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# The Incredible Value of Relative Strength in Equity Investing

September 20, 2017



## Relative Strength – What is it?

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- Relative Strength (RS) is the measure of how strong a security's price trend is compared to that of another security.
- In most cases, RS is used to gauge which securities are the strongest (or the weakest) compared to the overall market.
- For example, a stock or ETF which is greatly outperforming the broad market would be said to have high RS, whereas any security that happens to be greatly underperforming the broad market would be deemed to have low RS.
- At its core, Relative Strength falls under the momentum investing discipline. This means that investors using relative strength generally seek to buy high and sell higher. However, it is also helpful in identifying inflections in leadership – either positive or negative.

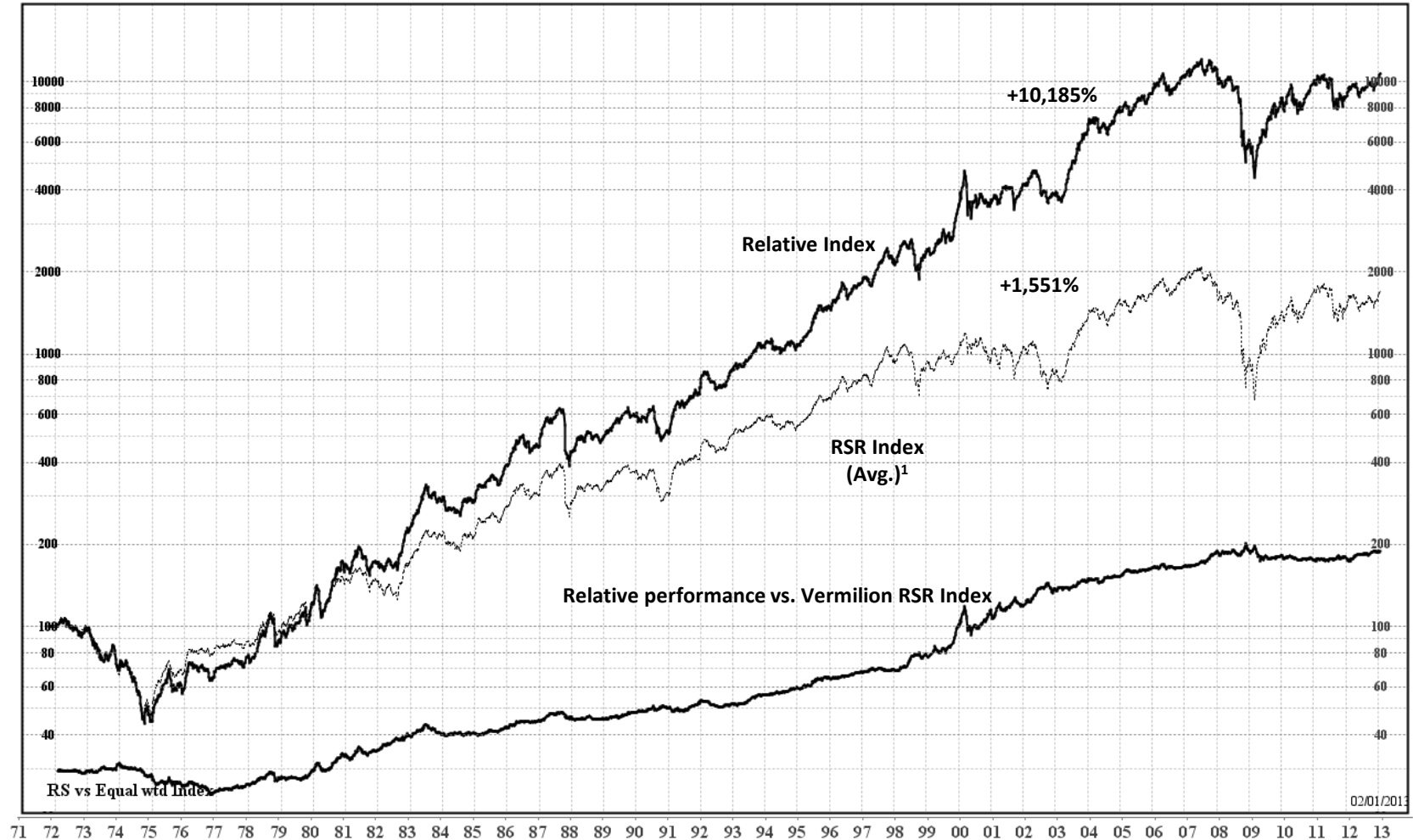
## Relative Strength – What it is not

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- Relative Strength should not be confused with the Relative Strength Index (RSI).
- RSI is a technical momentum indicator, or more specifically an oscillator, which compares recent gains versus recent losses in an effort to determine oversold and overbought conditions. RS, on the other hand, is only concerned with gains and losses compared to the market and not to the individual security's price history, like the RSI.

