SHAP analysis of LSTM-MDN-IV VaR 95% estimates High  $IV_{10-day}$  (1 day ago)  $IV_{10-dav}$  (2 days ago)  $IV_{20-day}$  (1 day ago)  $IV_{20-dav}$  (2 days ago) Feature value  $IV_{10-dav}$  (7 days ago)  $IV_{20-dav}$  (9 days ago)  $IV_{10-dav}$  (8 days ago)  $IV_{10-day}$  (3 days ago)  $IV_{20-dav}$  (8 days ago)  $IV_{10-day}$  (6 days ago) Low  $-0.0100 - 0.0075 - 0.0050 - 0.0025 \ 0.0000 \ 0.0025 \ 0.0050 \ 0.0075 \ 0.0100$ 

SHAP value (impact on model output)