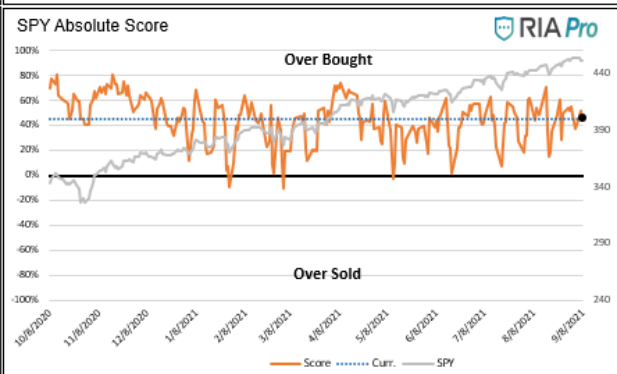
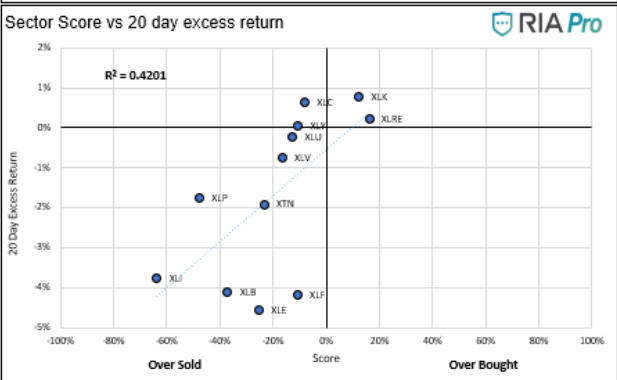
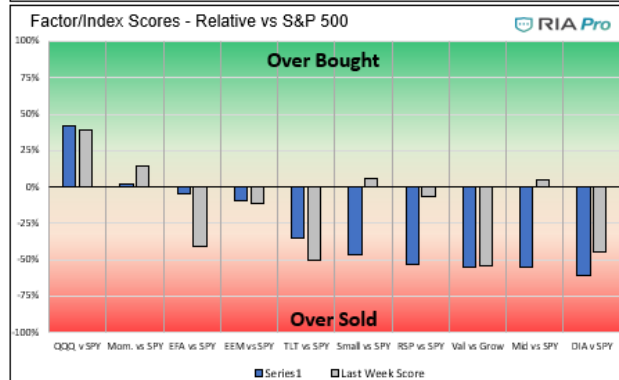
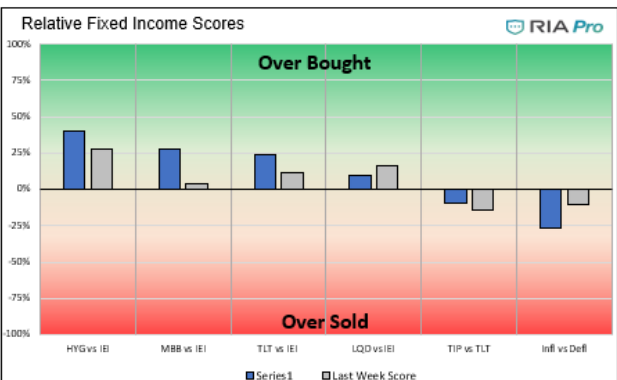
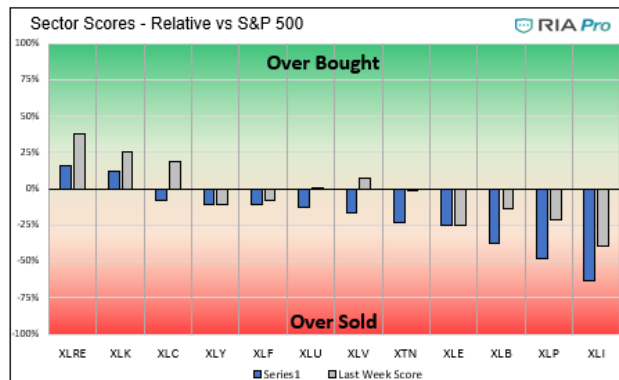