# Why is Relative Strength Important?

Relative Price 52wks Highs Model Portfolio

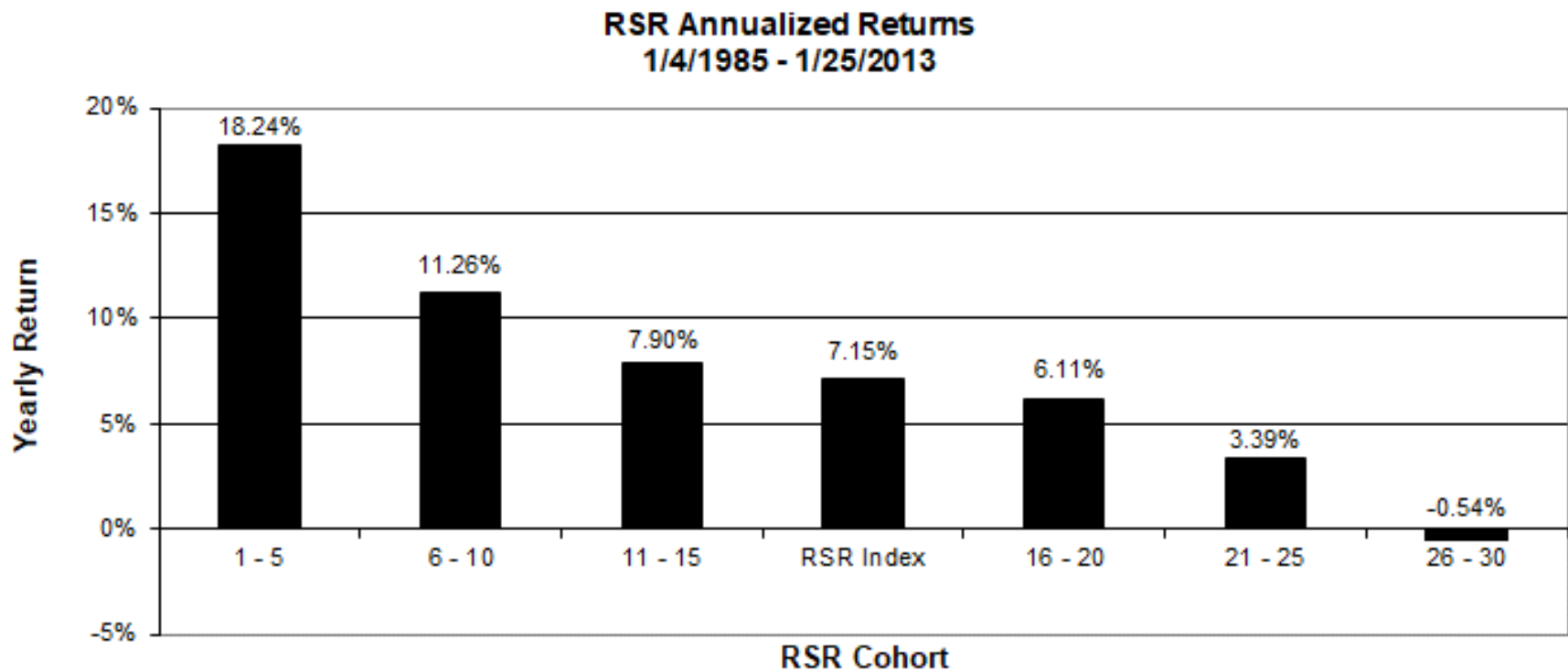


# Why is Relative Strength Important?

		Relative Strength Ranking - RSR : Market and Sector Summary																	% Price Δ									
Index or Sector	Ticker	Price	09/15	09/08	09/01	08/25	08/18	08/11	08/04	08/28	07/21	07/14	07/07	06/30	06/23	06/16	06/09	06/02	05/26	05/19	TRIPLE CYCLE	50 DAY	200 DAY	MACD	1 week	1 month	3 month	
S&P 500 / Consumer Discretionary -I	SP285	714.22	20	18	17	16	16	13	15	16	17	18	19	17	16	14	14	11	11	11	D2	3	BR	AR	- 14	0.91%	1.79%	-0.49%
S&P 500 / Telecommunications Serv	SP793	155.68	24	26	22	17	19	18	21	22	28	28	27	28	26	25	25	25	26	26	U1	6	BR	BF	+ 8	3.89%	-0.19%	-2.74%
S&P 500 / Consumer Staples -SEC	SP477	568.86	20	18	20	17	15	15	20	21	22	22	22	20	17	14	14	12	11	13	D3	3	AR	AR	- 13	0.75%	0.36%	-1.59%
S&P 500 / Energy -SEC	SPN01	487.76	20	22	25	25	25	23	24	25	27	26	27	27	26	26	27	27	26	25	D3	6	AR	BF	+ 2	3.46%	6.71%	-0.24%
S&P 500 / Financials -SEC	SP621	411.81	15	18	15	11	11	10	9	15	17	15	12	15	20	17	18	22	19	19	D1	3	AF	AR	- 5	3.32%	1.02%	2.04%
S&P 500 / Health Care -SEC	SP565	955.98	7	6	9	11	11	10	11	11	9	10	9	8	7	11	12	12	13	12	U3	2	AR	AR	+ 2	0.44%	6.14%	6.39%
S&P 500 / Materials -SEC	SPN37	351.43	12	13	12	12	13	14	15	15	15	14	16	17	16	14	14	16	15	16	U3	2	AR	AR	+ 1	2.45%	4.53%	3.59%
S&P 500 / Industrials -SEC	SP125	591.55	15	16	16	15	15	13	14	18	17	14	14	15	15	12	15	14	14	15	D1	5	AR	AR	- 9	2.07%	3.36%	0.37%
S&P 500 / Information Technology -S	SP701	1,014.92	8	8	6	7	6	6	7	9	8	8	13	13	9	10	8	6	5	5	U3	41	AR	AR	- 14	1.40%	3.54%	7.21%
S&P 500 / Utilities -SEC	SP821	277.90	13	10	11	7	7	9	12	17	17	20	21	19	14	9	12	10	10	11	U3	7	AR	AR	+ 5	-0.40%	0.90%	1.07%
RSR Index(AVG)			15	17	17	17	18	18	19	18	18	18	19	18	18	19	19	18	18	17	D1	1	AR	AR	+ 1	2.24%	5.43%	2.52%
RSR Index(CAP)			15	15	14	14	14	13	14	17	17	17	18	17	16	16	16	15	14	14	U3	1	AR	AR		1.63%	3.38%	2.60%
CD	<a href="#">Consumer Disc(AVG)</a>		19	19	20	19	21	19	20	20	21	21	21	17	19	19	19	19	19	19	D3	2	AR	AF	- 11	2.68%	5.41%	0.21%
CD	Consumer Disc(CAP)		15	15	16	15	14	12	12	14	15	16	15	13	13	12	11	10	10	10	D1	5	AR	AR		1.77%	3.57%	1.46%
CO	<a href="#">Communications(AVG)</a>		18	17	14	14	16	14	14	12	15	16	17	15	15	13	14	13	13	14	D1	5	AR	AR	- 7	1.54%	3.22%	-0.08%
