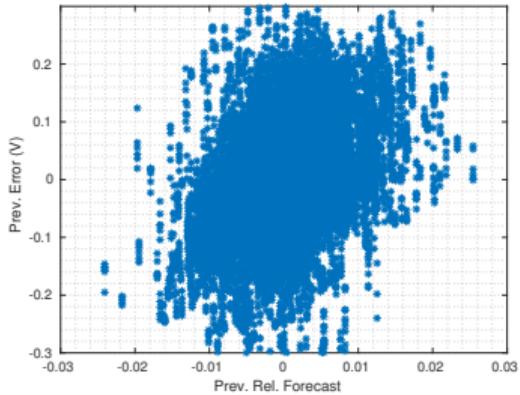
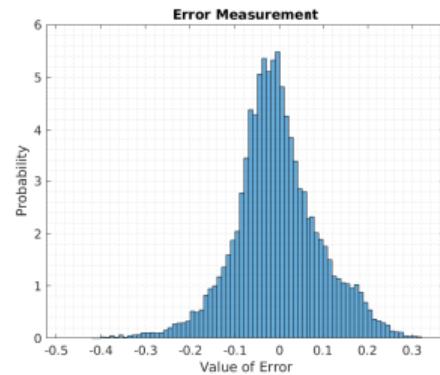
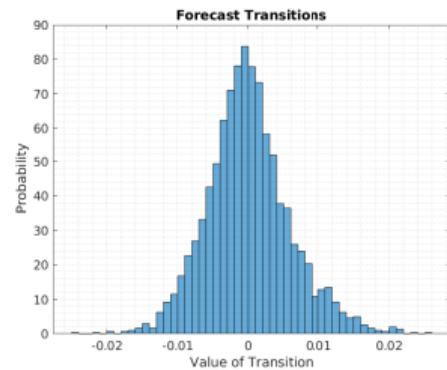


# Error SDE ( $Z_t$ ) moments

Renzo Miguel Caballero Rosas

April 3, 2020

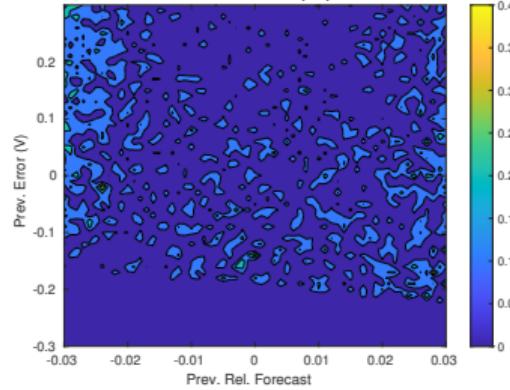
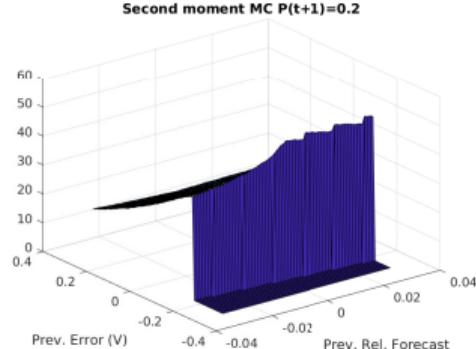
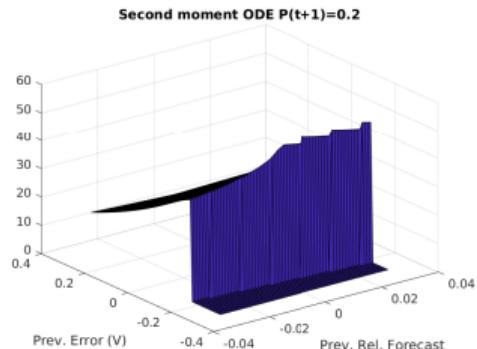
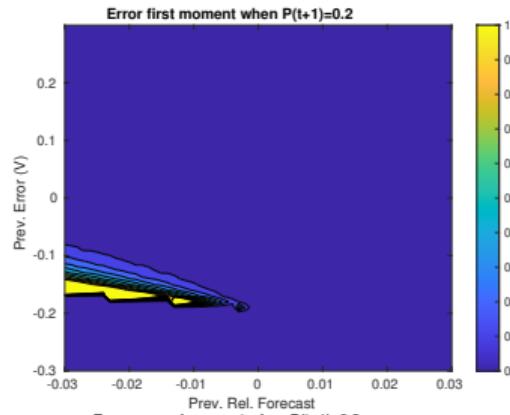
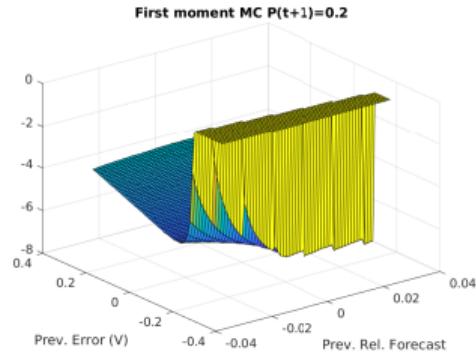
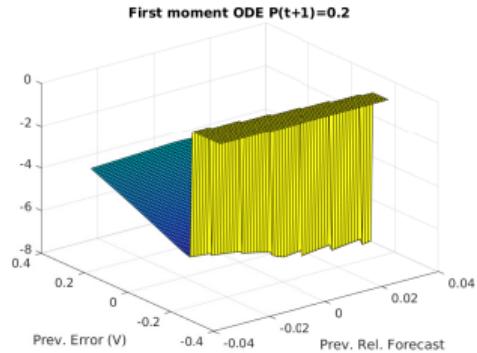
## Data histograms:



