Platts
S&P Global
Commodity Insights

Methodology and Specifications Guide
Global M2M Chemical Forward Curves

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Introduction **2**

Data quality and market intelligence **2**
Market intelligence 2
Source of data 2

Quantitative forward curve methodology **2**
General approach 2
Analyzing the market 2
Studying and determining the relationship 3
Adjusting the curve 3
Benzene FOB Korea Financial 3
Benzene FOB USG Financial 3
Benzene CIF ARA Financial 3
MTBE FOB ARA Financial 4

Revision history **6**

Introduction

The following specifications guide holds the methodologies for the S&P Global Commodity Insights' Platts Quantitative Forward Curve assessments for Chemicals.

Platts' Quantitative Forward Curve [QFC] methodologies are designed to quantitatively derive prices that are representative of market value in the markets to which they relate. This QFC Methodology documents describe the assumptions, approach, and the methods by which Platts quantitatively derives price values for publication. The days of publication of the curves, and the times during each trading day in which Platts considers transactions in determining its QFC, are publicly disclosed. This schedule of publication is available on Platts' website:

https://www.spglobal.com/ commodityinsights/en/our-methodology/holiday

The dates of publication are subject to change in the event of outside circumstances that affect Platts' ability to adhere to its normal publication schedule. Such circumstances include network outages, power failures, acts of terrorism and other situations that result in an interruption in Platts' operations at one or more of its worldwide offices. If any such circumstance occurs, Platts will endeavour, whenever feasible, to communicate publicly any changes to its publication schedule and assessment periods, with as much advance notice as possible.

All Platts methodologies reflect Platts' commitment to maintaining best practices in price reporting. Platts' methodologies have evolved to reflect changing market conditions through time, and will continue to evolve as markets change. A revision history, with a cumulative summary of changes to this and previous updates, is included at the end of the methodology.

Data quality and market intelligence

Market intelligence

Platts M2M Chemical curves offer time-stamped quantitatively derived forward curves for EMEA, ASIA and USA regions with the aim to satisfy clients' accounting and analysis needs. They are built by the S&P Global Platts Commodity Risk Solutions team and are modelled using prices extrapolated from the most important trading hubs across the globe, to which the illiquid markets are correlated.

The quantitative forward curves are built using a combination of the market knowledge of S&P Global Commodity Insights' markets teams, market relationships and mathematical methods. S&P Global Commodity Insights has an extensive and unique database of historical assessed spot and forward curves data which provide the necessary foundation for deriving the statistical relationships needed for the quantitative forward curves.

Source of data

The primary sources of data are:

1. Platts editorial observations and assessments, including spot and forward curve assessments
2. Platts' extensive database of historical commodity prices
3. Platts' Editorial commodity market knowledge.
4. Other Platts M2M curves which can incorporate data from relevant third-party sources including ICE.

Please refer to our Platts methodology for details on the editorial assessments:

https://www.spglobal.com/commodityinsights/en/our-methodology/methodology-specifications/petrochemicals

Quantitative forward curve methodology

This section describes the methodology used to compute the M2M Chemical Platts Quantitative Forward Curves (QFC)

General approach

The main approach for modelling a Platts M2M-Chemical forward curves is to:

- Analyze the market and determine the main price driving markets
- Study the relationships between the markets being assessed
- Adjust the curve so that it is consistent and in line with the most recent market assessments

Each and all models have been discussed with our editorial and analytic teams to understand the market fundamentals and ensure that models are consistent with market expectations.

Analyzing the market

The choice of the anchor curve that acts as market driver is fundamentally important. The choice depends on multiple factors including

- How closely the commodities are related
- Physical market connections and regions
- Seasonality
- Availability of data for the anchor curve

Studying and determining the relationship

Once a driving market has been chosen, the next step is to establish how the markets are statistically related and how the designated curve is going to be modelled from the anchor curve.

A relationship can be measured from historical data which could increase the statistical reliability, but might include different market conditions. It is therefore important to determine the time window that reflects current market conditions. This selection is done both by analyzing the data and talking to the relevant editorial and analytics teams. Moreover, it requires the important assumption the relationship measured on the historical spot prices holds for each and all points of the forward curve.

Adjusting the curve

Once the curve is modelled, a progressive scaling factor is applied to ensure continuity to the most recent market observations, being either the Platts Forward Curve (quantitative extension of editorial curve) or the spot market (fully quantitative curve). This is implemented gradually to Include any short-term market influences that aren't captured by the modelling at the front of the curve whilst the back of the curve remains more in line with the original model outcome.

Benzene FOB Korea Financial

Data used to compute this curve

- Historical Platts assessments of Benzene FOB Korea Paper Mo01 [USD/MT]
- Historical Platts assessments of Naphtha C+F Japan Cargo Financial Mo01 [USD/MT]
- Historical Platts assessments of Benzene FOB USG Paper Mo01 [CTS/GAL]
- Daily Platts assessments of Benzene FOB Korea Paper EDITORIAL (Mo1-6)
- Daily Platts assessments of Naphtha C+F Japan Cargo Financial EDITORIAL (Mo1-12)
- Daily Platts assessments of Benzene FOB USG Paper EDITORIAL (Mo1-3)
- Daily Platts assessments of Naphtha C+F Japan Cargo M2M Financial QUANTITATIVE (Mo13-24)
- Daily Platts assessments of Benzene FOB USG Paper M2M Financial QUANTITATIVE (Mo4-24)

Quantitative Forward Curve

A relationship between Benzene FOB Korea and each of the Benzene assessments from different regions or different commodities in the same region is built using a linear regression from the Platts historical assessments. This linear relationship makes it possible to build the Benzene FOB Korea forward curve using fixed weightings based on relevance. This method is used to assess 7 to 24 months forward.

