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Inside day patterns in the S&P

by Toby Crabel

Computer studies suggest that inside days— where the high is lower than the previous ! day's high and the low is higher than the previous day's low— provide very reliable t entries in the S&P 500 futures market. The basic trading pattern (Figure 1) is an inside day (ID) followed by a sale if the next day's market opens lower or a buy if next day's market opens higher. Entry is on the open and exit is on the same day's close without a stop.

In computerized tests, this basic procedure produced 68% winning trades in the S&P between 1982 and 1987. Total net profit from these trades was $18,000 after an $18-per-trade commission. This is a reasonably high percentage and suggests a strong tendency or bias for prices to continue in the direction of the open the day after any inside day.

Refinements

One simple variation of this pattern—discerning | whether the ID close and next day's open are in the same direction—produces an even higher percentage of winning trades. In Figure 2a, the ID has a higher close than the previous day and is followed by a higher open. A buy is taken on the open and exited on the close. A sale is taken when the ID has a lower close and is followed by a lower open (Figure 2b).

There were a total of 44 of these buy/sell trades between 1982 and 1987, and 74% of them were profitable. Their total net profit was $ 14,914, meaning a better per-trade return than the basic pattern in Figure 1. This supports the premise that the direction of closing has some impact on next day's action and potential breakout.

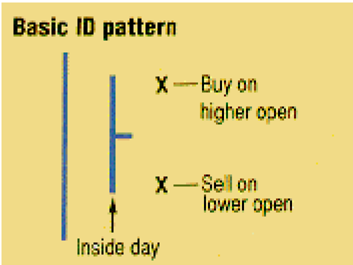

FIGURE 1:

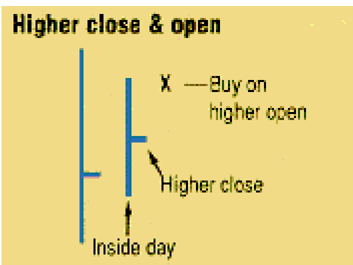

FIGURE 2a:

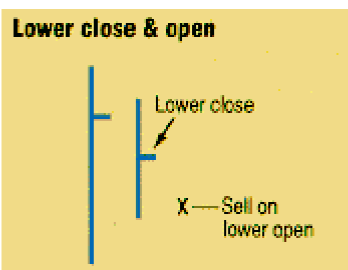

FIGURE 2b:

No close

By itself, the opening direction after an inside day appears to be a valid indicator of upcoming price direction and some specific patterns show a very high percentage of profitability without the use of the previous day's closing direction.

Although a fairly rare pattern, Figure 3a is profitable 80% of the time it appears and those winning trades are five times the size of losing trades. The only shortcoming is that this four-day pattern appeared only 10 times between 1982 and 1987.

The key to this pattern is that Day 4 opens lower than day 3's mid-range and close. Equally important is that Day 2 has a higher low than Day 1. The trade is a sell on the open of Day 4 and an exit on the close of Day 4.

The inverse pattern (Figure 3b) is just as rare, but even more profitable. Here, the open on Day 4 is higher than the Day 3's close, but not necessarily higher than Day 3's midrange. Day 2's high is lower than Day 1's high. When traded without stops, this pattern was profitable 91% of the time.

> **...tests support the premise that IDs are valid congestion areas and it appears that traders act on the first piece of information indicating trend after the ID—the open.**

The market action in these two patterns implies a short-term trend with a loss of momentum on the inside day. The open on Day 4 is in the opposite direction of the trend and is an indication of a shift in sentiment. This shift in sentiment causes those who still have existing positions against the opening direction to liquidate longs or cover shorts and this covering is more than enough to tip off a directional move.

Retracements

A slightly different tactic with the same type of pattern is to look, after the opening, for a retracement to the previous day's close and, at that point, take a position in the direction of the open. I tested four patterns to demonstrate this principle:

- Figure 4a is an ID with a lower close on Day 2 than Day 1. Day 3's open is above Day 2's close. The chances are 62% that the market will close above Day 2's close on Day 3.
- Figure 4b is an ID with a higher close, followed by a higher open. The chances are 79% that Day 3 will close above the ID close.
- Figure 4c is an ID with a lower close, followed by a lower open. In 59% of these test cases, the close on Day 3 was lower than Day 2's close.
- Figure 4d is an ID with a higher close, followed by a lower open. With this pattern, there's a 67% chance the market on Day 3 will close below Day 2's close.

