

1QBit

CME MARKET SENTIMENT METER (MSM)

What is the MSM?

The CME Market Sentiment Meter (MSM) infers market expectations from futures and options settlement data.

Conventional models assume that returns on underlying futures contracts will follow a bell-shaped distribution. In contrast, MSM begins with the assumption that more than one “school of thought” can be present. Most of the time, these schools of thought are similar, and the mixture distribution (which contains all of them) will be relatively bell-shaped. However, when expectations diverge, as they often do around upcoming events with uncertain outcomes, the MSM distribution can broaden and even become bimodal.

In contrast with the conventional approach, in which a single volatility is used to represent the entire risk, the MSM mixture distribution is constructed from a variety of directional and volatility estimates. The risk manager looking to address “tail risk” may find this to be a more intuitive and realistic approach.

Algorithm-Ready Data

MSM is delivered as a “Third-Party Dataset” on the CME DataMine platform. At the end of each trading day, a Curated Data File is calculated from the prices, volumes, open interests and intraday activity. Files are available for the eight products listed on the right.

Each Curated Data File contains a full set of time series from January 3, 2012 through to the present day. All of the price data are in decimal form, and are aligned such that all products are reported on the same dates. The files are in the CSV format and are easy to handle in Excel, Python, Matlab, Mathematica, R, and other packages.

Risk & Return Reimagined...

RISK MANAGEMENT



Draw on our library of historical events. MSM Market States can be correlated with events in the external world. Use what you see in MSM and tap into your knowledge of past events and their outcomes.

ALGORITHMIC TRADING

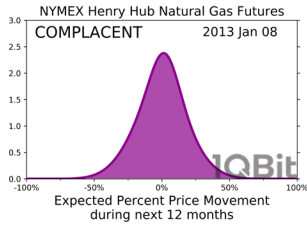


Receive the time series in the MSM Curated Data Files (updated daily). MSM states can be correlated with the persistence of intraday properties in highly-traded markets. The underlying products are often factor inputs to businesses whose stocks and bonds are traded on other markets.

DATA PRODUCTS

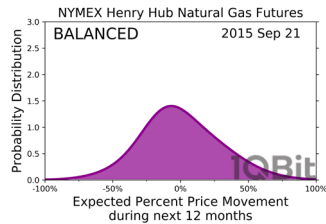
- **CME S&P 500 Index E-Mini futures (ES)**
- **CBOT 10-Year Treasury Note futures (TYF)**
- **CME Euro/USD FX futures (EC)**
- **NYMEX WTI Crude Oil futures (CL)**
- **NYMEX Henry Hub Natural Gas futures (NG)**
- **COMEX Gold futures (GC)**
- **CBOT Soybean futures (S)**
- **CBOT Corn futures (C)**

MODEL CLASSIFICATIONS

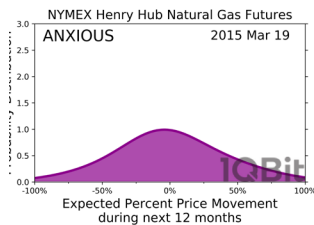


Complacent is when the risk-return probability distribution is tall and narrow. Market participants have relatively few worries.

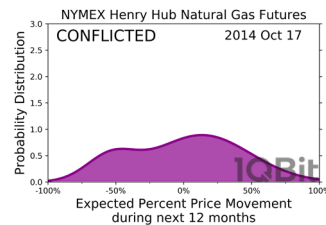
Balanced risk is the most common state and shows a bell-shaped risk-return probability distribution.



Anxious is when the distribution broadens and may even move off-center. Market participants see worries everywhere.



Conflicted (Event Risk) occurs when market participants are weighing the probabilities of two starkly different outcomes and the distribution has two modes.



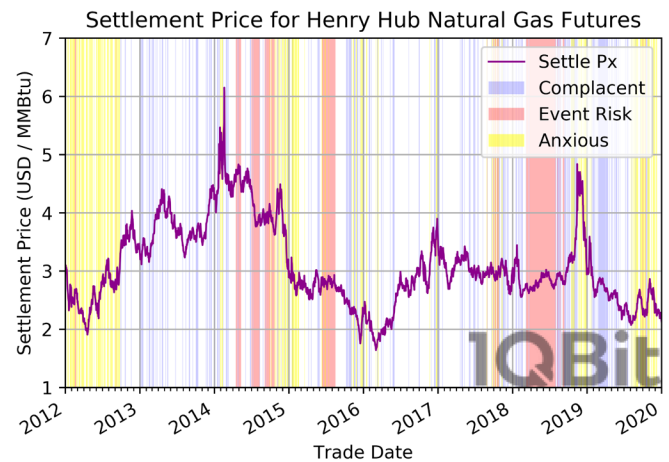
Bimodal states are rare and typically short-lived, yet extremely important to recognize.

1QBit has developed a set of application notes that explain in detail how MSM data can be used. Full versions with code examples are available to subscribers. For details, contact msmsales@1qbit.com.

For a closer look at the data and how to get it, visit CME DataMine at datamine.cmegroup.com. Look for the Market Sentiment Meter in the Third Party Datasets.

What Does the MSM Look Like In Use?

The graph below shows the states of the Market Sentiment Meter overlaid on the end-of-day settlement price for the most active contract in Henry Hub Natural Gas physically delivered futures (NG).



Visually, it appears that Conflicted periods are followed by important price moves. However, the assumption behind event risk is that different schools of thought have different opinions on the likely outcome of an event. After the event, the outcome is known, and all schools of thought are once again trading with the same information. A price move is not required, nor is an increase or decrease in volatility.

Remember that even the most experienced and well-informed traders can be taken by surprise. For the perceptive observer, the absence of a “market signal” in the presence of other indicators can itself be useful information.

The MSM Curated Data Files provide over eight years of data in U.S. **equities**, **rates**, **metals** (Gold), **energies** (Oil and Natural Gas), **agricultural products** (Corn and Soybeans), and **foreign exchange** (EUR/USD). There is a record for every day the markets were open, and over 80 columns of individually-named time series. Twenty of these are cleaned and scrubbed versions of the raw data in the end of day settlement files. The others are smoothings, ratios, and averages intended to lighten the work of the analyst. New products and new series will be added over time.

The information within this communication has been compiled for general purposes only. 1QBit assumes no responsibility for any errors or omissions. Additionally, all examples in this communication are hypothetical situations, used for explanation purposes only, and should not be considered investment advice or the results of actual market experience.

CONTACT US

We welcome new opportunities to collaborate with industry leaders to redefine intractable problems in the finance industry. If you're interested in learning more about how the MSM could benefit your business, please contact 1QBit.

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