

TPA-RRG Report

- **What is hot and what is not.**

TPA-RRG captures the inevitable movement of stocks into and out of favor.

- **Scores and ranking**

Clients can quickly see which stocks are showing the best and worst relative strength characteristics. TPA found that using RRG's was very beneficial, but took some time to parse through, so we simplified the process by creating a score for each stock and sector.



- **The best of both worlds – RRG & TPA**

Now, clients can use TPA-RRG scores and rankings to identify stocks that are not only moving into favor, but are also technically positive.



- **TPA-RRG analyzes every stock in the Russell 1000 and 25 major sector & subsector ETFs**

Find more in-depth explanations and links to instructional videos below.

THE REPORT

TPA-RRG Weekly Commentary

Top 20-Bottom 20

The charts below show the technical difference between the TOP 20 and the Bottom 20 in the TPA-RRG report. ZBRA is the top stock in the Russell 1000 and NOC is the 3rd worst stock in the Russell 1000. ZBRA has broken out to the upside after a long decline and recent stabilization and NOC has broken down after a long rally. These chart patterns are prevalent in the TOP 20 and the Bottom 20.





Sectors

The sector rankings in the TPA-RRG are heavily skewed to TECH stocks. The top sectors are Cloud, Software, Internet, TECH, and Communications. This has been developing throughout 2023.

TPA-RRG U.S. SECTOR & SUBSECTOR ETFs		2/17/23					TPA-RRG SCORE
Code	Name	Last	RRG Ratio	RRG Momentum	Quadrant		
CLOU	Cloud Computing	18.04	100.66	102.76	Leading	4.55	
IGV	Software	284.75	98.64	102.06	Improving	3.52	
FDN	Internet	141.75	98.76	102.52	Improving	3.52	
XLK	TECH	139.82	98.97	100.84	Improving	3.43	
XLC	Communications	55.35	99.68	103.87	Improving	3.41	
XLY	Consumer Discretionary	150.57	94.44	100.73	Improving	3.23	
HACK	Cyber Security	47.14	97.50	100.35	Improving	3.18	

Market

The market once again rewarded risk last week; with Small Cap (Russell 2000) and TECH-heavy Nasdaq outperforming the S&P500.

Relative performance S&P500, NASDAQ, IWM (Russell 2000/Small-cap)



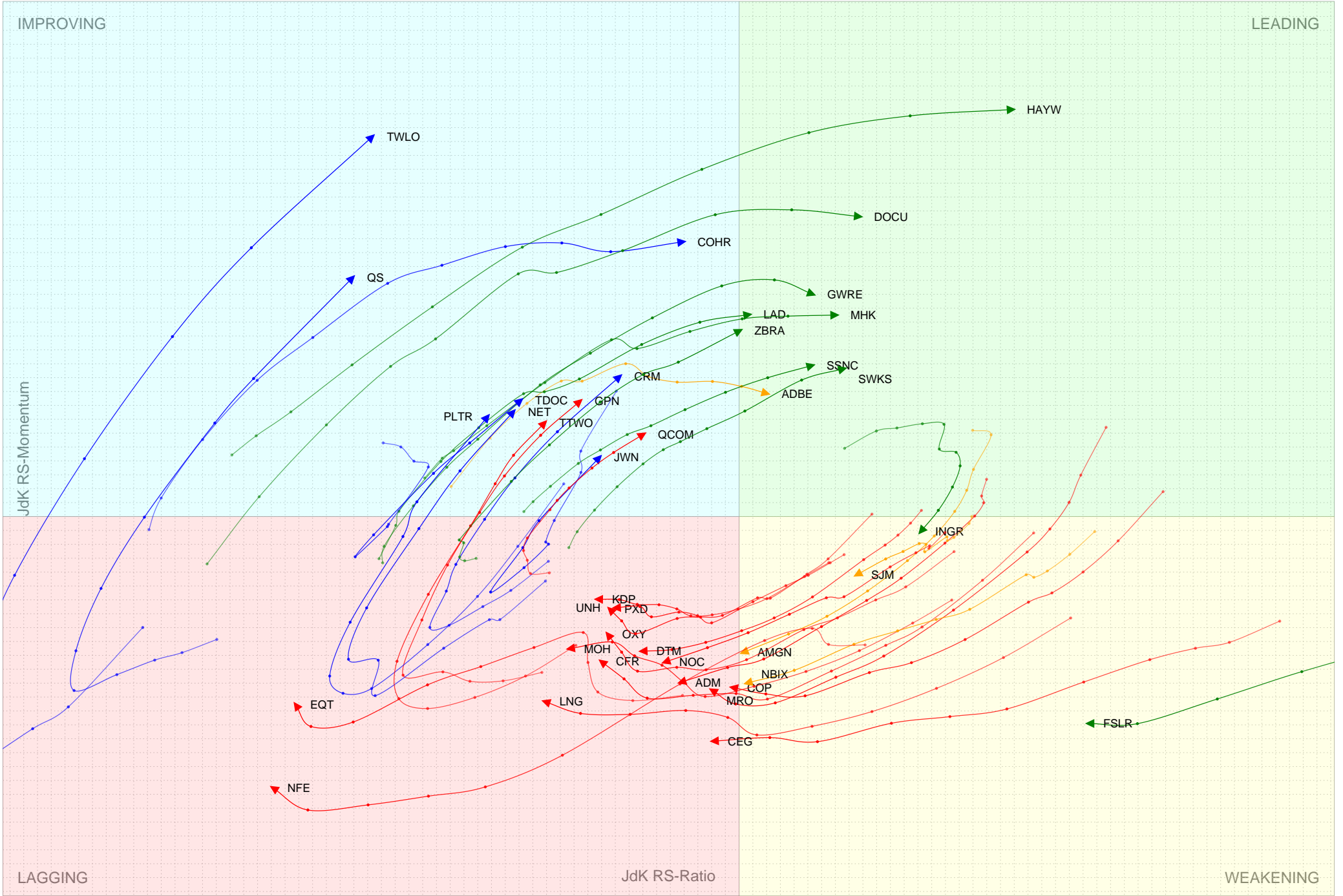
TPA-RRG TOP 20 & BOTTOM 20 (table below)