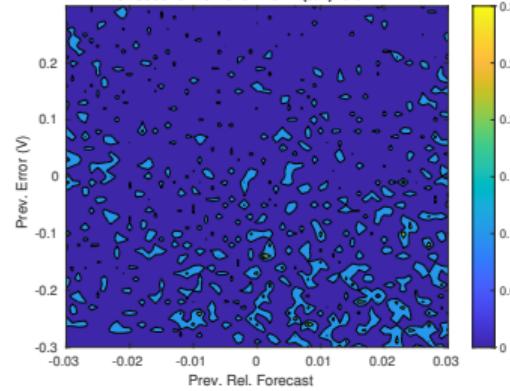
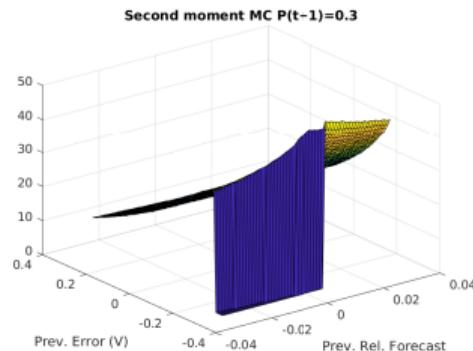
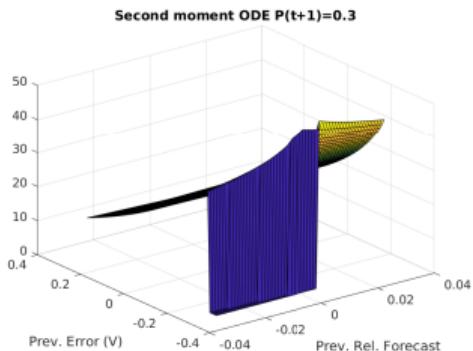
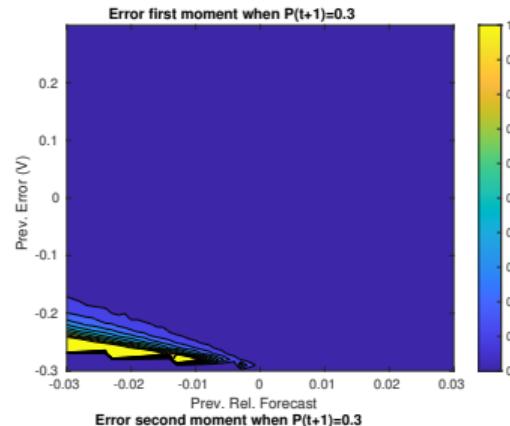
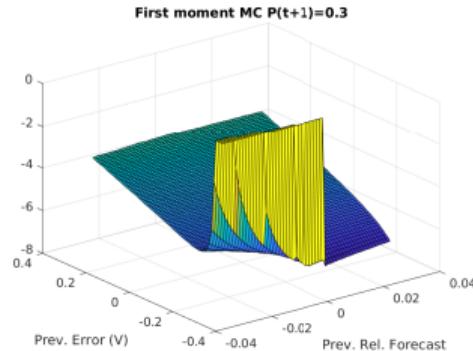
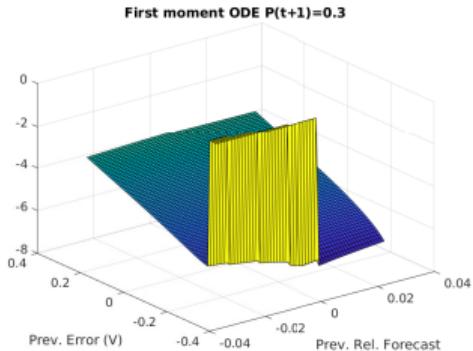
From here we can see that the errors are approximately in the interval  $[-0.3, 0.3]$ , and the forecast transitions in the interval  $[-0.03, 0.03]$ .

