Are commodity markets facing a new reality for managing risk?

In a market environment that generates plenty of uncertainties, S&P Global Platts Commodity Risk Solutions offers an independent, verifiable source of data to help you in all risk management functions including validation of internal valuations and better align risk tolerance with business strategy.

S&P Global Platts has been identified by Energy Risk Magazine as the best, most useful and comprehensive data provider for 2019.

Forward curves defined

A forward price is the price today for an obligation to be performed on a specified date in the future. This may be for the physical delivery of a commodity to a specified location, or the financial exchange of fixed price and floating price payments with reference to a notional quantity of a commodity.

A forward price curve shows tradable prices for the same obligation for a series of future dates – it is not a forecast. A forward price curve plots the current price points for the same obligation over a range of dates. It is a measure of market prices at the date of the curve for a series of future performance dates.

Volatility defined

Volatility is a measure of the variation of a trading price series over time. Realized Volatility derives that measure from the historical prices of the underlying commodity. It measures “at-the-money” volatility. Implied Volatility is derived from option prices, and therefore is both forward-looking, and allows the derivation of an entire volatility surface - both forward in tenor, and across various strike prices.

What we offer

- Editorially observed and assessed Platts Forward Curves (PFC) that are produced by global teams of correspondents dedicated to reporting on the energy markets.
- Quantitatively derived forward curves for illiquid markets (M2M) through our extensive database of historical market prices, and based on Platts editorial market knowledge.
- Quantitatively derived forward curves (M2MS-Gas and M2MS-Power) that are derived by leveraging gas and power trade settlement data from Intercontinental Exchange, Inc (ICE) and our extensive database of historical market prices.
- Realized and implied volatility curves and surfaces for North American gas and power, as well as Global oil and products.
- This data, along with our extensive spot price history and proprietary quantitative techniques, enables us to provide standardized, granular forward curves and volatility for liquid and illiquid trading hubs alike.

Tools for informed business decisions

We deliver data in a way that is easy for you to embed into your daily workflow so that you can effectively:
- Validate internally-derived curves
- Mark-to-market your portfolio to determine profit and loss
- Calculate key risk metrics such as Value-at-Risk
- Report the fair value of financial instruments
- Manage counterparty credit exposure and collateral requirements
- Confidently assess the market values of assets and liabilities to support corporate strategies

Commodity Risk Solutions delivers editorially assessed and quantitative forward curves for the oil, gas, petrochemicals, power and coal markets:
- Crude Oil and Refined Products
- LNG (JKM, GCM etc.)
- Natural Gas Liquids
- Petrochemicals
- Natural Gas
- Electric Power
- Coal

Platts Market Data Excel Add-In

In the ever-changing global commodities markets, the sooner you reach the data of interest the more time you have to make critical decisions. With Platts Excel Add-In you can access and interpret our forward curve data faster and easier than ever. Platts Excel Add-In helps you begin and end every working day with exactly the data you are looking for. All the Platts Market Data to which you subscribe can be loaded directly into Excel, with no need for new software. This not only means you receive data to your desktop as soon as it is published, it also enables you to integrate it straight into your models. Traders, analysts, risk and portfolio managers all use Platts Excel Add-In to see real-time, historical and reference data all on one screen, allowing bespoke charting and reporting.
Commodity Risk Solutions

Platts Forward Curve – Oil (PFC-Oil)

Platts PFC-Oil provides global forward curve assessments based on Platts Market on Close (MOC) price discovery system, which is designed to yield a price assessment reflective of market values at the close of every trading day in Asia, EMEA, and the Americas.

Platts unbiased price reports are produced by the industry’s largest editorial team dedicated to oil market reporting. Located around the globe, Platts unrivaled resources ensure broad coverage and the most robust data.

Platts PFC-Oil also provides you with analytical coverage and market commentary on the global oil derivatives market. This information is based on real market activity and actual transactions to provide you with a relevant and independent point of view.

