Commodity Futures Markets

Executive Summary
Since the passage of the Commodity Futures Modernization Act of 2000, new institutional non-commercial investors have entered the commodities futures market. These investors have been dubbed “Massive Passives.” This term refers to a group of institutional investors that own commodities futures. They typically purchase and hold for purposes of potentially improving portfolio diversification and reducing risks in their portfolios, rather than as a direct hedge against producing or consuming commodities. Has this new group of commodity investors improved liquidity within the marketplace? What has been the impact on price momentum and volatility?

As we explore the evolution of participants within the commodities futures markets, we will use the following terms:

- **Index investors**: Asset allocation-driven purchasers of commodities who tend to buy and hold with a longer term time frame; also referred to as the Massive Passives.
- **Speculators**: Non-directional traders whose primary purpose is to create trading profits from providing liquidity to commodity futures markets.
- **Commercials**: Defined by the CFTC (Commodity Futures Trading Commission) as those that use commodity futures markets to hedge production or consumption of an underlying commodity.

We believe that our examination will show that these new market participants/investors have improved market liquidity, but their size and style likely increased both price momentum and volatility. This is due to the very nature of futures markets and the biases of these participants relative to the original and underlying purposes of the commodity futures markets.
Commodity futures markets were originally created to offer price hedging to producers and consumers (called commercial traders by the CFTC) of cash commodities. Examples include farmers seeking to fix the price they receive for their crops, or makers of bread who wish to fix the price of wheat they purchase for their production. The CFTC and commodities exchanges also allowed non-commercial traders (or speculators) in these markets to create more efficient trading and price discovery for the commercial hedgers.

Historically, much of the trading in commodity futures markets has been dominated by commercial traders seeking to hedge their price exposure in cash markets. According to data provided by the CFTC Commitments of Traders, in the NYMEX Crude Oil market from 1995 to 2002, commercial traders comprised an average of 65% of positions in the market, as measured by Total Open Interest. Since 2002, activity (as measured by open interest) has been increasingly dominated by non-commercial traders, such as index investors and speculators. These investors/speculators have averaged 50% of open interest over the past three years. Since 2008, data has been available that identifies index investors from other types of speculators. As recently as June 2011, index investors comprised 18% of the open interest in the Crude Oil market versus virtually nothing prior to 2002. What has changed, and how has this altered market pricing and relationships?

The year 2000 was an important changing point for the commodities market as the U.S. Congress passed an act which removed certain over-the-counter derivative and swap transactions from CFTC oversight. Previously, the CFTC was able to enforce position limits for financial players across all solutions, including futures contracts, as well as all swaps and over-the-counter derivatives linked to commodity futures. This allowed financial players to take positions in regulated investments up to position limits and then increase exposure to commodity markets above these levels through investments in the unregulated swap and over-the-counter derivative transactions. This increased potential financial demand for commodities relative to physical demand.

DEFINITIONS OF TERMS

**Arbitrage:** In economics and finance, arbitrage is the practice of taking advantage of a price difference between two or more markets: striking a combination of matching deals that capitalize upon the imbalance, the profit being the difference between the market prices.

**Commercials:** Defined by the CFTC (Commodity Futures Trading Commission) as those that use commodity futures markets to hedge production or consumption of an underlying commodity.

**Commodity:** Raw materials and unprocessed goods that are either consumed directly or are processed and resold such as; gold, silver, oil, natural gas, wheat, corn, lean hogs, cattle, copper, aluminum. There are five broad categories of commodities: Energy, Industrial Metals, Precious Metals, Agriculture, and Livestock.

**Commodity Futures Modernization Act of 2000 (CFMA):** The Commodity Futures Modernization Act of 2000 (CFMA) is United States federal legislation that officially ensured the deregulation of financial products known as over-the-counter derivatives. It clarified the law so that most over-the-counter derivatives transactions between "sophisticated parties" would not be regulated as “futures” under the Commodity Exchange Act of 1936 or as “securities” under the federal securities laws.

**Commodity Futures Trading Commission (CFTC):** The U.S. Commodity Futures Trading Commission (CFTC) is an independent agency of the United States government that regulates futures and option markets. The stated mission of the CFTC is to protect market users and the public from fraud, manipulation, and abusive practices related to the sale of commodity and financial futures and options, and to foster open, competitive, and financially sound futures and option markets.

**Futures:** A future is an exchange-traded derivative. A future represents an obligation to buy/sell some underlying asset in the future for a specified price.

**Index investors:** Asset allocation driven purchasers of commodities who tend to buy and hold with a longer term time frame; also referred to as the Massive Passives.