Buy	Prices as of 2/17/23		TOP 20					STOCK	SECTOR	TOTAL
Sell								TPA-RRG	TPA-RRG	TPA-RRG
Code	Name	Last	RRG Ratio	RRG Momentum	Quadrant	Mkt Cap (\$MIL)	TPA Sector	SCORE	SCORE	SCORE
ZBRA	Zebra Technologies Corp.	322.58	100.03	106.69	Leading	\$16,655	Technology	4.88	1.72	6.59
SSNC	SS&C Technologies Holdings Inc	61.74	102.65	105.44	Leading	\$15,553	Tech-Software	4.57	1.76	6.33
MHK	Mohawk Industries Inc.	113.93	103.52	107.25	Leading	\$7,238	Consumer Discretionary	4.48	1.62	6.10
HAYW	Hayward Holdings Inc	13.11	109.93	114.65	Leading	\$2,770	Consumer Discretionary	4.43	1.62	6.05
LAD	Lithia Motors Inc.	269.62	100.36	107.27	Leading	\$7,371	Retail	4.57	1.42	5.99
SWKS	Skyworks Solutions Inc.	115.84	103.80	105.32	Leading	\$18,415	Semiconductor	4.43	1.06	5.49
CRM	Salesforce Inc	165.17	95.66	105.04	Improving	\$165,170	Technology	3.73	1.72	5.45
PLTR	Palantir Technologies Inc - Ordinary	9.20	90.86	103.60	Improving	\$19,137	Tech-Software	3.57	1.76	5.33
TWLO	Twilio Inc - Ordinary Shares Class A	70.67	86.67	113.68	Improving	\$13,027	Technology	3.51	1.72	5.23
COHR	Coherent Corp	44.99	97.96	109.89	Improving	\$6,252	Technology	3.43	1.72	5.15
TDOC	Teladoc Health Inc	30.07	92.06	104.18	Improving	\$4,869	Internet	3.38	1.76	5.14
JWN	Nordstrom Inc.	21.79	94.93	102.13	Improving	\$3,488	Retail	3.72	1.42	5.13
DOCU	DocuSign Inc	64.47	104.38	110.80	Leading	\$12,963	Tech-Software	3.37	1.76	5.13
QCOM	Qualcomm Inc.	127.72	96.52	102.96	Improving	\$142,408	Technology	3.41	1.72	5.12
GPN	Global Payments Inc.	116.31	94.22	104.15	Improving	\$31,450	Technology	3.41	1.72	5.12
QS	QuantumScape Corp - Ordinary Sha	10.31	85.95	108.60	Improving	\$4,495	Consumer Discretionary	3.47	1.62	5.09
TTWO	Take-Two Interactive Software Inc.	112.51	92.94	103.38	Improving	\$18,978	Tech-Software	3.32	1.76	5.08
ADBE	Adobe Inc	356.85	101.01	104.43	Leading	\$163,366	Technology	3.35	1.72	5.07
GWRE	Guidewire Software Inc	72.94	102.67	108.00	Leading	\$5,972	Tech-Software	3.30	1.76	5.06
NET	CloudFlare Inc	64.45	91.80	103.77	Improving	\$21,153	Cyber Security	3.47	1.59	5.05

