



Commodity Derivatives

Business is subjected to unforeseeable risk due to changes in the raw material cost and business environment. Business having an underlying exposure to commodity prices are exposed to price risk due to factors like international commodity price movement, USD/INR movement, premium / discount to international prices, etc. The volatility in the above-mentioned factors can be significant and cause erosion in profit margins and may require higher deployment of capital. It is possible to mitigate such risks by using suitable commodity derivative products for hedging. Options and Futures are by far the most commonly used Commodity Derivatives.

Commodity Futures contract is "an agreement to buy or sell an underlying commodity at a specified future date (called Expiration Date) at a price that is fixed today." The value of Commodity Derivatives is generally based on the expected price movements of their underlying in the future.

Buyers use such contracts to avoid the risks associated with the price fluctuations of a futures' underlying product or raw material. Sellers use futures contracts to lock in guaranteed prices for their products.

WTI Crude Oil

Crude Oil Derivatives (Brent and WTI) are amongst the top 5 traded products in the Commodities market space.

Cash settled WTI Crude Oil Futures contracts with a contract size of 100 barrels and 10 barrels are available for trading on NSE platform.

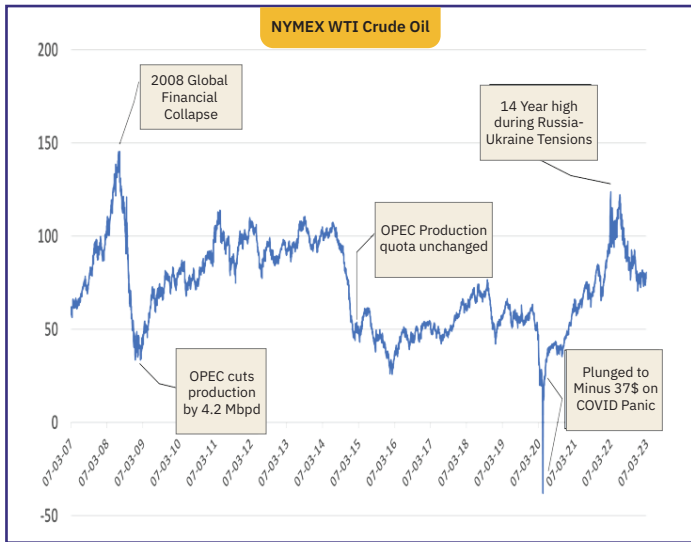
Crude oil is an unrefined petroleum product composed of hydrocarbon deposits and other organic materials. A type of fossil fuel, crude oil can be refined to produce usable products such as gasoline, diesel and various forms of petrochemicals. It is a non-renewable resource, which means that it can't be replaced naturally at the rate we consume it and is therefore a limited resource.

WTI (West Texas Intermediate) Crude Oil is a specific grade of Crude oil and one of the main three benchmarks in oil pricing, along with Brent and Dubai Crude.

WTI is known as a light sweet oil because it contains between 0.24% and 0.34% sulfur, making it "sweet", and has a low density, making it "light".

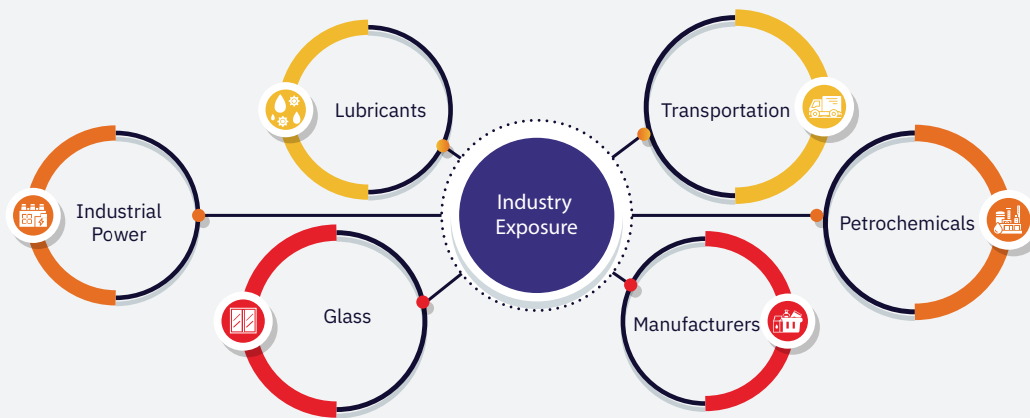
WTI is the main oil benchmark for North America as it is sourced from the United States, primarily from the Permian Basin and Texas. It then travels through pipelines where it is refined in the Midwest and the Gulf of Mexico. The main delivery point for physical exchange and price settlement for WTI is Cushing, Oklahoma.

