

Excessive Speculation in Agriculture Commodities

SELECTED WRITINGS FROM 2008–2011



INSTITUTE FOR
AGRICULTURE AND TRADE POLICY

Excessive Speculation in Agriculture Commodities: Selections from 2008–2011

Institute for Agriculture and Trade Policy

IATP sincerely thanks all the authors in this collection of writing on commodity market speculation. We urge readers to continue to follow the writings and work of the authors as efforts to better regulate agriculture commodity markets continue.

Editors: Ben Lilliston and Andrew Ranallo

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CONTENTS

Foreword 4

I. Overview 7

The Accidental Hunt Brothers 9
Michael W. Masters and Adam K. White, CFA

What Explains the Growth in Commodity Derivatives? . . 11
Parantap Basu and William T. Gavin, Federal Reserve Bank of St. Louis Review

Managing the Financialization of Commodity Futures Trading. 19
UNCTAD Task Force on Systemic Issues and Economic Cooperation

Commodity Market Regulatory Pathways Not Yet Chosen 31
Steve Suppan, Institute for Agriculture and Trade Policy

II. Excessive Speculation and Agricultural Price Crisis 35

Index Funds and the 2006-2008 Run-up in Agricultural Commodity Prices 37
Daryll E. Ray and Harwood D. Schaffer, Agricultural Policy Analysis Center

Review of Irwin and Sanders 2010 OECD Report 39
David Frenk and Staff, Better Markets Inc.

Commodity Speculation and the Food Crisis 47
Jayati Ghosh, World Development Movement

Food Commodities Speculation and Food Price Crises. . . . 53
Olivier De Schutter, U.N. Special Rapporteur on the Right to Food

Extraordinary Joint Intersessional Meeting of the Intergovernmental Group (IGG) on Grains and the Intergovernmental Group on Rice 63
Food and Agriculture (FAO) Committee on Commodity Problems

Financing Food 65
Myriam vander Stichele et al., Centre for Research on Multinational Corporations

Commodity Market Deregulation and Food Prices 67
Steve Suppan, Institute for Agriculture and Trade Policy

Executive Summary: Excessive Speculation in the Wheat Market 71
Permanent Subcommittee on Investigations, U.S. Senate

III. Regulating Excessive Speculation 81

Letter to Majority Leader Reid and Minority Leader McConnell 83
Commodity Markets Oversight Coalition (CMOC)

Testimony of Michael W. Masters 85
Michael W. Masters, Masters Capital Management, LLC

Statement to the UN Round Table on Financial Regulation 91
Steve Suppan, Institute for Agriculture and Trade Policy

Comment on “Review of the Markets in Financial Instruments Directive”. 93
Steve Suppan, Institute for Agriculture and Trade Policy

Comment on CFTC Proposed Rule for Agricultural Swaps 101
Steve Suppan, Institute for Agriculture and Trade Policy

Testimony of Michael Greenberger Before the CFTC . . . 105
Michael Greenberger, on behalf of Americans for Financial Reform

Regulation of Commodity Derivatives Markets. 111
French Ministries of Finance, Energy and Environment, and Agriculture

FOREWORD

Food prices and food insecurity are front page news. Food price riots, in 30 countries in 2008 alone, have been factors in the overthrow of developing country governments, such as Tunisia and Egypt. The estimates of those without enough to eat are approaching a billion people—about one out of six on the planet. While the deregulation of financial and commodity markets by themselves did not cause the current recession, the insolvency of deregulated major financial institutions and the resulting credit freeze, certainly have led to increased unemployment, poverty and food insecurity.

The work of the Institute for Agriculture and Trade Policy on commodity market price volatility and regulation began in the spring of 2008. Farmers asked IATP why their local elevators—and even agribusiness firms such as Cargill!—were no longer offering forward contracts on the farmers’ grain and oilseed production, and why rural bankers were not lending to the elevators to enable forward contracting. In our initial attempts to respond, we discovered that orthodox agricultural economic explanations of futures and options market operations no longer sufficed. Agricultural supply and demand factors could not explain, by themselves, the extreme price volatility and price hikes that were damaging both U.S. farm cash flow management and food security globally. Fundamental factors still mattered in commodity market price formation, but what the United Nations Conference on Trade and Development (UNCTAD) called the “financialization of commodity markets” had deployed new instruments that linked price movements in agricultural and non-agricultural markets with commodity and financial markets in ways that were new to us.

We went to school digging deeper into the arcane workings of financial markets and reading work by the authors of the selections in this reader and more. IATP’s first analysis of the new commodity markets was published in November 2008, about six weeks after the Wall Street meltdown and less than a month after the Bush administration engineered the rescue of Wall Street and LaSalle Street (the location in Chicago of the largest U.S. commodity markets). A later summary of that essay is reprinted within. Our analysis drew on work by some of

Agricultural supply and demand factors could not explain, by themselves, the extreme price volatility and price hikes...

the authors in this collection, most notably by hedge fund portfolio manager Mike Masters and financial analyst Adam White, who explained how commodity markets were no longer dominated by those with a commercial interest in commodities but by speculators in commodity index funds. A summary of a Masters/White essay on the effect of index speculation on food and energy prices is included here, together with an excerpt of Masters’ influential testimony to the U.S. Senate in May 2008.

Due in no small part to the leadership of then Chairman Collin Peterson (D-MN) of the U.S. House of Representatives, in September 2008, the House passed the first bill to reform U.S. commodity markets by a near veto-proof majority. However, ferocious financial services lobbying, U.S. federal elections and the urgent need to rescue the U.S. economy from its collapse, triggered by the deregulation of U.S. and international financial markets, all delayed passage of legislation to fundamentally re-regulate commodity markets. In May 2009, IATP joined the Commodity Markets Oversight Coalition (CMOC), which networks agricultural and non-agricultural commodity producers and users, together with nongovernmental organizations. One of the dozens of CMOC position letters is included in this reader.

