IBKRWebinars



www.ibkrcampus.com/webinars www.ibkrcampus.eu/webinars

November 16, 2023

CME Group Trading the Oil and Gas Transition

Tariq Dennison

TEP, Wealth Manager GFM Asset Management

Exchange and Industry Sponsored Webinars are presented by unaffiliated third parties. IBKR is not responsible for the content of these presentations. You should review the contents of each presentation and make your own judgment as to whether the content is appropriate for you. IBKR does not provide recommendations or advice. This presentation is not an advertisement or solicitation for new customers. It is intended only as an educational presentation.

IBKRWebinars



www.ibkrcampus.com/webinars www.ibkrcampus.eu/webinars

Disclosure:

Options involve risk and are not suitable for all investors. For information on the uses and risks of options, you can obtain a copy of the Options Clearing Corporation risk disclosure document titled Characteristics and Risks of Standardized Options by visiting ibkr.com/occ. Multiple leg strategies, including spreads, will incur multiple transaction costs.

Futures are not suitable for all investors. The amount you may lose may be greater than your initial investment. Before trading futures, please read the CFTC Risk Disclosure. For a copy visit your local Interactive Brokers Website.

Security futures involve a high degree of risk and are not suitable for all investors. The amount you may lose may be greater than your initial investment. Before trading security futures, please read the Security Futures Risk Disclosure Statement. For a visit copy your local Interactive Brokers Website.

There is a substantial risk of loss in foreign exchange trading. The settlement date of foreign exchange trades can vary due to time zone differences and bank holidays. When trading across foreign exchange markets, this may necessitate borrowing funds to settle foreign exchange trades. The interest rate on borrowed funds must be considered when computing the cost of trades across multiple markets.

The Order types available through Interactive Brokers Trader Workstation are designed to help you limit your loss and/or lock in a profit. Market conditions and other factors may affect execution. In general, orders guarantee a fill or guarantee a price, but not both. In extreme market conditions, an order may either be executed at a different price than anticipated or may not be filled in the marketplace.

There is a substantial risk of loss in trading futures and options. Past performance is not indicative of future results.

Any stock, options or futures symbols displayed are for illustrative purposes only and are not intended to portray recommendations.

IRS Circular 230 Notice: These statements are provided for information purposes only, are not intended to constitute tax advice which may be relied upon to avoid penalties under any federal, state, local or other tax statutes or regulations, and do not resolve any tax issues in your favor.

Interactive Brokers LLC is a member of NYSE FINRA SIPC

Interactive Brokers Canada Inc - Is a member of the Canadian Investment Regulatory Organization (CIRO) and Member - Canadian Investor Protection Fund Interactive Brokers (U.K.) Limited is authorised and regulated by the Financial Conduct Authority. FCA Register Entry Number 208159

Interactive Brokers Ireland Limited is regulated by the Central Bank of Ireland. CBI, reference number C423427

Interactive Brokers Australia Pty. Ltd. - ABN 98 166 929 568 is licensed and regulated by the Australian Securities and Investments Commission AFSL: 453554

Interactive Brokers Singapore Pte. Ltd. - Is licensed and regulated by the Monetary Authority of Singapore. MAS, Licence No. CMS100917

Interactive Brokers Hong Kong Limited is regulated by the Hong Kong Securities and Futures Commission, and is a member of the SEHK and the HKFE

Interactive Brokers India Pvt. Ltd. member: NSE, BSE, SEBI. Regn. No. SEBI Registration No. INZ000217730; NSDL: IN-DP-NSDL-301-2008

Interactive Brokers Central Europe Zrt. is licensed and regulated by the Central Bank of Hungary (Magyar Nemzeti Bank) under no. H-EN-III-623/2020

As with all investments, your capital is at risk



Trading the Transition

Strategies on Micro Oil & Gas futures & options by Tariq Dennison

16 November 2023

Disclaimer

This presentation is for educational and discussion purposes only. **Nothing in this presentation is to be taken as investment advice**, nor as any recommendation to buy or sell any security or investment property or product. Please consult with GFM or your own investment advisors 1-on-1 before making any investment decisions.

GFM does NOT provide any tax or legal advice. Tax strategies in this presentation are based on our experience and believed to be current, but please consult with your own tax advisor for tax advice specific to your situation. GFM Group Limited is an SFC Type 9 Licensed Asset Management firm and is not affiliated with any exchange, brokerage firm, or custodian, including the co-presenters of this seminar. GFM Asset Management LLC, an affiliated company, is a US SEC Registered Investment Advisor.

Trading and investing involve risks, including the risk that you may lose some or all the money you invest.

GFM is not affiliated with Interactive Brokers LLC, nor with any other broker-dealer or exchange. Viewpoints here are those of Tariq Dennison and not those of any other entity.

About Tariq Dennison

- Independent Advisor on IBKR Platform
 - GFM Asset Management LLC
 - **GFM** Group Limited
 - Dennison Wealth
- Market Experience Since 1998
 - Firms: Bear Stearns, J.P Morgan, CIBC, Société Générale (HK)
 - Cities: SF, NY, Toronto, London, Hong Kong, Singapore, and now Zürich
 - Instruments: stocks, bonds, ETFs, swaps, futures & options
- Author of "Invest Outside the Box", "10 Ways To Invest", over 200 articles & masters courses, frequent guest on CNBC Asia.



Outline

- Why care about oil & gas
- What are oil & gas
- When and where forecasters expect the energy transition to take place
- Who the main drivers of supply and demand are
- How to trade these markets:
 - Micro and full-sized crude oil
 - Micro and full-sized natural gas

Any stock, options or futures symbols displayed are for illustrative purposes only and are not intended to portray recommendations. There is a substantial risk of loss in trading futures and options. Past performance is not indicative of future results.

What we did before fossil fuels

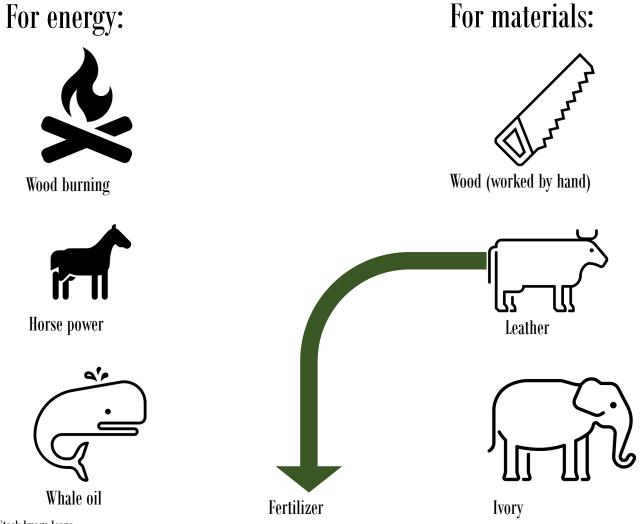


Image source: MS Office Stock Image Icons

Any stock, options or futures symbols displayed are for illustrative purposes only and are not intended to portray recommendations.

There is a substantial risk of loss in trading futures and options. Past performance is not indicative of future results.