Buy	Prices as of	2/17/23						STOCK	SECTOR	TOTAL	
Sell			BOTTOM 20						TPA-RRG	TPA-RRG	TPA-RRG
KDP	Keurig Dr Pepper Inc	35.67	94.85	97.02	Lagging	\$50,518	Consumer Staples	-2.09	-1.33	-3.42	
CEG	Constellation Energy Corporation	84.55	99.06	91.91	Lagging	\$27,659		-3.44	---	-3.44	
INGR	Ingredion Inc	99.07	106.60	99.46	Weakening	\$6,495	Consumer Staples	-2.13	-1.33	-3.46	
SJM	J.M. Smucker Co.	149.94	104.27	97.90	Weakening	\$15,990	Consumer Staples	-2.20	-1.33	-3.53	
FSLR	First Solar Inc	164.28	112.71	92.55	Weakening	\$17,513	Solar & Environ	-2.06	-1.51	-3.58	
NBIX	Neurocrine Biosciences Inc.	103.54	100.28	94.00	Weakening	\$10,001	Health Care	-2.34	-1.24	-3.58	
EQT	EQT Corp	31.25	83.88	93.22	Lagging	\$11,470	Oil & Gas E&P	-2.06	-1.60	-3.66	
AMGN	AMGEN Inc.	240.53	100.14	95.10	Weakening	\$128,437	Health Care	-2.43	-1.24	-3.67	
NFE	New Fortress Energy LLC	37.57	83.05	90.23	Lagging	\$7,844	Oil & Gas E&P	-2.08	-1.60	-3.68	
PXD	Pioneer Natural Resources Co.	208.96	95.30	96.66	Lagging	\$49,649	Energy	-3.18	-1.04	-4.22	
CFR	Cullen Frost Bankers Inc.	131.30	94.99	94.78	Lagging	\$8,451	Financial	-3.25	-1.00	-4.25	
OXY	Occidental Petroleum Corp.	60.73	95.22	95.76	Lagging	\$55,198	Energy	-3.22	-1.04	-4.26	
LNG	Cheniere Energy Inc.	144.87	92.94	93.34	Lagging	\$36,023	Energy	-3.23	-1.04	-4.27	
MRO	Marathon Oil Corporation	25.86	99.01	93.75	Lagging	\$16,423	Energy	-3.24	-1.04	-4.28	
DTM	DT Midstream Inc	51.78	96.47	95.15	Lagging	\$5,010	Energy	-3.27	-1.04	-4.32	
COP	Conoco Phillips	104.12	99.76	93.84	Lagging	\$126,899	Energy	-3.33	-1.04	-4.37	
UNH	UnitedHealth Group Inc	499.08	95.50	96.71	Lagging	\$466,315	Health Care	-3.17	-1.24	-4.41	
NOC	Northrop Grumman Corp.	470.63	97.30	94.76	Lagging	\$72,031	Aerospace & Defense	-3.41	-1.02	-4.42	
MOH	Molina Healthcare Inc	296.07	93.83	95.24	Lagging	\$17,291	Health Care	-3.20	-1.24	-4.44	
ADM	Archer Daniels Midland Co.	81.59	97.88	94.03	Lagging	\$44,712	Consumer Staples	-3.45	-1.33	-4.78	

Relative Rotation Graph for Top 20 and Bottom 20 is provided below.

Also, use the following link that shows RRG over time - how stocks move in and out of favor over time:
<https://vimeo.com/manage/videos/800287957/privacy>



JdK RS-Momentum (Vertical Axis): 73.5, 74.0, 74.5, 75.0, 75.5, 76.0, 76.5, 77.0, 77.5, 78.0, 78.5, 79.0, 79.5, 80.0, 80.5, 81.0, 81.5, 82.0, 82.5, 83.0, 83.5, 84.0, 84.5, 85.0, 85.5, 86.0, 86.5, 87.0, 87.5, 88.0, 88.5, 89.0, 89.5, 90.0, 90.5, 91.0, 91.5, 92.0, 92.5, 93.0, 93.5, 94.0, 94.5, 95.0, 95.5, 96.0, 96.5, 97.0, 97.5, 98.0, 98.5, 99.0, 99.5, 100.0, 100.5, 101.0, 101.5, 102.0, 102.5, 103.0, 103.5, 104.0, 104.5, 105.0, 105.5, 106.0, 106.5, 107.0, 107.5, 108.0, 108.5, 109.0, 109.5, 110.0, 110.5, 111.0, 111.5, 112.0, 112.5, 113.0, 113.5, 114.0, 114.5, 115.0, 115.5, 116.0, 116.5, 117.0, 117.5, 118.0, 118.5, 119.0, 119.5, 120.0, 120.5, 121.0, 121.5

JdK RS-Ratio (Horizontal Axis): 86.5, 87.0, 87.5, 88.0, 88.5, 89.0, 89.5, 90.0, 90.5, 91.0, 91.5, 92.0, 92.5, 93.0, 93.5, 94.0, 94.5, 95.0, 95.5, 96.0, 96.5, 97.0, 97.5, 98.0, 98.5, 99.0, 99.5, 100.0, 100.5, 101.0, 101.5, 102.0, 102.5, 103.0, 103.5, 104.0, 104.5, 105.0, 105.5, 106.0, 106.5, 107.0, 107.5, 108.0, 108.5, 109.0, 109.5, 110.0, 110.5, 111.0, 111.5, 112.0, 112.5, 113.0, 113.5, 114.0, 114.5, 115.0, 115.5, 116.0, 116.5, 117.0, 117.5, 118.0, 118.5, 119.0, 119.5, 120.0, 120.5, 121.0, 121.5