Orthodox agricultural economists denied that the commodity price bubble was due to anything but fundamentals, and both Wall Street and LaSalle Street gleefully cited their work. David Frenk, former financial analyst and now executive director at Better Markets, Inc., eviscerated such denialist work, published by the Organization for Economic Co-operation and Development just before the U.S. Senate voted on what would become the Dodd-Frank Wall Street Reform and Consumer Protection Act. Frenk's work is reprinted here, as is an excerpt from the testimony of Professor Michael Greenberger to the Commodity Futures Trading Commission (CFTC). Greenberger, a former CFTC commissioner, explains important regulatory tools that the CFTC can use to prevent the excessive speculation that induces price hikes and volatility.

In May 2009, IATP began outreach about U.S. commodity market reform to intergovernmental organizations, particularly to UNCTAD and FAO. In June 2009, IATP visited the European Commission's Internal Markets Directorate General to inform them of proposals to reform U.S. commodity markets. Recognizing the imperative of international regulatory cooperation, if internationally influential commodity markets are to become fair and transparent for all, we continue to communicate with U.N. agencies and the Commission. And we continue to collaborate with international NGO partners on advocacy and public education about commodity market reform. Publications by two of those partners, the World Development Movement and the Centre for Research on Multinational Corporations (SOMO in its Dutch acronym) are included here.

On the 25th anniversary of IATP's founding in 1986, it is possible to see this work on commodity prices and market regulation as part of a long continuum in our efforts to ensure markets are fair for farmers, farm workers, consumers and rural communities. IATP began in the midst of a U.S. farm mortgage foreclosure crisis, due in great part to prices—below cost of production—that agribusinesses paid to farmers and ranchers for the raw materials of food products. Even when aided by U.S. taxpayer subsidies, prices were so low that many farmers could not afford to re-pay loans to buy land that they were advised to buy “to get big or get out” of farming. Crops, livestock, meat and dairy products exported at below the cost of production drove farmers in other countries out of business. In 1995, following the founding of the World Trade Organization (WTO), IATP began a decade of nearly annual reporting on the percentage of U.S. export prices for row crops dumped on international markets, i.e., sold at below the cost of production. Although dumping is a patently unfair trade practice under WTO law, the WTO did nothing to stop it.

Now WTO negotiations are dead in the water and agricultural commodity prices are high, though not so high relative to agricultural production costs, over which farmers have little control. Land purchase prices and rental rates, and the cost of seeds, diesel fuel and, above all, fertilizer, have increased sharply, partly due to hikes in oil and gas futures prices. But the dominant trade policy discourse no longer is about subsidies and dumping. Instead it is about commodity price volatility and securing raw materials, agricultural, metals and energy commodities, by any means necessary, with trade as just one option. The unvarnished truth of what an UNCTAD economist said to me in 2004 has sunk in more deeply: “I don't know why you spend so much time on trade policy when the financial system is such a mess.”

Indeed, despite major efforts to re-regulate financial and commodity markets, the outlook for the enforcement of Dodd-Frank is not good. The Republican Party majority in the House of Representatives has proposed slashing the CFTC budget to the point where Commissioner Mike Dunn said, “Essentially there will be no cop on the beat.” The next stage in the fight against excessive and purely financial speculation in commodity markets is perhaps the most important. Rules based on analysis of comprehensive trade data and sound legal reasoning to make markets fair are prerequisite to good enforcement that can manage the price volatility that results from supply, demand and other fundamental factors.

Furthermore, the alternative to comprehensive regulatory reform, both in the U.S. and internationally, is truly grim. As former National Director of Intelligence Dennis Blair told a stunned U.S. Senate Select Committee on Intelligence on February 12, 2009, the global economic crisis, triggered by financial and commodity market deregulation, has replaced Al-Qaeda as the number one U.S. national security threat. Blair’s intelligence agencies forecast widespread regime destabilization if the economic crisis continued to fester without major policy and political reform within two years. His agencies did not specify what reforms were needed nor advocate for their enforcement. That is up to us.

—Steve Suppan

Institute for Agriculture and Trade Policy, Minneapolis

April, 2011

I. Overview

The Accidental Hunt Brothers

HOW INSTITUTIONAL INVESTORS ARE DRIVING UP FOOD AND ENERGY PRICE: EXECUTIVE SUMMARY

Michael W. Masters and Adam K. White, CFA

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This excerpt was originally published by the authors on July 31, 2008. IATP thanks them for their permission to include this piece.

*Originally featured on
www.accidentalthuntbrothers.com.*

The commodities futures markets are a unique hybrid form of marketplace where two distinctly different categories of market participants transact side by side. Physical Hedgers access the markets to reduce the price risk of their underlying physical commodity businesses, while Speculators trade in the markets to make maximum profits.

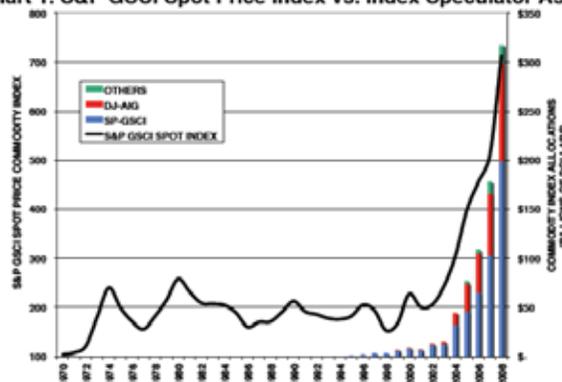
When Physical Hedgers dominate the commodities futures marketplace, prices accurately reflect the supply and demand realities that physical consumers and producers are experiencing in their businesses. When Speculators become the dominant force, prices can become un-tethered from supply and demand, reaching irrationally exuberant heights.

