ARC Commodity Factor Risk Model
Monthly Report May 2026

The Asset Risk Company (ARC) Commodity Model is a cross-sectional commodity factor model. The model contains 50 of the most widely traded commodity products with approximately 1,200 futures in total over all maturities. All futures in the model have exposures to sectors, sub-sectors, style and trading factors such as basis, momentum, and open interest. The model is estimated daily with 25 years of history. It provides a framework for managing risk and investment decision-making.

In this report, you will find:

- Performance of Sectors, Sub-Sectors and Style and Trading Factors
- Examples of Factor Tilted Portfolios (Low Vol, Value, Momentum, Backwardation)
- Factor Based Risk Decomposition of Popular Commodity Indexes (BCOM, GSCI)
- Inflation prediction

The ARC Commodity Model is a powerful tool to help many constituencies in the financial industry, trading, and real economy. Some of the applications of the model are very straightforward, but some uses of the model are more nuanced. We recommend this short piece that provides details on both common and novel use cases for a commodity factor model: https://www.assetriskcompany.com/whyfactor.html. You can access our latest research at https://www.assetriskcompany.com/library.html.

ARC
Asset Risk Company

Sectors and Factors Performance Report:

Table 1: Sectors and Subsectors Performance

Sectors	May 26	2026	Historical Returns*	Volatility*
Agriculture	**-0.9%**	**4.7%**	**4.4%**	**11.6%**
Grain And Oilseed	0.9%	12.4%	2.0%	14.0%
Lumber And Pulp	-2.8%	-2.5%	-18.9%	37.5%
Proteins	-6.8%	-4.5%	10.7%	11.7%
Softs	-1.7%	-5.3%	3.5%	14.8%
Energy	**-0.8%**	**10.8%**	**4.2%**	**13.0%**
Crude Oil	-2.0%	0.7%	-0.6%	13.7%
Natural Gas	-1.0%	6.5%	7.7%	16.0%
Petrochemicals	-0.8%	10.8%	0.4%	15.6%
Refined Products	1.2%	35.6%	8.1%	17.3%
Metals	**3.9%**	**8.9%**	**14.4%**	**15.8%**
Base	7.1%	12.3%	9.3%	16.6%
Precious	1.7%	5.9%	19.0%	19.0%

The Metals sector was the strongest performer in May (+3.9%), driven by a sharp advance in Base Metals (+7.1%), which lifted its year-to-date return to 12.3%. Precious

Metals also posted a positive month (+1.7%), extending their strong longer-term performance and bringing year-to-date returns to 5.9%.

The Energy sector was broadly unchanged (-0.8%) despite continued geopolitical uncertainty. The divergence within the complex persisted: Crude Oil declined 2.0% in May and remains essentially flat year-to-date (+0.7%), while Refined Products continued to outperform, gaining 1.2% in May and reaching 35.6% year-to-date.

Agricultural commodities experienced a weaker month overall (-0.9%). Grain & Oilseed was the lone bright spot, advancing 0.9% and extending its year-to-date gain to 12.4%. By contrast, Proteins declined sharply (-6.8%), reversing part of their earlier gains, while Softs fell 1.7% and remained negative year-to-date (-5.3%).

The returns come naturally from a cross-sectional regression of the 1,200 assets in the model and therefore cover the entire term structure. For instance, Natural Gas has more than 120 maturities in the model. The model uses all of that information to derive sector and subsector returns and one can think of our sectors as risk weighted on the entire curve.

Table 2. Styles/Trading Factors Performance

Factor	May 26	2026	5 Year Return	5 Year Volatility
Basis	-1.5%	-3.7%	-7.4%	4.3%
Open Interest	0.1%	3.1%	2.0%	4.1%
Momentum	-1.9%	-0.7%	2.8%	7.8%
ST Momentum	-2.9%	1.5%	-5.9%	5.7%
Trading Activity	0.6%	2.2%	-0.7%	2.4%
Volatility	-2.3%	-1.0%	0.8%	8.8%
ST Volatility	0.0%	4.0%	-0.5%	7.8%

May saw a pull back for both Momentum factors with -1.9% for the 12 month Momentum and -2.9% for the Short Term Momentum (30 days). Basis continued to weaken (-1.5% MTD, -3.7% YTD), extending a structurally negative 5-year trend (-7.4%). The factor replicating portfolios, which include both long and short exposures across nearly all instruments in the model's universe, are theoretical constructs and not directly tradable. In contrast, our practical long-only, factor-tilted implementation offers a more parsimonious and liquid representation of the strategy.

