ARC Commodity Factor Risk Model
Monthly Report July 2026

July at a Glance

- **Broad rebound.** All three headline sectors gained in July — Energy +3.3%, Agriculture +2.7%, Metals +0.2% — reversing June's decline.
- **Refined Products break away.** Up 8.9% in July and now +40.6% YTD, against Crude Oil at -3.3% YTD. The intra-Energy gap has widened to roughly 44 points, the single largest dislocation in the model.
- **Momentum and Volatility factors keep falling.** Volatility -9.4% (-10.3% YTD) and Momentum -7.7% (-8.3% YTD) declined again even as commodity markets rallied. The long/short factors and the long-only market moved in opposite directions.
- **Tilts all positive; Low Basis leads YTD.** Every tilted portfolio gained in July. Low Basis is now +22.8% YTD against BCOM's +20.4%, while the defensive Low Vol tilt lagged in the rally (+4.7%) as designed.
- **Inflation.** Our model points to a flat month-over-month CPI print for July, with year-over-year inflation decelerating.

In this report: sector, sub-sector, style and trading factor performance; factor-tilted portfolios (Low Vol, Momentum, Backwardation); factor-based risk decomposition of BCOM and GSCI; and our inflation read.

For common and novel use cases of a commodity factor model, see assetriskcompany.com/whyfactor.html.

Our research library is at assetriskcompany.com/library.html.

Sectors and Factors Performance Report:

Table 1: Sectors and Subsectors Performance

Sectors	July 2026 (MTD)	YTD 2026	5-Yr Ann. Return*	5-Yr Ann. Volatility*
Agriculture	**2.7%**	**4.2%**	**4.1%**	**11.7%**
Grain And Oilseed	4.6%	10.5%	1.5%	14.4%
Lumber And Pulp	0.1%	-3.4%	-11.1%	35.2%
Proteins	-4.0%	-8.0%	9.1%	11.9%
Softs	2.5%	-1.8%	3.1%	14.8%
Energy	**3.3%**	**9.1%**	**2.4%**	**13.0%**
Crude Oil	1.5%	-3.3%	-2.3%	13.8%
Natural Gas	1.8%	4.0%	4.6%	15.8%
Petrochemicals	3.3%	9.1%	-2.2%	15.0%
Refined Products	8.9%	40.6%	8.1%	17.8%
Metals	**0.2%**	**3.2%**	**13.1%**	**15.9%**
Base	2.4%	13.1%	8.2%	16.4%
Precious	-1.3%	-3.9%	18.4%	19.2%

Annualized over the trailing 5 years.

Energy led in July (+3.3%), driven almost entirely by Refined Products, which rose 8.9% on the month and extended their year-to-date gain to +40.6%. Crude Oil recovered modestly (+1.5%) but remains negative year-to-date (-3.3%), leaving the crack-spread dislocation we have tracked since the spring wider than ever — roughly 44 points of year-to-date separation between two sub-sectors of the same complex. Natural Gas added 1.8% (+4.0% YTD) and Petrochemicals 3.3% (+9.1% YTD).

Agriculture gained 2.7%, with Grain and Oilseed reversing June's sharp fall to post +4.6% and lift its year-to-date return to +10.5% — the strongest agricultural sub-sector on the year. Softs rose 2.5% and Lumber and Pulp was flat (+0.1%). Proteins were the month's weakest sub-sector anywhere in the model, falling 4.0% and deepening a year-to-date decline to -8.0%.

Metals were essentially unchanged (+0.2%), masking a split: Base Metals continued to grind higher (+2.4%, +13.1% YTD) while Precious Metals fell a further 1.3% and remain the only major sub-sector still negative on the year (-3.9%) after June's 8.1% drop. Precious Metals retain by far the highest 5-year annualized return in the table (18.4%), which makes the current drawdown a notable deviation from trend rather than a change in long-run character.