In 1936 Congress devised a system to prevent the kind of speculative bubbles we are seeing today. The Commodity Exchange Act placed limits on the size of Speculators' positions, thereby ensuring the dominance of bona fide Physical Hedgers. Congress established position limits with the understanding that the proper functioning of the commodities futures markets was essential to the health of the American economy.

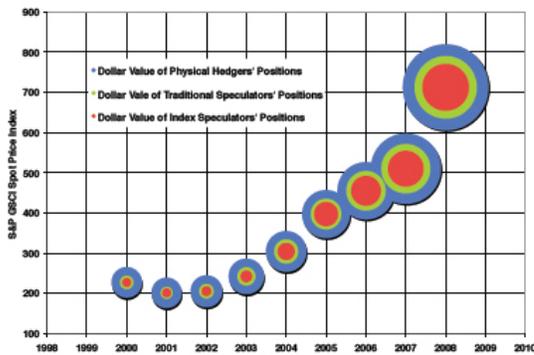
Today the agricultural and energy markets rely on futures prices as their benchmark for the pricing of nearly all their transactions in the real world "spot" markets. For many commodities, when the futures price rises by \$1, the spot price rises by \$1 as well. This pricing method is preferred by Physical Hedgers because it allows them to use the futures markets to hedge their price risk on a dollar-for-dollar basis.

Unfortunately, this price discovery function of the commodities futures markets is breaking down. With the advent of financial futures, the important distinctions between commodities futures and financial futures were lost to regulators. Excessive speculation gradually became synonymous with manipulation, and speculative position limits were raised or effectively eliminated because they were not deemed necessary to prevent manipulation.

Chart 1. S&P GSCI Spot Price Index vs. Index Speculator Assets



Source: Bloomberg, Goldman Sachs, CFTC Commitments of Traders CIT Supplement, calculations based upon CFTC COT/CIT report (see appendix). 2008 figure is as of 7/1/08.

Chart 2. Commodities Futures Market Size (Billions) vs. S&P GSCI Spot Price Index

Source: Bloomberg, Goldman Sachs, CFTC Commitments of Traders CIT Supplement, calculations based upon CFTC COT/CIT report (see appendix). Figures represent annual averages and 2008 figure is an average through 7/1/08.

Swaps dealers who trade derivatives in the completely unregulated over-the-counter (OTC) markets have been given the same virtually unlimited access to the futures markets that bona fide Physical Hedgers enjoy. These swaps dealers have convinced Institutional Investors that commodities futures are an asset class that can deliver “equity-like returns” while reducing overall portfolio risk. These investors have been encouraged to make “a broadly diversified, long-only passive investment” in commodities futures indices. As a result, a new and more damaging form of Speculator was born; we call them Index Speculators.

As Chart 1 demonstrates, the result has been a titanic wave of speculative money that has flowed into the commodities futures markets and driven up prices dramatically.

The total open interest of the 25 largest and most important commodities, upon which the indices are based, was \$183 billion in 2004. From the beginning of 2004 to today, Index Speculators have poured \$173 billion into these 25 commodities. As Chart 2 shows, this has caused futures prices to rise dramatically as the commodities futures markets were forced to expand in order to absorb this influx of money.

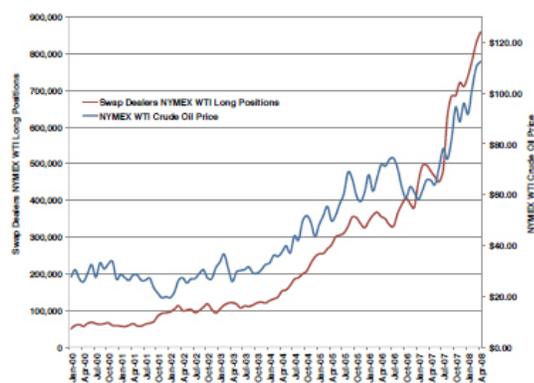
Index Speculators have bought more commodities futures contracts in the last five years than any other group of market participant. They are now the single most dominant force in

the commodities futures markets. And most importantly, their buying and trading has nothing to do with the supply and demand fundamentals of any single commodity. They pour money into commodities futures to diversify their portfolios, hedge against inflation or bet against the dollar.

The four largest commodity swaps dealers—Goldman Sachs, Morgan Stanley, J.P. Morgan and Barclays Bank—are reported to control 70 percent of the commodity index swaps positions. Recently released Commodities Futures Trading Commission (CFTC) data from the House Energy Committee shows that swaps dealers have grown to become the largest holders of NYMEX WTI crude oil futures contracts. Chart 3 shows that, as their positions have grown in size, so has the price of oil.

Congress can put an end to excessive speculation by simply re-establishing meaningful speculative position limits that apply on all exchanges trading U.S.-based commodity futures contracts. These speculative position limits also need to be applied to transactions in the over-the-counter swaps market, since that market is now 9 times bigger than the futures exchanges.

In addition to imposing speculative position limits, Congress should take the additional step of prohibiting or severely

Chart 3. Swaps Dealers Positions in NYMEX WTI Crude Oil Futures vs. WTI Price

Source: Commodities Futures Trading Commission (CFTC) via the House Energy Committee, Bloomberg

restricting the practice of commodity index replication. This practice represents a new threat to the markets because it inflates commodities futures prices, consumes liquidity and damages the price discovery function.