CO	Communications(CAP)		18	15	11	10	10	9	10	11	14	16	19	18	15	13	14	11	9	11	U3	8	BR	AR		0.47%	0.36%	1.19%
CS	<a href="#">Consumer Staples(AVG)</a>		23	22	23	23	21	20	23	22	24	24	24	23	21	21	18	17	16	17	D3	7	AR	BF	- 13	2.17%	1.97%	-2.00%
CS	Consumer Staples(CAP)		27	25	22	20	17	18	22	23	23	23	23	22	19	17	15	13	13	13	D3	5	BF	BF		0.83%	-3.37%	-6.32%
EN	<a href="#">Energy(AVG)</a>		24	26	27	28	28	28	28	27	28	28	28	28	29	28	28	28	27	25	D3	22	AR	BF	+ 2	5.12%	8.94%	1.01%
EN	Energy(CAP)		23	23	26	26	26	25	24	25	27	26	27	27	27	26	27	26	25	22	D3	22	AR	BF		3.30%	6.78%	0.63%
FN	<a href="#">Financials(AVG)</a>		18	19	17	14	15	16	15	18	19	18	17	19	19	17	18	21	20	20	D1	1	AF	AR	- 6	2.62%	2.15%	-0.07%
FN	Financials(CAP)		15	18	16	13	14	14	13	17	18	17	15	17	20	18	20	23	21	20	D1	4	AF	AR		2.85%	2.19%	1.68%
HC	<a href="#">Health Care(AVG)</a>		6	6	8	14	16	16	16	12	9	8	7	8	7	17	18	15	15	14	U3	1	AR	AR	+ 2	0.84%	9.71%	9.88%
HC	Health Care(CAP)		7	6	8	11	11	10	12	11	8	10	8	8	7	12	13	12	13	13	U3	2	AR	AR		0.37%	6.31%	6.58%
MA	<a href="#">Materials(AVG)</a>		14	13	14	17	18	19	20	20	20	20	23	22	21	23	22	22	21	19	U3	1	AR	AR	+ 3	1.00%	5.55%	5.19%
MA	Materials(CAP)		5	6	5	14	16	17	19	20	19	18	21	21	19	19	17	18	16	16	U3	3	AR	AR		1.50%	11.35%	10.55%
MF	<a href="#">Manufacturing(AVG)</a>		13	16	17	19	18	17	16	18	18	17	17	18	19	17	16	16	17	17	D1	1	AR	AR	+ 1	3.10%	6.71%	2.87%
MF	Manufacturing(CAP)		14	15	16	15	15	13	14	18	17	15	15	17	16	13	16	15	14	14	U3	1	AR	AR		2.43%	4.51%	1.80%
SV	<a href="#">Services(AVG)</a>		19	18	19	21	21	22	20	18	17	17	18	18	19	20	20	18	19	18	D2	5	AF	AR	- 7	1.61%	5.45%	0.51%
SV	Services(CAP)		9	9	9	8	8	9	8	10	10	11	12	12	12	11	11	10	10	11	U3	41	AR	AR		0.67%	3.28%	4.95%
TE	<a href="#">Technology(AVG)</a>		13	15	13	14	15	15	14	10	8	9	10	10	7	10	8	7	7	8	D1	6	AR	AR	- 12	2.66%	5.28%	2.76%
TE	Technology(CAP)		9	10	8	9	9	9	11	12	10	10	15	15	10	13	10	7	7	7	U3	41	AR	AR		1.85%	3.97%	6.49%
TR	<a href="#">Transportation(AVG)</a>		13	12	12	15	17	17	20	22	22	17	22	22	23	24	24	25	25	25	U3	2	AR	AR	+ 4	0.63%	5.67%	7.11%
TR	Transportation(CAP)		14	16	18	17	17	17	20	22	18	11	10	12	15	14	16	15	14	17	D1	1	AF	AR		2.70%	5.31%	1.06%
UT	<a href="#">Utilities(AVG)</a>		12	9	11	7	7	8	10	12	12	17	16	14	12	8	9	10	10	11	U3	37	AR	AR	- 12	-0.19%	1.50%	1.36%
UT	Utilities(CAP)		10	7	9	6	6	7	10	14	14	18	18	19	15	10	13	11	11	12	U3	8	AR	AR		-0.24%	1.32%	2.94%

