





Tracking SAF Prices Challenges in a nascent market





Methodology

Fastmarkets analysts conduct daily survey of traders, buyers, sellers & brokers

Market data submitter requirements

IOSCO reasonable assurance in August 2020

IOSCO Type I Audit completed June 2022 (BFT, DCO, UCO)

IOSCO Type II Audit completed July 2023, July 2024 (BFT, DCO, UCO, SBO)

Prices are based on trades, bids/offers and price indications

Full methodology can be found at
www.fastmarkets.com/methodology/agriculture/

Challenges in pricing the SAF market

There are no bullseyes

- Limited spot transactions
- Long term offtake agreements
- ULSD/GO correlation to UCO
- Where (geographically) is the market?
- What's the credit stack?
- Multiple production pathways
- History of biodiesel pricing

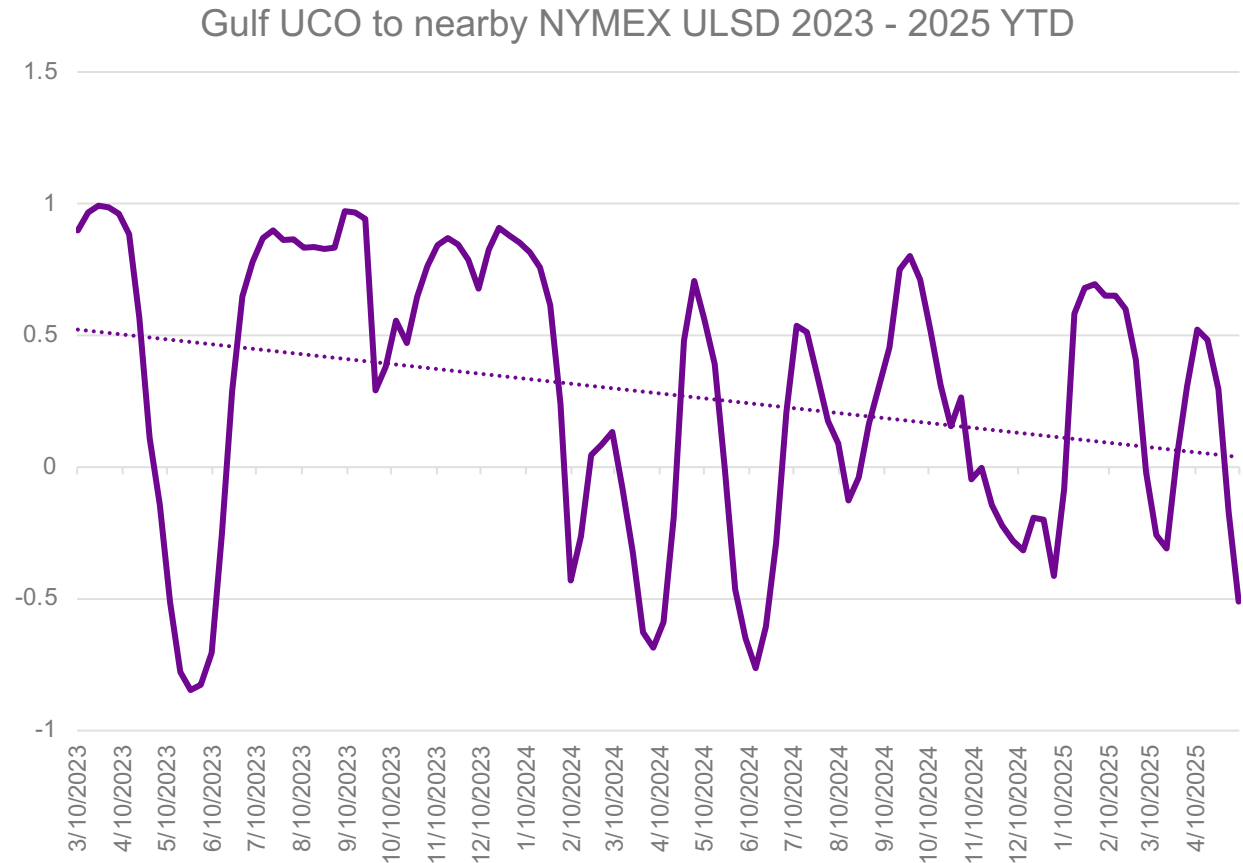


Pricing the physical molecule



UCO or ULSD?

- Poor correlation between UCO and ULSD
- Two-year linear r^2 is 0.46
- Feedstock ~ 80% of the cost of production
- How can one manage risk?
- What's the physical gallon worth?
- Can SAF be produced at parity with Jet-A/Jet A-1?



