



Positioning Analysis in Commodity Markets: Bridging Fundamental and Technical Analysis

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Mr. Mark Keenan, Managing Director, Global Commodities Strategist and Head of Research for Asia Pacific, Société Générale Corporate & Investment Bank (Singapore), presenting on the energy markets at the EnergyRisk Asia 2017 conference in Singapore on November 22, 2017. Mr. Keenan joined the GCARD's Editorial Advisory Board in the spring of 2018.

Published in January 2018, the book, [Positioning Analysis in Commodity Markets](#), defines and establishes “Positioning Analysis” as an area of research that provides a powerful framework to better understand price dynamics, risk, sentiment and behavior in commodity markets.

Based on standard positioning data and bridging aspects of fundamental and technical analysis, the approach builds on how certain types of positioning patterns, in the context of changes in variables like price, curve structure, fundamentals such as inventory, seasonal factors, exchange rates, changes in the broader macroeconomic environment and the levels of risk and uncertainty in the market, can be used



to develop models, indicators and analyses. These lead to the generation of robust trading signals that can be used directly, or can be integrated into a variety of different trading, investment and risk management programs to enhance performance.

Positioning data shows us who is trading what, and how much they are trading; Positioning Analysis shows us what can happen when they trade too much, and how changes in specific variables affect positioning and impact price.

Overview of the Book

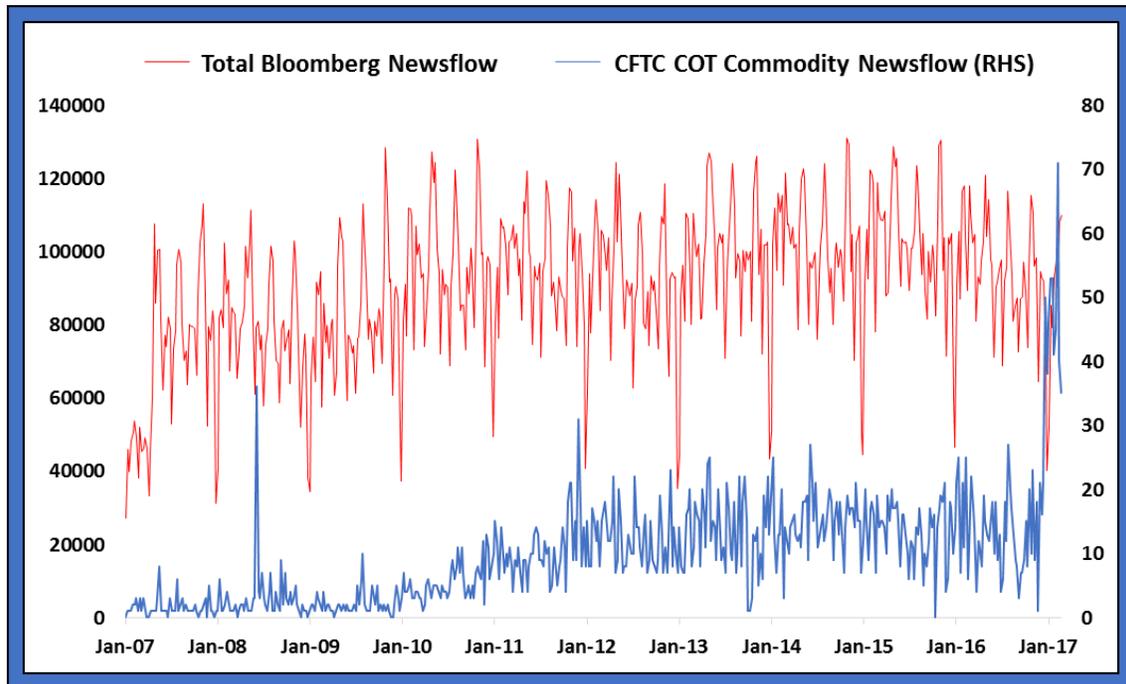
Positioning Analysis is a vast area with a wide range of applications in trading, investment and risk management. The jump in positioning related newsflow in Figure 1 on the next page shows that interest in positioning has also been increasing significantly. This is important as there is often a strong component of self-reinforcement to positioning dynamics in commodity markets.