# Why is Relative Strength Important?

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# The Basics behind a Relative Strength Strategy

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Here is an example of how you might use RS in your security selection process:

- Suppose you want to put capital to work. Wait for a pullback in the broad market. There is no concrete definition of what that means quantitatively, but a sell-off of more than 2% and less than 10% is generally a good range for the S&P 500.
- During the pullback observe which securities are not falling as much as the major average, or better yet are rising. These securities – the ones with high RS – are likely to outperform once the averages settle down and bullish momentum returns to the broad market.
- This list of securities can be used in many ways. For example, if you notice a lot of biotech stocks rallying in the face of a sell-off, you could play the expected continuation of this trend with individual stocks or an industry ETF to capture the performance of a basket of biotech stocks.

# Relative Strength Strategy: Example – Equity Sector

Relative Strength Ranking: Sector Summary

Index or Sector	03/03	02/24	02/17	02/10	02/03	01/27	01/20	01/13	01/06	12/30	12/23	12/16	12/09	12/02	11/25	11/18	11/11	11/04	TRIPLE CYCLE	50 DAY	200 DAY	
TR Transportation(AVG)	8	10	8	11	11	10	10	11	11	10	9	10	9	8	8	10	10	21	U3	16	AR	AR
FN Financials(AVG)	11	10	10	11	11	10	10	11	11	10	9	10	9	8	8	10	11	12	U3	16	AR	AR
MF Manufacturing(AVG)	12	13	12	11	11	10	10	11	11	10	9	10	9	8	8	10	10	16	U3	16	AR	AR
TE Technology(AVG)	14	12	11	12	13	15	14	13	16	16	16	16	17	18	13	12	12	10	U3	15	AR	AR
MA Materials(AVG)	15	14	10	9	10	10	10	11	13	15	16	16	14	13	15	16	18	13	U3	15	BR	AR
SV Services(AVG)	15	15	15	14	15	15	14	13	13	13	13	13	14	15	14	15	17	20	U3	15	AR	AR
UT Utilities(AVG)	15	16	20	19	18	20	19	21	20	19	20	21	22	22	23	24	25	19	U3	9	AR	AR
HC Health Care(AVG)	16	22	20	24	25	26	26	26	26	26	26	26	26	26	26	26	26	26	U2	3	AR	AR
CO Communications(AVG)	20	17	18	19	17	16	17	17	17	19	19	20	20	20	20	20	20	20	U3	14	BR	AR
EN Energy(AVG)	20	20	14	10	8	8	6	7	5	7	7	8	8	7	14	14	18	16	D1	2	BF	AR
CS Consumer Staples(AVG)	23	24	25	24	24	24	24	24	24	24	24	24	24	24	24	24	24	21	U3	5	BF	AR
CD Consumer Disc(AVG)	24	24	24	23	23	23	23	23	23	23	23	23	23	23	23	23	23	20	D1	6	BF	AR

Transports tops our rankings.

Health care is improving.

Energy's recent RSR retracement marks a pullback to support.