Speculative position limits worked well for over 50 years and carry no unintended consequences. If Congress takes these actions, then the speculative money that

flowed into these markets will be forced to flow out, and with that the price of commodities futures will come down substantially. Until speculative position limits are restored, investor money will continue to flow unimpeded into the commodities futures markets and the upward pressure on prices will remain.

What Explains the Growth in Commodity Derivatives?

Parantap Basu and William T. Gavin, Federal Reserve Bank of St. Louis Review

About the authors

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About the organization

As part of America's central bank, the Federal Reserve Bank of St. Louis promotes sound economic growth and financial stability in the nation's heartland.

This excerpt was originally published in the January/February 2011 issue of the Federal Reserve Bank of St. Louis Review.

Originally featured on www.stlouisfed.org.

This article documents the massive increase in trading in commodity derivatives over the past decade—growth that far outstrips the growth in commodity production and the need for derivatives to hedge risk by commercial producers and users of commodities. During the past decade, many institutional portfolio managers added commodity derivatives as an asset class to their portfolios. This addition was part of a larger shift in portfolio strategy away from traditional equity investment and toward derivatives based on assets such as real estate and commodities. Institutional investors' use of commodity futures to hedge against stock market risk is a relatively recent phenomenon. Trading in commodity derivatives also increased along with the rapid expansion of trading in all derivative markets. This trading was directly related to the search for higher yields in a low interest rate environment. The growth was both in organized exchanges and over-the-counter (OTC) trading, but the gross market value of OTC trading was an order of magnitude greater. This growth is important to note because a critical factor in the recent crisis was counterparty failure in OTC trading of mortgage derivatives. (JEL G120, G130, G180)

Federal Reserve Bank of St. Louis Review, January/February 2011, 93(1), pp. 37-48.

The recent financial crisis was caused by large financial firms taking on too much risk (leverage) using complicated instruments in opaque trading environments.¹ Commodity derivatives trading was one such area. Commodity derivatives include futures and options traded on organized exchanges as well as the forwards and options traded over the counter. Organized exchanges monitor trading of standardized contracts and require margin accounts that protect investors against counterparty risk. The exchange is the counterparty in all trades. Over-the-counter (OTC) trades are bilateral exchanges of customized contracts. Margins are not required and such trading has not been monitored. On July 21, 2010, President Obama signed the Dodd-Frank Wall Street Reform and Consumer Protection Act into law. As of this writing, the regulatory rules have yet to be finalized, but the proposed regulations are intended to limit the use of derivatives by banks and make OTC trading more transparent.

The market failure that led to the recent financial crisis was centered in the opaque, bilateral OTC trading by firms that policymakers at the Federal Reserve and the Treasury considered too big to fail. Because of the potential risks involved, it is important to understand mechanisms that large financial firms can use to exploit the government's safety net. In this article, we document the massive increase in trading in commodity derivatives over the past decade. This growth far outstrips the growth in commodity production and the need for derivatives to hedge risk by commercial producers and users of commodities.

During the past decade, many institutional portfolio managers added commodity derivatives as an asset class to their portfolios. This addition resulted in substantial growth in the use of commodity derivatives—growth out of proportion with the historical levels

associated with commercial hedging. This shift was part of a larger change in portfolio strategy away from traditional equity investment and toward derivatives based on assets such as real estate and commodities.

Trading in derivatives does not affect the fundamentals of supply and demand in any obvious way. The derivative trades sum to zero—for every winner there is a loser, for every gain there is an equal loss. Financial firms can write an arbitrarily large number of contracts betting on a future price without necessarily affecting the level of that price. However, an arbitrarily large number of contracts means that there can be an arbitrarily large number of losers. The important policy question is whether the taxpayer is at risk for counterparty failure in OTC trading when some financial firms incur large losses. If a large portion of these investments is made by financial firms that would likely fall under the protection of the government's safety net, then the firms that win will retain their profits while those that lose may shift the burden of their losses to the taxpayer. There is a public interest in preventing large-scale betting by institutions protected by the government's safety net. It is not a zero-sum game for the taxpayer.

In this article, we explore the reasons for the explosive growth in trading in commodity derivatives and advance two main reasons for that growth. First, investors used commodity futures to hedge against equity risk. Both academic and industry economists argued that a negative correlation between returns on equity and commodity futures offered an unexploited hedging opportunity in using commodity derivatives as an asset class.

Second, trading in commodity derivatives increased along with the rapid expansion of trading in all derivative markets. This trading was directly related to the search for higher yields in a low interest rate environment. The search for higher yields refers to the tendency of both individual and institutional investors to choose riskier assets when the return on safe assets is low.³ Jiménez et al. (2008) used a large dataset from the credit register in Spain to show that bank borrowers are more likely to default if the loans are made when central bank interest rates are relatively low. They also showed that (i) the price of risk tends to be low when short-term interest rates are low and (ii) if the interest rate is low for a long time, the economy's "portfolio" of loans tends to be riskier.