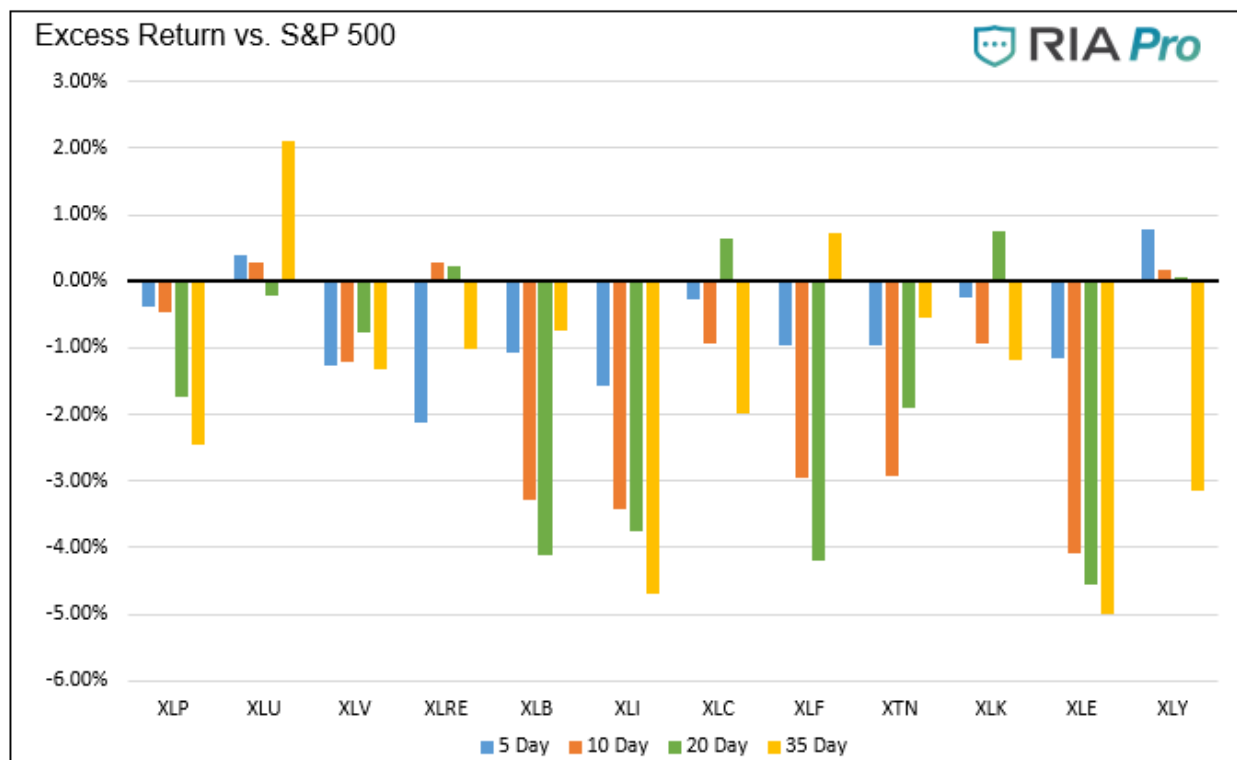
Relative Value Graphs

- The third graph below shows the general weakness of all sectors versus the S&P 500. Given the market has been led by only a few stocks (FAANG stocks), the result is not surprising.
- The first graph shows that almost all sectors weakened on the week versus the market. The scatter plot confirms the broad-based relative weakness across sectors. Only two sectors (technology and real estate) are overbought and not meaningfully so. At the same time, a third of the sectors have given up 4% or more over the last 20 days to the S&P 500.
- The factor/index chart shows a similar pattern with everything but the FAANG heavy NASDAQ beating the S&P 500.
- The loud message being sent from this analysis is the breadth of the market is very weak. This tool provides further rationale for our decision to reduce equity exposure, increase our bond holdings, and be mindful of risks to the markets as we advance.

Absolute Value Graphs

- On an absolute basis, all sector scores fell last week except the FAANG heavy NASDAQ, which was flat, and the discretionary sector.
- Except for the industrial sector, the Dow Jones, and Emerging Markets, all sectors, factors, and indexes are slightly overbought.
- Real estate, which was grossly overbought last week, saw its absolute score fall sharply. It was down nearly 3% last week. Utilities were also well overbought but saw its score fall sharply despite being flat on the week. This analysis uses multiple time frames and different types of technical analysis. In most cases, the past week's price action can be offset by price action from past periods that falls out of the analysis period.
- The fourth table shows that no sectors, factors, or indexes are two standard deviations or greater from their important moving averages. That said, technology and utilities are just shy of two standard deviations from their respective 200 dmas.





