

Every Bar Has A Story To Tell:

Applying Volume Spread Analysis from the time of Wyckoff to current electronic trading.

HAL-PC: The Traders' SIG

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October 27, 2009

Overview

Price moves bar-by-bar, sometimes directly, more often up or down then down or up between High and Low as Expert Traders Buy Low and Sell High.

Discovering how they're trading by matching price movement to volume and following their lead is a prescription for profitable trading.

Richard D. Wyckoff

1873-1934



"Study your charts not with an eye to comparing the shapes of the formations. Rather study your charts or tape from the viewpoint of the behavior of the stock, the motives of those who are dominate in it, and the successes and failures of the buyers and sellers as they struggle for mastery on every move."

Richard D. Wyckoff

Introduction to Wyckoff:

Richard Wyckoff was a stock market authority, founder and onetime editor of the "Magazine of Wall Street" and editor of "Stock Market Technique."

His idea was that the effects of trading on price range and direction ought to be linked to volume. If it failed to do this, the market was about to change its direction.

It takes two to trade: Us vs Them



Expert Traders

Expert Traders trade with each other as well as with the rest of us. When price goes up before going down, Expert Buyers exit contracts and Expert Sellers enter contracts (Sell High). When price goes down before going up, Expert Sellers exit contracts and Expert Buyers enter contracts (Buy Low).

The rest of us supply liquidity and provide opportunities for the Experts to trade at even higher Highs before selling and lower Lows before buying.

Analysis of Volume and Price Range is one way of discovering how the Experts are trading and we can decide if we would like to go along with them.



Wyckoff's Rules (1)

1. Price movement should always be proportional to volume.

Low Volume & Price Up = Bearish

Moderate Volume & Price Up = Bullish

High Volume & Price Up = Bullish

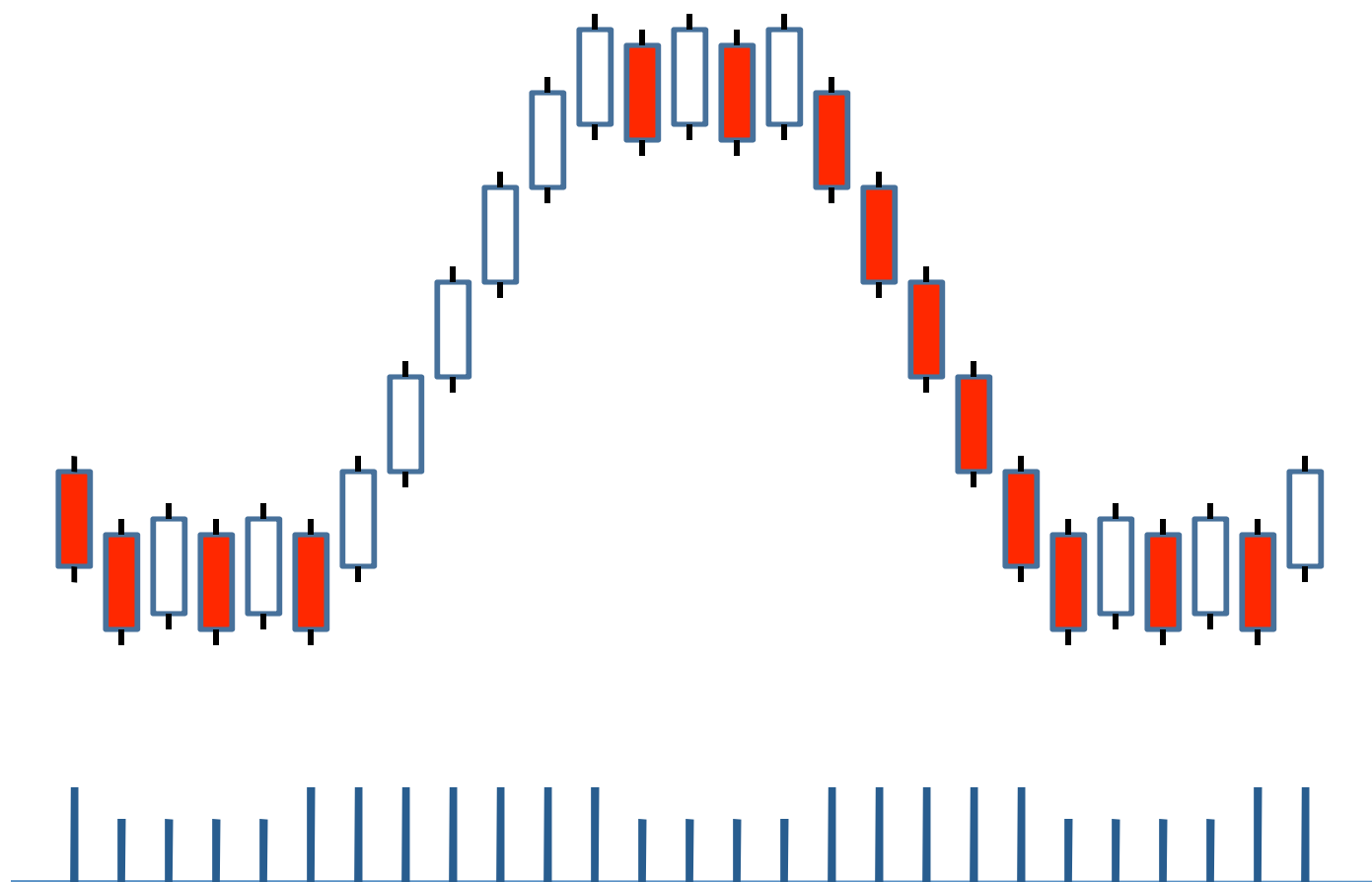
High Volume & Price Up Modestly = Bearish