Then, we want to ensure that the moments are well approximated in the rectangle  $[-0.3, 0.3] \times [-0.03, 0.03]$  (for  $V \times \Delta p$ ).

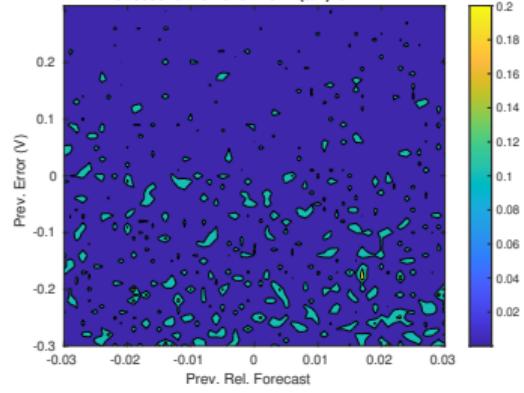
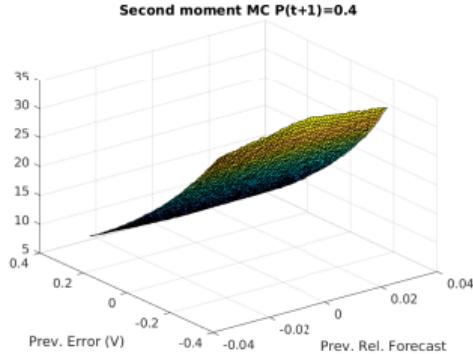
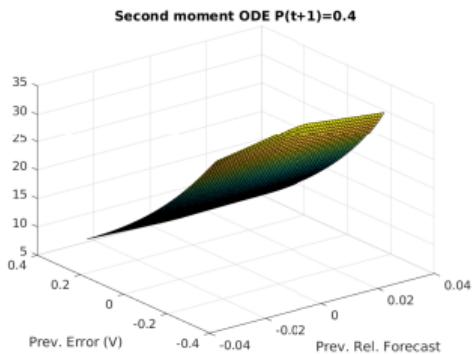
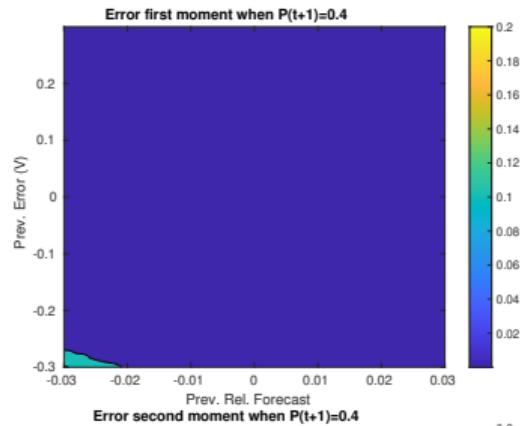
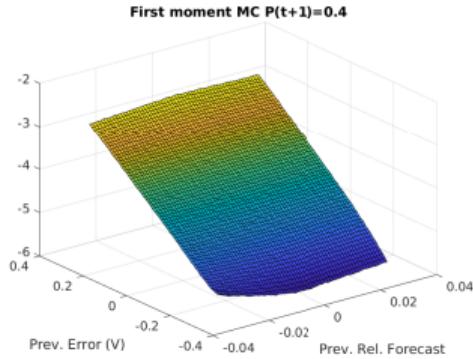
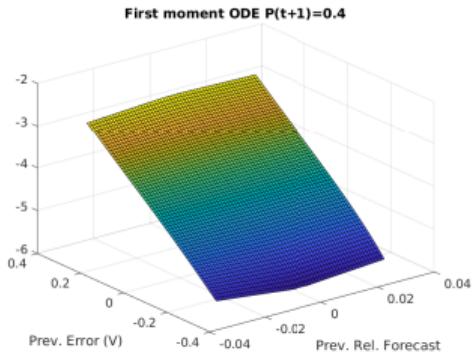
# Approximated moments for $Z_t$ :



