



Research article

Closer is more important: The impact of Chinese and global macro-level determinants on Shanghai crude oil futures volatility

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Supplementary

Appendix A

Table A. DM testing results.

Model	CEPU	COD	COI	COP	GOS	CPCA	GPCA	MPCA	TPCA
Panel A: 120-day forecasting horizon									
CEPU		-1.193***	-0.276***	-0.990***	-0.638***	1.326***	1.875***	0.101***	1.420***
COD	1.193***		0.609***	0.596**	0.069***	1.520***	2.051***	0.767***	2.199***
COI	0.276***	-0.609***		-0.163***	-0.430***	0.814***	1.874***	0.216***	1.290***
COP	0.990***	-0.596**	0.163***		-0.378***	1.501***	2.087***	0.344***	1.483***
GOS	0.638***	-0.069***	0.430***	0.378***		1.044***	1.541***	0.537***	1.567***
CPCA	-1.326***	-1.520***	-0.814***	-1.501***	-1.044***		1.369***	-0.457***	0.941***
GPCA	-1.875***	-2.051***	-1.874***	-2.087***	-1.541***	-1.369***		-1.258***	-0.143***
MPCA	-0.101***	-0.767***	-0.216***	0.344***	-0.537***	0.457***	1.258***		1.199***
TPCA	-1.420***	-2.199***	-1.290***	-1.483***	-1.567***	-0.941***	0.143***	-1.199***	
Panel B: 250-day forecasting horizon									
CEPU		0.520***	1.708***	-0.740***	0.691***	1.444***	2.363***	-0.866***	1.626***
COD	-0.520***		0.439***	-0.842***	-0.206***	-0.183***	0.848***	-0.684***	-0.012***
COI	-1.708***	-0.439***		-1.280***	-2.147***	-0.880***	1.082***	-1.814***	-0.608***

COP	0.740***	0.842***	1.280***		0.867***	1.110***	1.607***	0.571***	1.131***
GOS	-0.691***	0.206***	2.147***	-0.867***		-0.022***	2.341***	-1.028***	0.284***
CPCA	-1.444***	0.183***	0.880***	-1.110***	0.022***		1.504***	-1.687***	0.496***
GPCA	-2.363***	-0.848***	-1.082***	-1.607***	-2.341***	-1.504***		-2.443***	-1.382***
MPCA	0.866***	0.684***	1.814***	-0.571***	1.028***	1.687***	2.443***		1.804***
TPCA	-1.626***	0.012***	0.608***	-1.131***	-0.284***	-0.496***	1.382***	-1.804***	
Panel C: 500-day forecasting horizon									
CEPU		-0.003***	0.688***	-1.218***	-0.091***	1.248***	1.660***	-1.140***	1.213***
COD	0.003***		0.577***	-0.871***	-0.070***	0.303***	1.482***	-0.292***	0.950***
COI	-0.688***	-0.577***		-1.401***	-1.814***	-0.132***	1.399***	-0.975***	0.765***
COP	1.218***	0.871***	1.401***		0.987***	1.492***	2.036***	0.860***	1.676***
GOS	0.091***	0.070***	1.814***	-0.987***		0.482***	1.793***	-0.358***	1.125***
CPCA	-1.248***	-0.303***	0.132***	-1.492***	-0.482***		1.337***	-2.054***	0.943***
GPCA	-1.660***	-1.482***	-1.399***	-2.036***	-1.793***	-1.337***		-1.845***	-1.014***
MPCA	1.140***	0.292***	0.975***	-0.860***	0.358***	2.054***	1.845***		1.461***
TPCA	-1.213***	-0.950***	-0.765***	-1.676***	-1.125***	-0.943***	1.014***	-1.461***	

Notes: The table shows the Diebold and Mariano (DM) test for the different models' out-of-sample forecast performance. The DM method is applied to examine the null hypothesis of equal forecasting performance. The DM statistic in each cell is calculated by the model given in the row comparing with the benchmark model given in the column. The positive DM statistics indicate that the completing model in the row has better forecast performance than the benchmark model in the corresponding column, while the negative DM statistics means the better forecast performance of the benchmark models in the column comparing the completing model in the row. *** and ** denote significance at the 1%, and 5% level, respectively.



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