FACTSHEET

大连商品交易所
DALIAN COMMODITY EXCHANGE

LPG Futures
LPG Options

Dalian Commodity Exchange (DCE) launched liquefied petroleum gas (LPG) futures and LPG options in 2020. In 2025, LPG futures and options were officially made accessible to Qualified Foreign Investors (QFIs). Since their introduction, both instruments have demonstrated stable market performance and active participation, establishing themselves as essential tools for risk management and hedging among enterprises within the relevant industrial sectors.

Supply and Demand

Globally, total LPG production has exceeded 300 million metric tons, with North America and the Middle East being the primary supply regions. Major consumption markets are located in Asia, North America, Europe, and Latin America. There exists a notable mismatch between global LPG supply and demand regions, resulting in a highly developed interregional trade network.

In China, the vast majority of domestically produced LPG is derived as a by-product from refinery operations, primarily in the eastern and southern regions of the country. Among these, East China has the highest concentration of refining capacity, making it the largest LPG-producing area domestically.

China also imports substantial quantities of LPG, primarily in the form of pure propane. In recent years, the volume of imported LPG has steadily increased, with the current import dependence exceeding 40%. The largest import volumes are concentrated in the coastal provinces of South China, East China, and North China, which together account for approximately 99% of the nation's total LPG imports. In contrast, China's LPG exports remain negligible.

Main Applications

LPG is primarily obtained from associated gas in oil and gas fields and from by-product gases produced during refinery processes. LPG derived from oil and gas fields typically consists of pure propane or butane, whereas refinery-sourced LPG is generally a propane-butane mixture. It is stored in liquid form and used as a gas; under low temperatures or pressure, it can be liquefied, making storage and transportation more convenient.

LPG serves two major roles: as a fuel and as a petrochemical feedstock. Among these, its use as a fuel represents the largest application segment, accounting for approximately 40% of total consumption.

Key Price Influence Factors

Crude Oil Prices

As the majority of China's domestically produced LPG originates from refinery by-products, fluctuations in crude oil prices have a direct and significant impact on LPG pricing.

Global Supply Dynamics

Since 2016, the global LPG market has experienced a persistent supply surplus. The international trade model has transitioned from demand-driven to supply-driven. Notably, the United States, propelled by the shale gas revolution, has shifted from being a net importer to a major exporter of LPG, significantly reshaping the global pricing mechanisms of the LPG trade.

Import Dependency

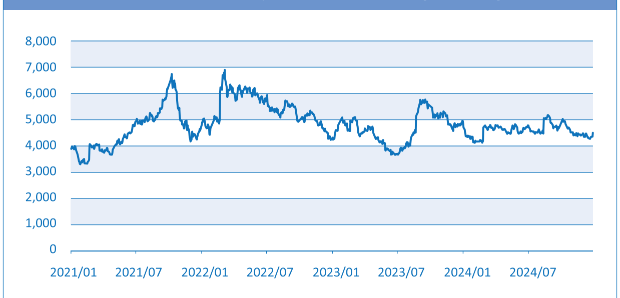
Southeastern coastal regions are the primary consumption centers for LPG in China, with a high level of import dependence. These areas import far greater volumes of LPG compared to inland regions, resulting in a strong correlation between regional LPG prices and international market prices.

Alternative Energy Sources

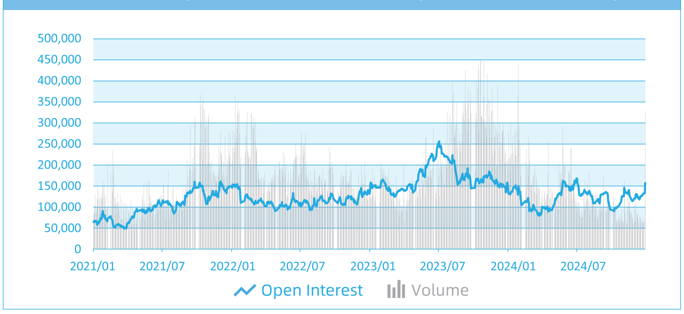
LPG and liquefied natural gas (LNG) are both complementary and substitutable energy sources, particularly in industrial applications. As both are used as fuels, they exhibit a high degree of price and demand interdependency in competitive usage scenarios.

Trading Statistics

LPG Futures Daily Settlement Price (CNY/MT)



Volume and Open Interest of LPG Futures (in number of contracts)



Contract Specifications

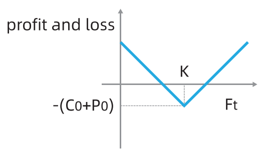
Liquefied Petroleum Gas Futures	
Product	Liquefied Petroleum Gas
Trading Unit	20MT/Lot
Price Quote Unit	CNY/MT
Minimum Tick Size	1 CNY/MT
Daily Price Limit Range	4% of last settlement price
Contract Months	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec
Trading Hours	9:00 - 11:30 a.m., 1:30 - 3:00 p.m., Beijing Time, and other trading hours announced by DCE
Last Trading Day	The last but three trading day of the contract month
Last Delivery Day	The 3rd trading day after the last trading day
Deliverable Grades	Liquefied Petroleum Gas Delivery Quality Standard of DCE (F/DCE PG001-2020)
Delivery Point	The delivery warehouses of liquefied petroleum gas designated by DCE
Minimum Trading Margin	5% of the contract value
Delivery Form	Physical delivery
Ticker Symbol	PG