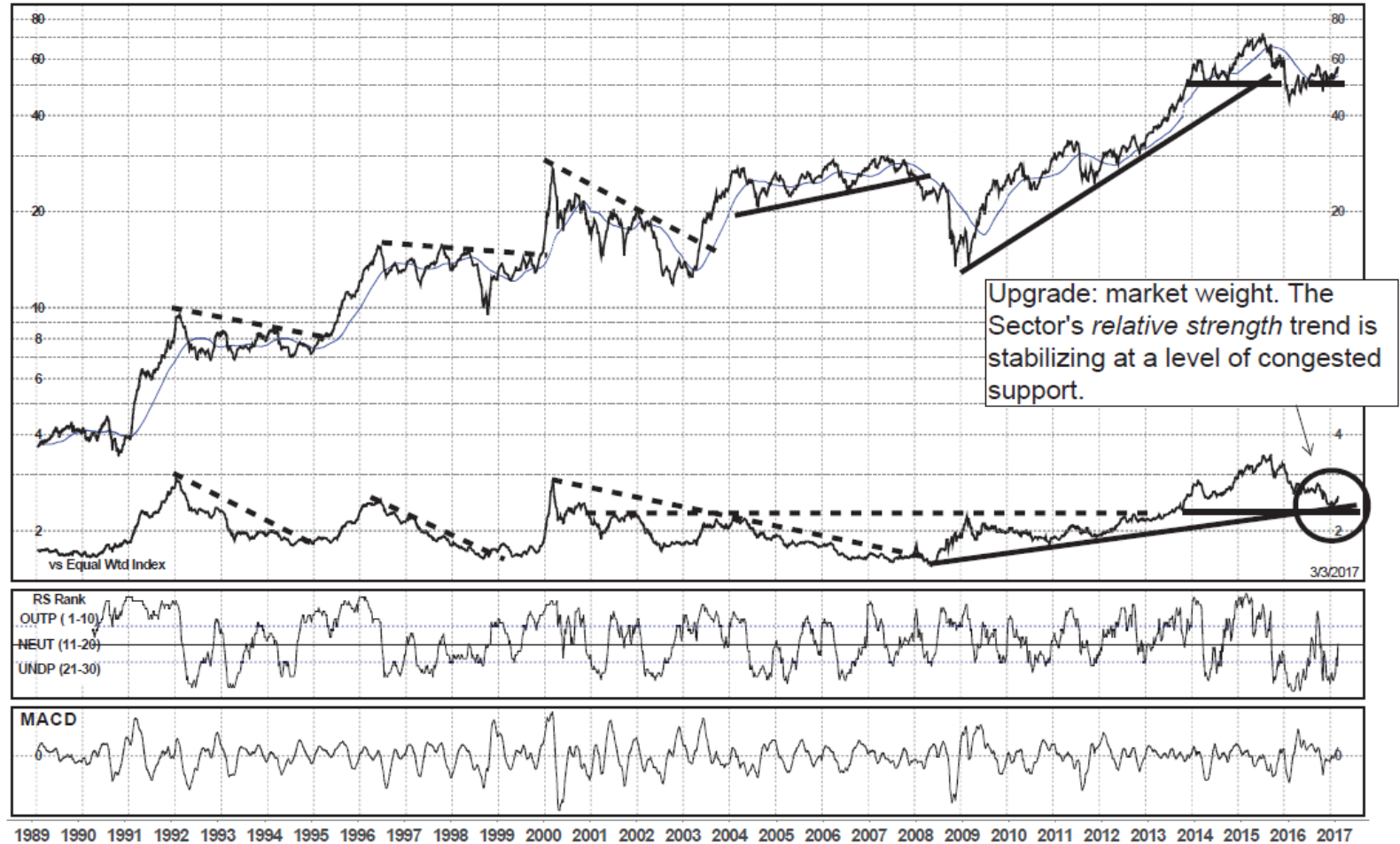
# Relative Strength Strategy: Example – Equity Sector