The book, [Positioning Analysis in Commodity Markets](#) (2018), has over 300 images explaining a wide range of models, indicators and analyses across more than 25 different commodity markets. In many cases, their construction is unique, but in all cases, the approach is robust, intuitive and accessible to market participants and risk managers on a variety of levels. The objective of this article is to highlight some of the main areas in the book, chapter-by-chapter, and provide some insight into Positioning Analysis.



Figure 1

**A Steep Jump in Positioning Related Newsflow Since Early 2017 (Blue);
This Compares to the Unchanged Profile for Total Newsflow (Red)**



Data Source: The Bloomberg.

Note: Positioning newsflow index built by Mark Keenan.

Abbreviations: CFTC stands for the Commodity Futures Trading Commission; and COT stands for the Commitments of Traders report.

Positioning in Commodity Markets

Positioning data often invokes strong opinions about its validity and usefulness - and is therefore not unlike technical analysis in this respect. In Chapter 1, many of the more widespread concerns, such as the “lag” in the data, the “age” of positions, how certain types of traders are classified and how specific types of trading is interpreted are addressed.

Most of the analysis, indicators and models discussed in the book can be applied to different trader categories, which as explained throughout the book, is important in helping to formulate a more complete picture of the overall positioning landscape in a commodity. The chapter also spends some time in explaining the motivation behind each trader, which is helpful in understanding how price, curve structure and sentiment can evolve under different circumstances.

The Structure of Positioning Data: the Commitments of Traders (COT) Reports

Understanding the structure of positioning data, specifically regarding the classifications and how the data is reported, is a prerequisite to understanding Positioning Analysis. The extent and complexity of



the relationships, patterns and dynamics between changes in open interest and changes in the number of traders both within, and between trader categories are considerable. Chapter 2 gives a clear overview of how positioning is attributed between categories.

The chapter also shows how COT data can be used to understand and evaluate positioning patterns and profiles between the major commodities. The analyses show which commodities are the most liquid, which have the highest number of traders in each category, which are the most (and least) speculatively driven, which have the highest degree of spread related activity and in which commodities traders hold the largest positions. Collectively, this information provides a solid foundation for many of the models and analytics presented in later chapters. This chapter also gives general insights into which commodities might be the most vulnerable to shifts in sentiment and from an investment perspective, based on the positioning patterns and profiles in each commodity, whether technical strategies or more fundamentally driven approaches might perform better.

Positioning and Skill: Where Do Speculators Generate the Best Returns?

Information on the skill of speculators, specifically where they generate returns, is important in deciding whether speculative positioning data should indeed be analyzed and used as an indicator to help understand market direction.

Chapter 3 evaluates the performance of Money Managers (MMs) in individual commodity markets using a robust and intuitive analytical framework. Two distinct aspects of speculative positioning are considered – net futures positioning and positioning based on the net number of traders. Combining the results from both these analyses provides valuable insights into performance and helps answer questions on whether speculators have been more skillful in generating absolute or relative returns, which commodities they are best at trading, and whether positive returns are generated by a few large traders in each commodity, or more widely across all traders.

“Dry Powder (DP)” Analysis: An Alternative Way to Visualize Positioning

Chapter 4 introduces Dry Powder (DP) Analysis as a powerful way of visualizing positioning in commodity markets. The analysis reconciles historical long and short open interest in a specific trader category, with the number of traders (trading entities) holding the position in that category.

The data is brought together in the form of DP charts, which is shown on Figure 2 on the next page. These can be directly used as trading indicators to help decide the likelihood of an existing position becoming bigger (how much dry powder is available), and of the position nearing an extreme and growing vulnerable to liquidation. Due to the dynamic nature of speculative positioning, DP charts for Money Managers (MMs) are particularly important in understanding price direction, identifying price risks and discovering trading opportunities.