What we might do "after fossil fuels"

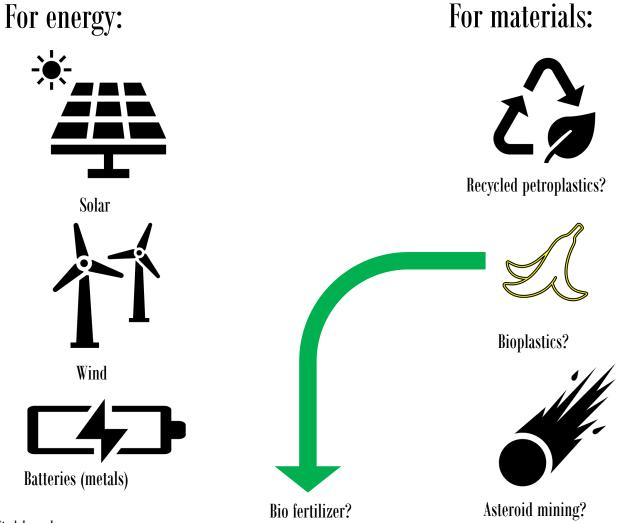


Image source: MS Office Stock Image Icons

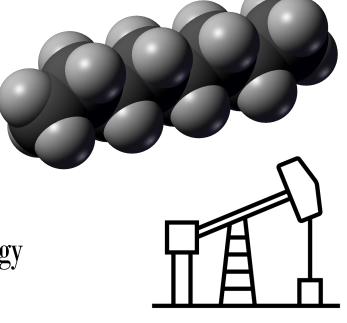
Any stock, options or futures symbols displayed are for illustrative purposes only and are not intended to portray recommendations. There is a substantial risk of loss in trading futures and options. Past performance is not indicative of future results.

What is crude oil?

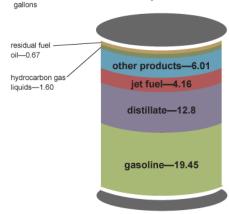
- Black **liquid** made of **long-chain** hydrocarbons
- Liquid = easy to transport and use
- Long chain = high carbon output per unit of energy
- Abundant in some places, not others
- Used not only to make fuel, but plastics & materials

Image source: MS Office Stock Image Icons, Wikipedia, https://www.eia.gov/energyexplained/oil-and-petroleum-products/refining-crude-oil.php

Any stock, options or futures symbols displayed are for illustrative purposes only and are not intended to portray recommendations. There is a substantial risk of loss in trading futures and options. Past performance is not indicative of future results.



Petroleum products made from a barrel of crude oil, 2022



Data source: U.S. Energy Information Administration, Petroleum Supply Monthly, March 2023, preliminary data

Note: A 42-gallon (U.S.) barrel of crude oil yields about 45 gallons of petroleum products because of refinery processing gain. The sum of the product amounts in the image may not equal 45 because of independent rounding.

What is natural gas?

- Mostly methane (CH₄), a clear, light gas
- VERY difficult to store and transport
- Less carbon per unit of energy, 2^{nd} to hydrogen (H₂)
- Often, but not only, found where oil is found
- Flaring often cheaper than selling
- Also essential to fertilizer production (→ Food!)

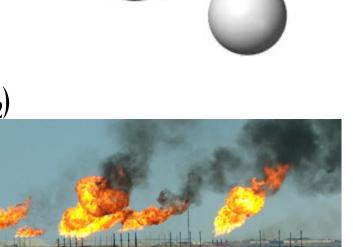
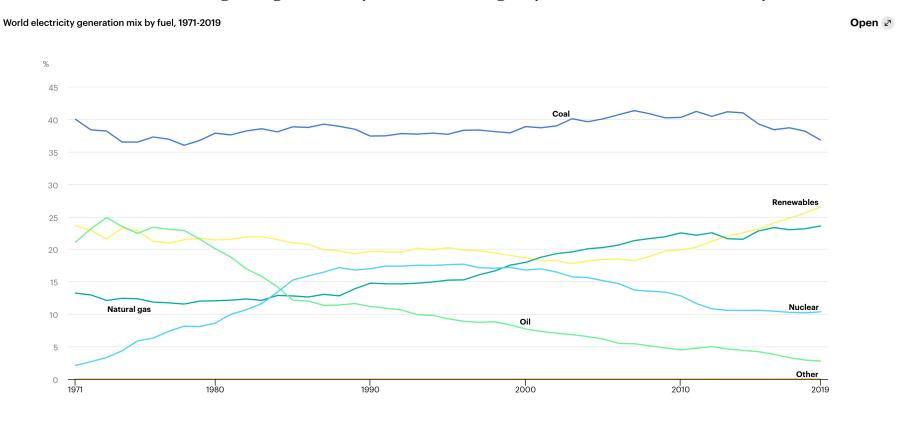


Image source: https://oceanexplorer.noaa.gov/explorations/10chile/background/methane/methane.html, https://www.worldbank.org/en/programs/gasflaringreduction/gas-flaring-explained

Any stock, options or futures symbols displayed are for illustrative purposes only and are not intended to portray recommendations. There is a substantial risk of loss in trading futures and options. Past performance is not indicative of future results.

Transition, what transition?

Main trend is the world getting less "oily" and more "gassy", most else is secondary



IEA. Licence: CC BY 4.0

9

Nuclear • Coal • Oil • Natural gas • Renewables • Oth

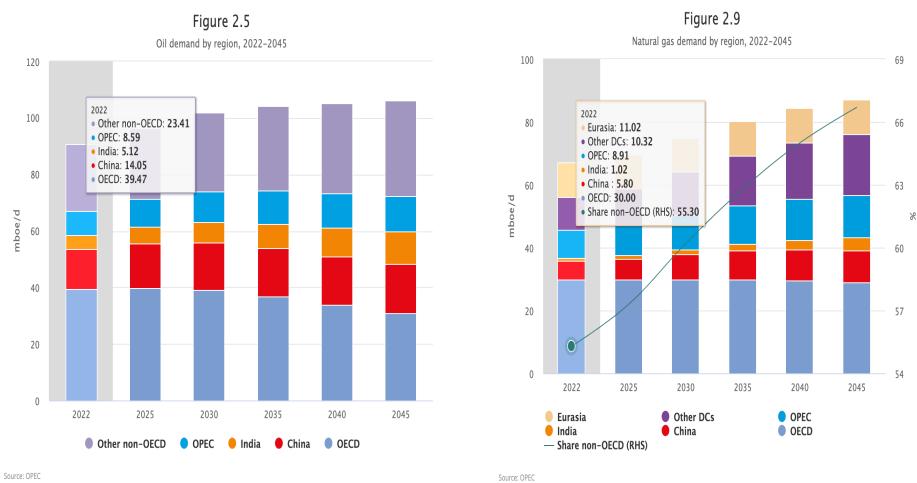
Source: https://www.iea.org/reports/world-energy-balances-overview/world

Any stock, options or futures symbols displayed are for illustrative purposes only and are not intended to portray recommendations. There is a substantial risk of loss in trading futures and options. Past performance is not indicative of future results.