Relative Strength Rankings: Health Care Groups

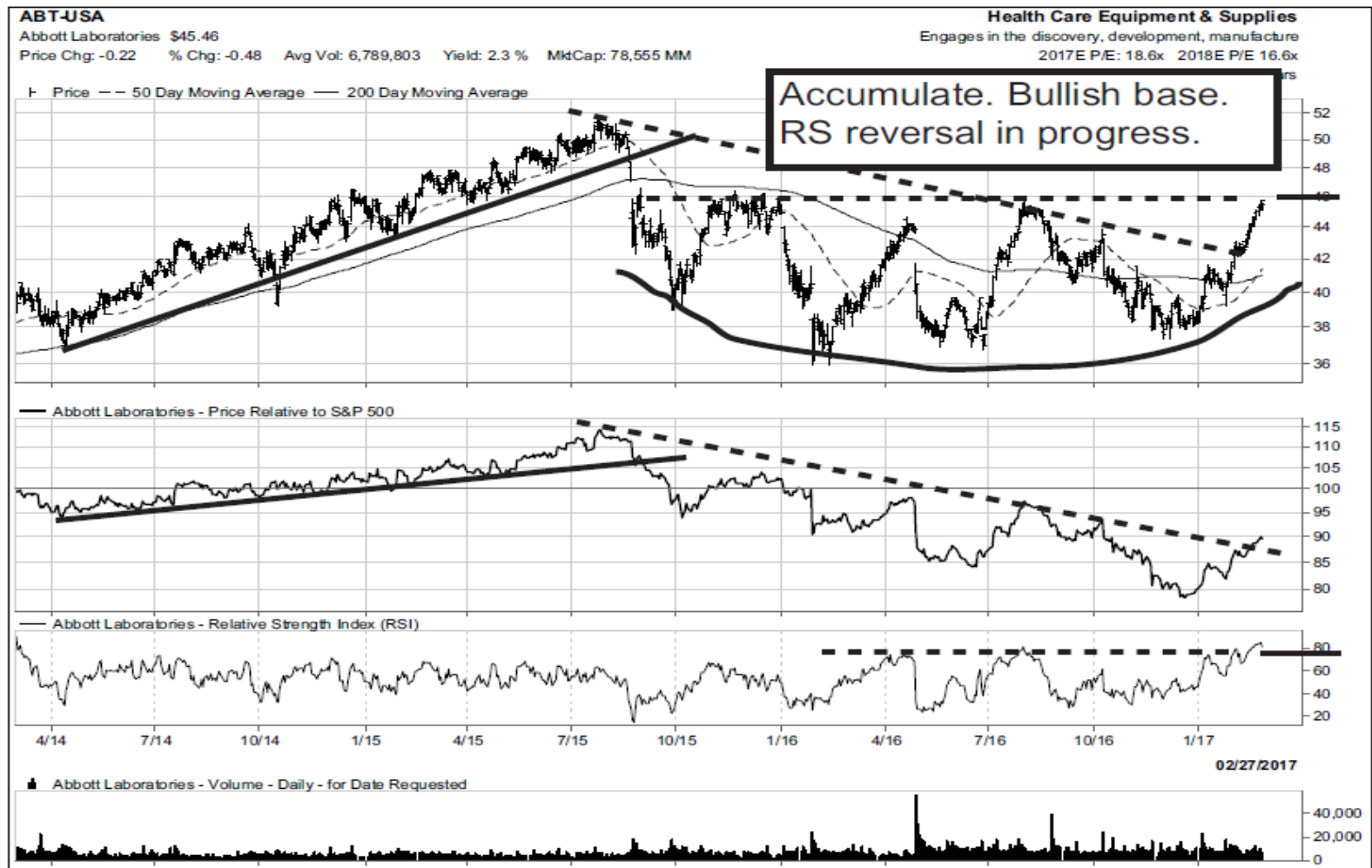
Group or Corp	03/03	02/24	02/17	02/10	02/03	01/27	01/20	01/13	01/06	12/30	12/23	12/16	12/09	12/02	11/25	11/18	11/11	11/04	TRIPLE CYCLE	50 DAY	200 DAY																																				
	HC Health Care	16	22	20	24	25	26	26	24	25	27	25	26	26	25	21	19	18	26	U2	3	AR	AR																																		
HC Health Care(CAP)	15	19	21	23	23	25	26	26	26	27	27	27	28	27	27	26	25	26	U3	2	AR	AR																																			
HC-40 Medical Lasers	1	1	1	5	5	10	13	11	13	12	14	15	16	13	15	13	14	18	U3	15	AR	AR																																			
HC-24 Health Care Services, Other	1	1	2	1	2	6	11	10	14	16	13	19	19	11	7	7	2	2	U3	6	AR	AR																																			
HC-15 Diagnostic & Test Services	2	4	6	<div> <p>Many Diversified Equipment stocks like JNJ, ABT, and BAX are breaking out.</p> </div>															25	24	24	21	22	25	28	U3	7	AR	AR																												
HC-25 Health Care Staffing	5	4	6																13	14	18	19	18	25	21	U3	3	AR	AR																												
HC-28 Home Health Care Services	5	6	8																15	22	20	21	19	20	21	U3	12	AR	AR																												
HC-37 Wound Care	5	8	9																10	12	17	18	23	18	29	U3	11	AR	AR																												
HC-42 Pet Health	8	8	9																11	20	17	17	18	14	7	U3	17	BR	AR																												
HC-34 Patient Monitoring	10	9	14																28	29	28	24	27	24	27	U3	2	AR	AR																												
HC-10 Health Care Equipment & Supplies, Diver	10	11	14																18	18	21	22	22	24	25	25	26	24	25	23	23	22	U3	5	AR	AR																					
HC-06 Biotech, Large-Cap	10	19	19																23	22	24	25	24	24	27	26	26	28	25	23	22	18	25	U3	3	AR	AR																				
HC-09 Biotech, Micro-Cap	11	20	15																20	22	25	24	23	25	29	28	29	29	28	25	20	23	28	U2	5	AR	AR																				
HC-26 HMOs	12	14	20																<div> <p>Biotechs are strengthening. Names like CELG are breaking out.</p> </div>															16	15	17	16	14	16	16	13	13	17	10	14	15	17	25	U3	2	AR	AR					
HC-41 Optical	13	9	11	24	25	26	27	24	22	27	U3	3	AR	AR																																											
HC-27 Managed Care Services	13	12	14	24	24	22	24	24	27	26	U3	8	AR	AR																																											
HC-19 Dental	13	13	17	26	28	28	28	23	22	17	U3	2	AR	AR																																											
HC-23 Health Care Distributors	13	14	19	28	29	29	29	28	27	28	U3	2	AR	AR																																											
HC-13 Surgical Devices & Equipment	13	17	16	<div> <p>Surgical devices, led by SYK and ISRG, are strengthening.</p> </div>																														17	14	20	21	16	20	22	21	18	15	11	8	7	7	3	U3	6	AR	AR					
HC-32 Rehab Services	13	19	21																															28	29	27	29	29	U3	5	AR	AR															
HC-01 Pharmaceuticals, Mega-Cap	14	17	22																															<div> <p>Mega-cap pharma stocks are bottoming.</p> </div>															23	24	22	17	20	U3	2	AR	AR