Low Volume & Price Down = Bullish

Moderate Volume & Price Down = Bearish

High Volume & Price Down = Bearish

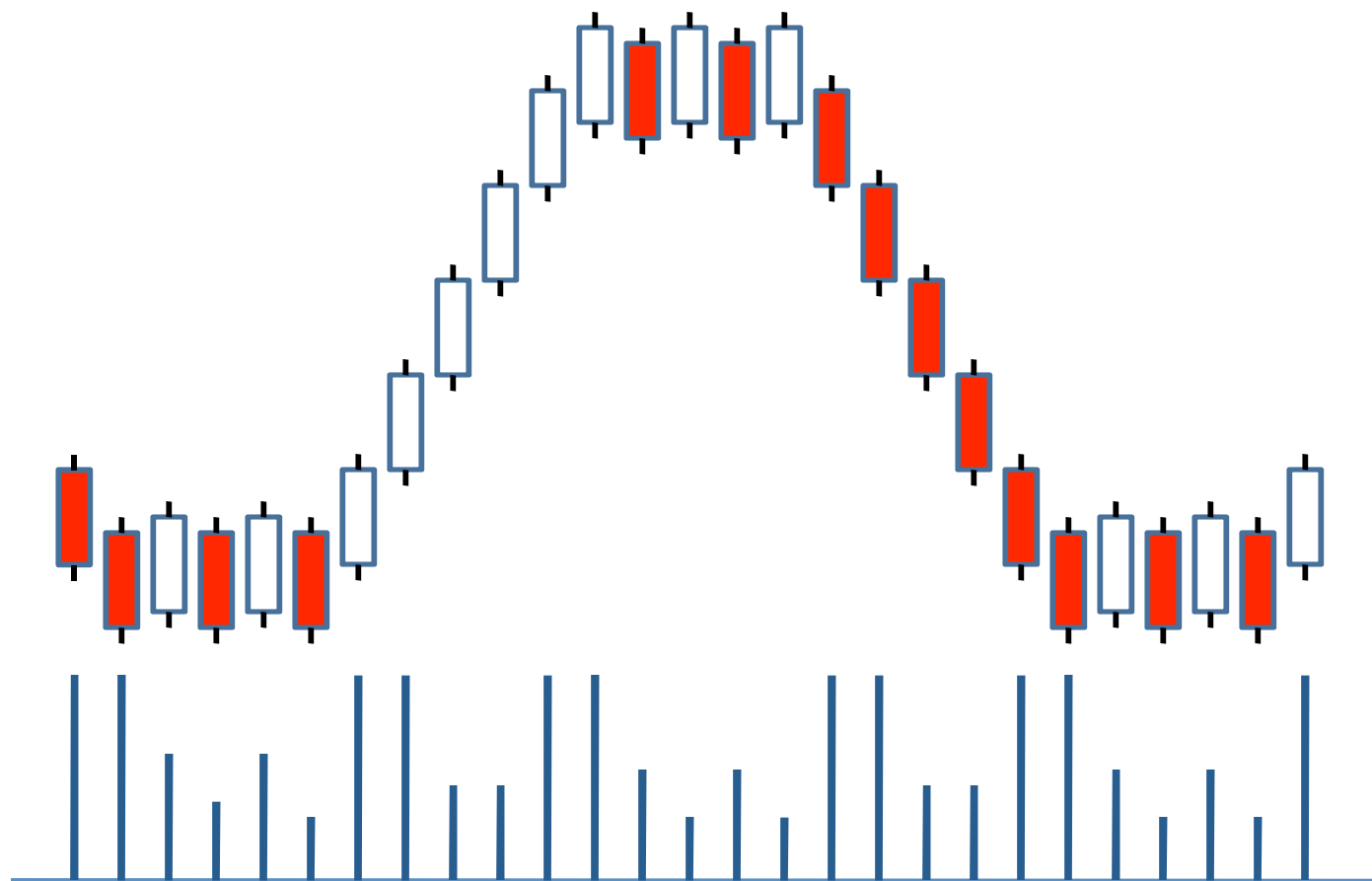
High Volume & Price Down Modestly = Bullish