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 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
May 26	-2.0%	-2.7%	-5.4%	-1.4%	-3.2%	-3.8%
2026	14.1%	18.9%	12.8%	16.1%	12.0%	23.2%
Annualized	9.9%	11.1%	26.6%	6.9%	0.8%	7.8%
Volatility	9.2%	14.7%	16.1%	11.8%	14.8%	14.7%
Sharpe	1.1	0.8	1.6	0.6	0.1	0.5

*Annualized 5 years

The Low Volatility Factor-tilted portfolio behaved as expected in a down and volatile market with a -2.0% in May versus -3.8% for the index. High Momentum experienced a

larger correction with a -5.4% performance. Low Volatility remains the most consistent risk-adjusted strategy, generating a 9.9% annualized return with only 9.2% volatility and a Sharpe ratio of 1.1. High Momentum is a standout performer over the last 5 years with a Sharpe ratio of 1.6. Low Basis also continues to demonstrate attractive long-term characteristics, producing an 11.1% annualized return and a Sharpe ratio of 0.8.

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. We see again a jump in Ex-Ante Volatility now around 28% annualized for GSCI.

Table 4: Factor Exposures

Factors Exposures	BCOM	GSCI
Agriculture	0.32	0.23
Energy	0.37	0.53
Metals	0.31	0.23
Basis	0.30	0.28
Open Interest	2.33	2.17
Momentum	0.30	0.42
ST Momentum	0.18	-0.03
Trading Activity	-0.07	0.07
Volatility	0.10	0.09
ST Volatility	0.73	1.12

Exposures, z-scores for BCOM and GSCI as of 5/29/2026

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 below 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 5: Risk Attribution of BCOM and GSCI

Index	BCOM	GSCI
Total Risk	**22.7%**	**27.9%**
Agriculture	1.2%	0.8%
Energy	3.2%	4.7%
Metals	2.9%	1.7%
Basis	-0.1%	0.0%
Open Interest	6.0%	5.0%
Momentum	2.5%	3.7%
ST Momentum	2.7%	4.2%
Trading Activity	0.0%	0.3%
Volatility	0.0%	-0.1%
ST Volatility	3.7%	7.0%
Specific Risk	4.7%	6.2%

Ex-Ante Annual Volatility Decomposition for BCOM and GSCI as of 5/29/2026

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 May, we predict an increase in CPI level, and a continued acceleration in year-over-year inflation, with inflation expected to exceed the 4% level. Reach out to info@assetriskcompany.com for our estimate.

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 key drivers of risk and performance of a portfolio.

Table 6. Factor Correlations

Correlations	Agriculture	Energy	Metals	Basis	Open Interest	Momentum	ST Momentum	Trading Activity	Volatility	ST Volatility
Agriculture	1.00	0.25	0.31	(0.03)	(0.08)	0.04	0.17	0.09	0.14	0.19
Energy	0.24	1.00	0.24	(0.10)	0.32	0.03	0.09	(0.14)	0.04	0.17
Metals	0.34	0.22	1.00	(0.19)	(0.05)	0.04	0.09	0.09	0.06	0.10
Basis	(0.06)	(0.09)	(0.19)	1.00	(0.13)	0.06	(0.17)	0.09	0.07	(0.09)
Open Interest	(0.09)	0.29	(0.09)	(0.09)	1.00	(0.02)	0.04	(0.57)	(0.18)	(0.00)
Momentum	0.07	0.10	0.04	0.08	0.06	1.00	0.28	0.03	0.41	(0.07)
ST Momentum	0.25	0.14	0.12	(0.21)	0.05	0.30	1.00	0.04	(0.07)	0.49
Trading Activity	0.12	(0.11)	0.14	0.04	(0.53)	(0.02)	0.02	1.00	0.13	0.02
Volatility	0.11	0.05	0.07	0.05	(0.14)	0.42	(0.09)	0.13	1.00	(0.56)
ST Volatility	0.22	0.16	0.10	(0.06)	(0.03)	(0.06)	0.57	0.03	(0.55)	1.00

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

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.