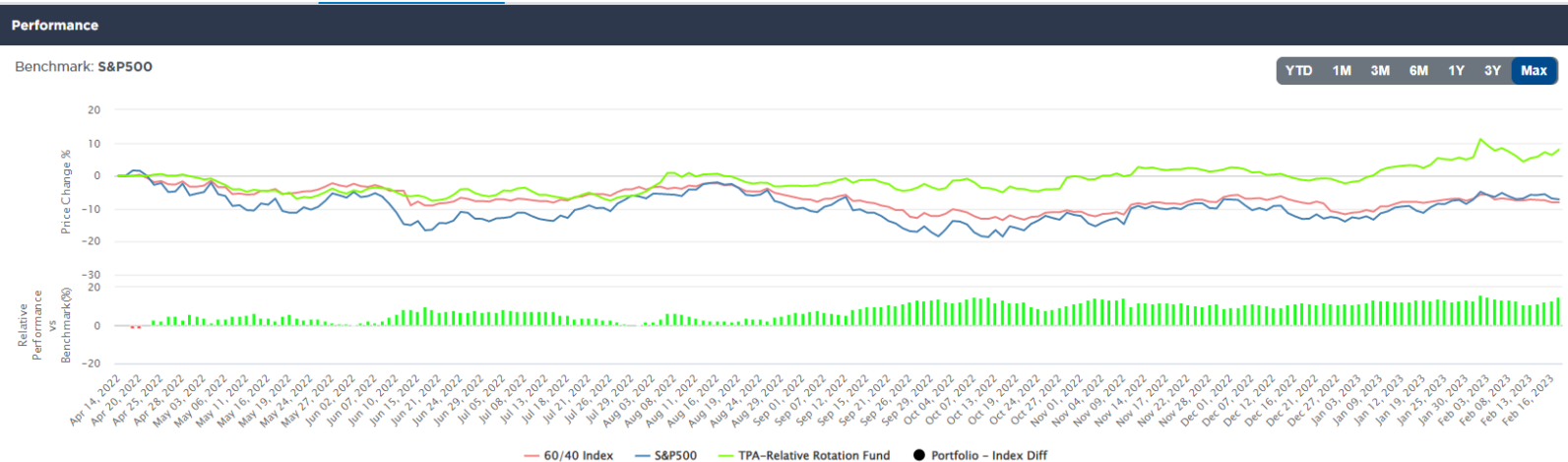
TPA Relative Rotation Fund

<https://realinvestmentadvice.com/tpa-rrg-report-relative-rotation-graphs-scores-rankings/>

(See the explanation and performance comparisons to the S&P500 and a 60/40 Index below.)

Most recent performance:

Since inception



TPA Relative Rotation Fund explanation:

The Relative Rotation Fund is created using the weekly Top and Bottom ranked stocks in the TPA-RRG report. The fund holds 60 stocks; 30 long and 30 short. The portfolio is created by buying the Top 10 and selling short the Bottom 10 ranked stocks each week. Screens are used to ensure that overbought and oversold stocks are not included. Long positions have twice the weight of short positions. This is a nod to history, which has shown that stocks approximately go up twice as much as down on a daily basis. Since new stocks are added each week, each position is held for 3 weeks. Rebalancing occurs as close as possible to Friday's closing prices. Trades and returns are hypothetical.

