2016Jul11 Trading

Overnight session was extremely bullish and SPX broke year highs. I thought with a strong jobs report, there would be more chances of a rate hike which would make the market weak. I was wrong. The lesson is that market logic is not my specialty and overnight exposure should be as little as possible.

My advantage is the knowledge I gained through data analysis, the time-tested robust first-principles rules, including PM trend to go up, etc. Avoid market event risk.

Keep no position through any political event. Trading from first principles.

Bought 2 futures at 9:40 because the first 10> 0.00164. This is trading in accordance with the pre-established principles.

Markets took a plunge, but the strategy needs to be followed until the AM close.

No short for 1 month, check return.

Bought @ 11:03 @ 9435

Reasons is Sharpe Ratio for the 4th half is very hig, given amMaxT1>10.75, amFirst10>0 and weekday=="1".

PM:

PM first 0 was barely up. Entered a position to take advantage of the pmcl, however markets retreated into the close.

Today's signs of weakness included the amMin which is not at the open.

> jun23[, list(diff=mean(pmMaxT1-pmMinT1),pmax=mean(pmMaxT1),pmin=mean(pmMinT1)),keyby=list(weekday, ammaxCat)]

weekday ammaxCat diff pmax pmin

1: 1 [9.52,9.63] -0.282386386 13.91629 14.19867

2: 1 (9.63,10.2] 0.163519867 14.09639 13.93287

3: 1 (10.2,10.9] 0.368248994 14.19599 13.82774

4: 1 (10.9,11.5] 0.461205774 14.25922 13.79801

> jun23[, list(mean(pmMaxT1-pmMinT1),mean(pmMaxT1),mean(pmMinT1)),keyby=list(weekday, amminCat)]

weekday amminCat V1 V2 V3

1: 1 [9.52,9.69] 0.44082943 14.25606 13.81523

2: 1 (9.69,10.3] 0.19854170 14.11111 13.91257

3: 1 (10.3,11.1] 0.05477589 14.05799 14.00322

4: 1 (11.1,11.5] -0.18750002 13.96370 14.15120

The above tables show that ammin was a culprit in today's afternoon drop.

For other weekdays, ammax in 9.6-10.9 is most beneficial for PM. Max either too early or too late is not good. This applies for Tuesday, Wednesday and Friday.

In the trading strategy, Tuesday says yesterday's closing P needs to be less than 80%, cannot close at the bottom (if closing at the bottom, might risk a big drop day). For cases where Monday was less than 20% percentileY, there is no restriction on closing percentile, but open percentile cannot be more than 80% (means that there is a reasonable rise. It is even ok to be below the closeY for the AM session.)

In the trading strategy, Friday says that amClose cannot close at the top, nor can it close at the bottom, yesterday cannot close at the highs, and pm needs to head up.

The above shows that Ammin: better on the two sides. Ammax: better in the middle. (For Tue, Wed, Fri)

Now, the issue of

Jul12 (Tuesday)

Overnight US SPX achieved record high.

Market up 6% from Jun24. (part of this journal is lost).

The sharpe ratio of Tuesday's trade was over 10, with retPMCOY<0, ammax around 10, amClosePercentile in the am lows. Going forward, Sharpe of the trade needs to be documented and cumulative return profile needs to be drawn before trade is implemented.

7.13

Futures rose another 100 points to 9647 from where I sold it. Bullish sentiment from the US. From historical data

Markets down 50bps in the first 5 minutes. International court has ruled that China's claim over the islands in the South China Sea is unlawful. This could be used as an excuse for taking profits. Looking at the historical data, with percentileY>0.9, the downside ris

> jun23[weekday=="3" & percentileY>0.906, c(.N,calcSharp(retPMCO)),keyby=list(percentileYCat, amFirst10>0)]

percentileYCat amFirst10 mean cum max min sd ud dd dd2 dd3 sr sortino1 sortino2 sortino3 sortino4

1: (0.906,1] FALSE 123 -0.0018 0.8018 0.0189 -0.0349 0.0088 0.0046 0.0073 0.0112 0.0068 -3.1704 -3.7955 -2.4881 -4.0860 -3.6212

2: (0.906,1] TRUE 94 0.0004 1.0373 0.0160 -0.0496 0.0088 0.0035 0.0093 0.0118 0.0074 0.7694 0.7285 0.5784 0.9136 0.9347

As can be seen, the downside risk is high while there is not much to the upside.