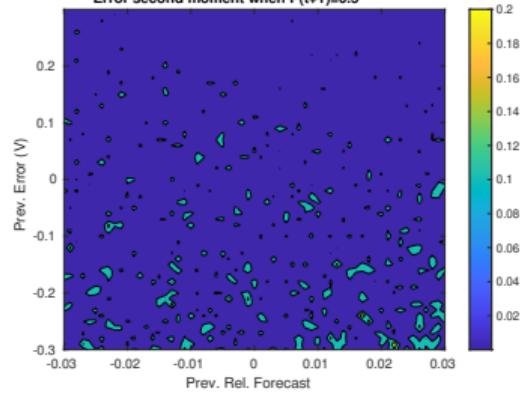
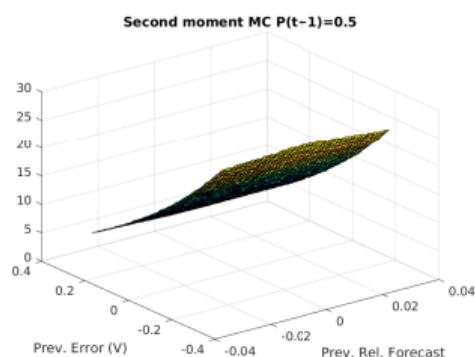
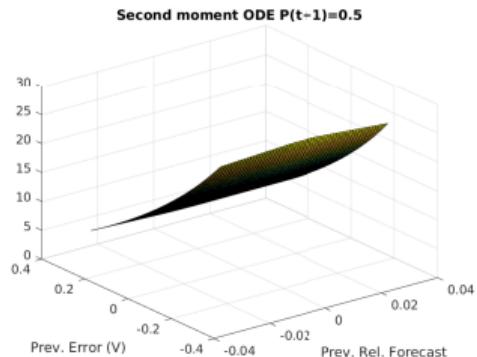
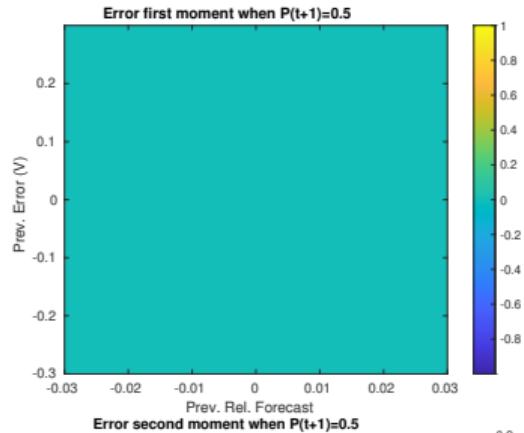
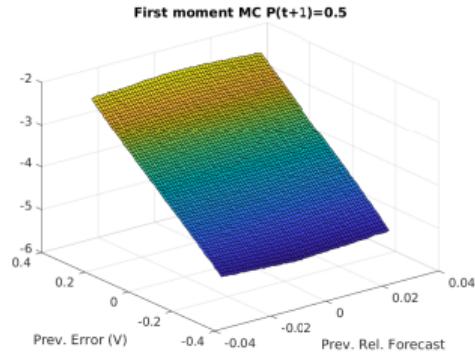
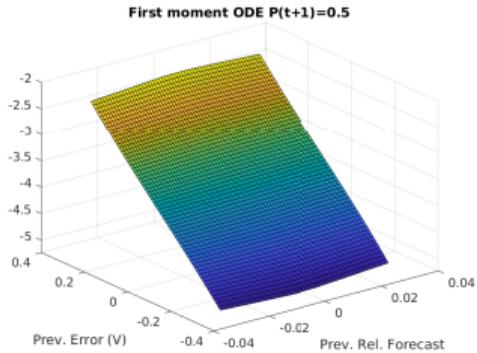
# Approximated moments for $Z_t$ :