**Long:** A long position in a security, such as a stock, bond, or future, means the holder of the position owns the security and will profit only if the price of the security goes up. In contrast, a short position in a futures contract or similar derivative means that the holder of the position will profit if the price of the futures contract or derivative goes down.
Commodity Futures Markets

Investment Insights

and supply constraints. Also, peer-reviewed research, such as Lummer & Seigel (1993) and Ankrim & Hensel (1993), which trumpeted the potential diversification benefits of introducing passive long only commodity futures investments to portfolios, was working its way into the asset allocation frameworks for professional investment managers. Fully cash collateralized commodity futures investments were generally found to offer little correlation to stock and bond portfolios, while providing an average level of historic returns generally equivalent to stocks. As investment managers embraced these concepts, they began to add commodities to the available asset classes in their strategic asset allocations. They also sought vehicles, such as mutual funds, exchange traded funds and notes, structured notes, and hedge funds, to offer exposure to client portfolios. While the institutional portfolios where not directly invested in the futures markets, the institutions providing the solutions ultimately attempted to hedge their risk using commodity futures, thereby introducing a new set of investors in the commodity futures markets — called index investors.

Prior to 2000, price discovery in commodity futures markets was linked to physical cash prices of commodities and ultimately costs of commodity production and sale prices of finished products. Non-commercial traders were typically driven by profits achieved through benefiting from price momentum swings, up or down. The year 2000 ushered in a new type of investor — the index investor. This new investor was driven by diversification and was somewhat insensitive to price momentum (the primary driver of speculator flows), and insensitive to costs of production or sale prices of finished products (the primary investment driver of commercial traders). While index investors provided greater liquidity to the market, they also tended to drive prices away from underlying fundamentals due to their insensitivity. These long-only investors reduced the implied cost of storage embedded in many commodities market prices and, in several cases, changed the shape of futures price curves. This incented physical commodity holders to sell their goods farther into the future as the higher future

DEFINITIONS OF TERMS, continued

Open Interest: Open interest (also known as open contracts or open commitments) refers to the total number of derivative contracts, like futures and options, that have not been settled in the immediately previous time period for a specific underlying security. For each buyer of a futures contract there must be a seller. From the time the buyer or seller opens the contract until the counter-party closes it, that contract is considered ‘open’.

Price Discovery: A method of determining the price for a specific commodity or security through basic supply and demand factors related to the market.

Over-the-counter (OTC): Non-standard products are traded in the so-called over-the-counter (OTC) derivatives markets. OTC derivatives have less standard structure and are traded bilaterally (between two parties).

Speculators: Non-directional traders whose primary purpose is to create trading profits from providing liquidity to commodity futures markets.

Spot: A commodity traded on the spot market. That is, with the expectation of actual delivery, as opposed to a commodity future that is usually not delivered. Spot price is the current price at which a particular commodity can be bought or sold at a specified time and place.

Storage Cost: For a commodity future, the futures buyer has to pay certain costs that compensate for not carrying the asset. Storage costs are generally expressed as a percentage of the spot price.

Swap: A swap is a derivative in which counterparties exchange certain benefits of one party’s financial instrument for those of the other party’s financial instrument. Specifically, the two counterparties agree to exchange one stream of cash flows against another stream. Usually at the time when the contract is initiated, at least one of these series of cash flows is determined by a random or uncertain variable such as an interest rate, foreign exchange rate, equity price or commodity price. Swaps can be used to hedge certain risks such as interest rate risk, or to speculate on changes in the expected direction of underlying prices.

Additional definitions of terms may be obtained from your Wealth Management Advisor.
prices paid for their costs of storage and sometimes provided extra profit. This caused investors with access to physical markets to increase inventories, beyond what is economically necessary. In certain markets a ‘carry trade’ was created where physical commodities that would have typically been sold at spot prices were stored against the sale of long-dated futures contracts, where the cost of storage was less than the price difference on the futures curve. This allowed for risk-free arbitrage. In these cases, the entrance of the index investors likely altered the underlying fundamentals of certain markets, distorting the normal action of price discovery. They did increase liquidity, but also created incentives for additional speculators to enter the market to take advantage of the arbitrage opportunities that arose. It will likely take significant time for these arbitrage opportunities to close due to the large amount of capital required for investment. Also, fresh inflows of index investors increased these arbitrage opportunities. Barclays Capital, in the May 25, 2011 issue of The Commodity Investor publication, estimated the index investor flows increased by $5.8 billion in April 2011, reaching a total of $451 billion.

**Investment Strategies**

The spike in oil prices in 2008, along with recent actions in the grain and precious metals markets, have been met with concerns of price distortion and inflation. This is likely due to the entrance of large numbers of index investors to the commodities markets. While it is not clear that these investors have driven the price spikes, we believe that their entrance has altered the normal process of price discovery. This has created riskless arbitrage opportunities for very large speculators with access to physical markets. The size of speculators required by the supply constraints in many commodity markets and continued growth of index investors means these distortions in price discovery may persist for some time.