Bullish
Volume

Bearish
Volume

Bullish
Volume



Bullish
Volume

Bearish
Volume

Bullish
Volume

Expert BUY

Expert SELL

Expert BUY



Wyckoff's Rules (2, 3, 4)

2. Extremely high volume usually marks a turning or a hesitation point.
3. Extremely low volume often immediately precedes extremely high volume.
4. A moderate to wide price spread created by moderate volume is usually bullish (implying few sellers).



Wyckoff's Rules (5, 6, 7)

- 5. A wide advance created by strong volume is almost always bullish (implying strong demand).
- 6. Retests and corrections should be accompanied by generally lower volume.
- 7. Volume should increase on legitimate breaks from technical patterns.



Volume Spread Analysis (VSA)

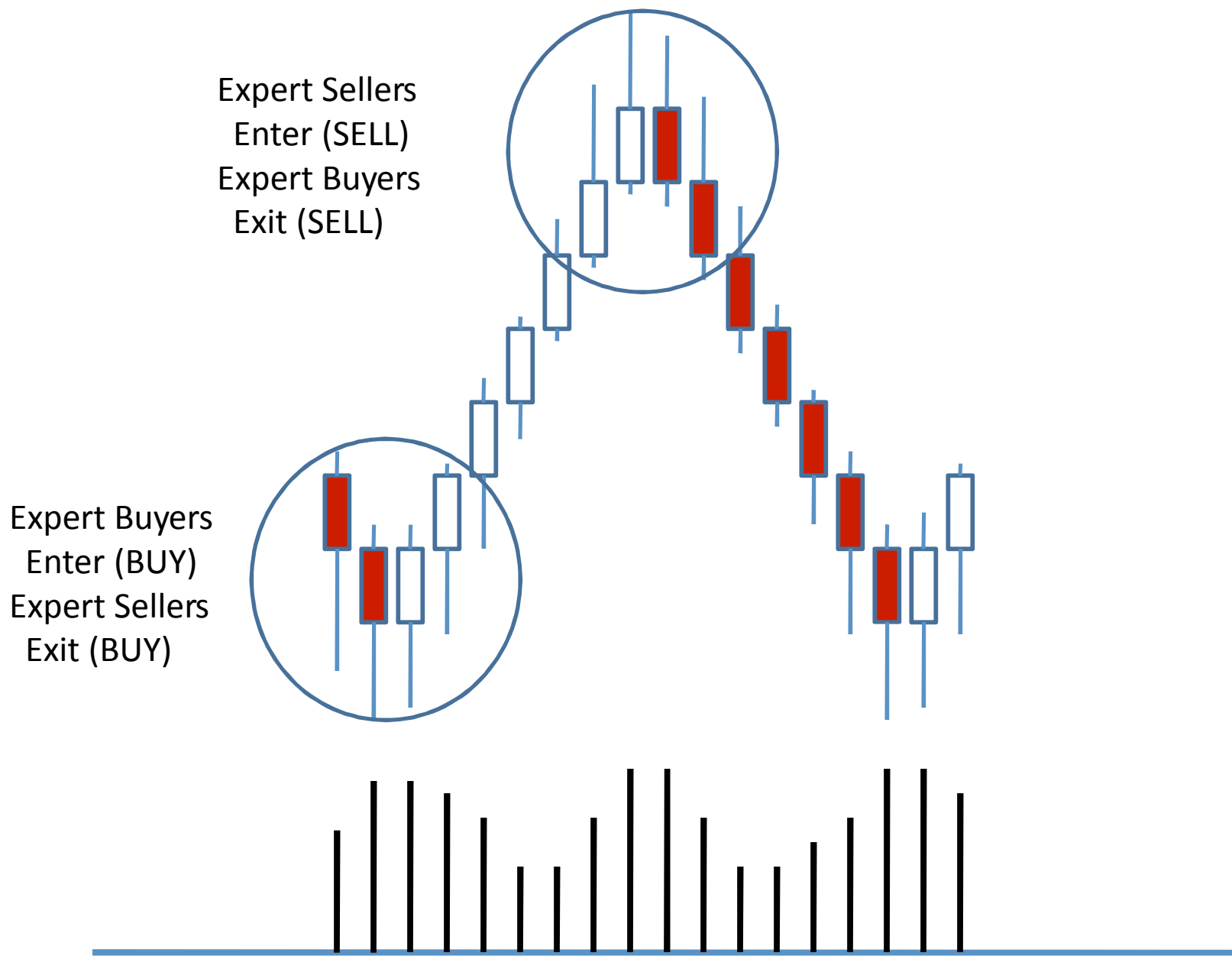
Modern application of Wyckoff's analysis of volume and trading range has become known as Volume Spread Analysis (VSA).

