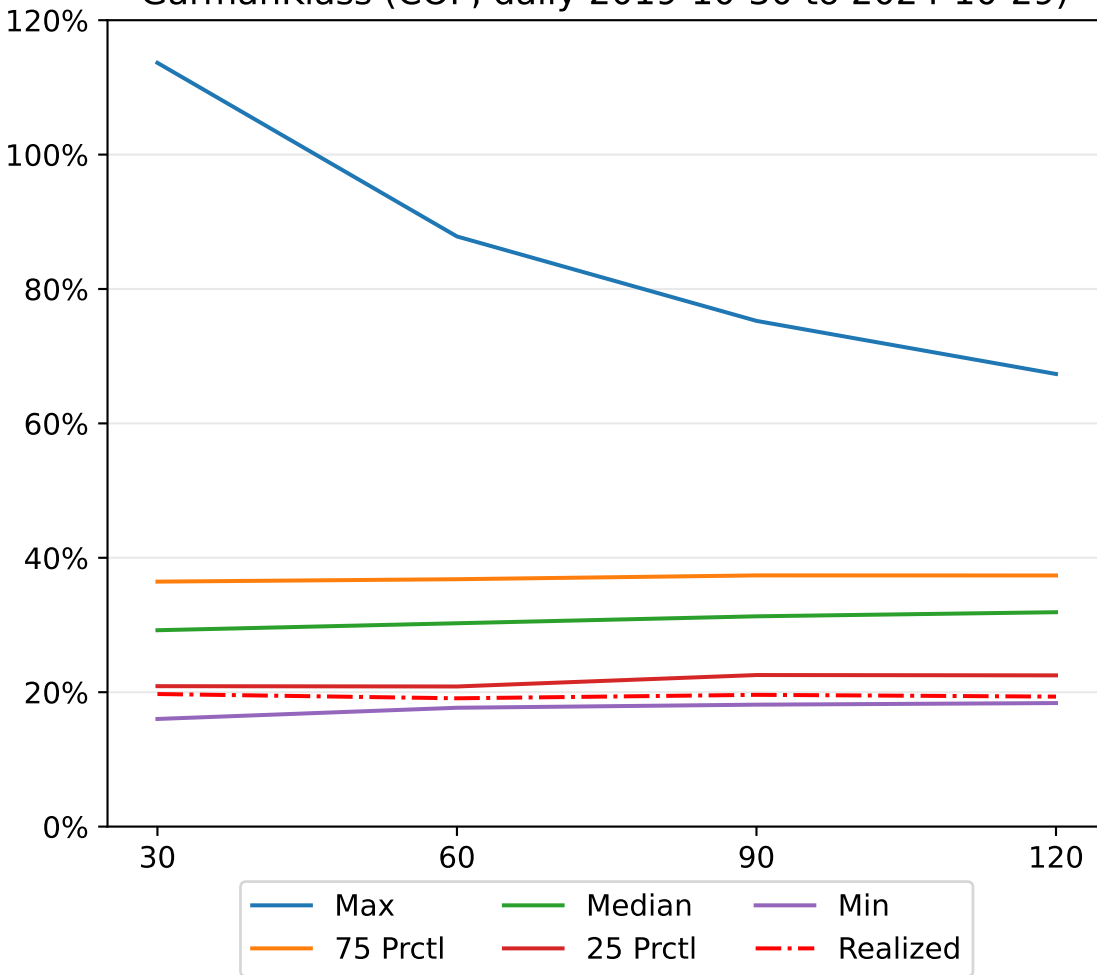
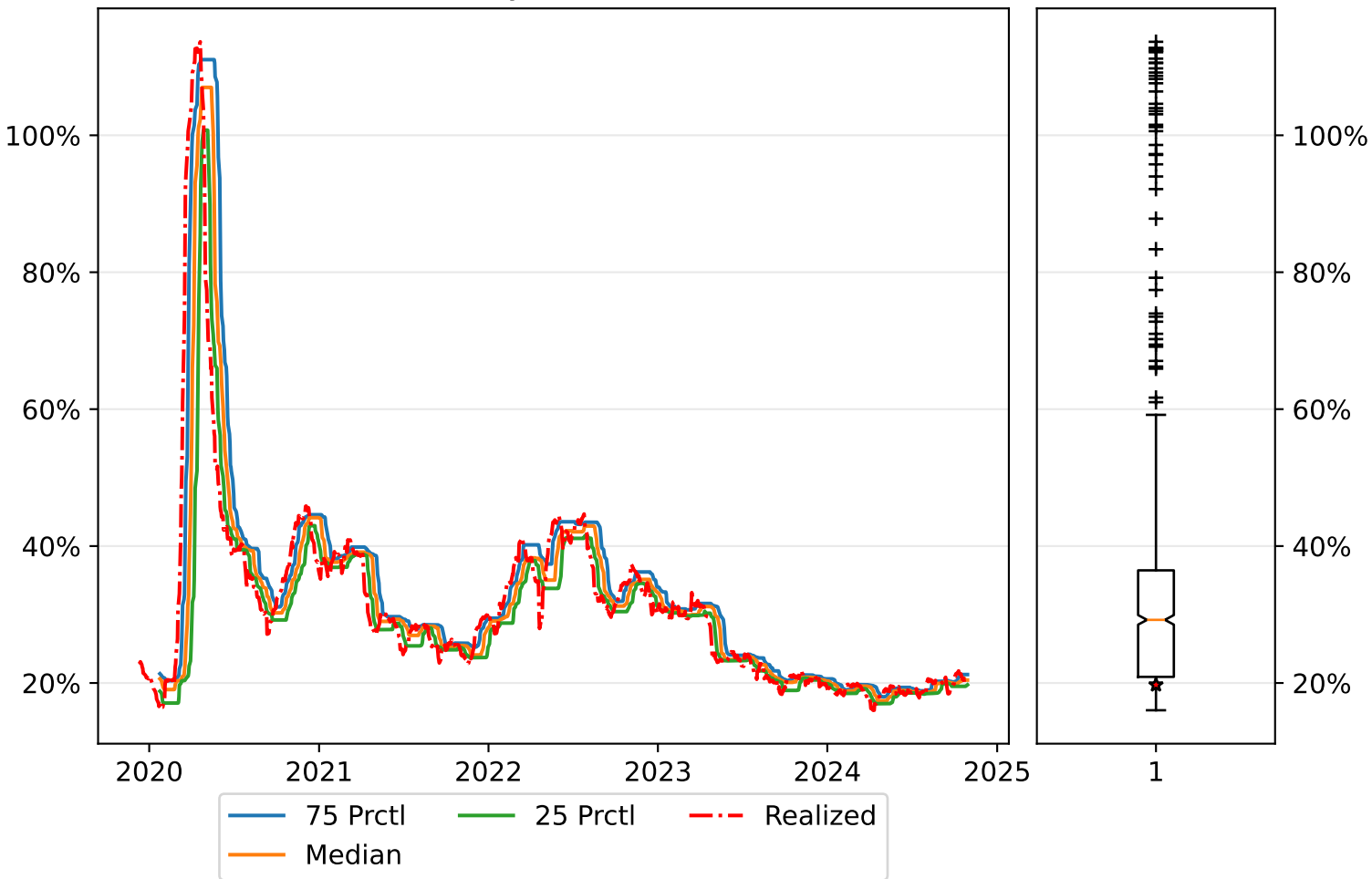


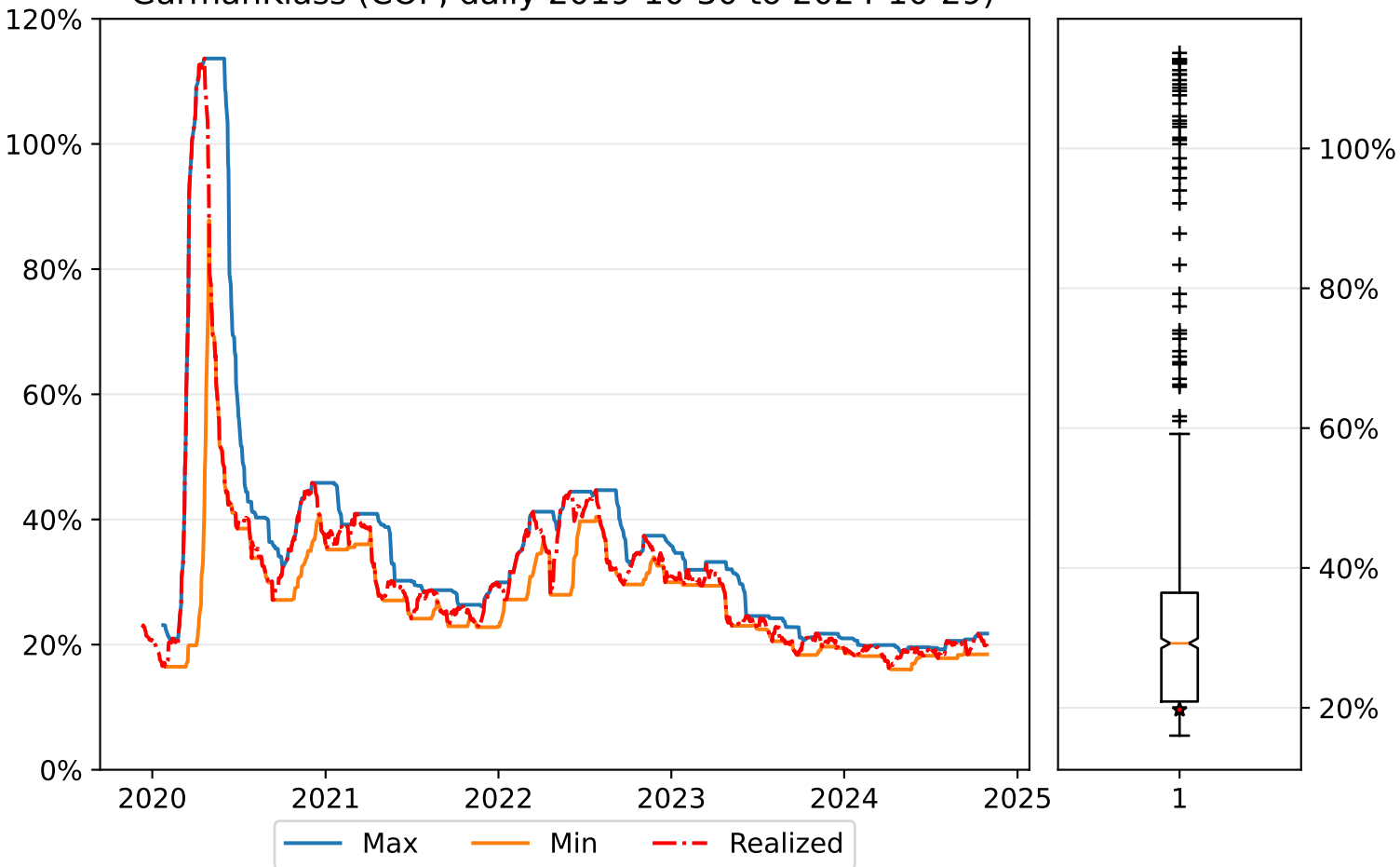
GarmanKlass (COP, daily 2019-10-30 to 2024-10-29)



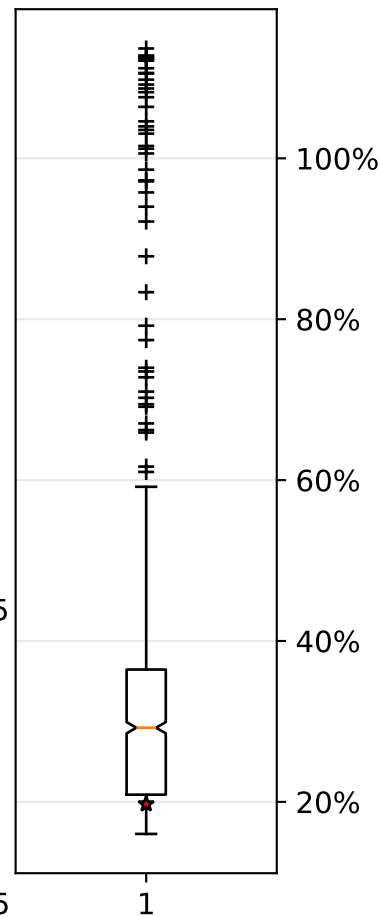
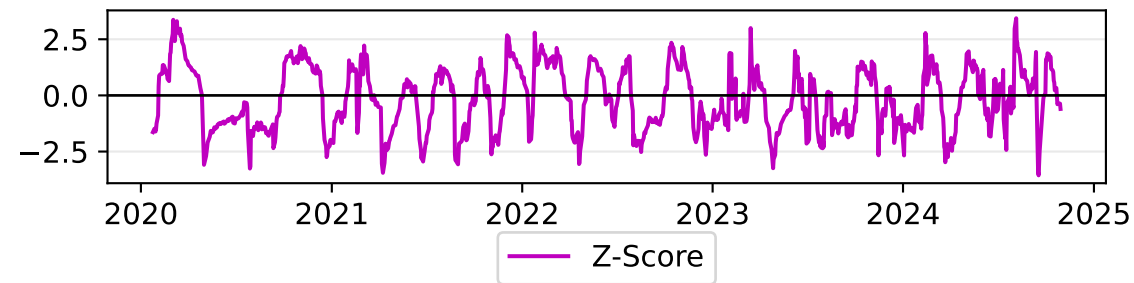
