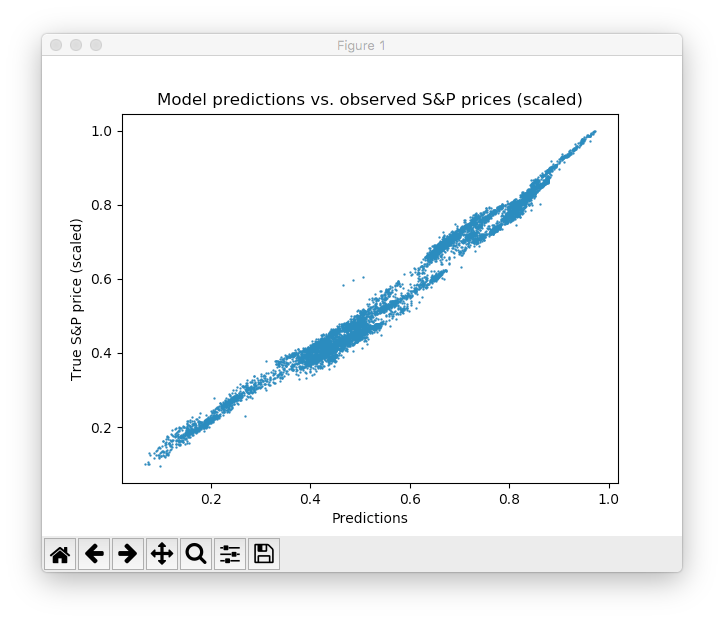
**CHAPTER 4**

**Results**

One can see that the networks rapidly adapts to the basic shape of the time series and continues to learn finer patterns of the data. This also corresponds to the Adam learning scheme that lowers the learning rate during model training in order not to overshoot the optimization minimum. After 10 epochs, we have a pretty close fit to the test data! The final test MSE equals 0.00078 (it is very low, because the target is scaled). The mean absolute percentage error of the forecast on the test set is equal to 5.31% which is pretty good. Note, that this is just a fit to the test data, no actual out of sample metrics in a real-world scenario.



Scatter plot between predicted and actual S&P prices (scaled).