© GFM Asset Management LLC 2023

Oil growth slowing in EM, negative in OECD

Meanwhile, gas growth is projected to remain strong, at least according to OPEC



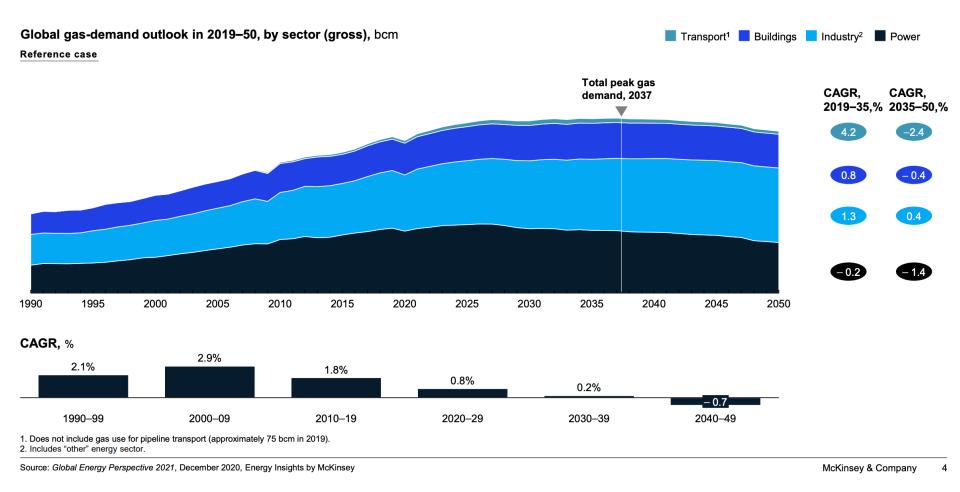
Source: https://woo.opec.org/chapter.php?chapterNr=1767&chartID=5663

Any stock, options or futures symbols displayed are for illustrative purposes only and are not intended to portray recommendations. There is a substantial risk of loss in trading futures and options. Past performance is not indicative of future results.

© GFM Asset Management LLC 2023

McKinsey's Conservative Projection: Peak Gas Demand 2037

This of course is just on the demand side, which depends on many supply variables as well



 $Source: https://www.mckinsey.com/\sim/media/mckinsey/industries/oil\%20 and \%20 gas/our\%20 insights/global\%20 gas\%20 outlook\%20 to \%20 2050/global\%20 gas\%20 outlook\%20 to \%20 2050/global\%20 gas\%20 outlook\%20 gas\%20 gas\%20 outlook\%20 gas\%20 gas\%20 outlook\%20 gas\%20 gas\%2$

Any stock, options or futures symbols displayed are for illustrative purposes only and are not intended to portray recommendations. There is a substantial risk of loss in trading futures and options. Past performance is not indicative of future results.

Crude oil – imports

Crude oil – exports

Crude oil - imports is the total amount of crude oil imported, in barrels per day (bbl/day).

Crude oil - exports is the total amount of crude oil exported, in barrels per day (bbl/day).

216 Results

Clear Filters

216 Results

Clear Filters

Filter Categories

All

DOWNLOAD DATA

Rank	Country	bbl/day
1	United States	7,969,000
2	China	6,710,000
3	India	4,057,000
4	Japan 🕺	3,208,000
5	Korea, South	3,057,000
6	Germany	1,836,000
7	<u>Italy</u>	1,341,000
8	Spain	1,325,000

DOWNLOAD DATA

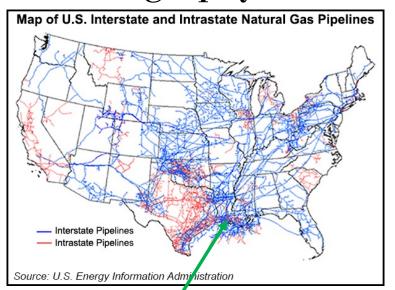
Rank	Country	bbl/day
1	Saudi Arabia	7,341,000
2	Russia	4,921,000
3	Iraq	3,092,000
4	Canada	2,818,000
5	United Arab Emirates	2,552,000
6	Nigeria **	2,096,000
7	Angola	1,782,000
8	Venezuela	1,656,000

Source: https://www.cia.gov/the-world-factbook/countries/https://www.eia.gov/tools/faqsphp?id=709&t=6

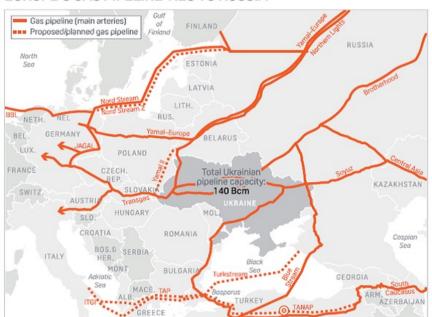
Any stock, options or futures symbols displayed are for illustrative purposes only and are not intended to portray recommendations.

There is a substantial risk of loss in trading futures and options. Past performance is not indicative of future results.

The Geography of Gas



EUROPE'S GAS PIPELINE TIES TO RUSSIA



13

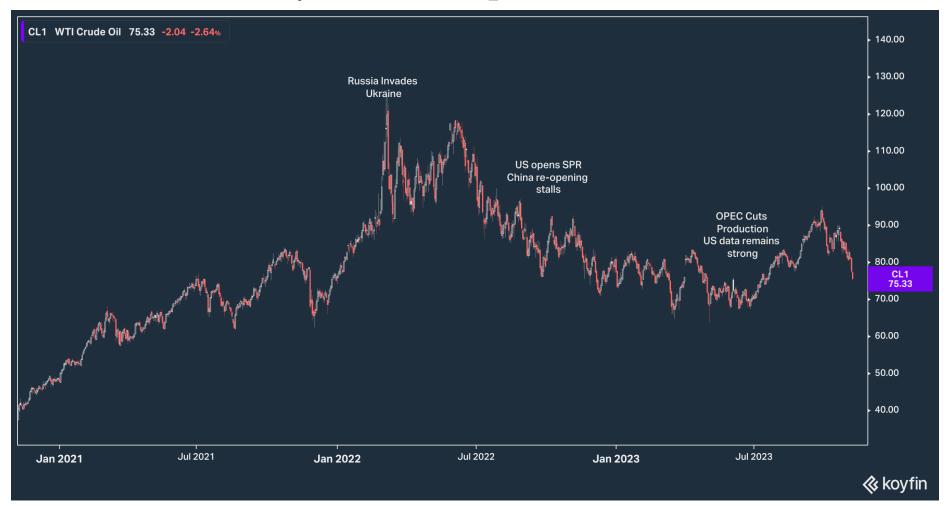
Henry Hub, Louisiana



Source: https://www.naturalgasintel.com/ingaa-touts-more-efforts-to-slash-natural-gas-pipeline-storage-emissions/ https://cameronlng.com/lng-facility/lng-and-liquefaction/https://www.quora.com/Why-would-you-think-that-U-S-opposition-to-the-natural-gas-pipeline-from-Russia-to-Germany-is-justified

Any stock, options or futures symbols displayed are for illustrative purposes only and are not intended to portray recommendations. There is a substantial risk of loss in trading futures and options. Past performance is not indicative of future results. © GFM Asset Management LLC 2023

Quick view on 3 years of oil prices ...