Platts PFC-Oil features include:
- More than 60 assessments of forward curves – plus crack spreads, time spreads, and differentials
- Assessments that extend up to three calendar years and include monthly, quarterly, and calendar year assessments
- Assessments which include exchange-traded futures and over-the-counter swaps
- Independent commentary and analysis from dedicated market analysts included in the Platts Global Alert package
- Historical data for the derivatives market

PFC-Oil Coverage

<table>
<thead>
<tr>
<th>Market on Close Time Stamp</th>
<th>Singapore 16:30</th>
<th>London 16:30</th>
<th>Houston 13:30</th>
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<tbody>
<tr>
<td>PFC-Oil Region</td>
<td>PFC-Oil Asia</td>
<td>PFC-Oil EMEA</td>
<td>PFC-Oil Americas</td>
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</tbody>
</table>

Platts M2M-Oil Forward Curve

For illiquid oil derivative markets

Platts M2M-Oil forward curves are available as an additional service for customers who subscribe to PFC-Oil. Platts M2M-Oil will complement PFC-Oil when there is a gap in the editorially assessed forward curves due to lack of liquidity in the Market On Close (MOC) process.

Platts M2M-Oil is the only set of quantitatively derived forward curves for illiquid markets that incorporate Platts editorial market knowledge and is an independently produced tool to support corporate strategies and to manage commodity risk exposure.

M2M-Oil, when combined with PFC-Oil, creates a comprehensive set of global oil forward price curves at each of the three MOC time stamps every day.

Follow-The-Sun

The Platts Follow-the-Sun oil forward price curves supplement Platts’ existing assessments of the global oil markets published three times daily as the Platts Forward Curve (PFC)-Oil series and encompassing crude oil and refined products markets in the Americas, Asia and Europe, Middle East and Africa (EMEA).

Platts Follow-the-Sun forward curves better enable corporations with activities spanning the global oil markets to choose a single end-of-day time stamp to evaluate their performance, measure risk and calculate profit and loss. They also help address the challenge of reconciling mark-to-market price differences resulting from calculations using forward price curves with different regional time stamps.

Liquefied Natural Gas (LNG) Risk Data

Given the importance of LNG and how global this commodity is, starting from December 2019, S&P Global Platts has decided to assess Forward Curves both at Singapore closing and London Closing.

PFC-JKM

Editorially assessed forward curves

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<tr>
<th>Market on Close</th>
<th>Singapore 16:30</th>
<th>London 16:30</th>
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Published daily, covering 3 month, 2 quarters, 2 seasons, 3 calendar years.

M2M-LNG (JKM, GCM)

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<tr>
<th>Market on Close</th>
<th>Singapore 16:30</th>
<th>London 16:30</th>
<th>Houston 13:30</th>
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<tbody>
<tr>
<td>JKM: Singapore &amp; London MOC (monthly granularity)</td>
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<td>Month 4 – Month 72</td>
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<td>Forward curves are in absolute and relative values.</td>
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<tr>
<td>GCM: Houston MOC only (monthly granularity)</td>
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<tr>
<td>Month 1 – Month 48</td>
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<tr>
<td>Quantitatively derived forward curves</td>
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<td>Forward curves are in absolute and relative values.</td>
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Platts M2M-NGL (Natural Gas Liquids)

Platts M2M-NGL forward curves cover natural gas liquids, including propane, butane, iso-butane, natural gasoline and ethane at Mont Belvieu LST, Mont Belvieu non-LST and Conway markets. Published daily, tenors extend up to 36 months (3 years). An independently produced tool to calculate mark-to-market valuations and support corporate strategies to manage commodity risk exposure, M2M-NGL is the only quantitatively modeled set of NGL forward curves based on Platts editorial market knowledge.

Platts Forward Curve – Petrochemicals (PFC-Petchems)

PFC-Petchems is an editorially assessed forward curves package that helps you manage exposure to price volatility and satisfy fair value reporting standards in the petrochemical markets. Recognizing that you evaluate petroleum and petrochemical interconnections, PFC-Petchems provides regional daily coverage of aromatics (including Benzene), Naphtha, Brent and Propane markets. Based on the Platts MOC price discovery system, PFC-Petchems yields price assessments reflective of market values at the close of every trading day in Asia, Europe and North America.