TPA-RRG 27 SECTOR ETFS

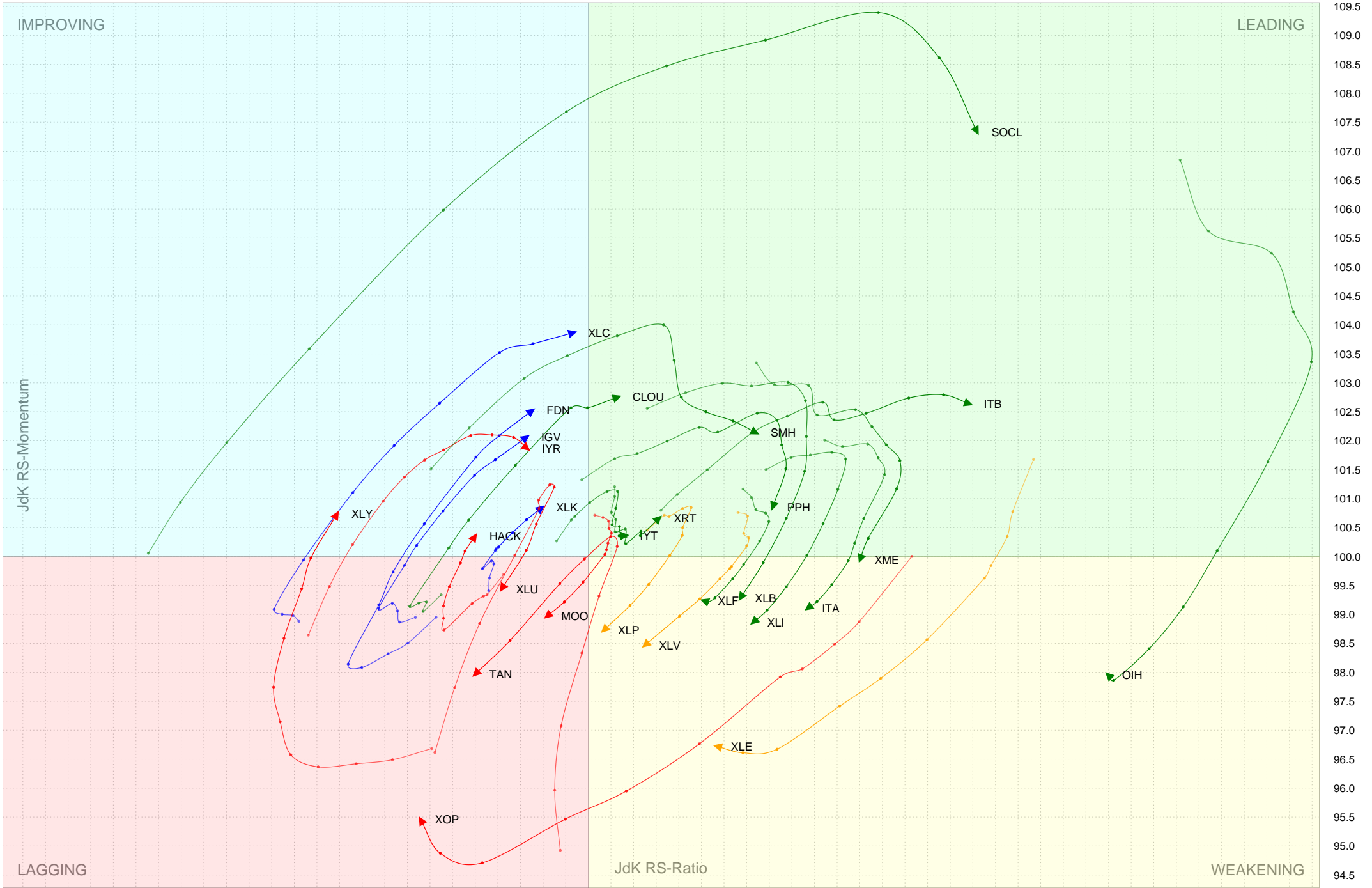
TPA-RRG U.S. SECTOR & SUBSECTOR ETFS						2/17/23	
<u>Code</u>	<u>Name</u>	<u>Last</u>	<u>RRG Ratio</u>	<u>RRG Momentum</u>	<u>Quadrant</u>	<u>TPA-RRG SCORE</u>	
CLOU	Cloud Computing	18.04	100.66	102.76	Leading	4.55	
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XLY	Consumer Discretionary	150.57	94.44	100.73	Improving	3.23	
HACK	Cyber Security	47.14	97.50	100.35	Improving	3.18	
IYT	Transportation	234.86	100.82	100.36	Leading	3.11	
XRT	Retail	71.23	101.57	100.67	Leading	2.83	
SOCL	Social Media	35.51	108.59	107.33	Leading	2.15	
PPH	Pharma	78.17	104.07	100.85	Leading	2.15	
SMH	SEMI	242.77	103.71	102.14	Leading	2.13	
IYR	Real Estate	90.66	98.65	101.86	Improving	2.06	
ITB	Home Construction	68.65	108.43	102.64	Leading	2.04	
XLU	Utilities	68.48	98.09	99.44	Lagging	-1.58	
OIH	Oil Services	312.48	111.48	97.96	Weakening	-1.99	
XLF	Financials	36.39	102.55	99.24	Weakening	-2.00	
ITA	Aerospace & Defense	116.82	104.85	99.10	Weakening	-2.03	
XME	Metals & Mining	56.18	106.01	99.95	Weakening	-2.07	
XLI	Industrial	103.03	103.64	98.86	Weakening	-2.08	
XLE	Energy	84.49	102.83	96.72	Weakening	-2.09	
XLB	Materials	81.30	103.36	99.28	Weakening	-2.21	
XLV	Health Care	131.99	101.25	98.47	Weakening	-2.48	
XLP	Staples	73.68	100.34	98.72	Weakening	-2.65	
TAN	Solar	75.70	97.49	97.97	Lagging	-3.03	
XOP	Oil&Gas E&P	130.62	96.29	95.46	Lagging	-3.20	
MOO	Agribusiness	89.85	99.08	98.97	Lagging	-3.23	