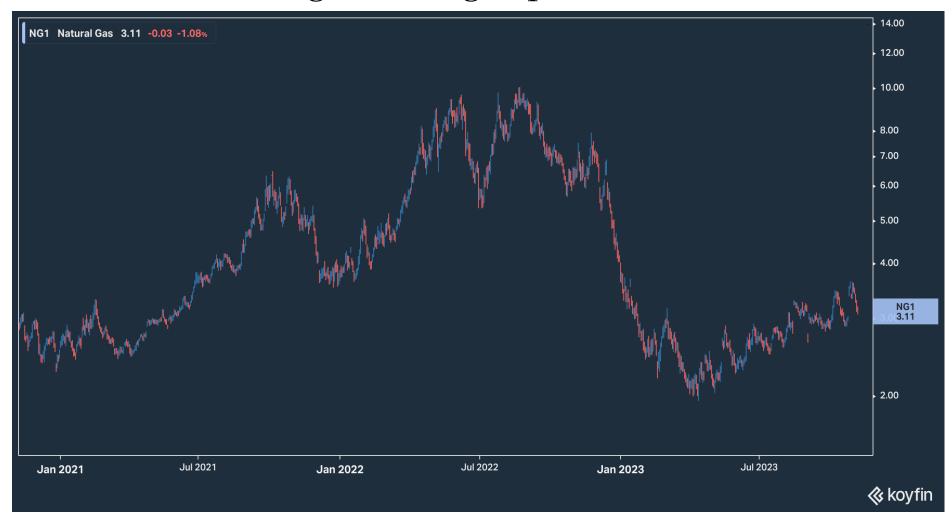


Source: Koyfin

Any stock, options or futures symbols displayed are for illustrative purposes only and are not intended to portray recommendations. There is a substantial risk of loss in trading futures and options. Past performance is not indicative of future results.

© GFM Asset Management LLC 2023

... versus the range of nat gas prices ...

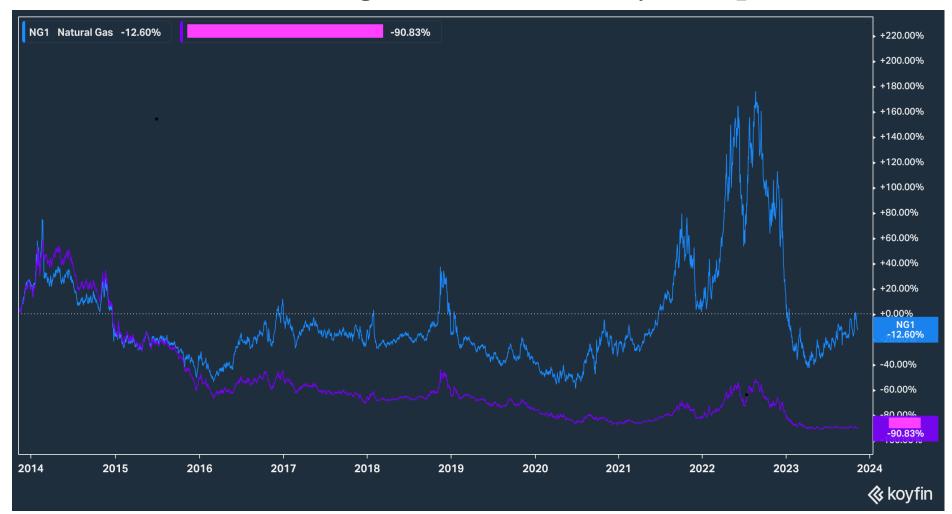


Source: Koyfin

Any stock, options or futures symbols displayed are for illustrative purposes only and are not intended to portray recommendations. There is a substantial risk of loss in trading futures and options. Past performance is not indicative of future results.

© GFM Asset Management LLC 2023

... and how a leading ETF has done by comparison



Source: Koyfin

Any stock, options or futures symbols displayed are for illustrative purposes only and are not intended to portray recommendations. There is a substantial risk of loss in trading futures and options. Past performance is not indicative of future results.

© GFM Asset Management LLC 2023

Now, onto trading crude oil on TWS:

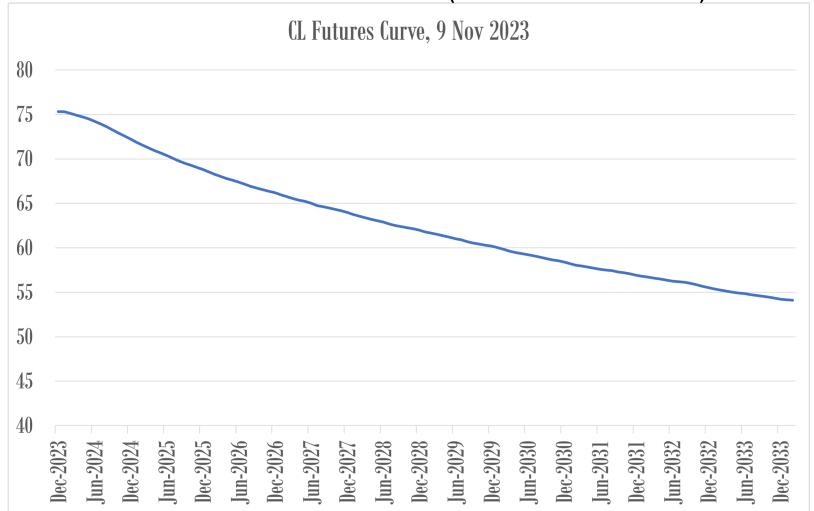
	LAST	FUT OI	CHAI	NGE			LAST	FUT OI	CHAN	NGE
MCL Dec'23 @NYMEX	• 76.35	33.8K	+1.02	1.35%	CL Dec'23 @NYMEX	•	76.36	250K	+1.03	1.37%
MCL Jan'24 @NYMEX	• 76.29	5.62K	+0.98	1.30%	CL Jan'24 @NYMEX	•	76.28	265K	+0.97	1.29%
MCL May'24 @NYMEX	• 75.04	67	+0.52	0.70%	CL Feb'24 @NYMEX	•	76.05	123K	+0.93	1.24%
MCL Apr'24 @NYMEX	• 75.54	226	+0.80	1.07%	CL Mar'24 @NYMEX	•	75.81	110K	+0.88	1.17%
MCL Feb'24 @NYMEX	• 76.05	1.52K	+0.93	1.24%	CL Apr'24 @NYMEX	•	75.52	68.1K	+0.78	1.04%
MCL Mar'24 @NYMEX	• 75.87	705	+0.94	1.25%	CL May'24 @NYMEX	•	75.30	46.8K	+0.78	1.05%
MCL Dec'24 @NYMEX	• 72.88	276	+0.64	0.89%	CL Jun'24 @NYMEX	•	74.90	153K	+0.65	0.88%
MCL Sep'24 @NYMEX	• 73.55	9	+0.27	0.37%	CL Jul'24 @NYMEX	•	74.64	37.6K	+0.68	0.92%
MCL Jun'24 @NYMEX	• 75.00	92	+0.75	1.01%	CL Aug'24 @NYMEX	•	74.30	40.4K	+0.67	0.91%
MCL Jul'24 @NYMEX	• c73.96	43			CL Sep'24 @NYMEX	•	73.78	62.9K	+0.50	0.68%
MCL Aug'24 @NYMEX	• 73.70	7	+0.07	0.10%	CL Oct'24 @NYMEX	•	73.36	33.4K	+0.44	0.60%
MCL Oct'24 @NYMEX	• c72.92	9			CL Nov'24 @NYMEX	•	73.14	33.5K	+0.57	0.79%
MCL Nov'24 @NYMEX	• c72.57	2			CL Dec'24 @NYMEX	•	72.76	156K	+0.52	0.72%
MCL Jan'25 @NYMEX	• c71.88	3			CL Jan'25 @NYMEX	•	72.39	23.7K	+0.51	0.71%
MCL Feb'25 @NYMEX	• c71.55				CL Feb'25 @NYMEX	•	c 71.55	13.7K		
MCL Mar'25 @NYMEX	• c71.24				CL Mar'25 @NYMEX	•	71.42	17.1K	+0.18	0.25%
MCL Apr'25 @NYMEX	• c70.94				CL Apr'25 @NYMEX	•	c70.94	7.38K		
MCL May'25 @NYMEX	• c70.67				CL May'25 @NYMEX	•	c70.67	6.73K		
MCL Jun'25 @NYMEX	• 70.66	21	+0.27	0.38%	CL Jun'25 @NYMEX	•	70.91	50.2K	+0.52	0.74%
MCL Jul'25 @NYMEX	• c70.08				CL Jul'25 @NYMEX	•	c70.08	9.06K		
MCL Aug'25 @NYMEX	• c69.80				CL Aug'25 @NYMEX	•	70.00	6.28K	+0.20	0.29%
MCL Sep'25 @NYMEX	• c69.53				CL Sep'25 @NYMEX	•	c69.53	10.3K		
MCL Oct'25 @NYMEX	• c69.29				CL Oct'25 @NYMEX	•	c69.29	4.04K		
MCL Nov'25 @NYMEX	• c69.06				CL Nov'25 @NYMEX	•	c69.06	3.90K		
MCL Dec'25 @NYMEX	• c68.82	5			CL Dec'25 @NYMEX	+	69.26	58.6K	+0.44	0.64%