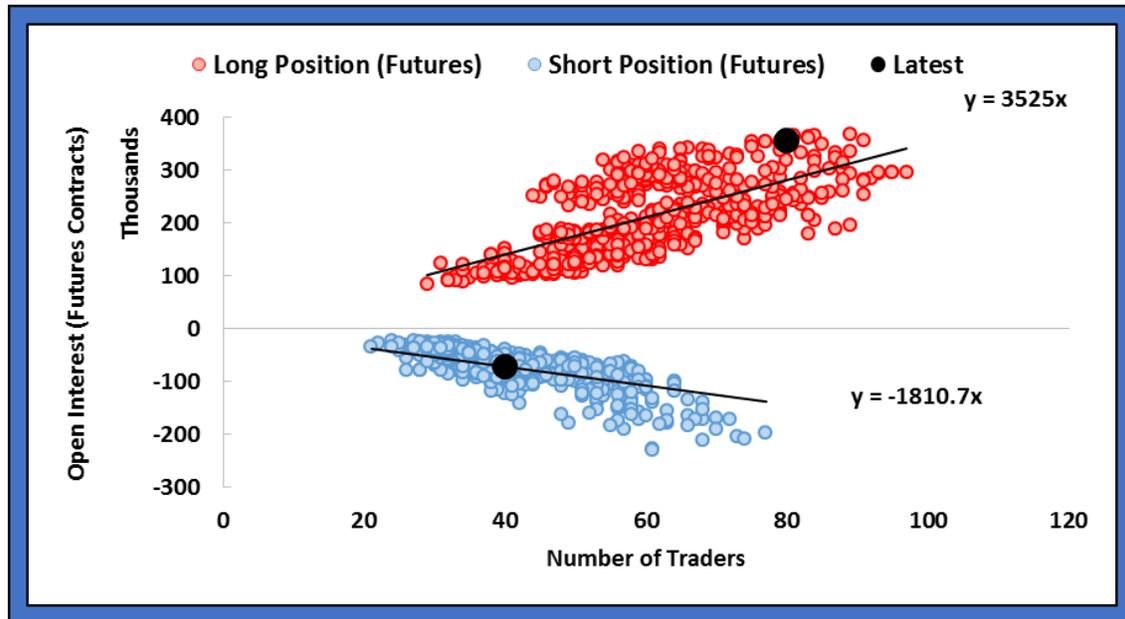
DP charts can be modified in a variety of ways to isolate specific positioning dynamics and lend themselves well for use in conjunction with other indicators and models to refine trading signals and



enhance risk management. Their application is widespread and useful across a wide variety of trading, hedging and investment mandates.

Figure 2

Dry Powder (DP) Analysis of the Money Manager (MM) Category for Crude Oil (WTI)



Data Source: The Bloomberg.

Data Range: June 13, 2006 through December 20, 2016.

The OBOS Framework: The Intersection of Positioning and Price Extremes

Chapter 5 introduces the Overbought/Oversold (OBOS) framework and the OBOS Position indicator. The OBOS framework is used to evaluate and track behavioral patterns in commodities at the intersection of extremes in their long and short speculative positioning and extremes in their price. Speculative positioning extremes often give useful trading insights, but it is mostly in the context of price extremes, that they become particularly powerful.

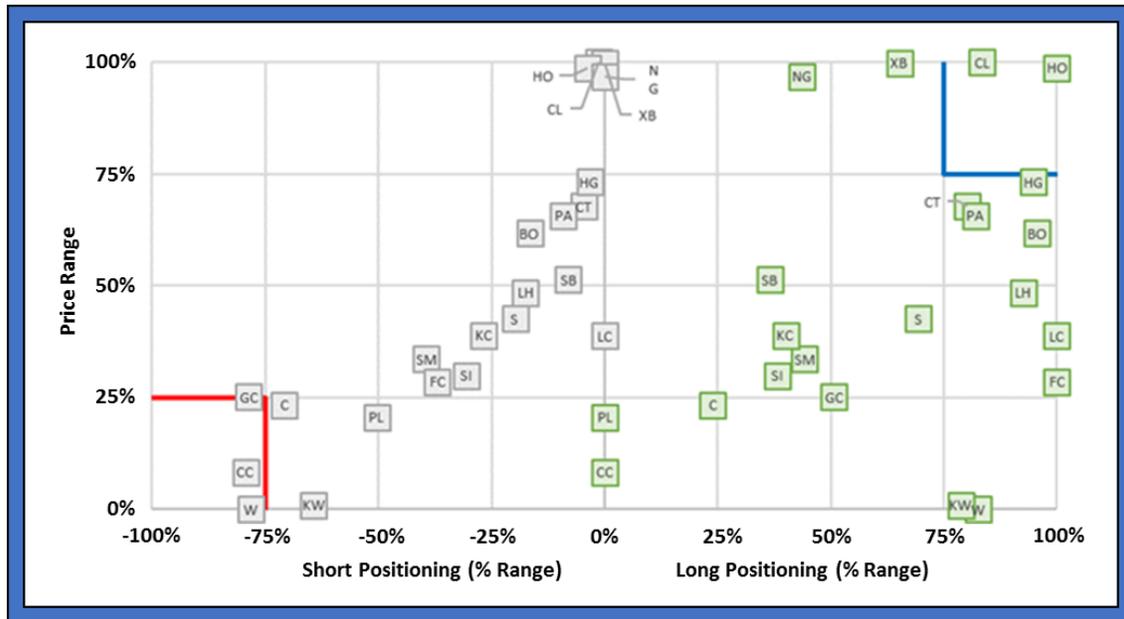
The OBOS Position indicators are used to show behavioral patterns that occur at the intersection of extremes in positioning and price across a variety of different commodities. The indicators are derived from the OBOS framework and use combinations of speculative positioning data and pricing data, at specific thresholds, to define when commodities become “Overbought” and “Oversold,” and to generate precise trading signals and reliable risk alerts.