HC-39 Robotics	15	17	16																																														28	27	26	26	24	U2	5	AR	AR
HC-14 Diagnostic & Test Products	16	23	26																																														26	26	27	25	21	23	19	17	20
HC-08 Biotech, Small-Cap	16	26	27																26	25	24	17	15	10	28	U2	1	AR	AR																												
HC-20 Disposable Devices & Products	17	17	16																17	21	19	18	20	19	14	U3	2	AR	AR																												
HC-31 Medical Transportation	18	21	20																27	28	28	29	29	29	29	U3	5	AR	AF																												
HC-12 Medical Equipment, Specialty	19	21	17																24	24	25	25	24	26	25	26	27	26	26	27	26	28	28																U3	2	AR	AR					
HC-36 Reconstructive	20	9	18																18	17	19	20	16	17	17	17	15	21	21	22	18	23	25																U3	7	BR	AR					
HC-16 Diagnostic Imaging	20	23	28	27	28	27	28	27	26	26	25	26	26	24	23	21	15	11	U2	1	AR	AR																																			
HC-30 Health Care Business Services	21	21	22	23	26	25	26	25	27	26	26	27	25	25	21	22	22	16	U2	3	AR	AR																																			
HC-22 Life Science Instruments	22	24	26	27	26	26	27	25	25	27	26	26	25	23	22	20	17	19	U2	1	AR	AR																																			
HC-17 Drug Delivery	22	25	25	30	29	30	30	30	30	30	30	30	30	30	29	28	29	30	U1	3	AR	BF																																			
HC-07 Biotech, Mid-Cap	22	26	25	28	27	29	29	29	28	29	28	28	25	19	13	11	8	27	U2	1	AR	AR																																			
HC-04 Pharmaceuticals, Small-Cap	23	27	27	29	29	29	29	28	25	23	18	16	15	14	10	6	6	17	U1	1	AF	AR																																			
HC-11 Cardiovascular Products	23	27	28	28	28	28	29	28	29	28	27	28	28	28	27	25	24	24	U1	3	AR	AR																																			
HC-29 Hospitals	24	18	27	29	29	28	29	29	30	30	30	30	30	30	30	30	30	30	U2	1	AR	BF																																			
HC-18 Bioscience Research & Development	24	19	13	15	17	17	18	15	14	14	19	20	21	23	19	18	19	15	U3	13	BR	AR																																			
HC-35 PBMs	24	25	28	29	29	29	25	26	27	27	28	27	26	18	18	17	18	23	U1	1	AR	BF																																			
HC-21 Orthopedic Implant Devices	26	27	28	25	24	24	23	21	27	25	25	27	26	26	27	27	25	21	D3	2	BF	BR																																			
HC-03 Pharmaceuticals, Mid-Cap	26	27	28	29	30	30	30	30	30	30	30	30	30	30	30	30	29	30	U1	3	AR	BF																																			
HC-33 Nursing Homes & Assisted Living	27	26	23	19	11	10	7	7	12	9	7	8	10	17	15	14	14	18	D2	1	BF	BR																																			
HC-05 Pharmaceuticals, Generic	29	24	26	29	29	30	30	30	30	30	30	30	30	30	30	30	30	30	U1	3	BF	BF																																			
HC-02 Pharmaceuticals, Large-Cap	29	24	27	29	29	30	30	30	30	30	30	30	30	30	30	29	29	29	U1	3	BR	BF																																			
HC-38 Urological Products	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	U3	88	BF	BF																																			

