distributions are more appropriate.[8]

3 Data Description

estimated shape parameter for GED distribution is around 1:48[16], which is consistent

The Markov chain S_t

with the step length of 0:05. Meanwhile, expTS is the average of (;

Timmermann (1992).[20]

The ***p***

Lunde and Nason (2011) proposed the alternative Model Con..dence Set (MCS), which

We run both tests with con...dence level at 0:25

DM tests using ***QLI=ang***

period.

6 Conclusion

This paper o¤ered an extensive empirical investigation of the relative forecasting perfor-

we opt for this forecasting scheme. Nevertheless, evaluating the relative performance of

References

[1] Abosedra, S. S. and N. T. Laopodis (1997), “Stochastic behavior of crude oil prices:

Table 2: MLE Estimates of Standard GARCH Models

Table 4a: Out-of-sample evaluation of the one- and …ve-step-ahead volatility forecasts

	1-step-ahead volatility forecasts							Rank
Model	***MSE***	Rank	***MSE***	Rank	***QLIKE***	Rank	***R LOG***	

Table 5a: Diebold and Mariano test - EGARCH-*t* Benchmark

Table 5b: Diebold and Mariano test - MS-GARCH-***t*** Benchmark

Panel A: One day Horizon

Model	MSE1	MSE2	QLIKE	R2LOG	MAD1	MAD2
GARCH-N	-1.69	-0.93	-2.81**	-2.67**	-3.45**	-2.60**
GARCH-***t***						

Panel B: Five day Horizon

Model	MSE1	MSE2	QLIKE	R2LOG	MAD1	MAD2
GARCH-N	-3.18**	-1.45	-4.89**	-4.51**	-5.09**	-4.03**

Table 6a: Reality Check and Superioq14(d)3616(s)14(u)14(p)18(e)1PkanSu

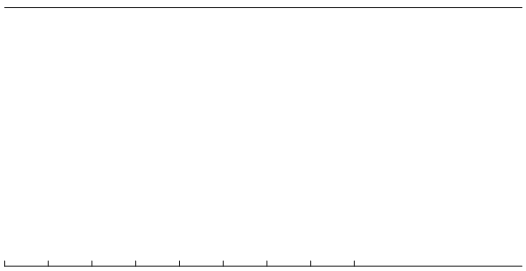

Figure 3: Volatility Forecast Comparisons for Select Models. The out-of-sample period extends from January 2, 2013 through Dec 31, 2014.

7.2.3 Test of Equal Predictive Ability

Suppose $\{\hat{h}_{i;t}\}_t$ and $\{\hat{h}_{j;t}\}_t$ are two sequences of forecasts of the volatility $_t$ generated by two competing models, i and j. Consider the loss function $L(:)$ and de..ne the loss to be $L(\hat{h}_t; \ _t)$ if one makes the prediction