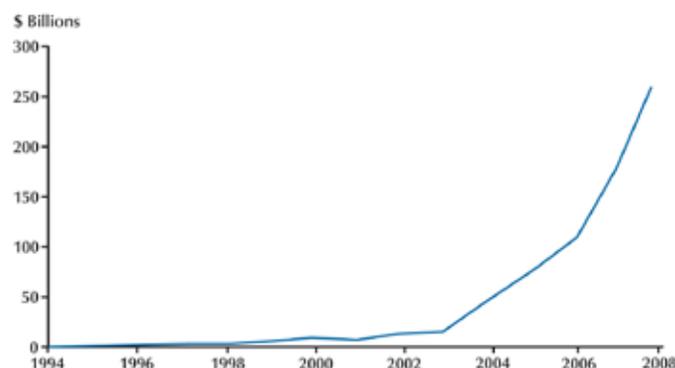
Many derivative instruments that grew rapidly after 2000, such as commodity futures index funds and derivatives on mortgage-backed securities (MBS) such as collateralized debt obligations, were developed in the 1980s and 1990s. Dybvig and Marshall (1997) described the newly developed

risk-management processes that included ever more-complex derivatives. Their description noted the possibility of the good, the bad, and the ugly outcomes of using such financial instruments. The good is the new opportunity for more-precise hedging and risk reduction.³ The bad is the possibility that CEOs and portfolio managers may not fully understand the ramifications of using these complex new instruments. The ugly is the possibility that firms could use OTC derivatives to intentionally take risks that could not be observed by regulators or other market participants. All three outcomes have been evident over the past decade, but it is the ugly outcome that is most responsible for the worldwide financial crisis.

The paper is organized as follows. The second section documents some facts about growth in commodity futures and provides indirect evidence that the rise in derivatives trading was associated with institutional investors using commodity derivatives as an asset class. The third section advances arguments why a negative correlation outstrips the growth in commodity production and the need for derivatives to hedge risk by commercial producers and users of commodities.

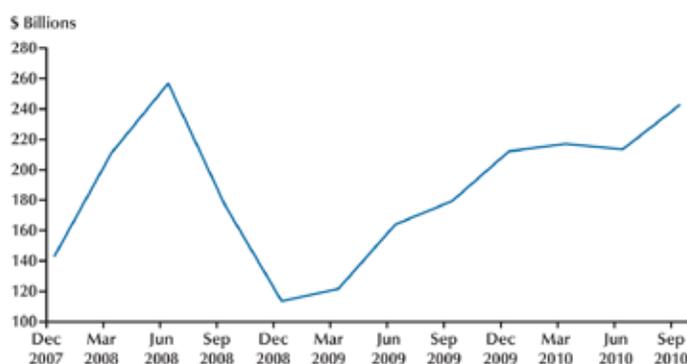
During the past decade, many institutional portfolio managers added commodity derivatives as an asset class to their portfolios. This addition resulted in substantial growth in the use of commodity derivatives—growth out of proportion with the historical levels associated with commercial hedging. This shift was part of a larger change in portfolio strategy away from traditional equity investment and toward derivatives based on assets such as real estate and commodities.

Trading in derivatives does not affect the fundamentals of supply and demand in any obvious way. The derivative trades sum to zero—for every winner there is a loser, for every gain there is an equal loss. Financial firms can write an arbitrarily large number of contracts betting on a future price without necessarily affecting the level of that price. However, an arbitrarily large number of contracts means that there can be an arbitrarily large number of losers. The important policy question is whether the taxpayer is at risk for counterparty failure in OTC trading when some financial firms incur large losses. If a large portion of these investments is made by financial firms that would likely fall under the protection of the government's safety net, then the firms that win will retain their profits while those that lose may shift the burden of their losses to the taxpayer. There is a public interest in preventing large-scale betting by institutions protected by the government's safety net. It is not a zero-sum game for the taxpayer.

Figure 1A**Commodity Index-Fund Investment (year-end)**

NOTE: 2008 data are through March only.

SOURCE: Masters (2008, Chart 1).

Figure 1B**Notional Long Positions Invested in Commodity Futures Index Funds**

SOURCE: CFTC.

In this article, we explore the reasons for the explosive growth in trading in commodity derivatives and advance two main reasons for that growth. First, investors used commodity futures to hedge against equity risk. Both academic and industry economists argued that a negative correlation between returns on equity and commodity futures offered an unexploited hedging opportunity in using commodity derivatives as an asset class.

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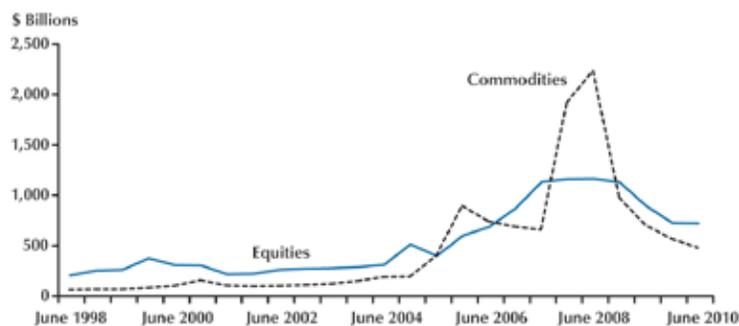
are made when central bank interest rates are relatively low. They also showed that (i) the price of risk tends to be low when short-term interest rates are low and (ii) if the interest rate is low for a long time, the economy's "portfolio" of loans tends to be riskier.

Many derivative instruments that grew rapidly after 2000, such as commodity futures index funds and derivatives on mortgage-backed securities (MBS) such as collateralized debt obligations, were developed in the 1980s and 1990s. Dybvig and Marshall (1997) described the newly developed risk-management processes that included ever more-complex derivatives. Their description noted the possibility of the good, the bad, and the ugly outcomes of using such financial instruments. The good is the new opportunity for more-precise hedging and risk reduction. The bad is the possibility that CEOs and portfolio managers may not fully understand the ramifications of using these complex new instruments. The ugly is the possibility that firms could use OTC derivatives to intentionally take risks that could not be observed by regulators or other market participants. All three outcomes have been evident over the past decade, but it is the ugly outcome that is most responsible for the worldwide financial crisis.