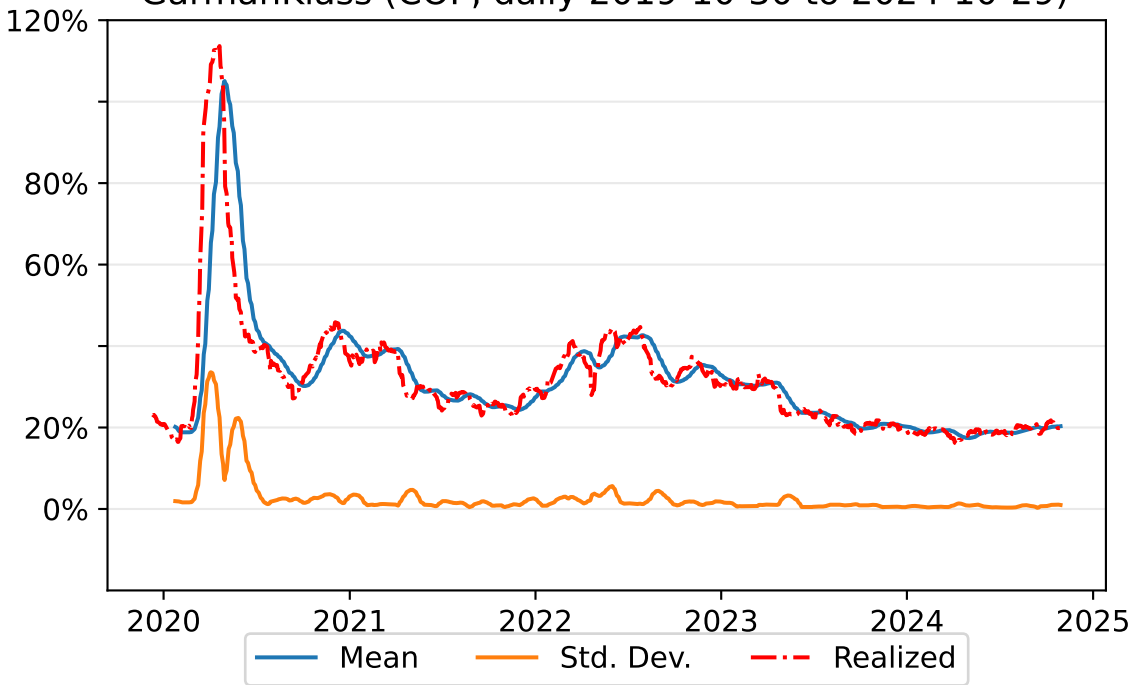
GarmanKlass (COP, daily 2019-10-30 to 2024-10-29)



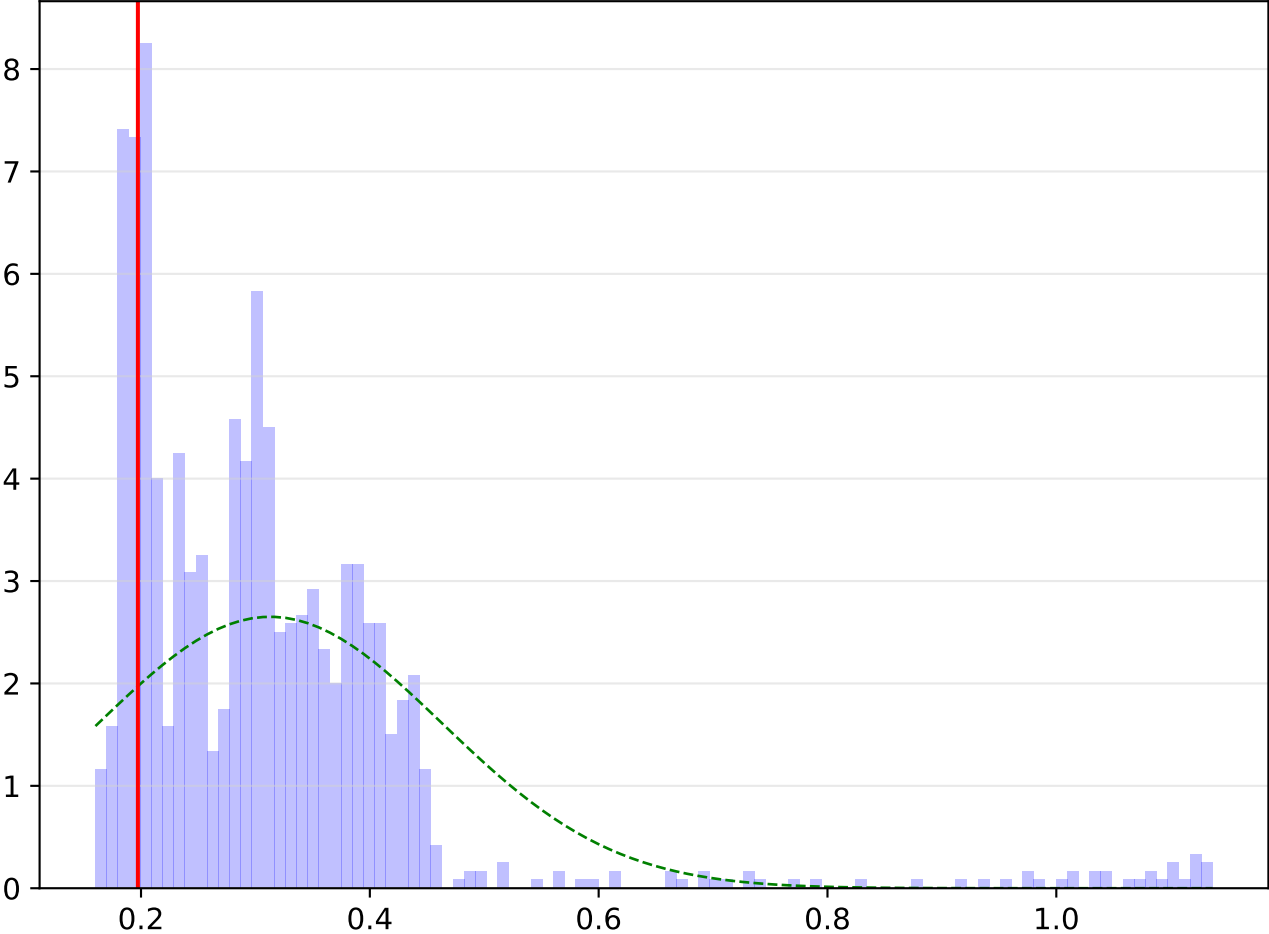
GarmanKlass (COP, daily 2019-10-30 to 2024-10-29)



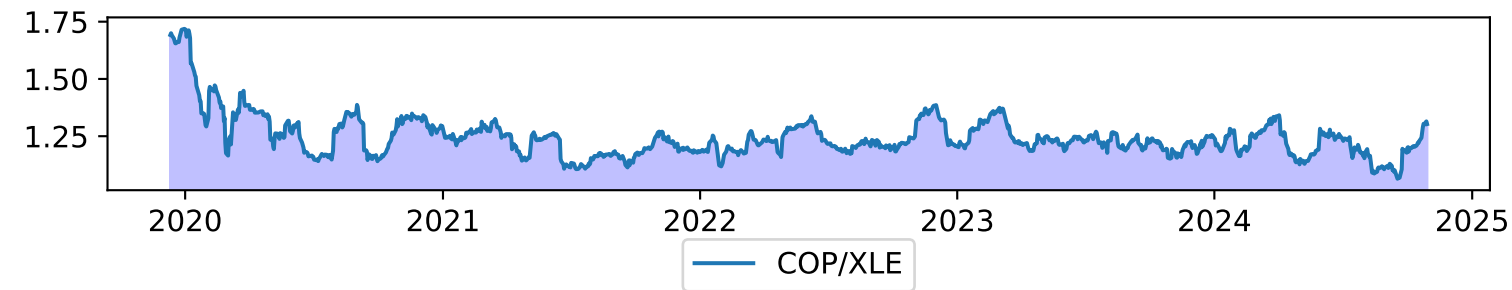
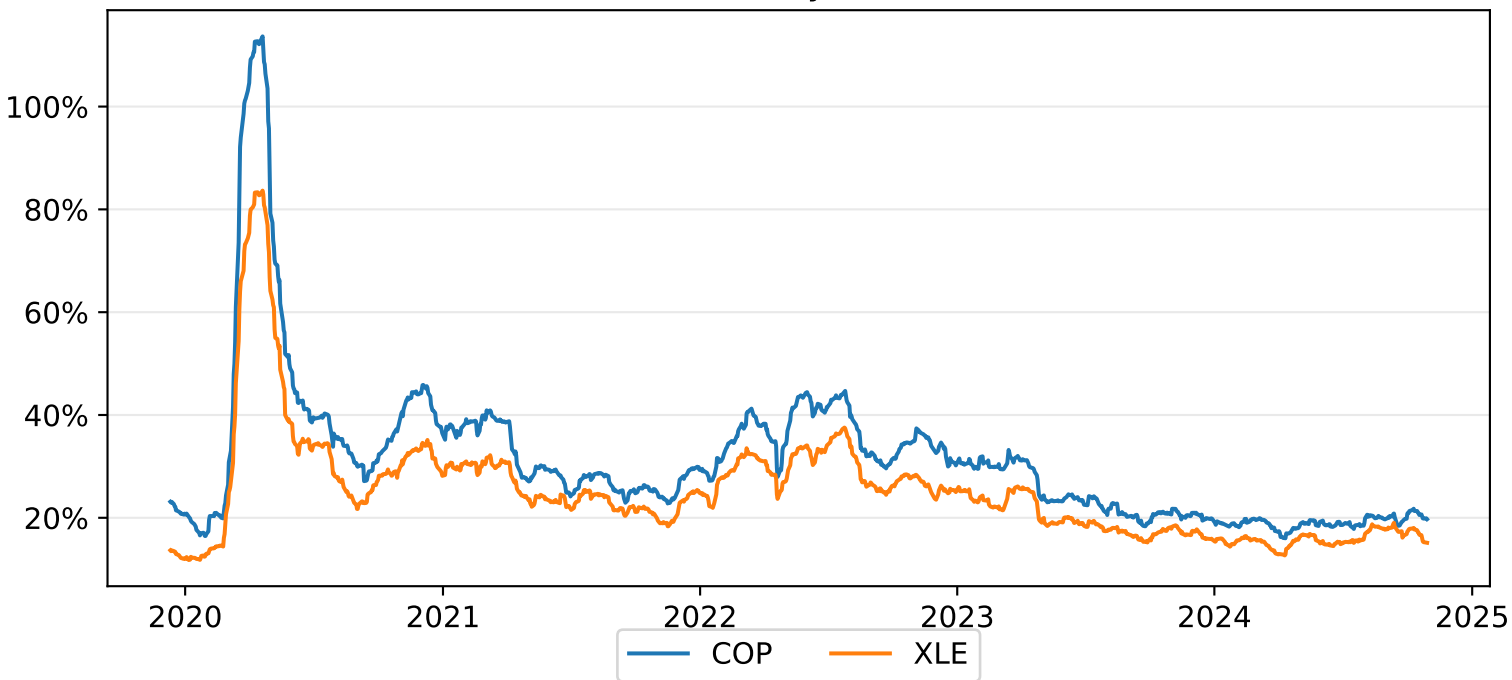