India is 3rd largest consumer of crude oil in the world, after United States and China.



Factors affecting market Fundamentals

- US Crude Inventories
- Economic Factors: recession, inflation, crisis
- Speculation, Hedging & Investment
- Geopolitical Actions
- Weather Conditions
- OPEC & Non-Opec Decisions & Broadcasts
- Global Economic Growth & Trade Policies



WTI Crude Oil Specifications

Symbol	WTICRUDE (WTI Crude Oil)	WTICRUDEM (WTI Crude Oil Mini)	WTICRUDE (Options On Futures)
Instrument	Futures Contract (FUTENR)		Options on Futures Contract (OPTFUT)
Trading Unit	100 Barrel	10 Barrel	100 Barrel
Tick Size / Quotation	₹ 1 per Barrel		₹ 0.10 (10 paise)
Contract Cycle	Monthly Contracts		
Trading Session	Monday – Friday (9:00 am to 11:30 pm/11:55 pm*) *based on US daylight saving time period		
Settlement	Cash Settled		
Due Date Rate (DDR) / Final Settlement Price (FSP)	<p>Due date rate (FSP) shall be the settlement price, in Indian rupees, of the New York Mercantile Exchange's (NYMEX) Crude Oil (CL) front month contract on the last trading day of the NSE WTI Crude Oil contract</p> <p>The last available RBI USDINR reference rate will be used for the conversion</p> <p>The price so arrived will be rounded off to the nearest tick</p>		Daily settlement price of underlying futures contract on the expiry day of options contract

Natural Gas

The Henry Hub Natural Gas futures contract is one of the most traded natural gas futures contracts in the world due to its price transparency and robust liquidity.

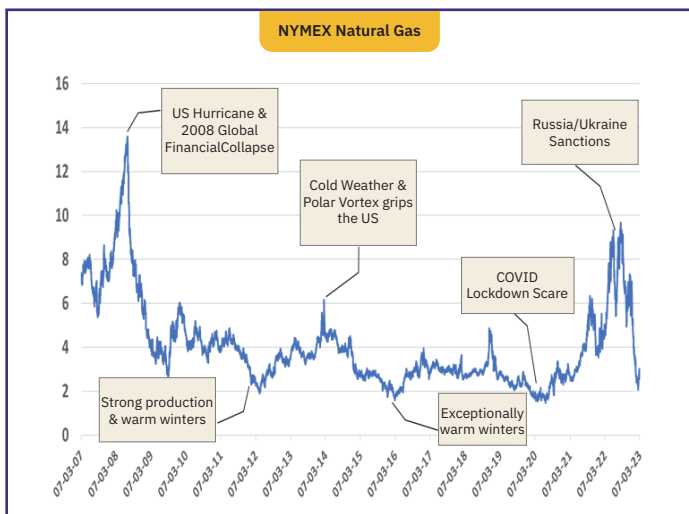
Cash settled Natural Gas Futures contracts with a contract size of **1250 mmBtu and 250 mmBtu** are available for trading on the NSE platform

Natural Gas is found in deep underground rock formations or associated with other hydrocarbon reservoirs in coal beds and as methane clathrates.

Natural gas is used mainly in the industrial, commercial, transportation, and household sectors. Natural gas is an essential energy source, and its demand is continuously increasing globally.