Source: Fastmarkets, CME Group. 10 week rolling correlation.

Market in review

Cost of production US Gulf

Price driven by myriad of factors influencing the cost of feedstock

Profitability for producers is in SAF (HEFA) – considering production to mandate ratio vs other fuels

Yet to see mass production of non-HEFA pathway

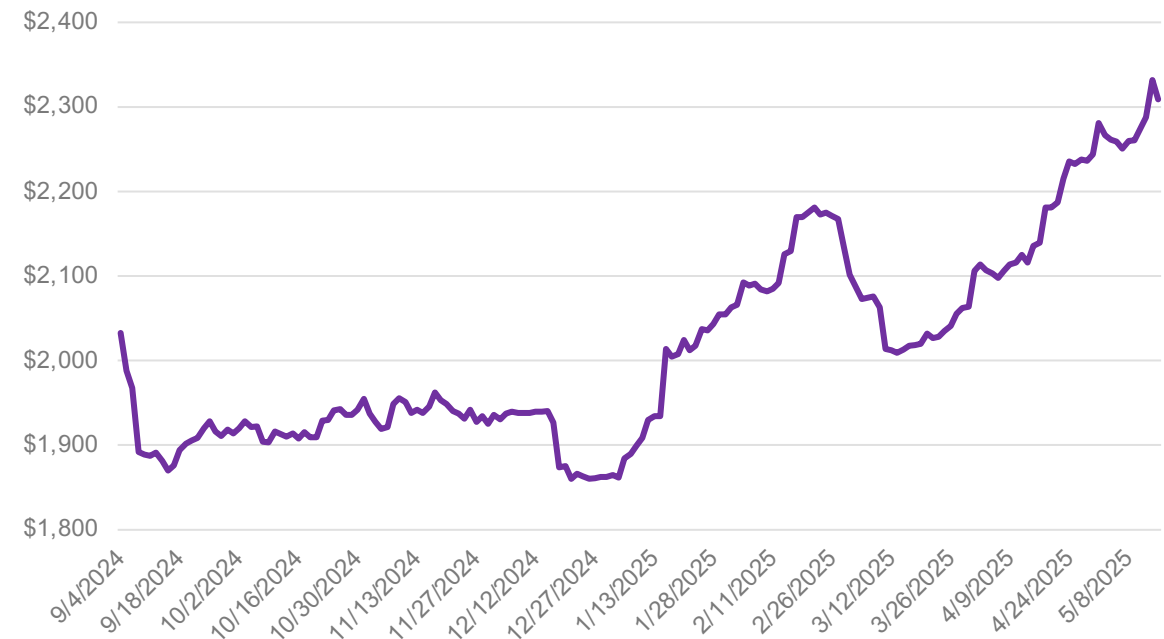
Capacity (HEFA) –

US – 3.9 mmt/year

EU - 2.9 mmt/year

China – 0.62 mmt/year

SAF Houston ex-works Sep 2024 - 2025 YTD (\$/mt)



Source: Fastmarkets

“

..they have to greatly reduce their dealings with the United States, recognizing that whatever happens with tariffs, these problems won't go away, and that radically reduced interdependencies with the U.S. is a reality that has to be planned for.”

Ray Dalio. (April 28th, 2025) “It's Too Late: The Changes Are Coming”



A few thoughts on feedstocks

Is there enough feedstock?

That depends...

Current political trends may dramatically reshape market

Credit values in US market – 45Z & RVO

What is 45Z? What is the RVO?