Benzene FOB USG Financial

Data used to compute this curve

- Historical Platts assessments of Benzene FOB USG Paper Mo01 [CTS/GAL]
- Historical Platts assessments of Benzene FOB Korea Paper Mo01 [USD/MT]
- Historical Platts assessments of WTI Frontline at Houston MOC Financial Mo01 [USD/BBL]
- Historical Platts assessments of RBOB Frontline Financial Mo01 [CTS/GAL]
- Daily Platts assessments of Benzene FOB USG Paper EDITORIAL (Mo1-3)
- Daily Platts assessments of Benzene FOB Korea Paper EDITORIAL (Mo1-6)
- Daily Platts assessments of WTI Frontline at Houston MOC Financial EDITORIAL (Mo1-24)
- Daily Platts assessments of RBOB Frontline Financial EDITORIAL (Mo1-24)
- Daily Platts assessments of Benzene FOB Korea Paper M2M Financial QUANTITATIVE (Mo7-24)

Quantitative Forward Curve

A relationship between Benzene FOB USG and each of the Benzene assessments from different regions or different commodities in the same region is built using a linear regression from the Platts historical assessments. This linear relationship makes it possible to build the Benzene FOB USG forward curve using fixed weightings based on relevance. This method is used to assess 4 to 24 months forward.

Benzene CIF ARA Financial

Data used to compute this curve

- Historical Platts assessments of Benzene CIF ARA Mo03 [USD/MT]
- Historical Platts assessments of Naphtha CIF NWE Cargo Mo03[USD/MT]
- Historical Platts assessments of Benzene FOB Korea Paper Mo03 [USD/MT]

- Daily Platts assessments of Benzene CIF ARA EDITORIAL (Mo1-5)
- Daily Platts assessments of Naphtha CIF NWE Cargo Financial EDITORIAL (Mo1-12)
- Daily Platts assessments of Benzene FOB Korea Paper EDITORIAL (Mo1-6)
- Daily Platts assessments of Naphtha CIF NWE Cargo M2M Financial QUANTITATIVE (Mo13-24)
- Daily Platts assessments of Benzene FOB Korea Paper M2M Financial QUANTITATIVE (Mo7-24)

Quantitative Forward Curve

A relationship between Benzene CIF ARA and each of the Benzene assessments from different regions or different commodities in the same region is built using a linear regression from the Platts historical assessments. This linear relationship makes it possible to build the Benzene CIF ARA forward curve using fixed weightings based on relevance. This method is used to assess 6 to 24 months forward.

MTBE FOB ARA Financial

Data used to compute the curve

- Historical Platts assessments of MTBE FOB ARA spread to EBOB FOB AR M1 swap [USD/MT]
- Historical Platts assessments of Gasoline Eurobob 10ppm FOB ARA Barge Financial Mo01 [USD/MT]
- Historical Platts assessments of Naphtha CIF NWE Cargo [USD/MT]
- Daily Platts assessments of Gasoline Eurobob 10ppm FOB ARA Barge Financial EDITORIAL (Mo1-12)
- Daily Platts assessments of Naphtha CIF NWE Cargo Financial EDITORIAL (Mo1-12)
- Daily Platts assessments of Gasoline Eurobob 10ppm FOB ARA Barge M2M Financial QUANTITATIVE (Mo13)

Quantitative Forward Curve

A relationship is built between the MTBE spot cargo premium over the Gasoline Mo1 swap and equivalent Gasoline over Naphtha premium using a linear regression from the Platts historical assessments. When added to the Gasoline forward curve, this linear relationship makes it possible to build the MTBE FOB ARA Financial forward curve using the Gasoline and Naphtha forward curves. When calculating a price for an MTBE month (T), the relationship to both the equivalent Gasoline month (T) and Gasoline month ahead (T+1) are considered. This method is used to assess 1 to 12 months forward.

Symbol list

Market Data Category	MPA	MPU	MPR	MPR
Curve Code	CN0RM	CN0RG	CN0RC	CN3DN
Curve Name	Benzene FOB Korea Financial	Benzene FOB USG Financial	Benzene CIF ARA M2M Financial	MTBE FOB ARA Financial
Mo01				QMTBM01
Mo02				QMTBM02
Mo03				QMTBM03
Mo04		AAIUM04		QMTBM04
Mo05		AAIUM05		QMTBM05
Mo06		AAIUM06	AAIBM06	QMTBM06
Mo07	AAVYM07	AAIUM07	AAIBM07	QMTBM07
Mo08	AAVYM08	AAIUM08	AAIBM08	QMTBM08
Mo09	AAVYM09	AAIUM09	AAIBM09	QMTBM09
Mo10	AAVYM10	AAIUM10	AAIBM10	QMTBM10
Mo11	AAVYM11	AAIUM11	AAIBM11	QMTBM11
Mo12	AAVYM12	AAIUM12	AAIBM12	QMTBM12
Mo13	AAVYM13	AAIUM13	AAIBM13	
Mo14	AAVYM14	AAIUM14	AAIBM14	
Mo15	AAVYM15	AAIUM15	AAIBM15	
Mo16	AAVYM16	AAIUM16	AAIBM16	
Mo17	AAVYM17	AAIUM17	AAIBM17	
Mo18	AAVYM18	AAIUM18	AAIBM18	
Mo19	AAVYM19	AAIUM19	AAIBM19	
Mo20	AAVYM20	AAIUM20	AAIBM20	
Mo21	AAVYM21	AAIUM21	AAIBM21	
Mo22	AAVYM22	AAIUM22	AAIBM22	
Mo23	AAVYM23	AAIUM23	AAIBM23	
Mo24	AAVYM24	AAIUM24	AAIBM24	

Revision history

May 2023: First draft