Nat Gas Swaps

Intro
Natural Gas is one of the most important, and most highly traded commodities in the world, with a multitude of uses ranging from fuel, to generating electricity, domestic use for cooking and heating, and even as a part of some fertilisers. Consequently, the Nat Gas is a key commodity across the globe, hence the healthy trading volumes that tend to be seen.

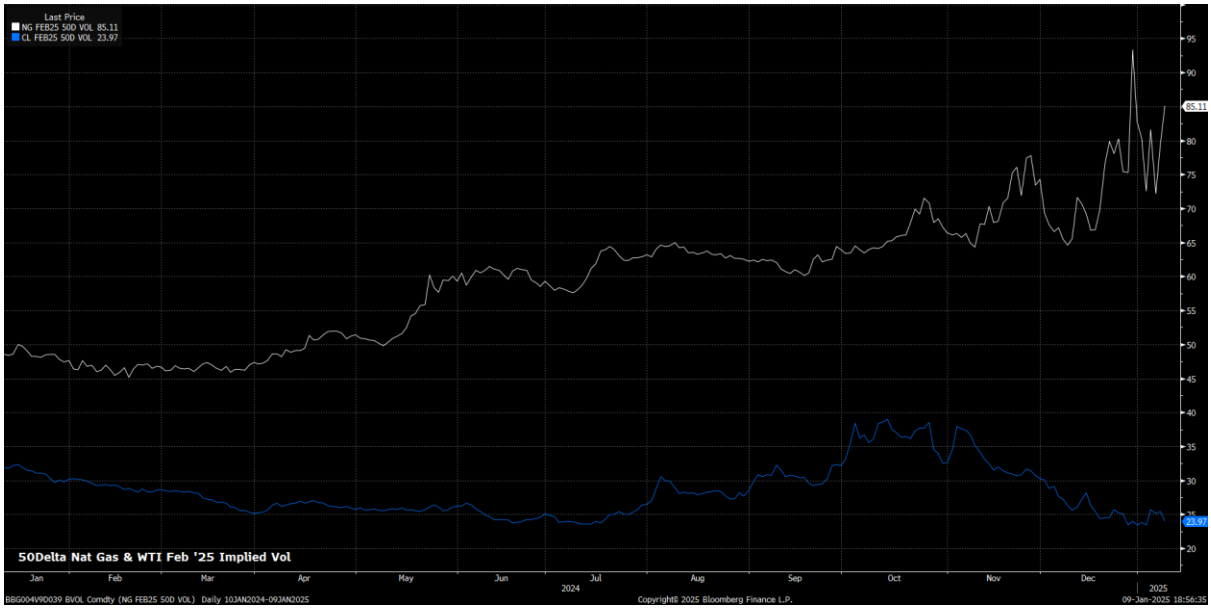
Background
Natural Gas tends to be a highly volatile product, on which more below. Pepperstone's Natural Gas price is a cash price derived from futures contracts, chiefly the Henry Hub Nat gas future, which is widely used as a national benchmark price for the commodity in the United States. Prices are based on delivery at the Henry Hub, Louisiana, where a multitude of US gas pipelines meet, drawing supplies from gas deposits within the region. These pipelines serve markets across the US, from the Gulf of Mexico, all the way to the Canadian border.

Market Moves
A range of factors can influence the price of Nat gas, though as with all assets, market movement is fundamentally caused by shifts in supply, and in demand. If demand were to outstrip supply, the price of the commodity will likely rise, as Nat gas would be increasingly sought after; conversely, if supply is greater than demand, price will move in the opposite direction.

Specifically, though, changes in Nat gas supply and demand tend to be influenced by the following factors:

- **Global Demand**: Shifts in industrial demand, either for power generation or other uses, can cause price swings, having a more significant effect as nations increasingly transition towards 'clean' energy sources
- **Weather**: Seasonal trends see gas usage typically increase during winter, as cold weather leads to increased use of heating systems; hurricanes, storms, and other severe weather events can shut down production for prolonged periods, also influencing price
- **Geopolitics**: Conflict in areas with large natural gas reserves can result in a sharp tightening of supply, as seen in the aftermath of Russia's invasion of Ukraine

Digging Deeper
As noted, Nat gas contracts are infamous for their volatility. The below chart compares the 50-delta implied volatility on the front Nat gas, and WTI crude, contracts at the time of writing. As can be seen clearly, NG futures trade with not only considerably higher implied vol, but also with considerably choppier volatility; a similar divergence is also present if one were to look at realised vol, which is a measure of actual market movement, as opposed to expected future movement.



Contract Specifics

Holding a natural gas position overnight will, as with other derivative contracts offered by Pepperstone, incur a swap – simply, this is rollover interest, that is either earned or paid, for holding a position into a new trading day. Precise swap rates can be found within the trading platform that a client utilises, though are indicative only, and subject to change depending on prevailing market conditions.

Swap rates occur because commodity CFDs are synthetically cash contracts, based off liquid futures contracts, with market movement naturally taking place between said contracts, and a fair value adjustment also needing to be made, to account for the time remaining until the future in question expires.

The precise amount debited, or credited, by virtue of the swap, depending on one's position, changes over time, no matter the contract in question, owing to typical market movement, shifts in the futures curve, and changes in the cost of carry. Said changes can be significant, particularly if the underlying contract of the product in question is highly volatile, such as is often the case with Nat gas.

How to calculate and determine swaps on natural gas

Swap rates will be updated daily to reflect underlying market conditions, the up-to-date swap rate can be found under instrument specifications on your trading terminal.

NatGas, Natural Gas vs US Dollar		
Sector		Commodities
Industry		Energy
Digits		3
Contract size		10000
Spread		floating
Stops level		0
Margin currency		USD
Profit currency		USD
Calculation		CFD
Tick size		0.000
Tick value		0.00000000
Trade		Full access
Execution		Market
GTC mode		Good till cancelled
Filling		Immediate or Cancel
Expiration		All
Orders		All
Minimal volume		0.01
Maximal volume		50
Volume step		0.01
Volume limit		500
Swap type		In points
Swap long		8.8725
Swap short		-9.5325
Swap multipliers		
Monday		1
Tuesday		1
Wednesday		1
Thursday		1
Friday		3
Consider holidays		Disabled
Sessions	**Quotes**	**Trade**
Sunday		

As we can see in the above specifications example for Natural Gas (Nat Gas) the current long rate is 8.8725 and the short rate is -9.5325 Below the calculation example we can see the charge or payment that will be made to your account.

1 lot Long:
Point value * Unit value *swap rate * Lots = swap
0.001 *10,000 * 8.8725 * 1 = 88.725 USD

1 lot Short:
Point value * Unit value *swap rate * Lots = swap
0.001 *10,000 * -9.5325 * 1 = 95.325 USD