GarmanKlass (COP, daily 2019-10-30 to 2024-10-29)



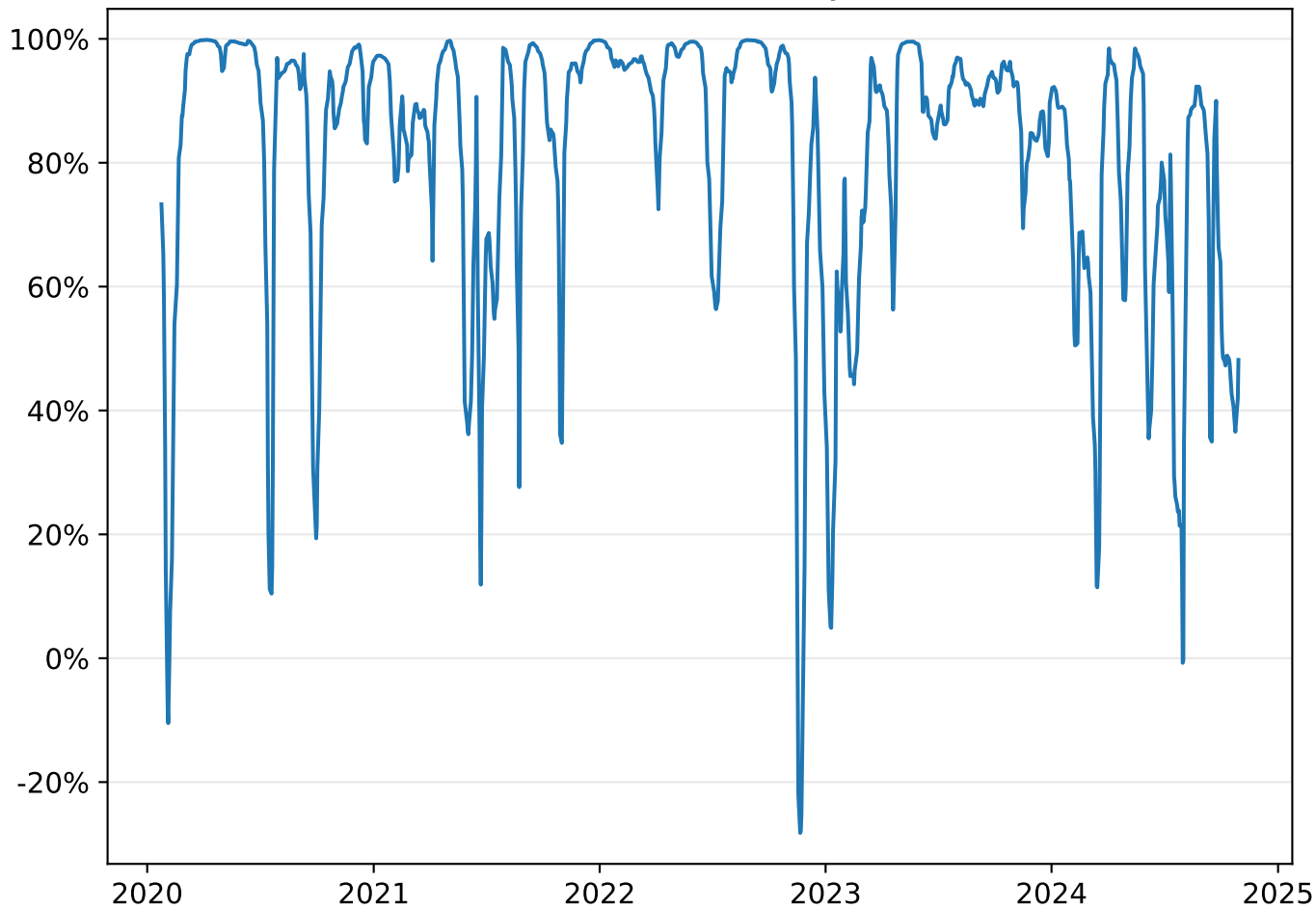
Distribution of GarmanKlass estimator values (COP, daily 2019-10-30 to 2024-10-29)



GarmanKlass (COP v. XLE, daily 2019-10-30 to 2024-10-29)



GarmanKlass (Correlation of COP v. XLE, daily 2019-10-30 to 2024-10-29)



OLS Regression Results

```

=====
Dep. Variable:          y      R-squared (uncentered):          0.996
Model:                  OLS    Adj. R-squared (uncentered):          0.996
Method:                 Least Squares    F-statistic:          2.946e+05
Date:                  Tue, 29 Oct 2024    Prob (F-statistic):          0.00
Time:                  23:53:24    Log-Likelihood:          2926.3
No. Observations:      1229    AIC:          -5851.
Df Residuals:          1228    BIC:          -5846.
Df Model:              1
Covariance Type:       nonrobust
=====

```

	coef	std err	t	P> t	[0.025	0.975]

x1	1.2628	0.002	542.746	0.000	1.258	1.267

```

=====
Omnibus:                 498.458    Durbin-Watson:          0.045
Prob(Omnibus):           0.000    Jarque-Bera (JB):       2414.524
Skew:                    1.861    Prob(JB):               0.00
Kurtosis:                8.770    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.