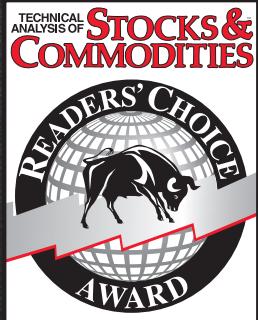


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Opening range breakout

Part 5

by *Toby A. Crabel*

A trade taken at a predetermined amount above or below the opening price of a given day is called an opening range breakout (ORB). A narrow range four pattern (NR 4) is a day with a daily range that is narrower than the previous three days' daily ranges compared individually. In my experience, trades using the ORB technique on a day following an NR 4 pattern tend to coincide with trend day activity—and, consequently, successful ORBs.

Figures 1 and 2 demonstrate an ORB on the day following the NR 4 pattern. The table in Figure 3 shows the results of testing the relationship between the NR4 pattern and trending markets with this technique. action on the day of an ORB. There were four tests per market and the only difference between them was the point of entry above or below the open. Trades were entered on a stop at the indicated level with an exit on the same day's close.

In 15 of 16 comparisons, ORB days following NR 4s have a higher percentage of winning trades than the control group.

The results consistently exhibit trending activity following an NR 4 pattern. The number of trades was high, indicating the frequency with which the pattern occurs. This pattern and a resulting move off the open appears on average once in every eight to 10 market days. The win/loss ratio is not significant at 1 :1, but gross profits were high given the frequency of the pattern.

In no tests did the frequency of profitable trades exceed 70%, yet all but two tests showed at least 60% profitable trades. The best results occurred in the bean market. Cattle, with entries 25 points off the open in either direction, showed surprising success. I say surprising because I had observed that cattle was not as reliable as the other markets with this technique.

Figure 4 compares the percentage of profitable trades on ORB days following an NR 4 pattern with ORB days whether or not they followed an NR 4 pattern. In 15 of 16 comparisons, ORB days following NR 4s have a higher percentage of winning trades than the control group (control group data not shown in Figure 3).

The only exception is buying 50 points above the open in the cattle market. But, this is probably not a significant difference. At 50 points above the open, cattle produced 63% winning trades following an NR 4 and 65% on any day.

Although many patterns can be associated with trending, the results of the tests in Figures 3 and 4 are very strong evidence that NR 4s have some immediate relationship with trending action.

Generally, there is a relationship between any narrow, directionless day and trending action on the following day. The general principle behind this price action I call contraction/expansion. On a bar chart,

this contraction occurs almost always just before a trend move, although there are times when a trend move takes place without contraction.

A word of warning about the tests. When commission and slippage are added, gross profits are reduced dramatically. This does not compromise the intention of this report. As I previously stated, the intent of all my testing is to define the market's nature and verify general market principles. If, in your testing, you find a high percentage system (75%) with a win/loss ratio of more than 1: 1, you are beginning to discover the market's nature.

Toby Crabel is a CTA and AP with RB&H Commodities and a principal in Toby Crabel & Associates. A former trader at the CME and CBOT, he now edits Market Analytics, 30 S. Wacker Dr., Suite 1912, Chicago, IL 60606, (800) 621-2503. ext. 1410.

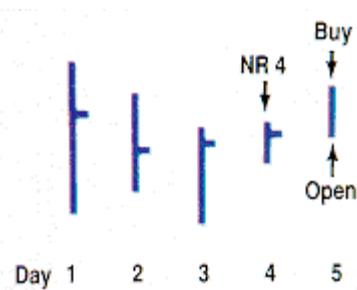


FIGURE 1:

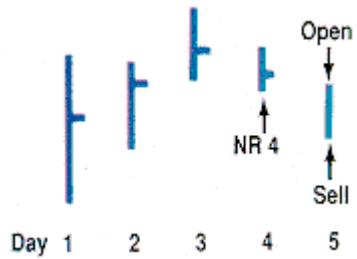


FIGURE 2:

Opening Range Breakout after NR 4							
	Entry point	No. trades	% Win	Avg. win	Avg. loss	Win/Loss	Gross profits
Bonds (1978-86)	Open plus 16 ticks	148	64%	\$418	\$366	1.14:1	\$20,346
	Open plus 8 ticks	263	63	416	444	0.93:1	26,916
	Open minus 8 ticks	289	64	424	403	1.05:1	36,596
	Open minus 16 ticks	162	65	402	409	0.98:1	19,779
S&P 500 (1982-88)	Open plus 160 pts.	145	62%	\$1,093	\$1,021	1.07:1	42,224
	Open plus 80 pts.	233	57	1,060	865	1.22:1	54,550
	Open plus 80 pts.	231	59	790	961	0.82:1	16,195
	Open plus 160 pts.	140	61	750	1,116	0.67:1	2,395
Beans (1970-85)	Open plus 10 cents	204	62%	\$321	\$458	0.70:1	4,712
	Open plus 5 cents	416	66	316	375	0.84:1	32,625
	Open minus 5 cents	400	63	417	313	1.33:1	58,356
	Open minus 10 cents	183	68	470	304	1.54:1	40,406
Cattle (1970-88)	Open plus 50 pts	329	63%	\$142	\$132	1.07:1	12,948
	Open plus 25 pts.	606	61	164	150	1.09:1	24,492
	Open minus 50 pts.	607	60	159	141	1.12:1	22,702
	Open minus 50 pts.	315	64	151	146	1.03:1	14,454

FIGURE 3:

Frequency of profitable ORB trades			
	Entry point	% winning trades on any day	% winning trades after NR 4
Bonds (1978-86)	Open plus 16 ticks	60%	64%
	Open plus 8 ticks	55	63
	Open minus 8 ticks	56	64
	Open minus 16 ticks	56	65
S&P 500 (1982-88)	Open plus 160 pts.	58	62
	Open plus 80 pts.	55	57
	Open minus 80 pts.	49	59
	Open minus 160 pts.	49	61
Beans (1970-88)	Open plus 10 cents	60	62
	Open plus 5 cents	56	66
	Open minus 5 cents	58	63
	Open minus 10 cents	63	68
Cattle (1970-88)	Open plus 50 pts.	65	63
	Open plus 25 pts.	58	61
	Open minus 25 pts.	58	60
	Open minus 50 pts.	63	64

FIGURE 4:



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