TPA-RRG U.S. SECTOR & SUBSECTOR ETFs - HISTORY																					
Rank	7/25/22	7/31/22	8/8/22	8/15/22	8/22/22	8/29/22	9/5/22	9/12/22	9/19/22	9/26/22	10/3/22	10/10/22	10/17/22	10/24/22	10/28/22	11/4/22	11/11/22	11/18/22	11/25/22	12/2/22	
Code	Code	Code	Code	Code	Code	Code	Code	Code	Code	Code	Code	Code	Code	Code	Code	Code	Code	Code	Code	Code	
1	HACK	XLK	XLY	XLY	XLK	ITB	IYT	XLY	XLY	XLF	XME	OIH	XLF	OIH	OIH	OIH	XME	PPH	XME	XRT	
2	XLK	XLY	XLK	XLK	IYT	XLY	ITB	SMH	XLF	IYT	OIH	XME	OIH	MOO	HACK	PPH	OIH	XLB	XLB	XLB	
3	IGV	IGV	HACK	XRT	XLY	XLK	XLF	IYT	IYT	XLY	MOO	XLF	MOO	XME	MOO	XLF	XRT	XRT	MOO	XME	
4	XLY	HACK	FDN	FDN	FDN	IYT	XLK	XRT	XRT	XLF	HACK	XME	XLF	XME	XLB	XLB	XME	XRT	XRT	SMH	
5	CLOU	FDN	CLOU	CLOU	XRT	FDN	XLY	XLF	XLK	CLOU	XLY	XRT	XLB	HACK	XLI	PPH	OIH	PPH	ITA	ITA	
6	FDN	XRT	XRT	HACK	TAN	TAN	TAN	XLK	SMH	XLI	CLOU	MOO	XLC	XLB	CLOU	ITA	HACK	XLV	ITA	XLI	
7	SMH	ITB	IGV	ITB	IGV	IGV	FDN	ITB	XLI	ITB	XLI	CLOU	XOP	XLC	XLB	XLV	CLOU	ITA	XLI	ITB	
8	ITB	TAN	TAN	TAN	ITB	XRT	SMH	FDN	ITB	XLK	TAN	XLB	XLE	XLE	XME	ITA	XLI	XLP	PPH	PPH	
9	TAN	CLOU	ITB	IGV	CLOU	CLOU	XRT	XLI	FDN	FDN	ITB	ITB	ITA	XOP	ITA	XOP	XLV	XLP	OIH	XLP	
10	XLV	SMH	SMH	XLC	HACK	SMH	CLOU	IGV	CLOU	SMH	XLK	XOP	XLY	ITA	XLV	XLE	XLI	MOO	XOP	OIH	
11	XLC	XLC	SOCL	SMH	XLC	XLC	IGV	CLOU	IGV	IGV	XOP	XLE	XRT	XLY	XOP	MOO	XLI	XLF	XLF	XLV	
12	XRT	SOCL	XLC	SOCL	SMH	HACK	HACK	XME	XME	MOO	FDN	XLY	ITB	XLV	XLI	XRT	MOO	XLE	XLE	XLF	
13	SOCL	IYT	IYT	IYT	SOCL	XLF	XLE	SOCL	OIH	OIH	IYT	FDN	XLI	XLI	FDN	CLOU	XLE	XOP	XLV	XLE	
14	IYT	XLF	XLI	XLF	XLF	SOCL	XLU	XOP	MOO	XME	XRT	IYT	HACK	FDN	XLC	HACK	XOP	HACK	ITB	XOP	
15	ITA	ITA	XLF	XLI	XLI	XLI	XOP	HACK	XLB	XLB	XLE	XLI	FDN	CLOU	XRT	FDN	FDN	CLOU	HACK	MOO	
16	XLF	XLP	ITA	XLP	XLP	XLU	XLI	XLC	XLU	SOCL	IGV	XLC	IYT	XRT	PPH	XLP	SMH	FDN	IYT	HACK	
17	PPH	XLU	XLP	ITA	XLU	XOP	XLC	XLE	XLE	HACK	SMH	SOCL	CLOU	PPH	IYT	ITB	SMH	SMH	IYT	IYT	
18	XLU	XLV	XLU	XLV	IYR	XLE	SOCL	TAN	XOP	TAN	XLB	XLV	XLP	XLP	XLC	XLC	ITB	FDN	SOCL	SOCL	
19	XOP	XOP	XLV	XLU	XLV	XLP	ITA	XLV	HACK	XLU	HACK	ITA	XLV	IYT	SOCL	IGV	SOCL	XLK	CLOU	FDN	
20	XLE	PPH	PPH	PPH	ITA	ITA	XLP	XLB	XLC	ITA	XLU	SMH	IGV	IGV	SMH	SOCL	IYT	IGV	XLK	CLOU	
21	XLP	XLE	XOP	XLE	PPH	XLV	OIH	XLP	SOCL	XOP	ITA	IGV	SMH	SMH	IYR	SMH	IYR	SOCL	SOCL	XLC	
22	XME	OIH	XLE	XOP	XLE	PPH	XME	ITA	TAN	XLE	XLV	IYR	SOCL	SOCL	IGV	IYR	IGV	IYT	IGV	IYR	
23	MOO	XLI	XME	IYR	XOP	OIH	IYR	XLV	IYR	XLC	SOCL	XLP	IYR	IYR	ITB	TAN	XLP	IYR	IYR	IGV	
24	OIH	MOO	IYR	XME	XME	XLB	XLV	IYR	IYR	XLC	XLU	TAN	TAN	TAN	TAN	XLU	TAN	XLK	XLK	XLK	
25	XLB	XLB	MOO	MOO	XLB	XME	PPH	MOO	ITA	XLP	IYR	TAN	XLU	XLU	ITB	XLU	TAN	TAN	TAN	TAN	
26	XLI	IYR	XLB	XLB	MOO	MOO	OIH	XLV	XLV	XLP	PPH	PPH	ITB	XLY	XLY	XLU	XLU	XLU	XLU	XLY	
27	IYR	XME	OIH	OIH	OIH	IYR	MOO	PPH	PPH	PPH	PPH	XLK	XLK	XLK	XLK	XLK	XLK	XLY	XLY	XLU	

