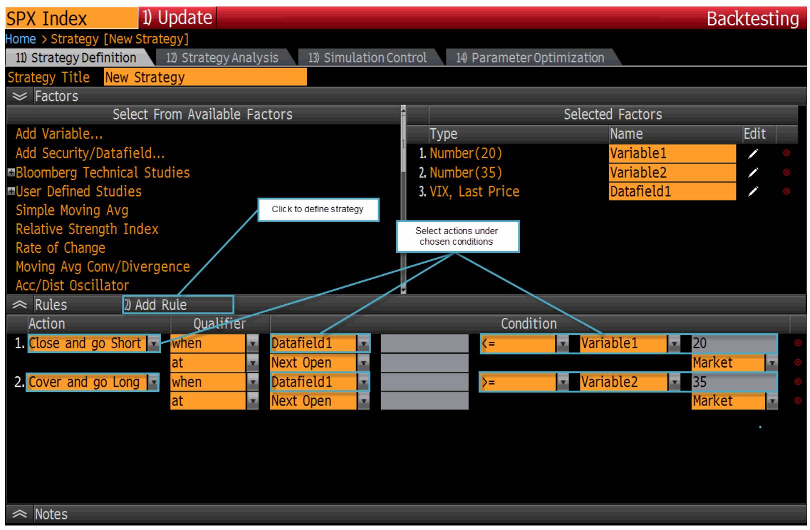
Backtesting a Long/Short Equity Index Strategy Based on the VIX

The VIX closed recently at a five-year low. Some investors and strategists argue that it is time to short the equity market because of the low level of the VIX. Using the VIX for entry and exit signals, Bloomberg's backtesting function returns a profit of 115 percent over five years for an optimized long/short strategy trading the S&P 500.

Type { BT <GO> } and click 1) New Strategy. Enter { SPX Index <GO> } in the orange box in the top-left corner. Click on 'Add Variable...' and enter 20 in the Value field, then 1) Update. Repeat for Variable2 but with the value 35. To add the VIX as the underlying security click on 'Add Security/ Datafield...' and tick the box Use Additional Security in the pop-up window. Type VIX in the Security box and select VIX Index from the auto-complete. Enter 'Last Price' in the Field box and hit <GO>. Click 1) Update.

Click 2) Add Rule center-left and choose in the first Action field 'Close and go Short' when the VIX (Datafield1) is less than or equal to the 20 (Variable1).
For the second Action, select 'Cover and go Long' when the VIX is greater or equal to 35 (Variable2).
Enter a strategy title top-left and click on the tab at the top: 13) Simulation control. Change the start year to 2007, and select 1) Update.



The strategy would return a profit of $40.42K on $100K invested.

To find the parameters that would maximize profit, click 14) Parameter Optimization. Under the Selected Parameters for Variable 1 change the Min field to 15, Max to 25 and Step to 1. For Variable2 set Min to 35, Max to 45 and Step to 1. Click on '1)Submit Optimization', then 1) View All Optimizations.
Calculations will be performed which will take about 10 seconds. Click 3) Refresh in the red toolbar. Click the optimization results where the text is orange. A table of data appears, with information such as maximum potential profit.

Parameters		Current Position		Trades			Profit (Loss)				Statist
Variable1 [Value]	Variable2 [Value]	P&L	Age	Long	Short	Total	Total	%Total	Long	Short	Avg
17	41	-6.90k	127	3	4	7	118.66k	118.66	70.20k	48.46k	256.00
17	42	-6.90k	127	3	4	7	118.66k	118.66	70.20k	48.46k	256.00
17	43	-6.90k	127	3	4	7	118.66k	118.66	70.20k	48.46k	256.00
17	44	-6.90k	127	3	4	7	118.66k	118.66	70.20k	48.46k	256.00
17	45	-6.90k	127	3	4	7	118.66k	118.66	70.20k	48.46k	256.00
17	37	-6.27k	127	3	4	7	98.95k	98.95	57.64k	41.31k	256.00
17	38	-6.27k	127	3	4	7	98.95k	98.95	57.64k	41.31k	256.00
17	39	-6.27k	127	3	4	7	98.95k	98.95	57.64k	41.31k	256.00
17	40	-6.27k	127	3	4	7	98.95k	98.95	57.64k	41.31k	256.00
18	41	-12.17k	141	3	4	7	92.60k	92.60	55.62k	36.98k	256.14
18	42	-12.17k	141	3	4	7	92.60k	92.60	55.62k	36.98k	256.14
18	43	-12.17k	141	3	4	7	92.60k	92.60	55.62k	36.98k	256.14
18	44	-12.17k	141	3	4	7	92.60k	92.60	55.62k	36.98k	256.14
18	45	-12.17k	141	3	4	7	92.60k	92.60	55.62k	36.98k	256.14
17	35	-5.89k	127	3	4	7	87.02k	87.02	49.47k	37.56k	256.00
17	36	-5.89k	127	3	4	7	87.02k	87.02	49.47k	37.56k	256.00
16	41	-4.60k	115	3	3	6	85.26k	85.26	63.17k	22.09k	237.33
16	42	-4.60k	115	3	3	6	85.26k	85.26	63.17k	22.09k	237.33

The results show the optimal strategy is a short with VIX below 17 and a long with the index above 41. Click Total column heading to sort by descending order of profit.

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