For the OBOS Position indicator to be able to generate trading signals, Overbought and Oversold thresholds need to be formalized for each of the Positioning Components and the Pricing Component to define the extremes. The “default” thresholds for the OBOS Position indicator are the top and bottom



quartiles (25%) of both the Price and the Positioning Components over specific ranges. These thresholds are indicated in Figure 3 as the blue (overbought) and red (oversold) boxes.

Figure 3
The OBOS Position Indicator Profile with Overbought (Blue) and Oversold (Red) Boxes



Data Source: The Bloomberg.
 Data as of December 23, 2016.
 Each box represents a commodity (Bloomberg symbols).
 Short (long) positioning are shown in grey (green) for each commodity.

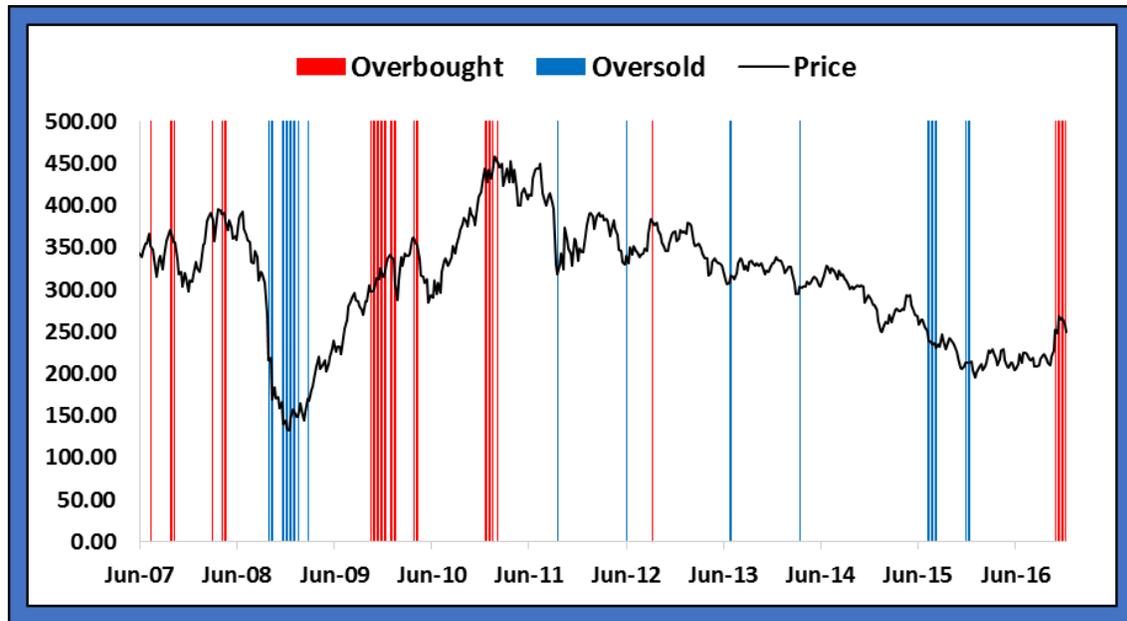
The OBOS framework is highly customizable. Figure 4 on the next page, for example, shows instances of overbought and oversold signals for COMEX copper at a 10% threshold with few signals. The blue (red) bands show how many of the signals coincide well with future moves higher (lower) in price.