The paper is organized as follows. The second section documents some facts about growth in commodity futures and provides indirect evidence that the rise in derivatives trading was associated with institutional investors using commodity derivatives as an asset class. The third section advances arguments why a negative correlation between stock and futures returns may not necessarily offer a hedging opportunity to investors. The concluding section discusses the reform legislation and prospects for continued trading in commodity derivatives.

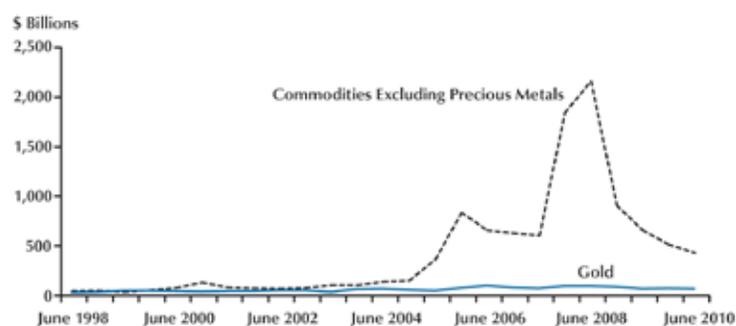
Trading in Commodity Derivatives: The Facts

The large increase in trading in commodity derivatives was not due to a large increase in hedging by commercial users. It is important to distinguish between the commercial hedgers who produce and use commodities and the institutional investors who use commodity futures to hedge equity and bond risk. For example, commodity futures index funds were marketed to institutional investors as an asset class. Figure 1A depicts the growth of these funds using year-end data for

Figure 2A**OTC Trading in Commodity and Equity Derivatives (gross market value)**

SOURCE: Bank for International Settlements derivatives statistics.

1994 to 2008. Contracts for these funds are an investment in

Figure 2B**OTC Trading in Commodity Derivatives (gross market value)**

SOURCE: Bank for International Settlements derivatives statistics.

a long position in a value-weighted portfolio of commodity futures. In 2002, there were fewer than \$20 billion in these index-fund contracts. At year-end 2008 these funds had grown to more than \$250 billion, about one-fourth to one-third of the notional amounts of commodity futures traded on organized exchanges. In 2007 the Commodity Futures Trading Commission (CFTC) began collecting information on the amount of funds invested in these index funds. Figure 1B reports the CFTC data through September 2010. Note that the exchange trading of commodity futures has rebounded and has nearly recovered to the peak achieved in June of 2008.

Trading in OTC commodity derivatives markets also grew rapidly during the period, as shown by the gross market value of commodity derivatives (Figure 2A). Gross market value is a measure of the funds that investors have at risk on both sides of the bet; for example, it includes funds at risk on both the long and short sides of a forward contract. Figure 2A also

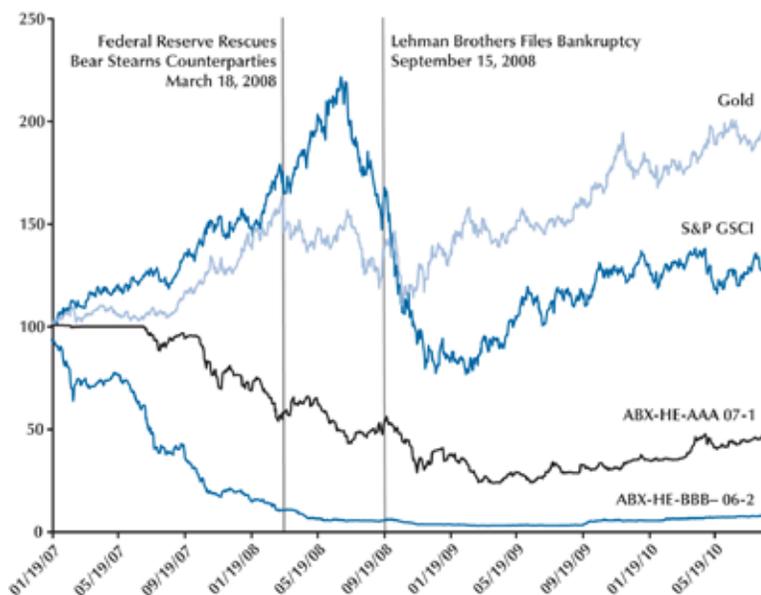
depicts the gross market value of equity derivatives contracts. The gross market value of commodity derivatives rose by a factor of 25 between June 2003 and June 2008—reaching \$2.13 trillion in June 2008. Figure 2B shows the gross market values of commodity derivatives (excluding precious metals) and gold derivatives.⁴ Traditionally, institutional investors have used gold as a hedge against inflation and other risks. There was no surge in the volume of gold derivatives as there was for other commodities.

Figure 3 shows prices for the Standard and Poor's (S&P) Goldman Sachs Commodity Index (GSCI), gold, and two ABX indexes that are for derivatives on insurance contracts for MBS.⁵ From the day the S&P GSCI peaked, July 3, 2008, to the day Lehman Brothers filed bankruptcy, September 15, 2008, the S&P GSCI price index fell 37 percent (Figure 3).⁶ Investors with a short position made large profits, but investors with a long position lost hundreds of billions of dollars. These were investments traded over the counter, so it is difficult to know what part, if any, these losses played in the financial panic that accompanied Lehman's default.