TPA-RRG U.S. SECTOR & SUBSECTOR ETFs - HISTORY																					
Rank	12/9/22	12/16/22	12/23/22	12/30/22	1/6/23	1/13/23	1/20/23	1/27/23	2/3/23	2/10/23	2/17/23	Code	Code	Code	Code	Code	Code	Code	Code	Code	
1	MOO	PPH	PPH	IYT	IYT	SMH	SOCL	SOCL	SOCL	FDN	CLOU										
2	XRT	XLB	XLB	PPH	SMH	IYT	XLU	CLOU	CLOU	XLK	IGV										
3	XLB	IYT	SMH	XLU	XLU	SOCL	XLC	XLC	FDN	XLC	FDN										
4	IYT	SMH	MOO	SMH	SOCL	CLOU	CLOU	FDN	XLC	IGV	XLK										
5	SMH	MOO	SOCL	SOCL	IYR	XLC	SMH	IGV	IGV	SOCL	XLC										
6	PPH	SOCL	IYR	IYR	PPH	XLK	IYT	IYR	XLK	HACK	XLY										
7	SOCL	XRT	IYT	XRT	XLB	IYR	IYR	IYT	IYR	ITB	HACK										
8	ITA	XLI	XRT	MOO	XME	XRT	IGV	SMH	ITB	IYT	IYT										
9	XLI	ITB	ITA	XLI	ITB	ITB	PPH	ITB	XRT	CLOU	XRT										
10	ITB	XLP	XLI	XLP	XLP	MOO	XLK	XLK	IYT	SMH	SOCL										
11	XLP	XME	ITB	ITB	XRT	XLP	MOO	MOO	SMH	XME	PPH										
12	XME	OIH	XME	XLB	MOO	ITA	XRT	XLP	XLB	IYR	SMH										
13	XOP	XLE	XLV	XME	OIH	OIH	XLB	XRT	PPH	PPH	IYR										
14	OIH	XLF	OIH	OIH	ITA	PPH	OIH	XLB	XME	XRT	ITB										
15	XLF	ITA	XLE	ITA	XLV	XLB	XLI	XLI	XLU	XLU	XLU										
16	XLV	XLV	XLF	XLF	XLF	XLI	ITA	PPH	HACK	XLY	OIH										
17	XLE	IYR	XLP	XLV	XLI	XLF	ITB	XME	XLY	XLF	XLF										
18	XLK	XLK	XLU	TAN	XLC	XLU	XLP	XLU	OIH	OIH	ITA										
19	IYR	HACK	XLK	HACK	TAN	XME	XME	TAN	ITA	ITA	XME										
20	HACK	FDN	CLOU	FDN	HACK	FDN	TAN	XLY	XLI	XLE	XLI										
21	CLOU	CLOU	TAN	CLOU	XLK	IGV	FDN	HACK	XLF	XLI	XLE										
22	FDN	IGV	FDN	XLC	IGV	TAN	HACK	ITA	XLV	XLB	XLB										
23	IGV	XLC	XLC	XLK	CLOU	HACK	XLV	OIH	XLE	XLV	XLV										
24	XLC	XLU	HACK	IGV	XLE	XLY	XLY	XLV	XLP	XLP	XLP										
25	XLY	XOP	IGV	XLE	FDN	XLV	XLF	XLF	TAN	TAN	TAN										
26	XLU	TAN	XLY	XLY	XLY	XLE	XLE	XLE	XOP	XOP	XOP										
27	TAN	XLY	XOP	XOP	XOP	XOP	XOP	XOP	MOO	MOO	MOO										

Relative Rotation Graph for 27 major sector & subsector ETFs provided below.