EU feedstock could see big impact from restricted market access

Tariff and reciprocal tariffs affect feedstock and fuel trade flows

Chinese UCO exports

	EU	US
2021	778,952	114
2022	1,017,482	47,485
2023	565,212	834,105
2024	737,073	1,267,220
2025*	318,695	201,892

Source: GTT, mt/year. *2025 through April

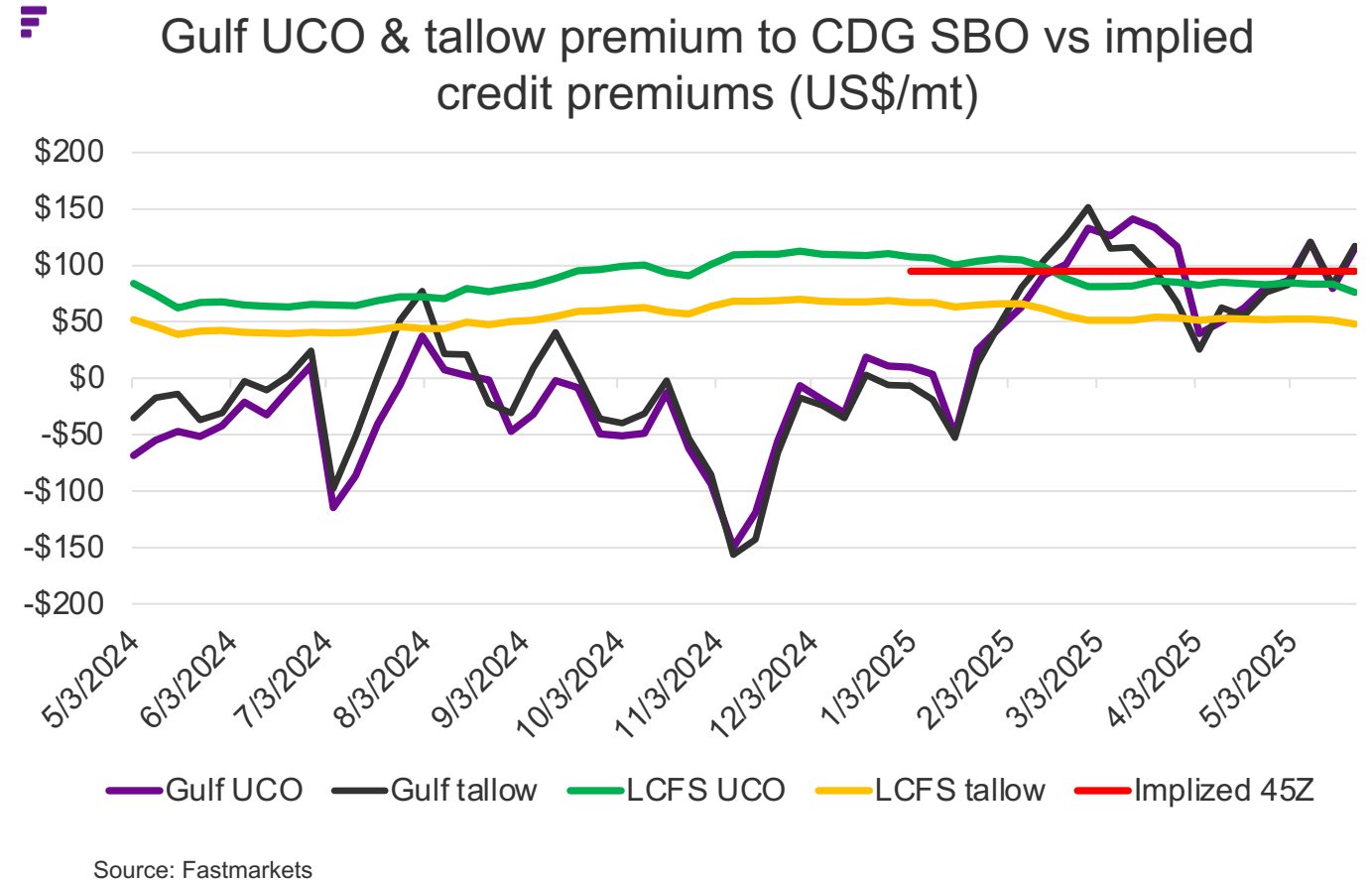
UCO & tallow premiums to soybean oil

Low CI feedstock value jumps relative to soybean oil

Slower production and favorable price led to lower price in Jan

Premium to soybean oil higher in Feb with more buyers chasing low CI feedstocks for March production

Lack of imported UCO weakened buyers leverage in domestic market



Closing thoughts



Cost of production is best measure for physical molecule

Feedstock prices can represent what the fuel buyer needs to maintain some profitability vs fuel sale

Credits are very specific to end user and destination market'

Cost of production is the closest thing to bullseye in representative value of physical molecule

We will continue to monitor market for liquidity and report on transactions



Reach out to our SAF & carbon team

Wendy Dulaney – Senior Report SAF – Houston

Wendy.Dulaney@fastmarkets.com +1 346 247 8630

Tom Hughes – Strategic Markets Editor – Ags & Biofuels – London

Tom.hughes@fastmarkets.com +44 20 8135 5271

Melissa Cousin – Renewable Fuels analyst – Houston

Melissa.cousin@fastmarkets.com +1 929-988-7128

Sam Carew – Strategic Markets Editor – Voluntary Carbon – London

Sam.carew@fastmarkets.com +44 20 8135 8051



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Thank you

Ryan Standard

email ryan.standard@fasmarkets.com

ICE rstandard

m&  +1 331 276 8227