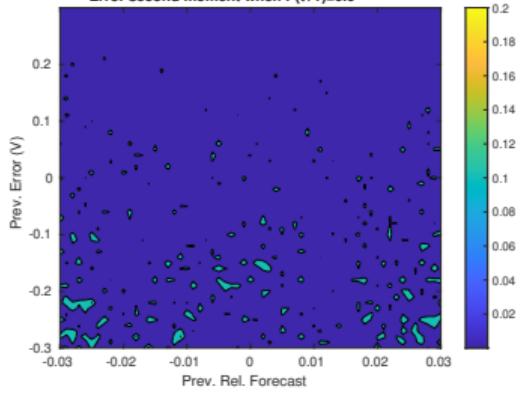
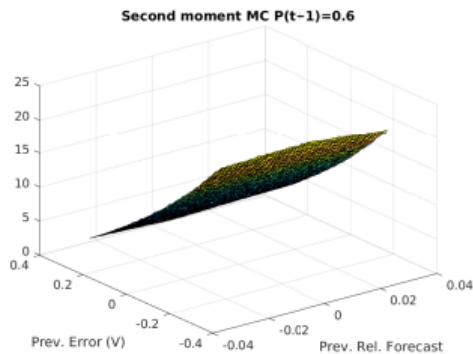
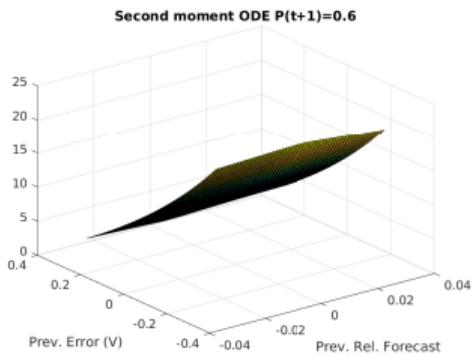
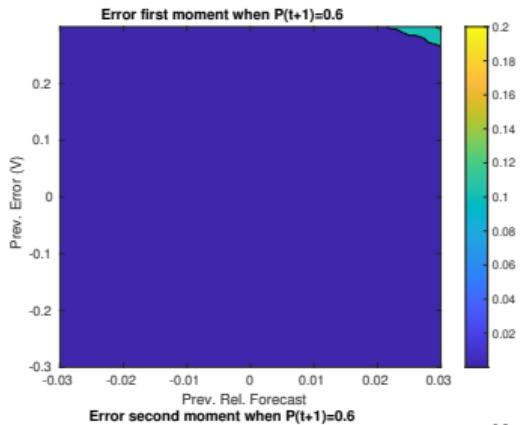
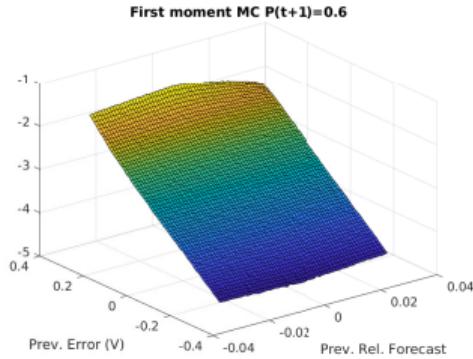
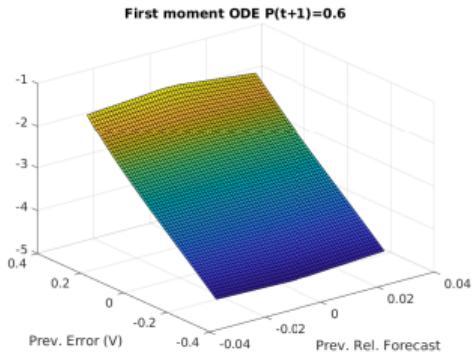
# Approximated moments for $Z_t$ :



