

**Using
Amplified ETFs
Profitably**

Bull, Bear and Flat Periods for Nasdaq100 (QQQQ)



During past year,

Qs Gained, but Amplified Qs Lost

direction	start date	QQQQ	QLD
down	9/18/2008	41.57	61.01
flat	11/20/2008	25.56	20.63
down	2/6/2009	31.37	29.49
up	3/9/2009	25.74	19.60
trading range	6/3/2009	36.33	38.18
up	7/8/2009	34.71	34.68
still up	10/29/2009	42.09	50.39

1 X up 1%

2X down 17%

Compounding Errors Cumulate to Distorted Results

Alternately up-then-down

Consistently up or down

% change		% change		% change		% change		% change		% change		% change			
100.0	-3.0%	100.0	-6.0%	100.0	3.0%	100.0	6.0%	100.0	-3.0%	100.0	-6.0%	100.0	3.0%	100.0	6.0%
97.0	3.0%	94.0	6.0%	103.0	-3.0%	106.0	-6.0%	97.0	-3.0%	94.0	-6.0%	103.0	3.0%	106.0	6.0%
99.9	-3.0%	99.6	-6.0%	99.9	3.0%	99.6	6.0%	94.1	-3.0%	88.4	-6.0%	106.1	3.0%	112.4	6.0%
96.9	3.0%	93.7	6.0%	102.9	-3.0%	105.6	-6.0%	91.3	-3.0%	83.1	-6.0%	109.3	3.0%	119.1	6.0%
99.8	-3.0%	99.3	-6.0%	99.8	3.0%	99.3	6.0%	88.5	-3.0%	78.1	-6.0%	112.6	3.0%	126.2	6.0%
96.8	3.0%	93.3	6.0%	102.8	-3.0%	105.2	-6.0%	85.9	-3.0%	73.4	-6.0%	115.9	3.0%	133.8	6.0%
99.7	-3.0%	98.9	-6.0%	99.7	3.0%	98.9	6.0%	83.3	-3.0%	69.0	-6.0%	119.4	3.0%	141.9	6.0%
96.7	3.0%	93.0	6.0%	102.7	-3.0%	104.9	-6.0%	80.8	-3.0%	64.8	-6.0%	123.0	3.0%	150.4	6.0%
99.6	-3.0%	98.6	-6.0%	99.6	3.0%	98.6	6.0%	78.4	-3.0%	61.0	-6.0%	126.7	3.0%	159.4	6.0%
96.7	3.0%	92.7	6.0%	102.6	-3.0%	104.5	-6.0%	76.0	-3.0%	57.3	-6.0%	130.5	3.0%	168.9	6.0%
% change	-3.3%	-7.3%	2.6%	4.5%	-24.0%	-42.7%	30.5%	68.9%							
ratio		2.19		1.70		1.78		2.26							

$$\$100 \times 1.5 = \$150 \dots\dots \$150 \times .5 = \$75$$

Down moves multiply a larger number than similar % up moves

Up moves compound more favorably than down moves, regardless of whether ETF is inverse or not

Getting the direction right (or cutting mistakes quickly) is even more important with amplified ETFs

Timed Amplified ETFs Dramatically Outperform Buy&Hold

start date	Buy & Hold		Long and Short Timed Gain					
	QQQQ	QLD	QQQQ	QLD				
			% change	% change				
	QQQQ	QLD	QQQQ	QLD	\$100	\$100	\$100	\$100
9/18/2008	41.57	61.01	-38.5%	-66.2%	61	34	139	166
11/20/2008	25.56	20.63	22.7%	42.9%	75	48	170	238
2/6/2009	31.37	29.49	-17.9%	-33.5%	62	32	201	317
3/9/2009	25.74	19.60	41.1%	94.8%	87	63	283	618
6/3/2009	36.33	38.18	-4.5%	-9.2%	83	57	296	675
7/8/2009	34.71	34.68	21.3%	45.3%	101	83	358	980
10/29/2009	42.09	50.39						

Buy&Hold amplified lost 17%

"Perfectly" timed unamplified Qs up 258%

"Perfectly" timed amplified Qs up 880%

Lesson Learned: Unwise to Buy & Hold Amplified ETFs for long periods

Inverse ETFs track badly during even mildly bullish markets

direction	start date	QID	QLD	% change QID	% change QLD	ratio	foray days
down	9/18/2008	50.60	61.01	94.9%	-66.2%	0.70	63
up	11/20/2008	98.60	20.63	-49.9%	42.9%	0.86	78
down	2/6/2009	49.36	29.49	43.5%	-33.5%	0.77	31
up	3/9/2009	70.81	19.60	-54.1%	94.8%	1.75	86
trading range	6/3/2009	32.47	38.18	7.6%	-9.2%	1.21	35
up	7/8/2009	34.93	34.68	-34.3%	45.3%	1.32	113
still up	10/29/2009	22.96	50.39				

Down 55% 17% down

Lesson Learned: Even worse to Buy & Hold Amplified Inverse ETFs for long periods

Inverse Amplified ETF

Useful Only With Short-term Timing

		Untimed		Timed, Long & Short		Timed, Switched
		QID	QLD	QID	QLD	QLD/QID
direction	start date	\$100	\$100	\$100	\$100	\$100
down	9/18/2008	195	34	195	166	166
up	11/20/2008	98	48	292	238	249
down	2/6/2009	140	32	419	317	333
up	3/9/2009	64	63	646	618	513
trading range	6/3/2009	69	57	695	675	560
up	7/8/2009	45	83	933	980	752
still up	10/29/2009					

Timing QID shortens length of holding periods,
eliminating much of the compounding errors in buy&hold

Shorting QLD during bear periods is more profitable than switching into QID.
But in IRAs, QID is likely to be better than sitting in cash during bear periods

Without timing to minimize compounding errors,

Margin is more profitable than using Amplified ETF

		compound gain		Long&Short timed gain		compound gain		Long&Short timed gain	
		QQQQ	QLD	QQQQ	QLD	QQQQ	QLD	QQQQ	QLD
% change	% change								
QQQQ	QLD	\$100	\$100	\$100	\$100	\$200	\$200	\$200	\$200
-38.5%	-66.2%	61	34	139	166	123	68	277	332
22.7%	42.9%	75	48	170	238	151	97	340	475
-17.9%	-33.5%	62	32	201	317	124	64	401	634
41.1%	94.8%	87	63	283	618	175	125	566	1236
-4.5%	-9.2%	83	57	296	675	167	114	591	1349
21.3%	45.3%	101	83	358	980	103	65	617	1860

MARGINED



After deducting \$100 margin borrowing

Without timing, using margin is more profitable than using amplified ETF

With timing, using amplified ETF is more profitable than unamplified margin

In Summary

- Unwise to Buy & Hold Amplified ETFs for long periods
- Worse is holding Amplified Inverse ETFs for long periods
- Timing ETFs substantially improves gains
- Timed Amplified ETF greatly outperforms Buy&Hold ETF
- Inverse Amplified ETF useful only with Short-term Timing
- Using margin to buy&hold ETF more profitable than amplified ETF, but not as profitable as timed amplified ETF