Oil was about 40 percent of the weight in the S&P GSCI and drove the broad pattern in the S&P GSCI. The commodity price index (see Figure 3) rose very sharply with the trading volume of the commodity derivatives market (see Figures 2A and 2B) and peaked in July 2008 when oil prices peaked. It then fell sharply through the second half of 2008. The gold price was much less volatile (see Figure 3),

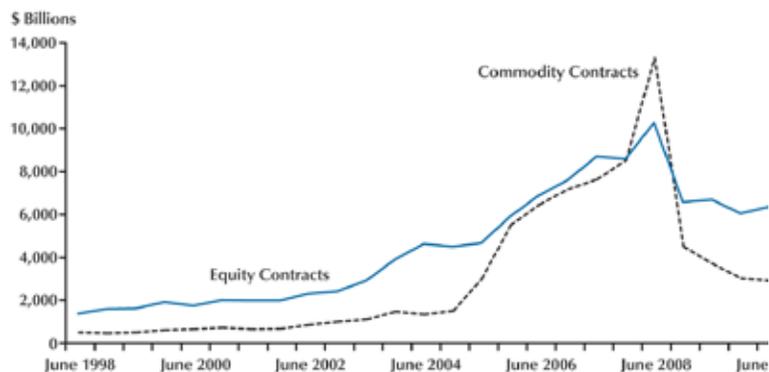
with no unusual rise in the trading volume of gold derivatives (see Figure 2B). Note that the gold price and the commodity price index rose together until mid-March 2008 (see Figure 3), when the Federal Reserve rescued the counter parties to Bear Stearns. The commodity price index (see Figure 3) and trading volume of commodity derivatives then grew very rapidly while the trading volume of gold derivatives was flat to down a bit (see Figure 2B). The commodity price index started falling 10 weeks before financial markets panicked with the Lehman bankruptcy filing. The fourth quarter of 2008 was very bad for the economy and financial markets. After year-end, the prices of gold and other commodities as measured by the S&P GSCI began an upward trend that continued through to December 2010.

It is possible that the unusual spike in prices and trading volume for commodity futures was influenced by the loss of confidence in MBS and associated derivatives. Figure 3 shows

Figure 3**Prices on Commodities and ABX Contracts**

NOTE: The gold index and the S&P GSCI are each equal to 100 on January 19, 2007. The indexes for the price of ABX contracts are equal to 100 when they are launched. AAA and BBB- are the highest- and lowest-rated mortgage derivatives, respectively. The ABX-HE-BBB-06-2 is an index for the value of mortgage loan insurance derivatives on the riskiest of the subprime mortgages originated before the second half of 2006. The launch date for an index depends on when the underlying mortgages were originated; the 06-2 index was launched on July 19, 2006, and the 07-1 index on January 19, 2007.

SOURCE: Haver Analytics.

Figure 4**OTC Trading in Derivatives (notional amounts)**

SOURCE: Bank for International Settlements derivatives statistics.

the loss of confidence in both the highest-rated (AAA) and lowest-rated (BBB-) mortgage derivatives. The ABX BBB index—for derivatives on mortgage insurance for subprime MBS—began to decline in December 2006 and had fallen 60 percent by August 2007 when the possibility of a wider financial crisis became apparent. By that time, confidence in the highest-rated mortgage paper was also falling. The prices and trading volume of commodity derivatives rose sharply as confidence in the market for subprime mortgages collapsed.

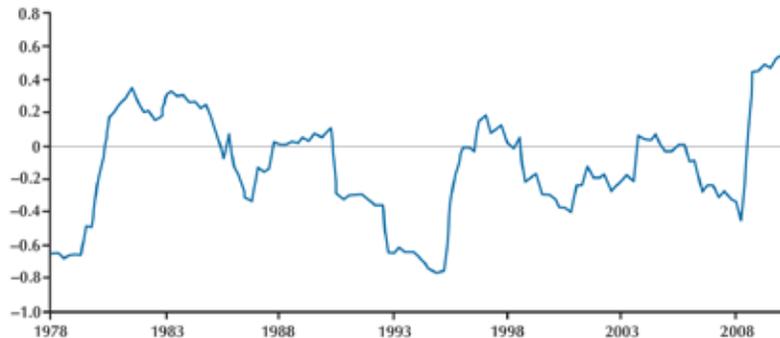
The sharp spike in the price of commodity futures in July 2008 and subsequent collapse by the end of that year is hard to explain. The S&P GSCI was driven mainly by oil prices. Although the longer-term rise in oil prices is often attributed to rising demand associated with growth in emerging market economies, a secular rise in demand cannot explain the 2008 boom and bust.⁷

Figure 4 shows the outstanding notional amounts of commodity derivatives contracts (their face value): The amount tripled between June 1998 and June 2003 and then rose 19-fold in the next 5 years, peaking at \$13 trillion in June 2008. During this period, trading in commodity derivatives grew to exceed trading in equity derivatives. Note that, in contrast to trading on organized exchanges, OTC trading in commodity derivatives has continued to decline since the summer of 2008.

To provide some perspective on the size of derivative positions, consider that world GDP rose from \$30 trillion in 1998 to \$61.1 trillion in 2008.⁸ Commodity prices almost quadrupled over the decade before their peak in July 2008. Even at 2008 prices, the total output of commodities was less than half the notional value of outstanding commodity derivatives contracts (nearly \$13 trillion).⁹ The ratio of the notional amount of commodity derivatives contracts in June 1998 to world GDP rose from 1.5 percent in 1998 to 21.6 percent in 2008. Over the same period, the ratio of equity derivatives to world GDP rose from 4.2 percent to 16.7. At first glance, this shift appears to be consistent with the rising use of commodity derivatives as an asset class in institutional portfolios.