Current Application of VSA

Assumes that Expert Buyers and Sellers are those best able to forecast the Close of the current bar and the direction of future bars.

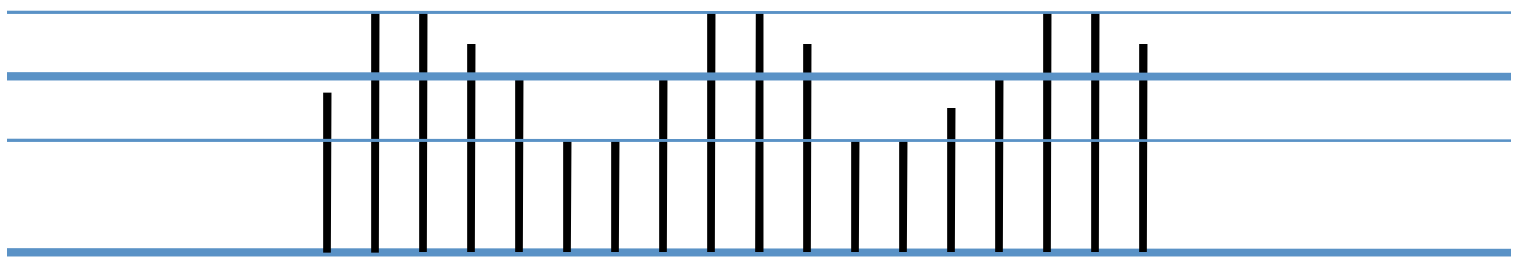
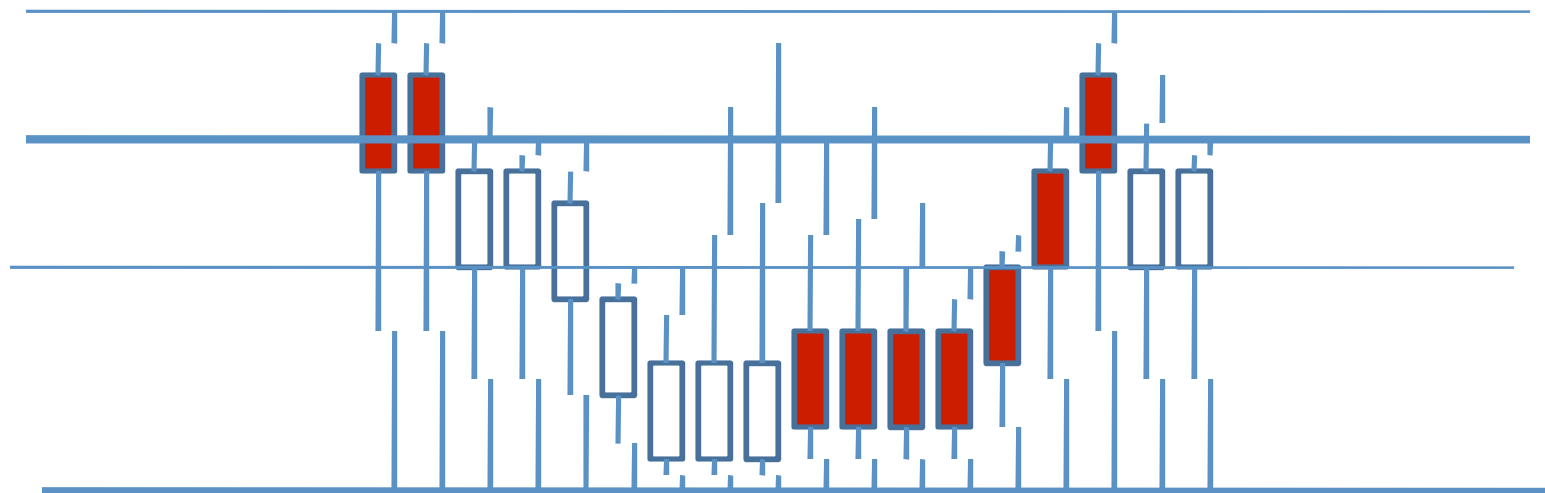
They enter and exit contracts at the best available price with Sellers trading High and Buyers trading Low.