Source: IBKR TWS, 9 Nov 2023, 3:45pm CET

Any stock, options or futures symbols displayed are for illustrative purposes only and are not intended to portray recommendations. There is a substantial risk of loss in trading futures and options. Past performance is not indicative of future results.

© GFM Asset Management LLC 2023

Oil's current term structure (backwardation)

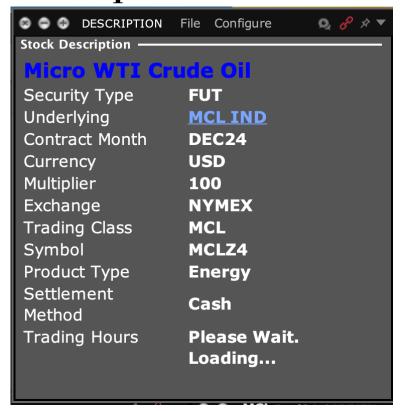


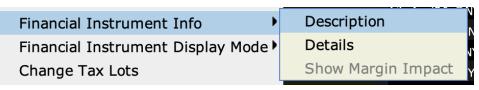
Source: https://www.cmegroup.com/markets/energy/crude-oil/light-sweet-crude.quotes.html#venue=globex
Any stock, options or futures symbols displayed are for illustrative purposes only and are not intended to portray recommendations.

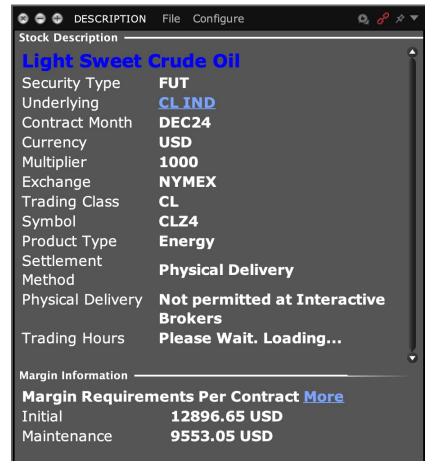
There is a substantial risk of loss in trading futures and options. Past performance is not indicative of future results.

© GFM Asset Management LLC 2023

Description of micro vs full-sized crude oil future







19

Source: Source: IBKR TWS, 9 Nov 2023, 3:52pm CET

Any stock, options or futures symbols displayed are for illustrative purposes only and are not intended to portray recommendations. There is a substantial risk of loss in trading futures and options. Past performance is not indicative of future results.

© GFM Asset Management LLC 2023

The fine print on the MCL contract

MICRO WTI CRUDE OIL FUTURES - CONTRACT SPECS

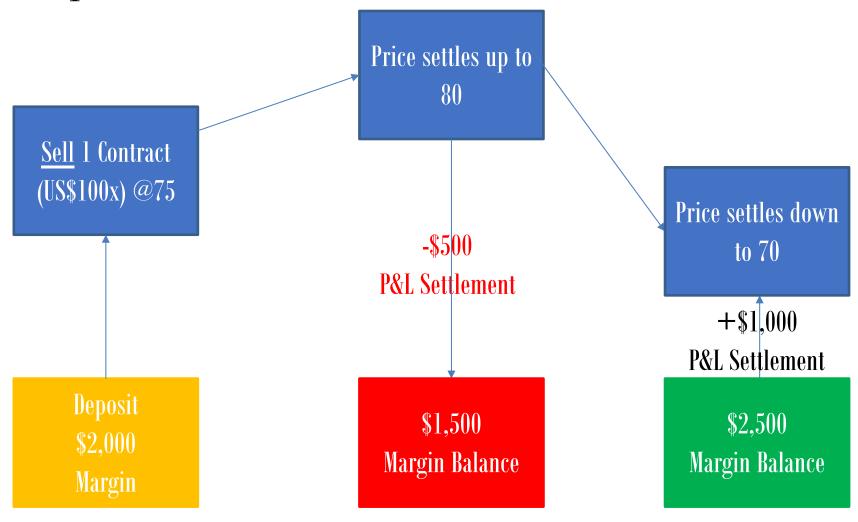
CONTRACT UNIT	100 barrels
PRICE QUOTATION	U.S. dollars and cents per barrel
TRADING HOURS	CME Globex: Sunday 5:00 p.m Friday - 4:00 p.m. CT with a 60-minute break each day beginning at 4:00 p.m. CT
	CME ClearPort: Sunday 5:00 p.m Friday 4:00 p.m. CT with no reporting Monday - Thursday from 4:00 p.m 5:00 p.m. CT
MINIMUM PRICE FLUCTUATION	0.01 per barrel = \$1.00
PRODUCT CODE	CME Globex: MCL CME ClearPort: MCL Clearing: MCL TAS: MCT
LISTED CONTRACTS	Monthly contracts listed for the current year and the next 3 calendar years. List monthly contracts for a new calendar year following the termination of trading in the December contract of the current year.
SETTLEMENT METHOD	Financially Settled
FLOATING PRICE	The Floating Price for each contract month will be equal to the Light Sweet Crude Oil Futures contract final settlement price for the corresponding contract month on the last trading day for the Micro WTI Crude Oil Futures contract month.
TERMINATION OF TRADING	Trading terminates 1 business day before the corresponding CL contract month or 4 business days before the 25th calendar of the month prior to the contract month. If the 25th calendar day is not a business day, trading terminates 5 business days before the 25th calendar day of the month prior to the contract month.