Table 2. Styles/Trading Factors Performance

Factor	July 2026 (MTD)	YTD 2026	5-Yr Return*	5-Yr Volatility*
Basis	0.3%	-3.4%	-7.3%	4.3%
Open Interest	-0.1%	3.0%	1.8%	4.2%
Momentum	-7.7%	-8.3%	1.1%	8.7%
ST Momentum	-1.0%	0.5%	-6.7%	5.3%
Trading Activity	-0.8%	1.4%	-0.9%	2.4%
Volatility	-9.4%	-10.3%	-1.1%	9.5%
ST Volatility	1.3%	5.3%	-0.7%	7.8%

**Trailing 5 years. Factor-replicating portfolios are long/short theoretical constructs spanning nearly all instruments in the model universe; they are not directly tradable.*

The Volatility factor was July's sharpest mover, falling 9.4% (-10.3% YTD), with 12-month Momentum close behind at -7.7% (-8.3% YTD). Both extended June's reversal — notable because they did so during a month when the underlying commodity market rose. Basis was marginally positive on the month (+0.3%) but remains structurally negative (-3.4% YTD, -7.3% over 5 years).

Factor Tilted Portfolios Performance Report:

As shown above there are some clear patterns emerging for the ARC Commodity Styles and Trading Factors. However in order to take advantage of these trends, ARC has created liquid long-only tilted versions. Our findings, based on 25 years of data, are:

- Low Volatility, Low Basis (Extreme Backwardation) are reliable and produce better performance and risk than traditional indices. High Momentum has been the best risk adjusted performer over the last 5 years.
- High Basis and Low Trading Activity are reliable in underperforming the indices

Table 3: Top 5 Futures Tilted Portfolios and BCOM Performance

Return/Risk	Low Vol	Low Basis	High Mom	High Basis	Low TA	BCOM
July 2026 (MTD)	4.7%	7.1%	11.9%	4.1%	4.6%	7.2%
YTD	13.9%	22.8%	13.3%	15.2%	8.5%	20.4%
Annualized	9.5%	10.5%	25.8%	4.9%	1.5%	6.5%
Volatility	9.6%	15.1%	17.6%	12.1%	15.3%	15.4%
Sharpe	1	0.7	1.5	0.4	0.1	0.4

**Trailing 5 years, annualized. Sharpe ratios are computed without a risk-free adjustment. Tilted-portfolio results are hypothetical model performance, gross of fees and costs*

All five tilts gained in July. High Momentum led at +11.9%, well ahead of BCOM's +7.2%, followed by Low Basis at +7.1%. The Low Volatility tilt returned +4.7% — trailing the index in a rising market, which is the mirror image of June, when it beat BCOM by 4.1 points in a falling one. That asymmetry is the tilt working as intended.

Year-to-date, Low Basis is the standout at +22.8% versus +20.4% for BCOM, with High Basis (+15.2%) and Low Volatility (+13.9%) behind and Low Trading Activity last at +8.5% — consistent with the long-run pattern in which High Basis and Low Trading Activity underperform. Over the trailing 5 years, High Momentum remains the strongest risk-adjusted performer (25.8% annualized, Sharpe 1.5), Low Volatility delivers 9.5% annualized on just 9.6% volatility for a Sharpe of 1.0, and Low Basis returns 10.5% annualized with a Sharpe of 0.7. Both clear BCOM's 6.5% annualized and 0.4 Sharpe.

Factor Correlations:

Long-term correlations between sectors and style factors are very low. The model is able to separate sector allocation risk from style risk providing key insights in the real drivers of risk and performance of a portfolio.