Liquefied Petroleum Gas Options	
Underlying Instrument	Liquefied petroleum gas futures contract
Contract Type	Call option, put option
Trading Unit	One lot (20 MT) of liquefied petroleum gas futures contract
Price Quote Unit	CNY / MT
Minimum Tick Size	0.2 CNY/MT
Daily Price Limit Range	The same as the daily price limit range of underlying futures contract
Contract Months	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec
Trading Hours	9:00 - 11:30 a.m., 1:30 - 3:00 p.m., Beijing Time, and other trading hours as announced by DCE
Last Trading Day	The 12th trading day of the month immediately preceding the delivery month of the underlying futures contract, DCE may adjust the last trading day according to national holidays
Expiration Date	The same as the last trading day
Exercise Price	The exercise price shall be in the range of the settlement price of the underlying futures on the immediately previous trading day ± (1.5 × daily price limit range of the same day) The option contracts corresponding to the immediate six calendar months: If exercise price ≤ 2,000 CNY/MT, exercise price interval = 25 CNY/MT; If 2,000 CNY/MT < exercise price ≤ 6,000 CNY/MT, exercise price interval = 50 CNY/MT; If exercise price > 6,000 CNY/MT, exercise price interval = 100 CNY/MT. The option contracts corresponding to the seventh and subsequent calendar months: If exercise price ≤ 2,000 CNY/MT, exercise price interval = 50 CNY/MT; If 2,000 CNY/MT < exercise price ≤ 6,000 CNY/MT, exercise price interval = 100 CNY/MT; If exercise price > 6,000 CNY/MT, exercise price interval = 200 CNY/MT.
Exercise Style	American style. The options buyer can apply to exercise the options in the trading hours of any trading day prior to the expiration date, and before 3:30 p.m. on the expiration date.
Contract Symbol	Call option: PG-Contract Month-C-Exercise Price
	Put option: PG-Contract Month-P-Exercise Price

Establishing Flexible Trading Strategies Through Futures and Options

Investors could establish flexible trading strategies through combining various futures and options contracts, which would better help with price risk mitigation. Meanwhile, DCE portfolio margin system already supported multiple trading strategies including straddles, strangles, spreads, etc.

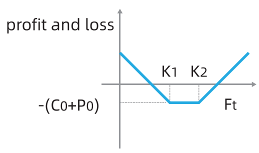
Long Straddle



Investors could establish this strategy through buying one call option (premium= C_0) and one put option (premium = P_0) which are based on the same underlying futures contract and have the same exercise price (K).

profit and loss: $\max(F_t-K,0)-C_0+\max(K-F_t)-P_0$
maximum profit: unlimited
maximum loss: $-(C_0+P_0)$
break-even price: $K+(C_0+P_0)$ and $K-(C_0+P_0)$

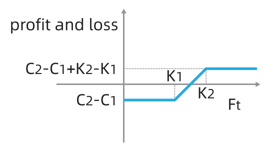
Long Strangle



Investors could establish this strategy through buying one put (premium = P_0) and one call option (premium= C_0) which are based on the same underlying futures contract and have different exercise prices. The exercise price for the put option is K_1 while that for the call option is K_2.

profit and loss: $\max(F_t-K_2,0)+\max(K_1-F_t,0)-C_0-P_0$
maximum profit: unlimited
maximum loss: $-(C_0+P_0)$
break-even price: $K_1-(C_0+P_0)$ and $K_2+(C_0+P_0)$

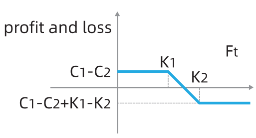
Bull Call Spread



Investors could establish the bull spread through buying one call option (premium = C_1) with a relatively low strike price (K_1) while selling one call option (premium= C_2) with a relatively high strike price K_2, both options are based on the same underlying futures contract.

profit and loss: $\max(F_t-K_1,0)-C_1+C_2-\max(F_t-K_2,0)$
maximum profit: $C_2-C_1+K_2-K_1$
maximum loss: C_2-C_1
break-even price: $K_1+C_1-C_2$

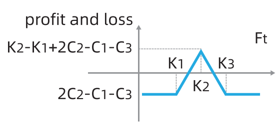
Bear Call Spread



Investors could establish bear spread strategy through selling one call option (premium=C_1) with a relatively low exercise price (K_1) and buying one call option (premium=C_2) with a relatively high exercise price (K_2), both options should be based on the same underlying futures contract.

profit and loss: $C_1-C_2-\max(F_t-K_1,0)+\max(F_t-K_2,0)$
maximum profit: C_1-C_2
maximum loss: $C_1-C_2+K_1-K_2$
break-even price: $C_1-C_2+K_1$

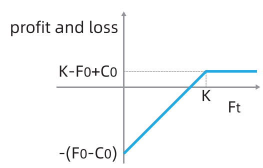
Long Butterfly Spread



Investors could establish long butterfly spreads through buying one call option (premium=C_1) with low strike price (K_1), buying one call option (premium=C_3) with high strike price (K_3) and simultaneously selling 2 call options (premium=C_2) with middle strike price (K_2).

profit and loss: $\max(F_t-K_1,0)+\max(F_t-K_3,0)-2\max(F_t-K_2,0)+2C_2-C_1-C_3$
maximum profit: $K_2-K_1+2C_2-C_1-C_3$
maximum loss: $2C_2-C_1-C_3$
break-even price: $K_1+(C_1+C_3-2C_2)$ and $K_3-(C_1+C_3-2C_2)$

Covered Call



Investors could establish the covered call strategy via buying one futures contract (price = F_0) and simultaneously selling one call option (premium=C_0) based on the corresponding futures contract.

profit and loss: $(F_t-F_0)+C_0-\max(F_t-K,0)$
maximum profit: $K-F_0+C_0$
maximum loss: $-(F_0-C_0)$
break-even price: F_0-C_0

For more information, please visit our official website **www.dce.com.cn**