Expert Buyers enter and exit contracts in greater volume just before an upward trend in price and Expert Sellers enter and exit contracts in greater volume just before a downward trend in price.



Current Rules for VSA (1)

1. Normalize volume and price range for 10 to 30 bars such that average change in volume is the same as average change in price range.
(Use standard deviation to normalize values.)





Current Rules for VSA (2)

2. Compare bar-by-bar change in Volume (dV) with change in Price Range ($d\$$).



Current Rules for VSA (3)

3. Assess Buying Pressure by the length of the bottom shadows of candlestick formations (in relation to body and top shadow) and Selling Pressure by top shadows (in relation to body and bottom shadow).

Expert Sellers
Enter (SELL)
Expert Buyers
Exit (SELL)

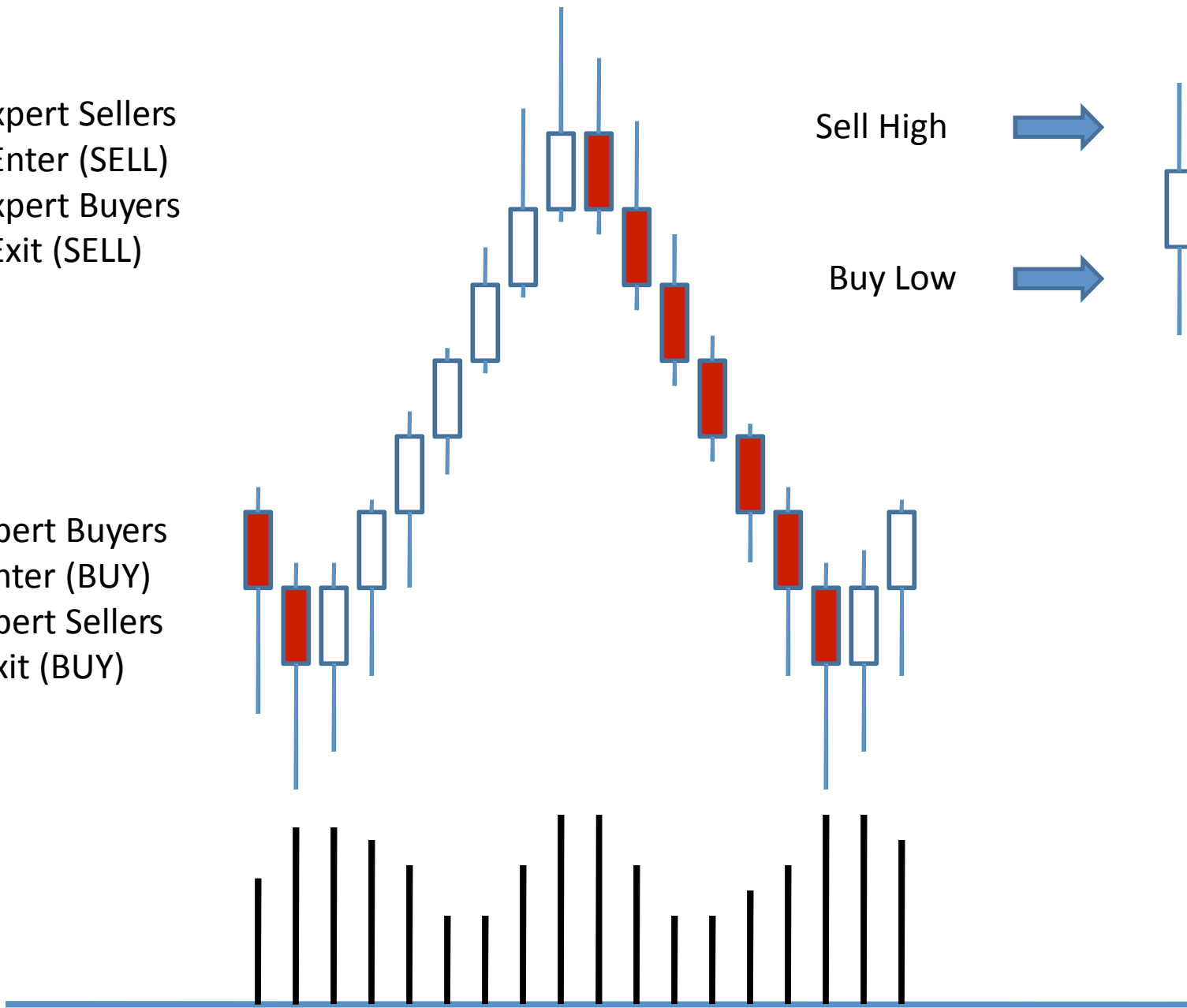
Sell High



Buy Low



Expert Buyers
Enter (BUY)
Expert Sellers
Exit (BUY)





Current Rules for VSA (4)

4. Use Price bar structures and Candlestick formations in association with proportionately High, Average or Low Volumes to identify price trends, retracements, reversals and congestion that are consistent and specific to each market.



Deliberate Practice (1)

Back Testing:

Position Chart - last day at right edge of Screen

VSA Analysis made and recorded

Forecast made and recorded

Move chart, check and record results

Next day - VSA analysis

etc.





Deliberate Practice (2)

Forward Testing:

Current Chart - current day right edge of Screen

VSA Analysis made and recorded

Forecast made and recorded

Day-by-Day - check and record results

References

Stewart Taylor: Simpler is Simply Better