Source: https://www.cmegroup.com/markets/energy/crude-oil/micro-wti-crude-oil.contractSpecs.html

Any stock, options or futures symbols displayed are for illustrative purposes only and are not intended to portray recommendations. There is a substantial risk of loss in trading futures and options. Past performance is not indicative of future results.

© GFM Asset Management LLC 2023

Sample MCL short trade P&L

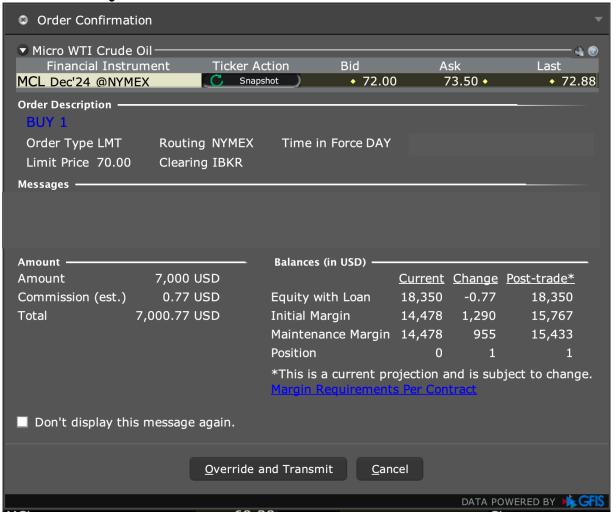


Source: Author's illustration

Any stock, options or futures symbols displayed are for illustrative purposes only and are not intended to portray recommendations. There is a substantial risk of loss in trading futures and options. Past performance is not indicative of future results.

© GFM Asset Management LLC 2023

Sample MCL buy order confirmation



Source: IBKR TWS, 9 Nov 2023, 4:00pm CET

Any stock, options or futures symbols displayed are for illustrative purposes only and are not intended to portray recommendations. There is a substantial risk of loss in trading futures and options. Past performance is not indicative of future results.

© GFM Asset Management LLC 2023

Options on MCL futures

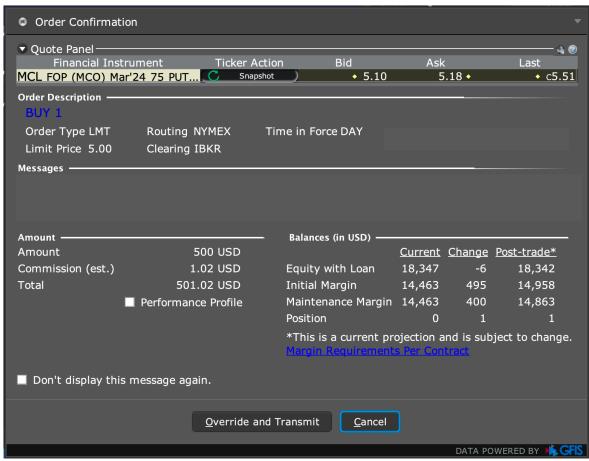
● ● MCL Ma	r'24 @NYMEX▼ PUT/CAL	Ls (Side by Side)▼						<mark>75.65</mark> +0.72	(+0.96%) ? 💁 🗘 🥕 🤊
JAN'24 / FEB' MCO 100 69 DAYS	FEB'24 / MAR'24 MCO 100 97 DAYS	MAR'24 / APR'2 MCO 100 127 DAYS	24 MORE ▼	TARRED W	· -	DIT (CALL	All CTD	IVEC - NYMEY -	TRADING CLASS - 100
				I ABBED A	.EW ▼	PUT/CALL ▼	All STR		TRADING CLASS ▼ 100 IV: 35.0
DTN IMPL	CALI VOLU BD SZ BII		IMPLASK SZ	STRIKE	ODTN	IMPL VOLU.	BD C7	PUTS BID x ASK	DELTA IMPLASK SZ
N/A	32 • 7.02		32	72.5	OPTN	N/A		• 4.02 x 4.09 •	37
N/A	32 • 6.87		22	72.75		N/A		• 4.12 x 4.19 •	36
N/A	32 • 6.73		22	73	1			• 4.18 x 4.30 •	26
N/A	33 • 6.58		33	73.25		N/A		• 4.32 x 4.40 •	36
N/A	33 • 6.44		33	73.5		N/A		• 4.43 x 4.50 •	36
N/A	33 • 6.30	0 x 6.39 •	33	73.75		N/A	26	• 4.52 x 4.60 •	26
N/A	33 • 6.17	7 x 6.25 •	23	74	2	N/A	25	• 4.60 x 4.73 •	25
N/A	33 • 6.03	3 x 6.12 •	23	74.25		N/A	25	• 4.75 x 4.83 •	35
1 N/A	34 • 5.90	0 x 5.98 •	24	74.5		N/A	25	• 4.86 x 4.94 •	35
N/A	24 • 5.77	7 x 5.85 •	24	74.75		N/A	25	• 4.98 x 5.06 •	35
N/A	22 • 5.64	4 x 5.72 •	22	75	2	N/A	23	• 5.10 x 5.17 •	33
N/A	34 • 5.51	1 x 5.59 •	24	75.25		N/A	24	• 5.21 x 5.29 •	34
N/A	2 34 • 5.38	8 x 5.46 ◆	24	75.5		N/A	24	• 5.33 x 5.41 •	34
N/A	35 • 5.26	6 x 5.34 •	25	75.75		N/A	24	• 5.45 x 5.54 •	34
N/A	25 • 5.14	4 x 5.22 •	25	76	2	N/A	24	• 5.58 x 5.66 •	34
N/A	25 • 5.02	2 x 5.10 •	25	76.25		N/A	23	• 5.70 x 5.79 •	33
N/A	35 • 4.90	0 x 4.98 •	25	76.5		N/A	23	• 5.83 x 5.91 •	33
N/A	35 • 4.78	8 x 4.86 •	25	76.75		N/A	23	• 5.96 x 6.05 •	33
1 N/A	26 • 4.66	6 x 4.79 •	26	77	2	N/A	23	• 6.09 x 6.18 •	33
N/A	36 • 4.55	5 x 4.63 +	26	77.25		N/A	32	• 6.22 x 6.31 •	32
N/A	26 • 4.45	5 x 4.52 +	26	77.5		N/A	22	• 6.36 x 6.45 •	32
N/A	26 • 4.34	4 x 4.41 +	26	77.75		N/A	22	• 6.50 x 6.59 •	32
N/A	26 • 4.22		26	78		N/A		• 6.64 x 6.73 •	32
N/A	26 • 4.13		26	78.25		N/A		• 6.78 x 6.87 •	31
NI/A	27 . 4 0	0 4 10 4	דר	70 E		NI/A	21	• 6 02 v 7 01 •	21

Source: IBKR TWS, 9 Nov 2023, 4:05pm CET

Any stock, options or futures symbols displayed are for illustrative purposes only and are not intended to portray recommendations. There is a substantial risk of loss in trading futures and options. Past performance is not indicative of future results.
© GFM Asset Management LLC 2023

Sample MCL buy order confirmation





Source: IBKR TWS, 9 Nov 2023, 4:00pm CET

Any stock, options or futures symbols displayed are for illustrative purposes only and are not intended to portray recommendations. There is a substantial risk of loss in trading futures and options. Past performance is not indicative of future results.