All of this information suggests a strong bias in the direction of the open, especially after a higher open. The prolonged bull market obviously had an impact on these results but, in general, after the opening direction is known a countermove back to Day 2's close should be observed for a loss of momentum and

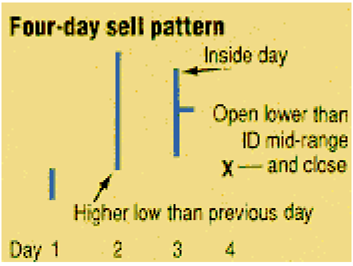

FIGURE 3a:

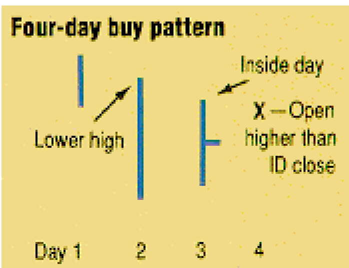

FIGURE 3b:

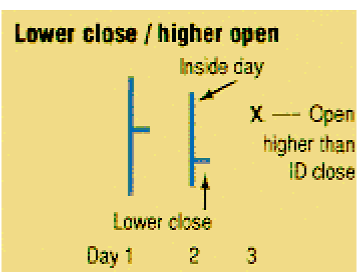

FIGURE 4a:

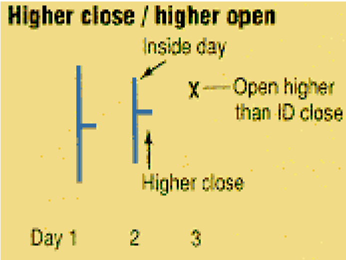

FIGURE 4b:

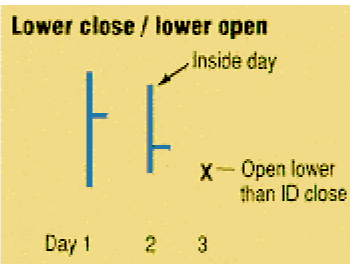

FIGURE 4c:

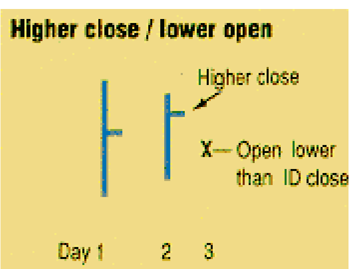

FIGURE 4d:

possible entry in the direction of the open.

Sidelights

Another totally different test in the S&P has some interesting implications and could be tied in with the previous patterns. On any day between 1982 and 1988 that the S&P moved 200 points above the open intraday, the close was above the open 90% of the time. Also, on any day the S&P moved 200 points below the open, it closed below the open 88% of the time.

The way I use this is that after the 200-point move in one direction off the open establishes the initial trend, I watch for any low momentum retracement back to the open, and then enter in the direction of the initial trend and exit on the close of the session. The main qualification is price action on the pullback. A high momentum move back through the open leaves the initial 200-point move in question. This can also be applied effectively after an ID move.

I think it is necessary to shed light on the extraordinary results for IDs which, with no other information than higher/lower opening, provide a winning trade 56% of the time going with the opening directions and when exiting on the close the same day of entry. This is contrary to the market's natural tendency to reverse opening direction by the time of the close.

What is it about an ID that produces followthrough after the open? An ID, by definition, is narrower than the previous day. Any narrowing day shows loss of momentum and, when it is within a previous day's range, it forms a congestion area. Congestion is directionless trading with the market searching for new information. A temporary state of balance or equilibrium exists and the market tends to trend after a congestion.

If an ID is a valid congestion, it will produce an imminent trend day. I assume from my tests there is a tendency to trend after ID patterns. These tests support the premise that IDs are valid congestion areas and it appears traders act on the first piece of information indicating trend after the ID—the open.

Also, the direction of the close on the ID will provide further clues on the direction of the breakout when added to the information of opening direction. The increase in percentage profit and relative profits when these variables are added supports this conclusion.

Why do these indications work so well in the S&P? The S&P generally is an urgent market. The distinguishing characteristic of this market is its tendency to trend throughout the session. This market is notorious for big, fast intraday moves. In Market Logic principles, this is a one-timeframe market. We may reason that in a one-timeframe market, the ID is a more reliable indication of upcoming trend than in a two timeframe market.

The market principle that is in force is contraction/expansion. The ID is a contraction. In a one-timeframe market, the ID contraction is all that is necessary to produce a directional move. It follows that all breakout rules for congestion areas should be implemented after an ID forms. The resulting breakout is expansion.

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