In Chapter 6, the Hybrid DP/OBOS framework, as a means of addressing a fundamental weakness in DP Analysis – the subjectivity of trading signals; and also a weakness in the OBOS framework – the risk that the price of an Overbought (Oversold) commodity can continue rising (falling), is introduced. This allows for more precise trading signals to be generated.



Figure 4

OBOS Position Indicator Signal Chart for COMEX Copper with the Thresholds Tightened to Deciles (Top and Bottom 10%)



Data Source: The Bloomberg.
Data as of December 23, 2016.

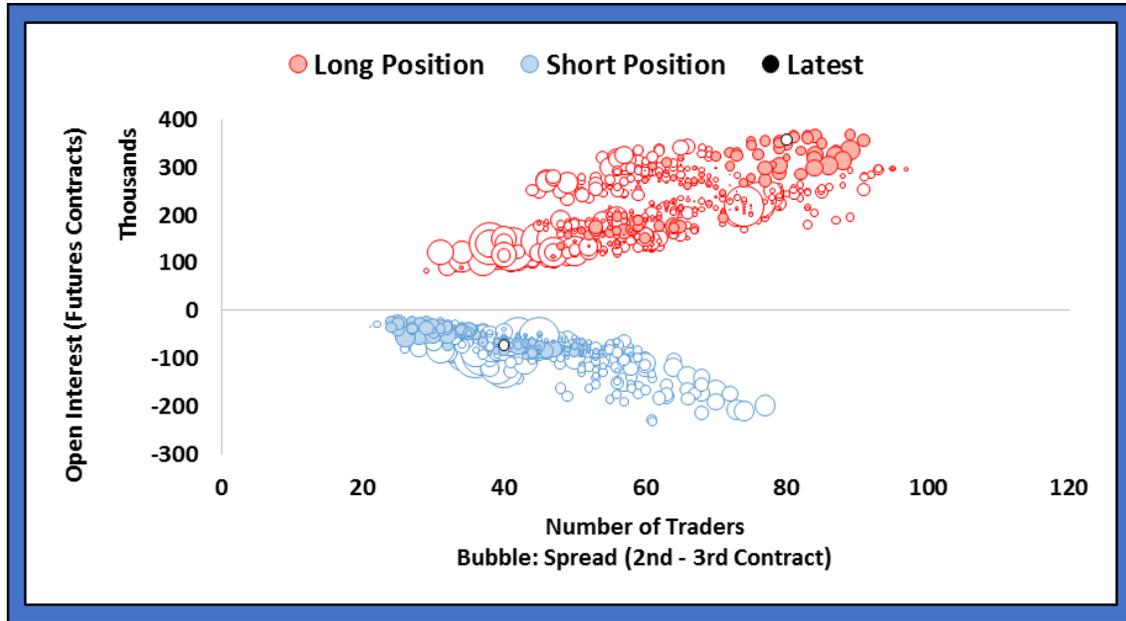
Dry Powder Bubbles (DPB): Deeper Insights and More Variables

Dry Powder Bubbles (DPB) are introduced in Chapter 7 as an intuitive way of incorporating more data and more varied types of data into DP analysis. These can include data on other trader categories, the price of the underlying commodity, the shape of the forward curve, fundamental data, or macroeconomic variables. This allows for new positioning patterns to be identified in the context of different variables.

Figures 5 on the next page, for example, shows the clear proclivity for money managers to build large long (short) positions only when the curve structure is in backwardation (contango) and favorable in terms of roll yield. Interestingly there have never been any meaningful short positions when the curve is backwardated.



Figure 5
DP MM/Curve Bubbles for Gasoil
Shaded (Hollow) Bubbles Show Backwardation (Contango)
Large Bubbles Indicate Wider Spreads – Greater Backwardation or Contango



Data Source: The Bloomberg.
 Data as of December 23, 2016.