		Price	% From 20	% From 50	% From 200	Sigma From 20	Sigma From 50	Sigma From 200	Sum	Rank	% From 2/19/20
Staples	XLP	72.19	-0.28%	1.01%	5.04%	(0.47)	0.75	1.37	1.64	11	12%
Util	XLU	69.42	0.50%	3.38%	7.73%	0.68	1.20	1.97	3.85	2	-1%
Health	XLV	134.4	-0.84%	1.42%	10.43%	(1.29)	0.62	1.68	1.01	13	29%
Real Est.	XLRE	47.45	0.16%	1.85%	14.48%	0.09	0.91	1.48	2.48	9	15%
Material	XLB	84.03	-1.18%	0.40%	5.06%	(1.16)	0.19	0.76	(0.21)	19	39%
Indust	XLI	102.4	-1.51%	-1.02%	4.74%	(1.61)	(0.98)	0.71	(1.88)	22	22%
Comm	XLC	84.81	0.67%	2.20%	11.79%	0.43	1.21	1.52	3.16	8	47%
Bank	XLF	37.75	-1.24%	1.12%	9.43%	(1.17)	0.43	1.01	0.27	17	21%
Trans	XTN	85.36	-0.31%	1.26%	3.01%	(0.22)	0.60	0.39	0.76	15	29%
Tech	XLK	158.2	0.58%	2.49%	13.13%	0.43	1.25	1.86	3.53	6	54%
Energy	XLE	47.81	-0.56%	-3.18%	-0.68%	(0.28)	(0.81)	(0.07)	(1.16)	20	-13%
Discret	XLY	184	1.45%	1.46%	7.06%	0.96	1.23	1.53	3.73	3	39%
Value	VG	149.8	-0.71%	0.24%	5.72%	(1.18)	0.20	0.94	(0.04)	18	14%
Small	SL	223.8	0.66%	0.89%	2.26%	0.29	0.46	0.46	1.22	12	33%
Mid	ML	494.9	-0.45%	0.55%	4.63%	(0.34)	0.35	0.78	0.80	14	29%
Equal	RSP	155	-0.19%	1.13%	8.25%	(0.21)	0.73	1.20	1.72	10	31%
Moment	MTUM	182.2	0.85%	2.87%	7.75%	0.56	1.13	1.78	3.47	7	33%
SPY	SPY	450.9	0.62%	2.18%	10.52%	0.65	1.35	1.66	3.66	4	33%
QQQ	QQQ	379.5	1.26%	3.11%	12.88%	0.72	1.52	1.97	4.22	1	60%
DIA	DIA	349.3	-1.06%	-0.40%	5.39%	(1.84)	(0.42)	0.99	(1.28)	21	19%
EEM	EEM	52.65	1.98%	0.51%	-1.76%	0.85	0.21	(0.51)	0.55	16	19%
EFA	EFA	81.48	0.85%	1.93%	5.16%	0.80	1.37	1.39	3.55	5	18%

Users Guide

The technical value scorecard report is one of many tools we use to manage our portfolios. This report may send a strong buy or sell signal, but we may not take any action if other research and models do not affirm it.

The score is a percentage of the maximum score based on a series of weighted technical indicators for the last 200 trading days. Assets with scores over or under +/-70% are likely to either consolidate or change the trend. When the scatter plot in the sector graphs has an R-squared greater than .60 the signals are more reliable.

The first set of four graphs below are relative value-based, meaning the technical analysis is based on the ratio of the asset to its benchmark. The second set of graphs is computed solely on the price

of the asset. At times we present ?Sector spaghetti graphs? which compare momentum and our score over time to provide further current and historical indications of strength or weakness. The square at the end of each squiggle is the current reading. The top right corner is the most bullish, while the bottom left corner is the most bearish.

The ETFs used in the model are as follows:

- Staples XLP
- Utilities XLU
- Health Care XLV
- Real Estate XLRE
- Materials XLB
- Industrials XLI
- Communications XLC
- Banking XLF
- Transportation XTN
- Energy XLE
- Discretionary XLY
- S&P 500 SPY
- Value IVE
- Growth IVW
- Small Cap SLY
- Mid Cap MDY
- Momentum MTUM
- Equal Weighted S&P 500 RSP
- NASDAQ QQQ
- Dow Jones DIA
- Emerg. Markets EEM
- Foreign Markets EFA
- IG Corp Bonds LQD
- High Yield Bonds HYG
- Long Tsy Bonds TLT
- Med Term Tsy IEI
- Mortgages MBB
- Inflation TIP
- Inflation Index- XLB, XLE, XLF, and Value (IVE)
- Deflation Index- XLP, XLU, XLK, and Growth (IWE)