Henry Hub is a natural gas pipeline located in Louisiana, USA, which serves as a benchmark for natural gas pricing in the United States and around the world. It is the delivery point for natural gas futures contracts traded on the New York Mercantile Exchange (NYMEX).

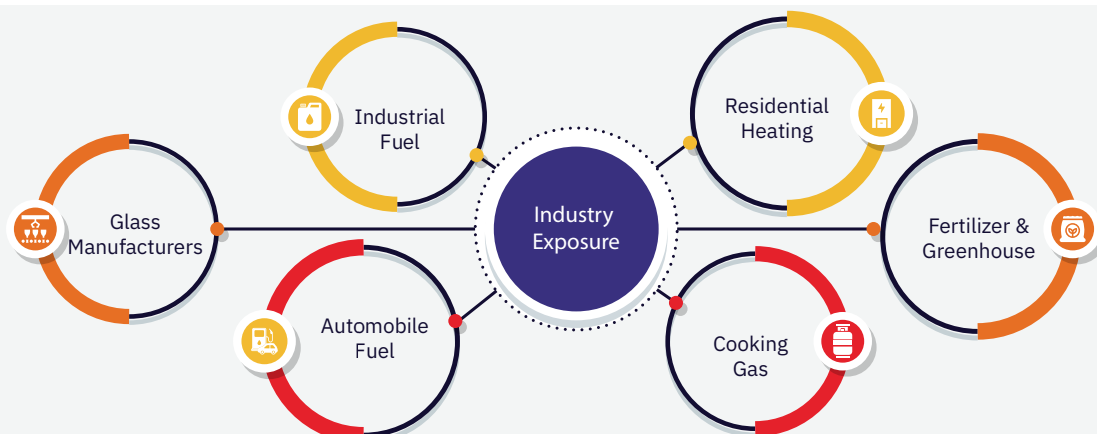
India has been witnessing a steady decline in production because of limited availability of gas that can be extracted economically, thus consumption growth has been satisfied through Liquefied Natural Gas (LNG) imports whose share in the country's natural gas consumption is approx. 50%. Hence, Natural Gas in India has strong linkages to the Global Natural Gas prices.



Source: Refinitiv

Factors affecting market Fundamentals

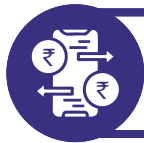
- International Gas Inventories
- Economic Factors: recession, inflation, crisis
- Speculation, Hedging & Investment
- Geopolitical Actions
- Weather Conditions
- Industrial & Residential Demand



Natural Gas Specifications

Symbol	NATURALGAS (Natural Gas)	NATGASMINI (Natural Gas Mini)	NATURALGAS (Options On Futures)
Instrument	Futures Contract (FUTENR)		Options on Futures Contract (OPTFUT)
Trading Unit	1250 mmBtu	250 mmBtu	1250 mmBtu
Tick Size / Quotation	₹ 0.10 (10 Paise) per mmBtu		₹ 0.05 (5 Paise)
Contract Cycle	Monthly Contracts		
Trading Session	Monday – Friday (9:00 am to 11:30 pm/11:55 pm*) *based on US daylight saving time period		
Settlement	Cash Settled		
Due Date Rate (DDR) / Final Settlement Price (FSP)	<p>Due date rate (FSP) shall be the settlement price, in Indian rupees, of the New York Mercantile Exchange's (NYMEX)# Natural Gas (NG) front month contract on the last trading day of the NSE Natural Gas contract.</p> <p>The last available RBI USDINR reference rate will be used for the conversion.</p> <p>The price so arrived will be rounded off to the nearest tick.</p>		Daily settlement price of underlying futures contract on the expiry day of options contract

Key Benefits of Trading at NSE



NIL Exchange Transaction Charges



Fungibility of Collateral
across segments



All FPI categories allowed to trade cash settled
Non – Agri Commodity derivatives contracts



Robust, safe and resilient technology platform

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