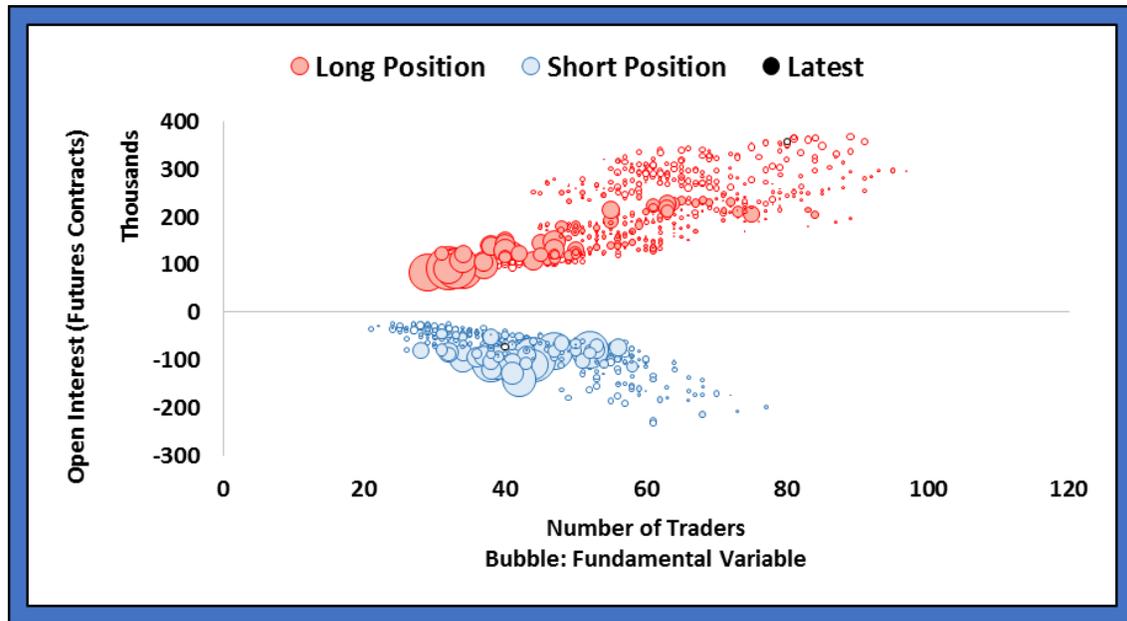
Figure 6 on the next page shows the pattern between speculative positioning in WTI and the level of the VIX index. Here large speculative long positions rarely occur when the VIX is elevated.



Figure 6

DP MM/Macro Bubbles for Crude Oil (WTI)

Large Shaded (Hollow) Bubbles Indicate More Positive (Negative) Z-Score of the Level of VIX



Data Source: The Bloomberg.

Data as of December 23, 2016.

Curve structures measured between the 2nd and 3rd nearby contracts.

Concentration, Clustering, and Position Size: Price Risks and Behavioral Patterns

Chapter 8 looks at different ways of implying the size of positions on an individual basis. Specific Concentration, Clustering and Position Size metrics offer insights into aspects of the level of conviction in the market, the strength of sentiment as well as providing a way of measuring positioning risk and any inadvertent risk clustering.

Sentiment Indices and Positioning Mismatches: Tracking Sentiment Dynamics

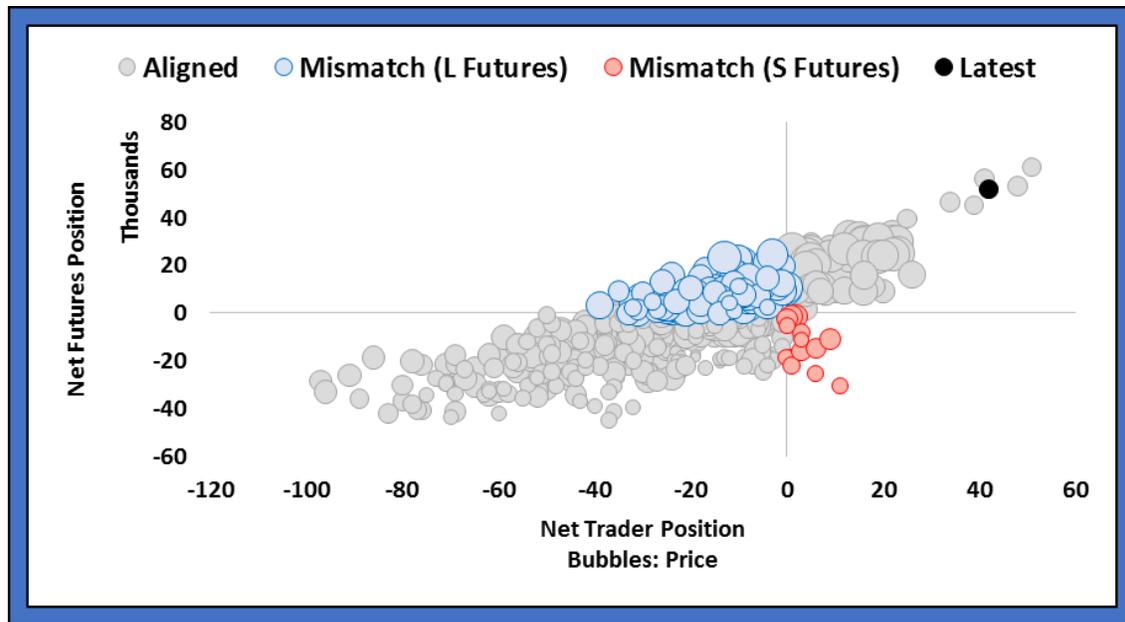
Changes in the number of individual traders holding a long, short, or spreading position, as opposed to changes in the open interest of their aggregate long, short, or net positions offers considerable insight into the collective thinking and sentiment in a trader category. These changes, either in isolation, or in combination, with changes in open interest, can be used to understand shifts in sentiment, to enhance trading models and to generate powerful trading signals. Two different types of Trader Sentiment Indices (TS Indices) are developed in Chapter 9: Directional Sentiment (DS) indices are based on the number of long and short traders only; and, Non-Directional Sentiment (NDS) indices are based on the number of traders holding a spreading position.