Platts M2M-Benzene

In addition, Platts M2M-Benzene provides extended monthly forward curves (2 years daily) in Asia, Europe and North America regional packages. M2M-Benzene is the petrochemical industry’s only quantitative model based on Platts editorial market knowledge and extensive database of historical market prices. It’s designed to be both an input for fair value financial reporting and a strategic tool to better understand forward Benzene markets.

Platts M2MS-Gas and M2MS-Power (North America)

The latest generation of Platts products designed to help you manage energy price risk, Platts M2MS-Gas and M2MS-Power curves are independently and transparently produced, and provide you with market-based forward curves and supporting analytical data for key trading hubs.

Platts M2MS-Gas and M2MS-Power curves are based upon our use of Intercontinental Exchange (ICE) settlement data. This data, along with our extensive spot price history and proprietary quantitative techniques, enables us to provide standardized, granular forward curves for liquid and illiquid trading hubs alike.

Platts M2MS-Gas and M2MS-Power feature:
- Twenty-year forward curves published twice monthly
- Volatility curves for all locations
- Implied Heat rates
Platts PFC-Gas and PFC-Power (Europe)
- Platts PFC-Gas and PFC-Power provide independent assessments of forward European gas and power prices. The tenors of the editorial assessments vary by location and extend out as far as four years.
- Platts PFC-Gas assessments include nine different markets in the UK, France, Germany, the Netherlands, Italy, Belgium, and Austria
- Platts PFC-Power assessments include nine different markets in the UK, France, Germany, the Netherlands, Italy, Belgium, Spain, Poland, and the Czech Republic

Platts M2MS-Gas and M2MS-Power (Europe)
Coming in Early 2020 Platts M2MS-Gas and M2MS-Power will offer European Gas and Power curves combining both ICE settlement data and Platts assessment data that offer long-dated, monthly curves for major European hubs.

Platts M2MS-Gas and M2MS-Power (Europe) will feature:
- Long-dated forward curves published daily
- Volatility curves for all locations
- Implied Heat rates

Platts Forward Curve – Coal (PFC-Coal)
PFC-Coal provides an independent series of forward coal derivatives assessments for swaps markets in Europe, Africa, and Australia. Forward curves reflect transactable values on an MOC basis at 17:00 London time.
- Daily assessments provided for the following periods:
  - two months, four quarters, and three calendar years
- Coal contract pricing for CIF ARA (Amsterdam-Rotterdam-Antwerp) and FOB Newcastle (Australia)

Risk solutions at a glance
Products listed on the coverage charts are current as of the date of each guide, and new products are continually being developed. For a complete list of Platts Commodity Risk Solutions, go to https://www.spglobal.com/platts/en/products-services/risk

Transparent, rigorous methodologies
Platts uses a defined set of methodologies and specifications to deliver consistent and quality forward curve assessments to you every day. We provide detailed descriptions and explanations of how we assess the market value of commodities so that customers understand those processes.

Methodologies for our standard forward curves provide clear explanations of the data sources and assessments in straightforward language.

The methodologies can be found: spglobal.com/platts/en/our-methodology/methodology

Delivery Options
Flexible delivery options ensure you can access your data in a format that best suits your needs – via email, FTP site, Platts on the Net (POTN), or Platts API.

In addition, this information is also accessible as an add-on purchase to various Platts real-time products or through a selection of data delivery and analysis partners.

We’re pleased to have cooperative partnerships with the world’s leading data delivery and analysis companies to help you extend the value of the information we provide throughout your organization.

For a complete list of Platts partners, please visit https://www.spglobal.com/platts/en/support/delivery-platforms. Please note that not all products are available on every Platform.

For more information on Platts Forward Curve products, please visit: spglobal.com/risk