Also, use the following link that shows RRG over time - how sectors & subsectors move in and out of favor over time: <https://vimeo.com/manage/videos/800282964/privacy>



87.5 88.0 88.5 89.0 89.5 90.0 90.5 91.0 91.5 92.0 92.5 93.0 93.5 94.0 94.5 95.0 95.5 96.0 96.5 97.0 97.5 98.0 98.5 99.0 99.5 100.0 100.5 101.0 101.5 102.0 102.5 103.0 103.5 104.0 104.5 105.0 105.5 106.0 106.5 107.0 107.5 108.0 108.5 109.0 109.5 110.0 110.5 111.0 111.5 112.0 112.5 113.0 113.5 114.0 114.5 115.0 115.5 116.0

Click [HERE](#) for the entire Russell 1000 TPA-RRG Score and Rank Report.

What are RRG's?

Julius de Kempnaer developed Relative Rotational Graphs (RRG) in 2004 and thousands of investors use RRG's. *"Relative Rotation Graphs, commonly referred to as RRGs, are a unique **visualization tool for relative strength analysis**. Chartists can use RRGs to analyze the relative strength trends of several securities against a common benchmark, and against each other. The real power of this tool is its ability to plot relative performance on one graph and show true rotation. We have all heard of sector and asset class rotation, but it is hard to visualize this "rotation" sequence on linear charts. **RRGs use four quadrants to define the four phases of a relative trend. True rotations can be seen as securities move from one quadrant to the other over time.**"* - Stockcharts

What are TPA-RRG scores?

TPA recognizes the power of RRG's to highlight stocks and sectors moving in and out of favor, but also notes the shortcoming of having to examine many RRG's to decide where to invest. TPA has developed TPA-RRG Scores to be able to rank stocks and sectors in terms of relative strength. *TPA-RRG scores are constructed to focus on stocks and sectors as they move from negative to positive and positive to negative.* Scoring also allows ranking so investors can focus on the best and worst areas of the market.

How are TPA-RRG scores created?

TPA uses not only the **RS Ratio** and **RS Momentum** of each stock to make its forecast, TPA also uses certain characteristics on each stock's RS to calculate its score. The following measures are used to calculate the TPA-RRG score:

1. **RRG ANGLE** - Represents the current position of the security on the RRG chart based on the points of the compass:
 - 0-90 Degrees = Leading Quadrant
 - 90-180 Degrees = Weakening Quadrant
 - 180-270 Degrees = Lagging Quadrant
 - 270-360 Degrees = Improving Quadrant
2. **RRG DISTANCE** - This number represents how far away the security is from the centre of the RRG chart (ie the benchmark). One of the observations is that higher alpha comes from those components that make bigger arcs around the benchmark. We will ignore those closest to the centre.
3. **RRG ANGLE ROC** - The Angle Rate of Change measures the distance of the angle of the current data point of a security, to the previous data point. The greater the value, the larger the distance between the two data points.
4. **RRG HEADING** - This is the direction that the arrow is pointing to (where the RS is headed), again based on the points of the compass, and is one of the most useful measures:

- 0 degrees = North (up) - positive
 - 45 degrees = Northeast – less positive
 - 90 degrees = East (right) - positive
 - 180 degrees = South (down) - negative
 - 270 degrees = West (left) - negative
5. **RRG VELOCITY** This is the vector difference – or distance – between the last two data points on the line; with the longest having the highest relative momentum:

How investors can use TPA-RRG

1. The Sector analysis lets clients focus on the best and avoid the worst areas of the market
2. TPA-RRG ranks the entire Russell 1000 and provides the Top 20 and Bottom 20 stocks so investors can see the best and worst stocks to make sure they are taking advantage of opportunities and not getting into trouble.
3. We also look at the top and bottom stocks through a standard technical analysis to avoid stocks that are overbought, oversold or at other technical trouble spots.
4. Finally, we provide TPA-RRG Scores and rankings for the stocks in the most used 25 sector and subsector ETFs. This analysis is especially helpful for investors who are focused on specific areas of the market.

You can learn more about RRG's with these links:

[Relative Rotation Graphs \(RRG\) – explanation video](#)

[RRG – written explanation](#)

Included in the Weekly TPA-RRG Report

1. The weekly TPA RRG Report will provide RRG Scores, Rankings, RRG's and a RRG Video for:
 - 25 Major Sector and Subsector ETFs
 - Top 20 & Bottom 20 stocks in the Russell 1000 - based on TPA's RRG and Trend-Range analysis
2. The report will also include:
 - TPA RRG scores and rankings for the *focus stocks* in the 11 major sectors ETFs and 14 major subsectors ETFs. *Provided in a separate PDF*
3. ***Finally, TPA will provide a weekly commentary on TPA-RRG Scores and Rankings***

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