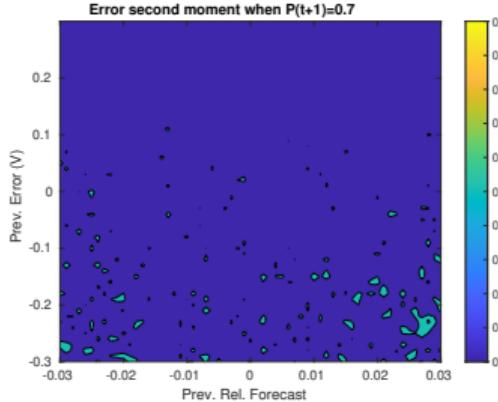
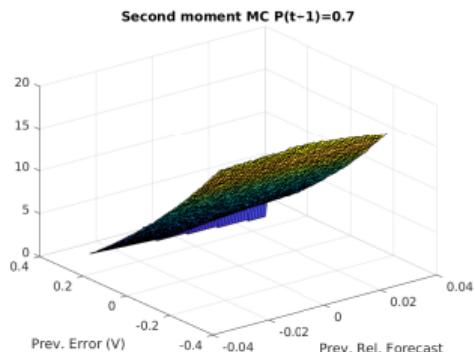
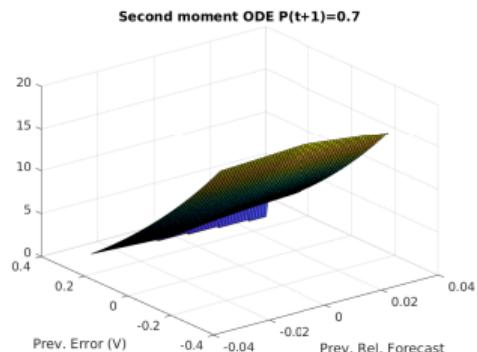
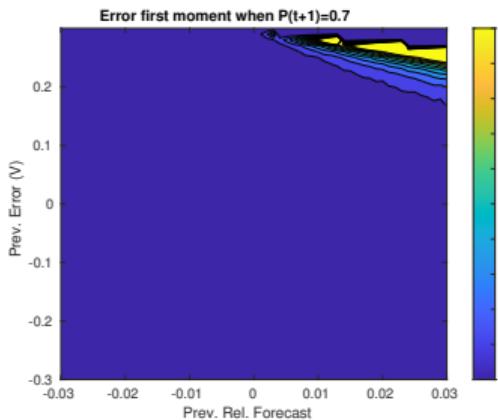
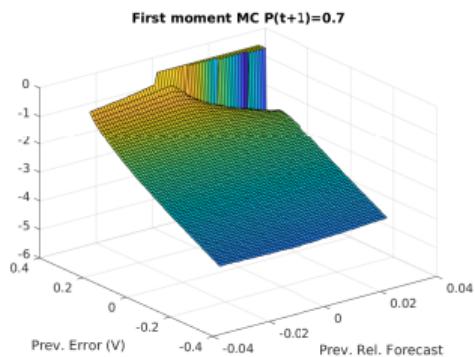
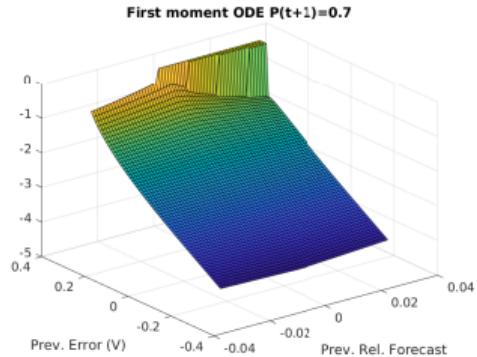
# Approximated moments for $Z_t$ :