<http://tv.ino.com/media/INLV98ST/workbook.pdf>

Karthik Marar: Volume Spread Analysis

<http://www.financnik.cz/forum/file.php?13,file=10989>

VSA(Part I and II): A New Way to Look at Markets

<http://www.forexfactory.com/showthread.php?t=154339&page=20>

Tom Williams: Master the Markets

<http://www.tradethetruth.com/pics/mtmv3.pdf>

Resources

Commercial Websites:

<http://www.tradeguides.com/>

<http://www.hawkeyetraders.com/>

Trading Groups:

<http://www.traddr.com/group/wyckoffandvolume>
spreadanalysis

EAL code for normalization(1)

Input:Length(20);

Variables:avg_V(0),dV(0),avg_dV(0),stD_dV(0),dPr(0),
avg_dPr(0),stD_dPr(0),rVtoPr(0),adj_dPr(0);

avg_V = Average(Volume,Length);

dV = (Volume - avg_V)*Adj_V;

avg_dV = Average(dV,Length);

stD_dV = StdDev(dV,Length);

EAL code for normalization(2)

```
IF Close[0] >= Close[1] AND (High-Close[1]) >= (Close[1]-Low)
  THEN
```

```
  dPr = (High-Close)+(High-Low)+(Open-Low);
```

```
IF Close[0] >= Close[1] AND (High-Close[1]) < (Close[1]-Low)
  THEN
```

```
  dPr = (Open-High)-(High-Low)-(Close-Low);
```

```
IF Close[0] < Close[1] AND (Close[1]-Low) >= (High-Close[1])
  THEN
```

```
  dPr = (Open-High)-(High-Low)-(Close-Low);
```

```
IF Close[0] < Close[1] AND (Close[1]-Low) < (High-Close[1])
  THEN
```

```
  dPr = (High-Close)+(High-Low)+(Open-Low);
```

EAL code for normalization(3)

```
avg_dPr = Average(dPr,Length);
```

```
stD_dPr = StdDev(dPr,Length);
```

```
rVtoPr = IFF(stD_dPr <> 0, (stD_dV/stD_dPr), 1);
```

```
adj_dPr = dPr*rVtoPr;
```

```
Plot1(dV,"diffVol");
```

```
Plot2(adj_dPr,"adj_dPr");
```

```
Plot3(adj_dPr*-1,"adj_dPr*-1");
```

```
Plot4(stD_dV,"stD_dV");
```

THE END

That's All Folks!