

Question:

- 1) *I can't reproduce my results. I have been running an RPO of 1,50,50, a NN training value of 15,000. When I run the same model a second time I get different results i.e the projection curve is different.*
- 2) *I got good projection line but when the Neural Net trained more the result becomes worse.*

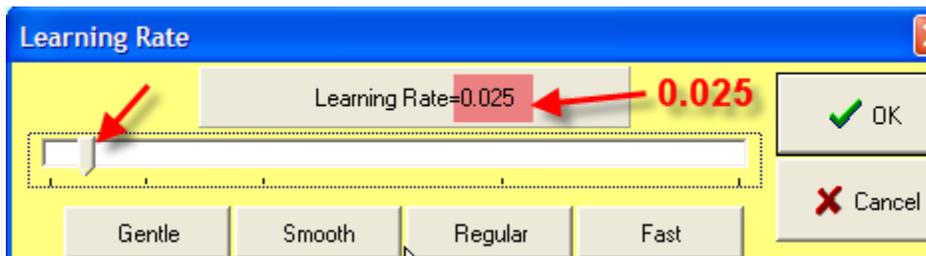
Answer:

Technically it means that this model has several solutions. In other words, having the same events that were used as a basis to make the forecast and having the same price history data, we can get several projection lines that explain the past price movements exactly the same way while the future projections will be different.

What you can do? First of all, you need to provide the safer mode of optimization (mathematically it means to decrease the learning rate parameter). Do it this way in Neural Net module:



and slide the slider to the left:



This setting provides a smoother optimization.

Also, if the projection line during the training process is still jumpy it would be better to watch all these projection lines all together.

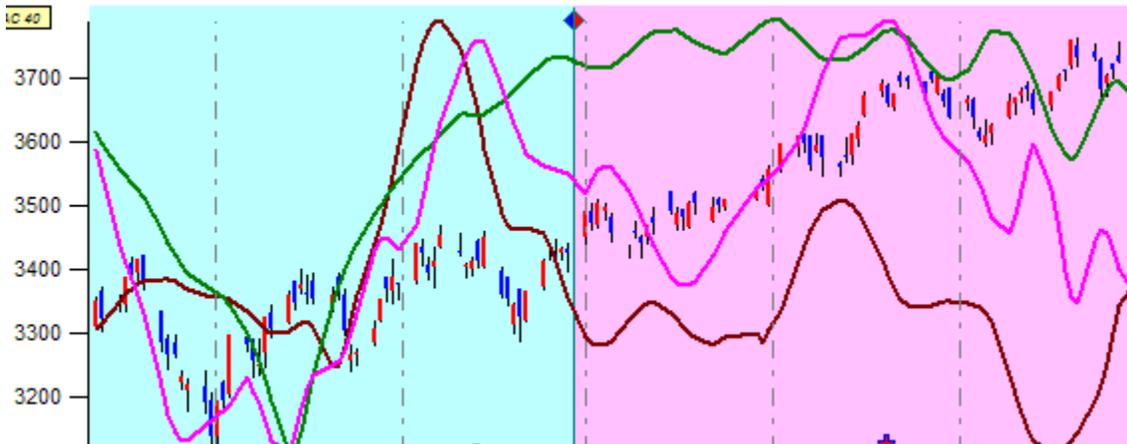
Clicking this button you can send the projection line into Main window:



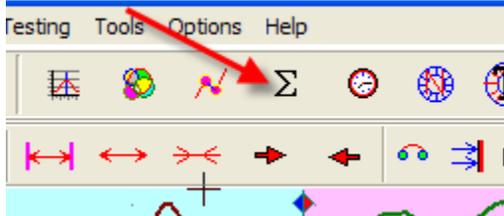
Now we randomize Neural Net clicking this button:



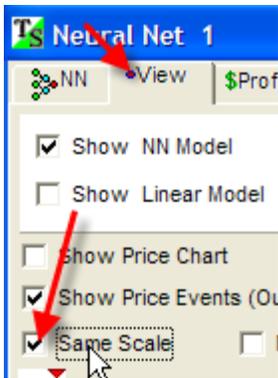
Thus you set the Neural Net in initial position. Train it once again and send the new projection to the Main window once again.
 Now let's see the Main window. I put two projection lines here:



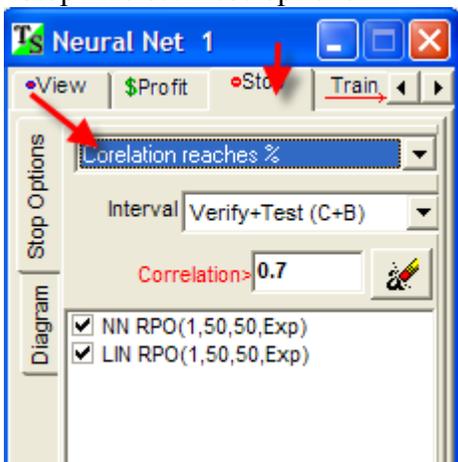
These lines show you different projections obtained with the same Neural Network.
 To delete all these lines, run this module:



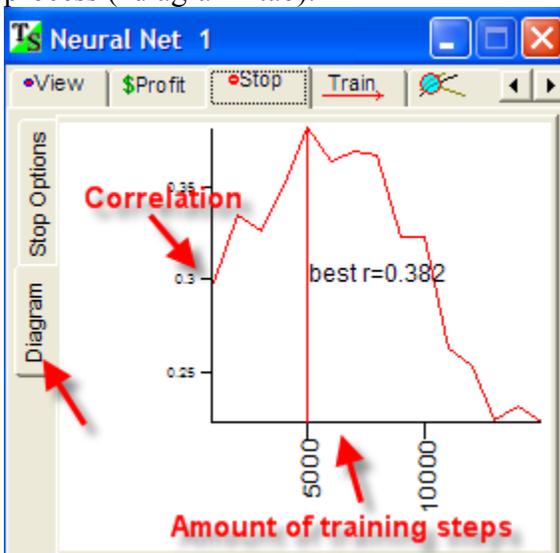
The most typical problem for Neural Net is over training effect. Do not try to optimize NN too many steps. Usually 15.000-30.000 steps is enough. But it depends strongly on the model and financial data.
 If the projection line looks as a straight line with minor changes, check "ON" this option:



If you would like to understand the process of over training in depth, you can do this: in “Stop” tab set these options:



Thus the program will monitor the correlation on testing interval during the training process (“diagram” tab):



The X axis is the amount of training steps, the Y axis the correlation corresponding these training steps.

You see when the NN trained 5.000-7.000 steps the correlation had been very good. But when we continued the training process the correlation started to decline. It means we do not need too many training steps to get the projection line.