The concept of a positioning Mismatch is explained. Mismatches occur between the net number of individual speculative traders (number of long traders – number of short traders) and their net



speculative futures position (long speculative open interest – short speculative open interest). When the direction in the net number of traders is different to the direction of the net futures position, these data are considered to be misaligned, and a Mismatch is defined. Mismatches can lead to powerful trading signals, as mismatches often intersect with price inflexion points. Figure 7 shows a Mismatch chart for copper.

Figure 7
Mismatch Chart for Copper



Data Source: Bloomberg.

Data Range: June 13, 2006 through December 20, 2016.

The OBOS Factor Framework: Extremes in Fundamental, Macro and Sentiment Factors

In Chapter 10 a series of OBOS Factor indicators are derived from the OBOS Factor framework. They are like OBOS Position indicators, except the Pricing Component is substituted for a Factor Component. These indicators aim to isolate periods of extreme speculative positioning and extremes in these factors to understand better how commodities behave in more macro-driven environments, to enhance existing trading signals and to generate new trading signals. The factors include variables such as the VIX, the VVIX, Financial Conditions Indices (FCIs), the dollar index (DXY) and certain commodity currencies.

The Seasonality of Positioning: Seasonal Patterns in Positioning

Chapter 11 looks at patterns in the seasonality of positioning. These can be used alongside many of the indicators and analyses in earlier chapters, to better understand positioning behavior and to refine trading signals.



In general, seasonal patterns in commodities exist in a variety of different channels and affect many aspects of commodity pricing. Changes in the shape of the forward curve and price are usually the most common effects, but seasonal dynamics can also drive shifts in sentiment, influence trading behavior, shape risk appetite and impact fundamental variables.

Blending it All Together: New Insights into Commodity Trading

The final chapter describes how different market participants could use the models, indicators and analyses in the book, either individually or in combination, to enhance their trading, investment, and risk management. For each of the major market participants, encompassing consumers, producers, merchants, speculators, and commodity index (including risk premia) investors, some of the most relevant positioning indicators are described in the form of a “checklist.”

Author Biography

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Mark Keenan is the Global Commodities Strategist and Head of Research for Asia-Pacific (Managing Director) at Société Générale Corporate & Investment Bank in Singapore. He is also the author of [Positioning Analysis in Commodity Markets](#) (2018). With over 20 years of research, trading and investment experience across all the major energy, metal, agriculture and bulk commodity markets, Mr. Keenan works with corporates, trade houses, investment institutions and hedge funds to develop better trading, hedging and investment solutions. Specific expertise in modelling supply and demand data, combined with sentiment, uncertainty, flow and positioning analysis helps him understand commodity price behavior and how it responds to changes in currencies and a variety of different macroeconomic variables. Mr. Keenan has worked in asset management, risk management and investment banking in both London and Singapore. He appears regularly on CNBC and Bloomberg television and is quoted widely in global press and media channels. He has a B.A. and M.A. in Molecular and Cellular Biochemistry from Oxford University.