Compare with the case where there is a drop on Tue:

> jun23[weekday=="3" & percentileY<0.2, c(.N,calcSharp(retPMCO)),keyby=list(percentileYCat, amFirst10>0)]

percentileYCat amFirst10 mean cum max min sd ud dd dd2 dd3 sr sortino1 sortino2 sortino3 sortino4

1: [0,0.226] FALSE 60 0.0003 1.0172 0.0251 -0.0213 0.0114 0.0071 0.0063 0.0108 0.0079 0.4836 0.8757 0.5105 0.7033 0.7220

2: [0,0.226] TRUE 97 0.0060 1.7637 0.0558 -0.0319 0.0145 0.0121 0.0082 0.0086 0.0092 6.5544 11.6015 10.9935 10.3465 15.0982

(in the case above, the downside risk is much smaller).

Look at the correlation:

> jun23[, cor(retPMCOY, retPMCO), keyby=list(weekday, percentileYCat)]

weekday percentileYCat V1

1: 1 [0,0.226] 0.06130067

2: 1 (0.226,0.6] 0.09198806

3: 1 (0.6,0.906] 0.03484581

4: 1 (0.906,1] 0.09345569

**5: 2 [0,0.226] -0.33339202**

6: 2 (0.226,0.6] -0.02357048

7: 2 (0.6,0.906] -0.09067303

**8: 2 (0.906,1] -0.29655611**

**9: 3 [0,0.226] -0.33752504**

10: 3 (0.226,0.6] -0.15484858

**11: 3 (0.6,0.906] -0.36688306**

12: 3 (0.906,1] -0.05807868

13: 4 [0,0.226] -0.15959455

**14: 4 (0.226,0.6] -0.36268419**

15: 4 (0.6,0.906] -0.22911871

16: 4 (0.906,1] -0.24063731

17: 5 [0,0.226] 0.01903271

18: 5 (0.226,0.6] -0.09052809

19: 5 (0.6,0.906] -0.05965068

20: 5 (0.906,1] -0.04312729

From the above correlation table, one can see that when the previous day performed badly, the correlation is strongly negative which means market tends to rebound. However, when market is bullish, there is no strong relationship, except Tuesday.

So the question is how to trade today and whether to trade. With percentileY > 0.9, the cum return is 0.8 which is atrocious. With amFirst10>0, market only cums to 1.08.

Futures start to rally. Investors think that with US breaking highs, China should also be good. That's why funds are pouring in cash in expectation of a bull market now.

Within the first 10 minutes, markets rallied 70 bps. IH is up 1.26%.

> jun23[weekday=="3" & amFirst10>0.005 & percentileY>0.9, c(.N,calcSharp(retAMCO-amFirst10)),]

V1 mean cum max min sd ud dd dd2 dd3 sr sortino1 sortino2 sortino3 sortino4

1: 12 0.0042 1.0496 0.0348 -0.0325 0.0164 0.0105 0.0147 0.0158 0.0119 4.0421 4.4999 4.1967 5.5719 6.5154

> jun23[weekday=="3" & amFirst10>0.005 & percentileY>0.9, c(.N,calcSharp(retPMCO)),]

V1 mean cum max min sd ud dd dd2 dd3 sr sortino1 sortino2 sortino3 sortino4

1: 12 -0.0026 0.9678 0.0096 -0.0496 0.0158 0.0032 0.0219 0.0254 0.0137 -2.6212 -1.8865 -1.6271 -3.0141 -2.8182

Chasing on Wednesday AM does have a Sharpe of 6. However, the lesson on Monday shows that one still has to follow the first principles of buying on the low percentile, which inherently has a higher Sharpe.

Bid and got hit at 14:01 and it has broken the new lows. Historically, market has trended higher following

Date L1353 H1313 V1 pmcoyc pmcl pmch percentiley ammaxcat ammincat ammaxt ammint am10 pm10

1: 2010-10-13 0 1 80.91738 4 0.008653497 -0.0002226212 0.9669340 2 3 9.750000 10.683333 35.37554 20.124591

2: 2014-02-12 0 1 18.03575 3 0.004931163 -0.0003919256 0.7410651 2 3 9.666667 10.383333 20.19132 2.840880

3: 2015-03-11 0 1 25.19164 2 0.003655198 -0.0030931390 0.2735303 2 1 9.783334 9.516666 51.31541 1.201074

after market:

There was no rebound. Yesterday's high retPMCOY played the main role in determining today's move.

Some research into 399006 needs to be done.