Homework, Research, and Statistics [1]

The videos and pages above answer question such as:

- How often did price extend both above and below the Initial Balance of the past 500 days? How often did it extend just above the high? How often just below the low? (Video 1)
- How often did price open above the previous day session range over the past 100 days? How often did it open below?
- What is the average day session range over the past 1000 days? What is the average IB range? What is the average overnight range?
- Frequency of HOD or LOD occurring within each 30 minute period. Within each 5-min period. (Video 2)
- Relationship of overnight direction (up/down) to following day session direction (up/down) and visa versa.
- If broke down market into 5-minute increments, breakdown of the times that a new high for the day has been made. Purpose would be to see if the chances of new highs being made during lunch period are very slim, while chances of new highs being made towards end of day are much greater. One year sample size.
- Same study as above, but new high would have to be made by 1.00 or more than previous swing high.
- # of lows of day that were formed by a double bottom and triple bottom over the past year (3-minute chart)?
- How many neutral, normal variation, normal days out of a given number of days.
- Average daily range over a number of days.
- Average IB range over a number of days
- How many days open with a gap (Out of range). If so, what was size of gap and then did the gap or ½ gap close
- If open Out of Range, then did it close back with previous day range.
- Number of points previous day VPOC and current day VPOC away from each other. Example, 1170, next day 1177, then seven points away.
- Identify double tops and/or double bottoms on any timeframe, paint/mark them as well and then e able to tell if it held or not.
- If Price opens X number of points away from previous day VPOC, how many points did it close away from previous day VPOC. Example, if open >7 points away, then did it close closer than 7 points or further than 7.
- How often did price open below/above previous days VPOC?
- How often did we have a gap open with a continued drive in direction of gap of say first 2 hours
- How often did we have a gap that got closed same day

- How often did we have a gap within previous days range
- How often is the first hour's range contained with the second hours range- (could be important for ex FDAX, FESX where cash opens 1 hour after initial open, to establish which IB is the most appropriate to use)
- What percentage of todays volume is contained within first 2.5 hours?
  How often do we have trend days using following definition : open close to low and close is near the high
- How often do we have days where IB is violated on both sides with a close within IB, with a close on one of the extremes?
- What is the rotational factor of respective product?
- What days opened at or very close to previous days range extreme?
- What days opened in the middle of yesterdays range
- What days opened below/above previous days value area?
- What days had a VPOC very close to previous days VPOC
- Being able to find statistics on Opening Types and how they relate to Day Types would be helpful.

  Opening Types

  Easily quantitated

  Open Auction In Range - Opens Inside Yest Range

  Open Auction Out Of Range - Above Yest Range

  Open Drive - Drives and doesn't retest open by more than a tick. Also it respects the swings and doesn't cross previous swing hi or lo.

  Not easy to quantitate

  Open Test Drive - Moves to test a prior area and

  Open Rejection Reverse -Moves in the direction it was headed and reverses.

  Day Types

  Normal - Range is bound by IB

  Normal Variation - Breaks out above either IB hi or Lo not both

  Neutral - Breaks both IB hi and Lo but settles back inside IB

  Neutral Extreme - Breaks both IB hi and Lo but settles at one extreme Non Trend - Holiday (not relevant)

  So there's endless cross reference studies that could be done. I'm most interested in finding out about OAIR and OAOR opening types and typically what kind of day they turn out to be. Also, IB size, extension above/below IB, where did it close in relation to open or hi/ lo.
- How often price stop and reverse when it approach or hit: CHVN vs Yesterday HVN, CLVN vs Yesterday LVN, NVPOC, Yesterday (RTH) close vs Settlement
- I am learning excel. First question is how do I build a database. I was going to go thru the charts by hand for many of these data points.
- What is the effect of the o/n range on the days range? average o/n range, above and below average, extreme narrow and extreme wide o/n range.
- What is the effect of the above on the open type itself, tradable probability of open type from the above?
- Probabilities of different opening types based on open, gap up, down, above value, below value.
- Probability of day type following open type.
- Be able to extract volume for an opening swing/range to compare it to other days opening swing/range. If using your own opening swing, then would be some way to be able to pick that area

and grab that volume, or be able to pick the time it took for that swing and grab that volume.

- What is most common daily range over past 250 days?
- How often did price extend just above the IB high? [to expand on this, what is the most common distance price extends past the IBH over that period of time]
- How often did price extend just below the IB low? [to expand on this, what is the most common distance price extends past the IBL over that period of time]
- For every day (historically) the ability to list Open price and then what NVPOCs and NCloses are touched and at what time. So the text file would deliver both the price touched and time.
- Another thing that I do is break down Opens and Closes into zones numerically. For Open, if we are above HOD=1, HOD>X>Value Area HI=2, if X is in upper 23% of value area =3, X is in middle 23% of value=4, bottom 23% =5, LOD<X<Value area LO=6, X<LOD=7............ Then I repeat this for the CLOSE based on End of Day Profile. Obviously if I am basing it on EOD profile, I can't have a value of 1 or 7 because I can't finish above or below value.
- On days that the price breaks the IB High/Low, how many ticks did it go past the break before it came back and hit the IB high/low? Is it possible to write a study like with that additional information. This could then be used to look at breaks of any defined level and how far the market went after the break.
  - When ES gaps > (x) pts, it closed up/down (x) times the following session, and created a higher high or lower low (x) times
  - When ES creates an inside day, how frequently does the following day gap up or down? How often is that gap filled?
  - How often does an expanded range (outside first standard deviation) lead to an inside day?
  - Others are all related to trade specific setups, ie when close is also VPOC, how often does it provide support/resistance? Not sure if raw data from IRT can provide this? Perhaps Fractals?
  - Number of days out of a set number of days ES opened in previous days range and touched previous days VPOC.
  - Number of days our of a set number of days ES opened out of previous days range and touched previous days VPOC.

- What % of the time is VAH broken if we open above VAH? and if it is broken what % of the time is POC touched? and if it is broken what % of the time is VAL touched?

- how often gap (1 pt or more) filled when opening in previous day range (1396 days studied)

  - - when opening out of range
  - - when opening above an up days range (up day defined as close greater than open) - 119/185
  - - when opening below an up days range - 28/47
  - - when opening above a down days range - 28/38
  - - when opening below a down days range - 90/120

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