Table 4: Factor Correlations

Correlations	Agriculture	Energy	Metals	Basis	Open Interest	Momentum	ST Momentum	Trading Activity	Volatility	ST Volatility
Agriculture	1.00	0.26	0.32	(0.04)	(0.07)	0.06	0.17	0.08	0.15	0.19
Energy	0.24	1.00	0.22	(0.10)	0.33	0.05	0.09	(0.15)	0.05	0.17
Metals	0.34	0.19	1.00	(0.19)	(0.06)	0.04	0.09	0.10	0.07	0.10
Basis	(0.08)	(0.09)	(0.19)	1.00	(0.13)	0.05	(0.18)	0.08	0.07	(0.09)
Open Interest	(0.07)	0.31	(0.10)	(0.09)	1.00	(0.00)	0.04	(0.57)	(0.18)	(0.00)
Momentum	0.09	0.12	0.05	0.07	0.08	1.00	0.28	0.01	0.42	(0.07)
ST Momentum	0.25	0.13	0.12	(0.22)	0.06	0.30	1.00	0.03	(0.07)	0.49
Trading Activity	0.12	(0.13)	0.15	0.04	(0.55)	(0.04)	0.02	1.00	0.13	0.02
Volatility	0.13	0.06	0.09	0.05	(0.13)	0.43	(0.09)	0.13	1.00	(0.55)
ST Volatility	0.22	0.15	0.10	(0.07)	(0.03)	(0.05)	0.57	0.03	(0.54)	1.00

1 yr correlations on the right (above the diagonal), 30 days on left (below the diagonal).

Inflation:

Empirical testing finds that the ARC Commodity Model is an excellent predictor of breakout moves in the headline number, both in bouts of inflation and deflation. For July, we predict a flat CPI, and a decrease in year-over-year inflation. Reach out to info@assetriskcompany.com for our estimate.

Commodity Indices Risk Decomposition

We use a 6 month half-life for this risk decomposition so the model is fairly reactive to market conditions. Despite different sector allocations, both indices have similar risk and exposures to styles. Ex-Ante Volatility went up to around 30% for both indices.

Table 5: Factor Exposures

Factors Exposures	BCOM	GSCI
Agriculture	0.34	0.26
Energy	0.38	0.51
Metals	0.29	0.23
Basis	0.04	0.00
Open Interest	2.29	2.05
Momentum	0.45	0.53
ST Momentum	0.30	0.40
Trading Activity	0.73	0.67
Volatility	0.65	0.69
ST Volatility	0.79	1.02

Exposures, z-scores for BCOM and GSCI as of 7/31/2026

A portfolio that is long/short would be evaluated on the breakout between systematic exposures and idiosyncratic risk. Long-only managers will want to find their exposures relative to their benchmark. As shown in the correlation tables, sector correlations with style factors are relatively small. The model is able to separate risk due to sector allocation and styles risk. All risk is not equal. Systematic risk can display non-normal behavior when compared to specific or idiosyncratic risk. Both types of risks are driven by fluctuation, but systematic risk is driven by the "crowd" expressing some thematic bet. The systematic risk is related to market risk.

Table 6: Risk Attribution of BCOM and GSCI

Index	BCOM	GSCI
Total Risk	28.9%	33.0%
Agriculture	2.2%	1.6%
Energy	2.7%	3.7%
Metals	2.7%	2.0%
Basis	0.0%	0.0%
Open Interest	4.2%	3.3%
Momentum	3.6%	4.2%
ST Momentum	2.8%	4.1%
Trading Activity	-0.2%	-0.2%
Volatility	2.3%	1.9%
ST Volatility	8.2%	12.0%
Specific Risk	4.6%	5.6%

Ex-Ante Annual Volatility Decomposition for BCOM and GSCI as of 7/31/2026

Conclusion:

In this report, we have shown the factor performance driving the commodity markets. Using the ARC Commodity model, style-tilted portfolios have shown great performance and seem to be suitable benchmarks for active managers to track. We then conducted an analysis into the risk dynamics of two major commodity indices. The view of commodities as diversifiers is quite accurate. All of this was possible with the ARC model. The model enables the user to look at their book or portfolio and how it fits into their thesis as well as how it fits in the broader economic landscape.