Online Resource Supplementary empirical notes

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1 Data structure and variable reconstruction

The empirical file is organised as a daily Bitcoin time-series dataset with the Crypto Fear and Greed Index, sentiment labels, closing prices, daily returns, absolute returns and one-day, seven-day and thirty-day forward returns. For replication, daily observations should be sorted by date before return construction. Forward returns must be calculated from future closing prices relative to the contemporaneous closing price, while lagged controls must use only information available before the forecast horizon begins.

2 Treatment of overlapping horizons

Seven-day and thirty-day forward returns overlap across adjacent observations. The main manuscript therefore reports heteroskedasticity and autocorrelation-consistent standard errors in the mean regressions and interprets the quantile estimates as distributional evidence rather than as causal effects. A replication package can extend this check with block bootstrap confidence intervals.

3 Expanding-window validation

The out-of-sample design trains models on the past and evaluates them on later observations. The historical mean benchmark and historical downside base-rate benchmark are recalculated from the available training window, which avoids using future information in validation.