A brief outline of option strategies

- Buy call option: loss limited to premium, unlimited upside
- Buy put option: loss limited to premium, max upside = \$100 x strike
- Sell put option: gain limited to premium, max downside = \$100 x strike
- Sell call option: gain limited to premium, unlimited downside
- Countless ways to combine these, deserving of another webinar...

Any stock, options or futures symbols displayed are for illustrative purposes only and are not intended to portray recommendations. There is a substantial risk of loss in trading futures and options. Past performance is not indicative of future results.

Natural gas on TWS



		LAST	FUT OI	CHAI	NGE
NG Dec'23 @NYMEX	•	3.054	156K	-0.052	-1.67%
NG Jan'24 @NYMEX	•	3.335	234K	-0.054	-1.59%
NG Feb'24 @NYMEX	•	3.292	72.9K	-0.046	-1.38%
NG Mar'24 @NYMEX	•	3.086	168K	-0.050	-1.59%
NG Apr'24 @NYMEX	•	2.977	99.0K	-0.052	-1.72%
NG May'24 @NYMEX	•	3.037	75.5K	-0.052	-1.68%
NG Jun'24 @NYMEX	•	3.163	22.4K	-0.053	-1.65%
NG Jul'24 @NYMEX	•	3.291	42.7K	-0.055	-1.64%
NG Aug'24 @NYMEX	•	3.335	18.6K	-0.053	-1.56%
NG Sep'24 @NYMEX	•	3.318	27.7K	-0.053	-1.57%
NG Oct'24 @NYMEX	•	3.400	63.5K	-0.050	-1.45%
NG Nov'24 @NYMEX	•	3.779	16.1K	-0.037	-0.97%
NG Dec'24 @NYMEX	•	4.246	25.0K	-0.033	-0.77%
NG Jan'25 @NYMEX	•	4.535	46.4K	-0.026	-0.57%
NG Feb'25 @NYMEX	•	4.434	10.6K	-0.029	-0.65%
NG Mar'25 @NYMEX	•	4.065	27.2K	-0.019	-0.47%
NG Apr'25 @NYMEX	•	3.675	33.3K	-0.033	-0.89%
NG May'25 @NYMEX	•	3.682	18.5K	-0.017	-0.46%
NG Jun'25 @NYMEX		c3.826	6.33K		
NG Jul'25 @NYMEX	•	c3.955	12.9K		
NG Aug'25 @NYMEX	•	3.974	3.83K	-0.021	-0.53%
NG Sep'25 @NYMEX	+	c3.976	4.67K		
NG Oct'25 @NYMEX	•	4.025	12.9K	-0.023	-0.57%
NG Nov'25 @NYMEX		c4.384	2.71K		
NG Dec'25 @NYMEX		c4.803	4.19K		
NG Jan'26 @NYMEX		c5.088	21.4K		
NG Feb'26 @NYMEX		c4.875	1.96K		
NG Mar'26 @NYMEX	+	c4.260	2.45K		
NG Apr'26 @NYMEX	•	3.650	2.89K	-0.010	-0.27%
NG May'26 @NYMEX		c3.635	1.12K		
NG Jun'26 @NYMEX		c3.765	738		
NG Jul'26 @NYMEX		c3.900	735		
NG Aug'26 @NYMEX		c3.936	956		
NG Sep'26 @NYMEX		c3.908	968		
NG Oct'26 @NYMEX		c3.980	2.34K		
NG Nov'26 @NYMEX	•	c4.325	727		

Source: IBKR TWS, 9 Nov 2023, 4:20pm CET

Any stock, options or futures symbols displayed are for illustrative purposes only and are not intended to portray recommendations. There is a substantial risk of loss in trading futures and options. Past performance is not indicative of future results.

© GFM Asset Management LLC 2023

CME's Recently Launched Micro-gas contracts

			NEW MICRO HENRY HUB NATURAL GAS FUTURES	E-MINI HENRY HUB NATURAL GAS FUTURES	NEW MICRO HENRY HUB NATURAL GAS MONTHLY OPTIONS	NEW MICRO HENRY HUB NATURAL GAS FRIDAY WEEKLY OPTIONS	HENRY HUB NATURAL GAS FUTURES
	CON1 SIZE	TRACT	1,000 MMBtu	2,500 MMBtu	1,000 MMBtu	1,000 MMBtu	10,000 MMBtu
		O TO DARD TRACT	10:1	4:1	10:1	10:1	1
	MINII TICK INCR		\$0.001 per MMBtu	\$0.005 per MMBtu	\$0.001 per MMBtu	\$0.001 per MMBtu	\$0.001 per MMBtu
	DOLLAR VALUE OF ONE TICK		\$1 per contract	\$12.50 per contract	\$1 per contract	\$1 per contract	\$10 per contract
	PRODUCT CODE		MNG	QG	MNO	MN1; MN2; MN3; MN4; MN5	NG
	SETTLEMENT TYPE		Financial	Financial	Financial	Financial	Physical
	OPEN IN	ITEREST	Trading terminates one (1) business day prior to the	Trading shall cease on the business day immediately	Trading terminates on the second business day	Trading terminates on Friday of the	Trading terminates on the 3rd last
τı	CLOSE CHANGE		expiration of the corresponding	preceding the last day of trading in	immediately preceding the	contract week. If Friday is not a	business day of the month
12	2,114 -1,517		contract month of the Henry Hub	the current delivery month of the Henry	expiration of the underlying Micro	business day trading	prior to the contract
1	,354	+199	Natural Gas Futures contract (NG).	Hub Natural Gas Futures contract	Henry Hub Natural Gas Futures	terminates on the prior	month.
10	, 084	+4		(NG).	contract (MNG).	business day.	
	4.0						

27

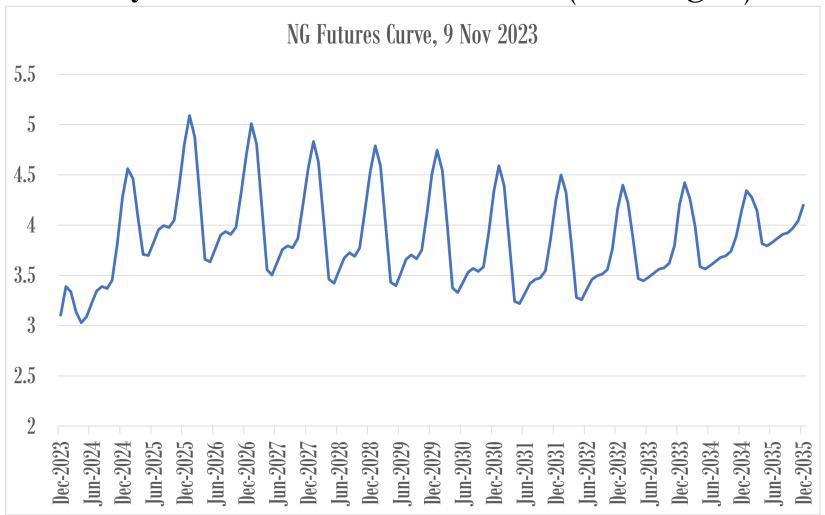
									J			
MONTH		VENUE DETAIL					TYPE D	ETAIL	DELIVERIES			
	GLOBEX	OPEN OUTCRY CLEARPORT VOLUME TRADES FFF EFF TAS	TAS 🕕		AT CLOSE	CHANGE						
DEC 2023	5,795	0	0	5,795	0	0	0	0	0	0	12,114	-1,517
JAN 2024	2,675	0	0	2,675	0	0	0	0	0	0	1,354	+199
FEB 2024	4	0	0	4	0	0	0	0	0	0	10,084	+4
MAR 2024	0	0	0	0	0	0	0	0	0	0	40	0