# Relative Strength Strategy: Example – Equity Sector

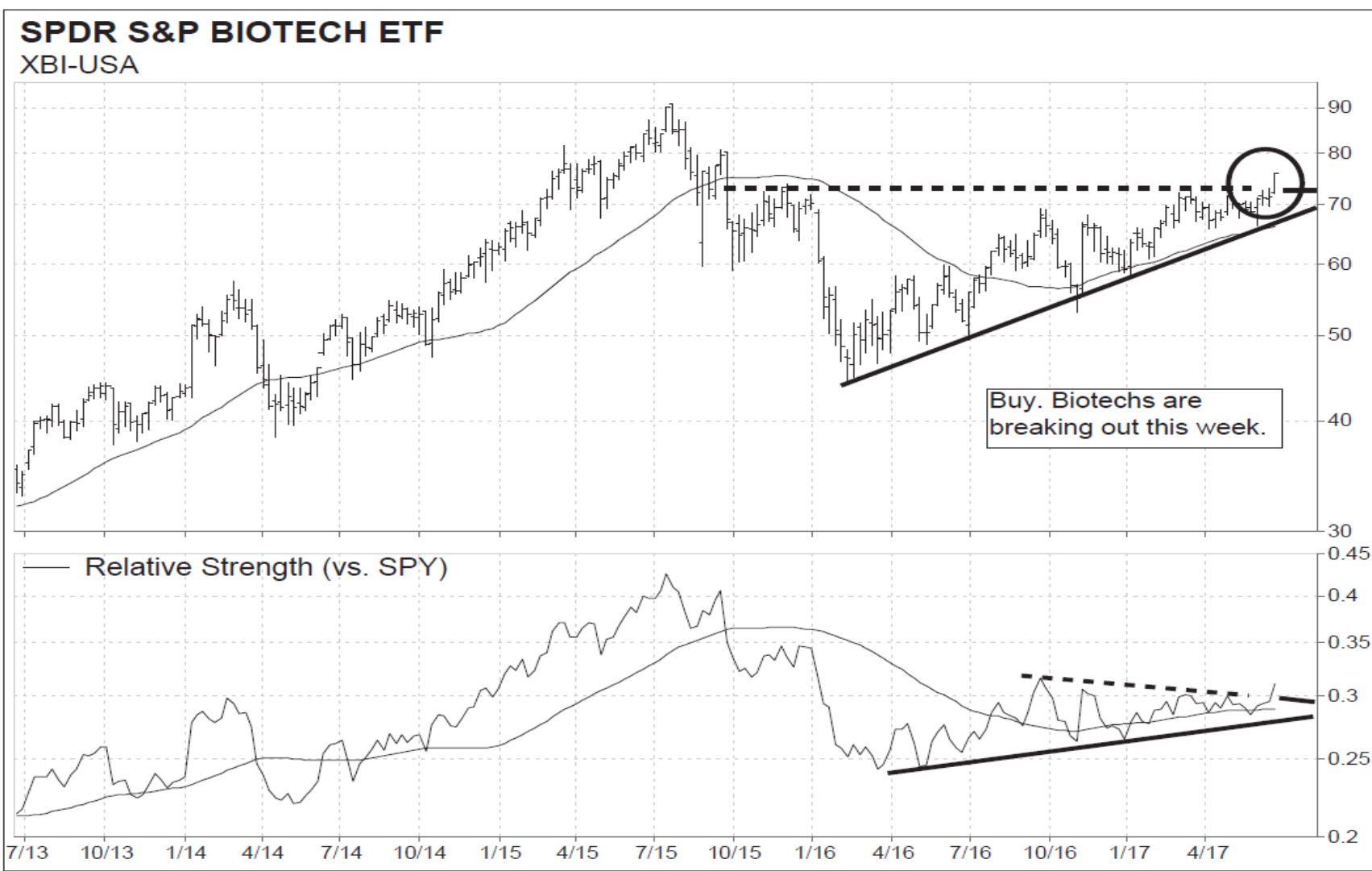
HC-Health Care



# Relative Strength Strategy: Example – Equity Sector



# Relative Strength Strategy: Example - ETFs



# Risks to Relative Strength

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## **No trend lasts forever**

- Perhaps the biggest risk to relying on RS measures is the outright risk of an unexpected trend reversal. There is always the potential for an exogenous factor or surprise event of some sort to completely change the direction of price trends already in place.

## **RS can be Misleading**

- If a “regular” market pullback turns into a full-blown correction, or even a bear market, then even those securities with the highest RS measures are vulnerable to swift profit-taking pressures. Just like a rising tide is said to lift all boats, a bear market can (and will sooner or later) bring down even “best of breed” names.

# The Bottom Line

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Relative Strength can be a very insightful metric when it comes to security selection, and especially so after a market-wide pullbacks. As with any investment strategy however, it is important for investors to understand how and when it works to determine if it is right for you.

# Firm Overview

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- Vermilion Research is a global independent research company
- Founded in 2005
- Our U.S. research covers 5,000+ actively-traded stocks, and over 1,300 ETFs
- Our International research covers 6,000+ actively-traded, local-currency stocks across 43 exchanges
- Team has received numerous All-America Research Team citations and other industry distinctions

# Q & A

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