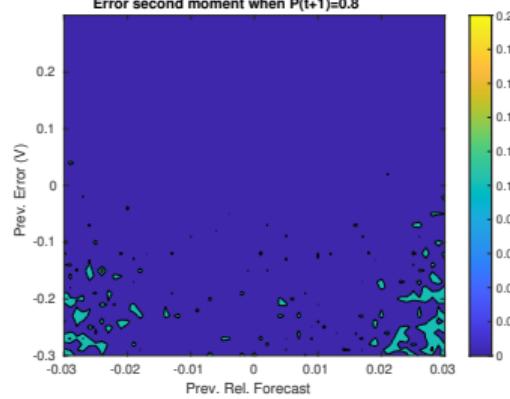
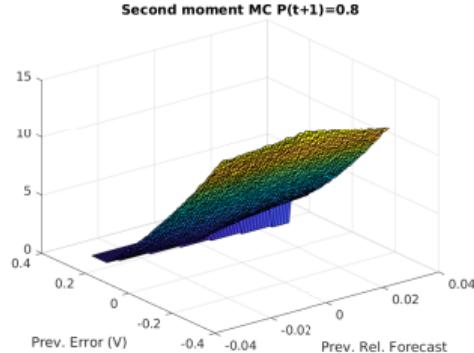
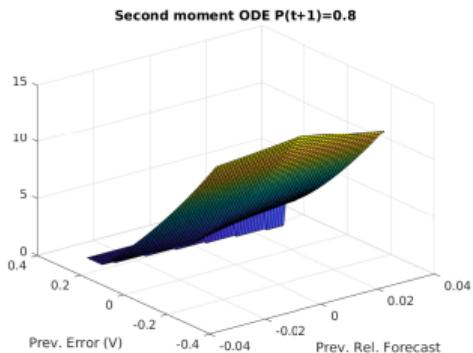
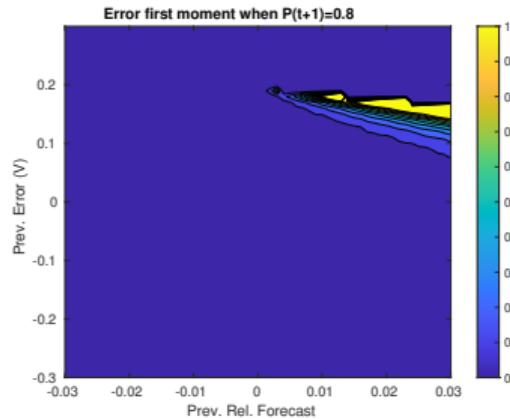
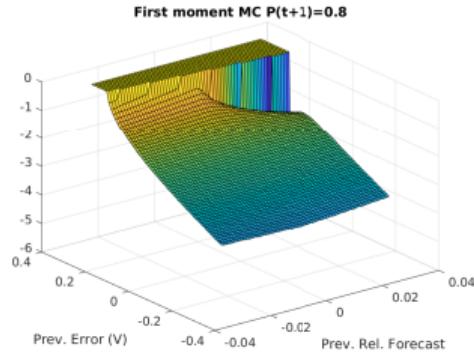
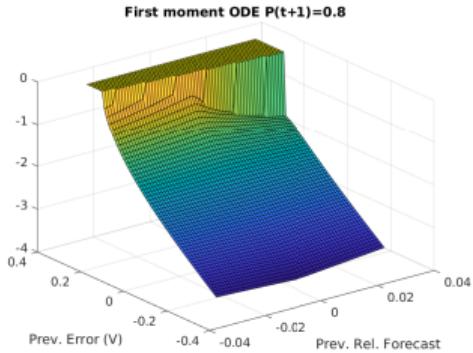
# Approximated moments for $Z_t$ :



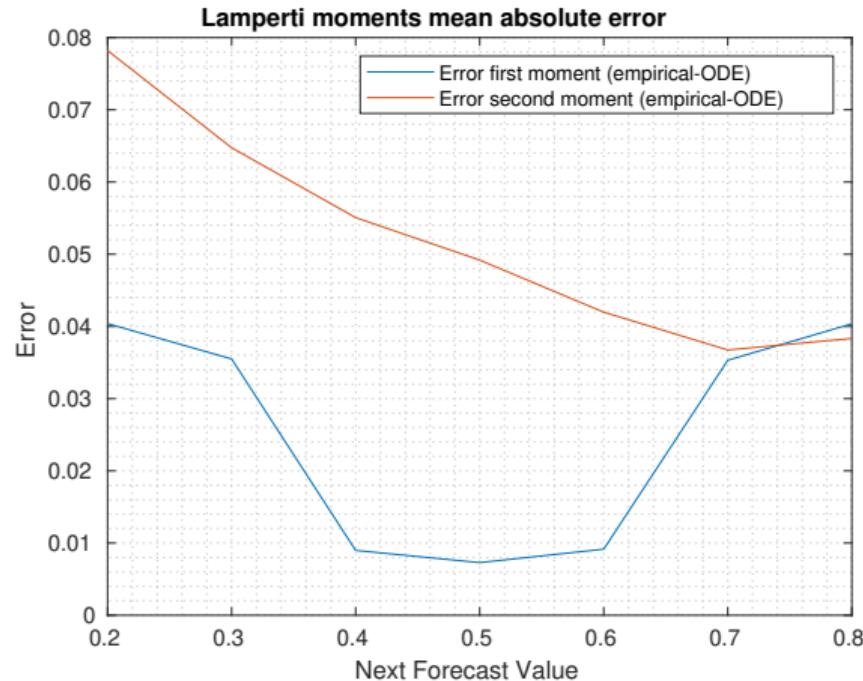
# Approximated moments for $Z_t$ :



# Approximated moments for $Z_t$ :



## Approximated moments for $Z_t$ :



$$V=x-p, \Delta p = p_{t+1} - p_t$$