Source: CME

Any stock, options or futures symbols displayed are for illustrative purposes only and are not intended to portray recommendations. There is a substantial risk of loss in trading futures and options. Past performance is not indicative of future results.

© GFM Asset Management LLC 2023

Gas's very different term structure (contango?)



Source: https://www.cmegroup.com/markets/energy/natural-gas/natural-gas.quotes.html#venue=globex

Any stock, options or futures symbols displayed are for illustrative purposes only and are not intended to portray recommendations. There is a substantial risk of loss in trading futures and options. Past performance is not indicative of future results.

© GFM Asset Management LLC 2023

Options on full-sized NG futures

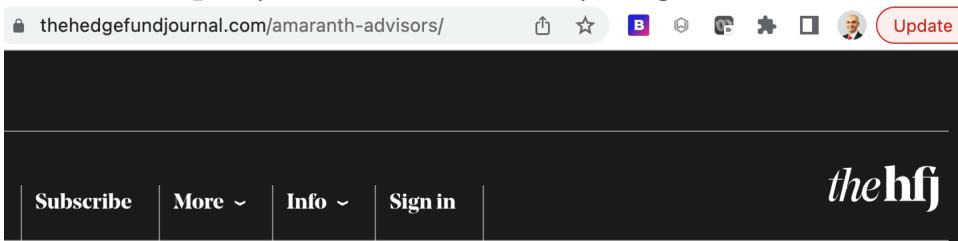
DEC (JAN'24 100	4 ON 00	JAN'24 / FEB'24 LNE 10000	JAN'24 ON / FEB'24 ON 10000	MORE ▼							
		78 DAYS				TABBED VIEV	W ▼ PU	T/CALL •	All STRI	KES▼ NYMEX▼ T	RADING CLASS▼ 10000
			CALLS			STRIKE				PUTS	IV: 68.9
		OLU BD SZ	BID x ASK	DELTA IMPL.					DLU BD SZ		DELTA IMPLASK SZ
.01K	N/A		0.689 x 0.701 •		54	2.75	8.46K	N/A		• 0.158 x 0.163 •	301
	N/A		0.657 x 0.668 •		10	2.8	14	N/A		• 0.176 x 0.181 •	365
187	N/A		0.627 x 0.638 •		58	2.85		N/A		• 0.195 x 0.199 •	119
18	N/A		0.596 x 0.608 •		15	2.9	102	N/A		• 0.214 x 0.219 •	95
13	N/A		0.569 x 0.580 •		82	2.95	12	N/A		• 0.236 x 0.240 •	100
.15K	N/A		0.542 x 0.553 •		155	3		N/A		• 0.257 x 0.263 •	101
22	N/A		0.517 x 0.527 •		157	3.05		N/A		• 0.281 x 0.287 •	117
64	N/A		0.491 x 0.502 •		108	3.1		N/A		• 0.305 x 0.312 •	147
	N/A		0.477 x 0.488 •		159	3.13		N/A		• 0.321 x 0.327 •	67
	N/A		0.468 x 0.479 •		172	3.15		N/A		• 0.332 x 0.338 •	109
	N/A		0.447 x 0.456 •		109	3.2	481	N/A		• 0.358 x 0.365 •	104
785	N/A		0.425 x 0.435 •		189	3.25		N/A		• 0.386 x 0.393 •	94
	N/A	101 •	0.405 x 0.414 •		120	3.3		N/A	15	• 0.415 x 0.422 •	82
1	N/A	99 •	0.386 x 0.395 •		180	3.35		N/A	15	• 0.445 x 0.453 •	120
	N/A	105 •	0.371 x 0.380 •		253	3.39		N/A	155	• 0.470 x 0.478 •	199
50	N/A	65 •	0.368 x 0.376 •		237	3.4		N/A	14	• 0.476 x 0.484 •	115
2	N/A	61 •	0.351 x 0.359 •		247	3.45		N/A	14	• 0.508 x 0.516 •	110
	N/A	2 115 •	0.334 x 0.342 •		246	3.5		N/A	261	• 0.540 x 0.550 •	299
391	N/A	61 •	0.319 x 0.326 •		182	3.55	272	N/A	212	• 0.573 x 0.584 •	199
330	N/A	67 •	0.304 x 0.311 •		182	3.6	326	N/A	121	• 0.608 x 0.619 •	204
151	N/A	111 •	0.290 x 0.297 •		235	3.65	44	N/A	202	• 0.643 x 0.654 •	187
212	N/A	107 •	0.277 x 0.283 •		110	3.7	134	N/A	1	• 0.680 x 0.689 •	87
.16K	N/A	149 •	0.264 x 0.271 •		162	3.75	1.48K	N/A	121	• 0.716 x 0.727 •	174
344	N/A	127 •	0.252 x 0.259 •		134	3.8	209	N/A	1	• 0.754 x 0.765 •	335
117	NI/A	120 🛕	0 241 v 0 247 A		112	3 0 5	101	NI/A	1	• U 203 ^ U 603 •	0E

Source: IBKR TWS, 9 Nov 2023, 4:25pm CET

Any stock, options or futures symbols displayed are for illustrative purposes only and are not intended to portray recommendations. There is a substantial risk of loss in trading futures and options. Past performance is not indicative of future results.

© GFM Asset Management LLC 2023

How to rapidly lose a lot of money in gas futures



On 21 September 2006, Amaranth Advisors, the \$9.5 billion hedge fund, announced that it had lost almost 65% of its assets on a bet on the natural gas market. The biggest energy trading disaster happened through what some have called a series of classic rogue trading mistakes and a complete breakdown in risk control. After an intense period trying to salvage what they could for investors, on Friday 6th October, news started filtering out that Amaranth Advisors was going to shut down leading to hundreds of job losses. According to reports, Amaranth has been forced to sell, at a loss, its energy book to JP Morgan Chase and Citadel.

Any stock, options or futures symbols displayed are for illustrative purposes only and are not intended to portray recommendations. There is a substantial risk of loss in trading futures and options. Past performance is not indicative of future results.

© GFM Asset Management LLC 2023

Questions?

Tariq Dennison
On SeekingAlpha "The Expat Portfolio"
tdennison@gfmgrp.com
https://gfmasset.com