While U.S. Bank does not offer direct investments in futures contracts, these conditions lead us to conclude there are likely headwinds to simple passive or index investments in commodities. In our view, other strategies may better provide the potential diversification benefits of commodities. We believe that investors should pursue more active commodity investment strategies. These would include strategies that allow narrower commodity selections, as well as strategies that can both purchase and sell short commodities, including some hedge fund strategies for qualified investors. Private investment strategies, for those investors that qualify, may be able to benefit from the available arbitrage opportunities, as well as avoid the sometimes increased costs embedded in the typical futures price curves of some commodities.

**Conclusion**

The commodity futures markets have changed significantly in the past ten years. Thoughtful research and prudent asset allocation decisions have given rise to a significant new investor in commodity futures — the commodity index investor. We believe these new market participants have provided greater liquidity to the traditional commercial commodity investors, but have also recently distorted the typical price discovery. In our view, this has given rise to a new group of speculators that conduct arbitrage between physical and futures markets to take advantage of opportunities that arose due to the large entrance of index investors. These market distortions may persist as index investor participation continues to expand. In addition, arbitrage is costly and requires access to physical supplies, which may be difficult in many commodities markets which are in short supply.

We believe that index investors should prefer strategies that are more active in nature, including hedge fund strategies which invest in commodity futures markets. Another preference would be private or other unregulated strategies that can potentially take advantage of available arbitrage opportunities. These types of strategies may provide investors with their desired exposure to commodities markets and will possibly avoid the types of distortions we have described. Until price distortions are reduced and markets eliminate most physical versus futures arbitrage opportunities, the popular passive strategies may not provide investors with the desired benefits.
IMPORTANT DISCLOSURES

Date prepared: August 2011. This information represents the views of U.S. Bank and is not intended to be a forecast of future events or guarantee of future results. It is not intended to provide specific advice or to be construed as an offering of securities or recommendation to invest. Not for use as a primary basis of investment decisions. Not to be construed to meet the needs of any particular investor. Not a representation or solicitation or an offer to sell/buy any security. Investors should consult with their investment professional for advice concerning their particular situation. U.S. Bank and its representatives do not provide tax or legal advice. Each individual's tax and financial situation is unique. Individuals should consult their tax and/or legal advisor for advice and information concerning their particular situation. The factual information provided has been obtained from sources believed to be reliable, but is not guaranteed as to accuracy or completeness. U.S. Bank is not responsible for and does not guarantee the products, services or performance of third party providers.

Based on our strategic approach to creating diversified portfolios, guidelines are in place concerning the construction of portfolios and how investments should be allocated to specific asset classes based on client goals, objectives and tolerance for risk. Not all recommended asset classes will be suitable for every portfolio. Hedged strategies are typically available via hedge funds which may not be appropriate for all clients due to the speculative nature and high degree of risk involved in these investments.


Past performance is no guarantee of future results. There are special risks associated with an investment in commodities, including market price fluctuations, regulatory changes, interest rate changes, credit risk, economic changes, and the impact of adverse political or financial factors. Transactions in futures are speculative and carry a high degree of risk. The amount of initial margin is small relative to the value of the futures contract. A relatively small market movement will have a proportionately larger impact on the funds investors have deposited or will have to deposit. Investors may sustain a total loss of initial margin funds and any additional funds deposited to maintain the position. If the market moves against the position or margin levels are increased, investors may be called upon to pay substantial additional funds on short notice to maintain the position. If the investor fails to comply with a request for additional funds within the time prescribed, the position may be liquidated at a loss and the investor will be liable for any resulting deficit.

Investing in certain funds involves special risks, such as those related to investments in small- and mid-capitalization stocks, foreign, debt, and high yield securities, and funds that a focus their investments in a particular industry, or employ a long-short strategy. Please refer to the fund prospectus for additional details pertaining to these risks.

Exchange-traded funds (ETFs) are baskets of securities that are traded on an exchange like individual stocks at negotiated prices and are not individually redeemable. Shares of ETFs may trade at a premium or a discount to the net asset value of the underlying securities. An investment in a hedge fund is speculative in nature and involves a substantially more complicated set of risk factors than traditional investments in stocks and bonds. Risk factors include such strategies as short sales, leverage, hedging, and non-diversification. Structured products are subject to market risk and/or principal loss if sold prior to maturity or if the issuer defaults on the security. Structured Products Pricing Supplements and Prospectuses should be reviewed by the client prior to approving or directing an investment in these securities. Clients should contact their Portfolio Manager directly to request and review Structured Product Pricing Supplements and Prospectuses for each structured product they may wish to purchase.

Over-the-counter (OTC) derivative transactions involve numerous risks including, among others, market, counterparty default and illiquidity risk. In certain transactions, you could lose your entire investment or incur unlimited loss. Investors should understand and discuss with their professional tax, legal or other advisors as they deem appropriate, how a transaction may affect their situation. This statement does not disclose all significant risks of OTC derivatives.