Figure 5

Rolling Correlation Coefficient Between Daily Equity and Commodity Returns (5-year window with 5-year returns)

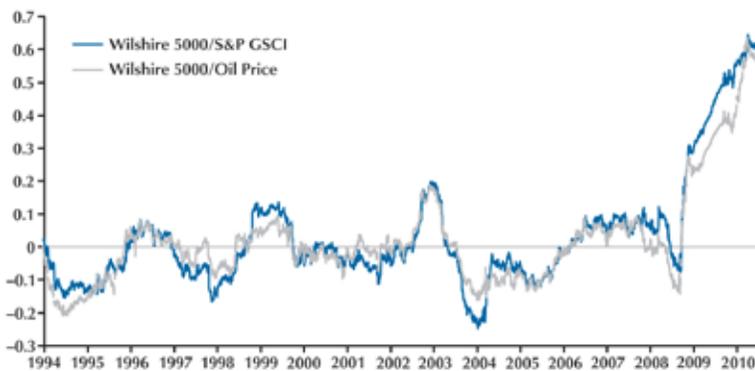


NOTE: The equity index is the S&P 500. The commodity index is the S&P GSCI. The returns are calculated as the percent change in the total return.

SOURCE: Haver Analytics and authors' calculations.

Figure 6

Rolling Correlation Coefficient Between Daily Equity and Commodity Returns (1-year window)



NOTE: The equity index is the Wilshire 5000. The commodity index is the S&P GSCI. The oil price is the domestic spot price on West Texas Intermediate crude oil.

SOURCE: Haver Analytics and authors' calculations.

Two Explanations for the Rise in Commodity Derivatives Trading

One explanation for the rise in commodity derivatives trading is that it was simply part of a widespread increase in risky investing during the past decade that was attributed to a "search for yield." A second explanation for the rise is that it was driven by a mistaken notion that an investment in commodity futures can be used to hedge equity risk. An early paper by Greer (2000) and later papers by Erb and Harvey (2006) and Gorton and Rouwenhorst (2006) found a negative correlation between returns to a passive long investment in commodity futures and returns to equity.

The Search for Yield Hypothesis

The term "search for yield" is somewhat vague. In an efficient market model, all investors are assumed to optimize over combinations of risk and return. One should not choose more risk unless the expected returns also rise. One way to interpret the search for yield is to argue that, at low interest rates, investors are willing to take on relatively more risk for only small increases in return. In such a case, investors will bid up the price of risky assets and, all else equal (including default probabilities), the price of risk will decline. This search for yield may explain why risk premiums were so low in 2003 and 2004 and offers one reason (among many) for the high leverage in household mortgages and financial institutions.

During the period of rapid growth in commodity derivatives, managers of pension funds, university endowment funds, and other institutional funds began to include commodity derivatives as an asset class in their portfolios. There was a shift out of domestic equities into commodities.¹⁰ One argument was that investing in such real assets could increase returns without adding much risk. This leads us to the second hypothesis:

Brokers and dealers selling commodity derivatives also argued that commodity futures could be used to hedge equity risk.

Hedging Hypothesis

Fully collateralized commodity futures historically have offered the same return and Sharpe ratio as U.S. equities. Although the risk premium on commodity futures is essentially the same as that on equities for the study period, commodity futures returns are negatively correlated with equity returns and bond returns. The negative correlation is the result, primarily, of commodity futures' different behavior over a business cycle (Gorton and Rouwenhorst, 2006, p. 47).

While the use of commodities to hedge inflation risk was widely appreciated, their use to hedge equity or business cycle risk is more controversial. Using data from July 1959 to December 2004, Gorton and Rouwenhorst (2006) calculated the return to holding a rolling long investment in a value-weighted portfolio of commodity futures. They reported that the correlation was nearly zero for short horizons and negative, but not statistically significant, for horizons up to one year. This is consistent with research at the CFTC by Büyükşahin, Haigh, and Robe (2008), who found that the unconditional correlation between equity and commodity futures returns is near zero. But their results changed as the investment horizon lengthened. Gorton and Rouwenhorst (2006) also reported that if this investment was rolled-over for a longer period, the return was negatively correlated with the returns from comparable bond and equity portfolios. They found that the average correlation between returns on equities and commodity futures was a statistically significant—0.42 if the investments were held for 5 years.

Figure 5 reports a rolling 5-year correlation between returns on an index of S&P 500 equities and the index of commodities included in the S&P GSCI. When commodity prices peak in June 2008, the correlation is negative on average. However, following the collapse of commodity prices in the summer of 2008 and the subsequent financial panic in September 2008, the correlation becomes highly positive, reaching a record 0.56 in February 2010. Thus, portfolios that included commodity derivatives to hedge equity risk did very badly over the last 2 two years studied. In the years building up to the crisis and since, portfolios that included commodity derivatives were more volatile than equities-only portfolios. The high returns in 2004 through 2006 reflected very risky investments—not only those in mortgage derivatives. Note that this is the first business cycle following the widespread adoption of this new investment strategy.

Similar changes are seen in the correlation of daily returns. Figure 6 reports a rolling correlation coefficient between total returns to investments in the Wilshire 5000 and the S&P GSCI using a 1-year window. The correlation is relatively small and generally not significantly different from zero until the onset of the financial crisis. During and following the crisis, the correlation is very large and positive. Because the S&P GSCI is heavily weighted in oil, we also show the daily correlation between the Wilshire 5000 and the daily spot price of West Texas Intermediate crude oil. This correlation makes it clear that the S&P GSCI is heavily influenced by the oil market.¹⁴

Erb and Harvey (2006) argued that the most important source of expected return from a portfolio of commodity futures comes from diversification across individual commodities that have uncorrelated returns. They described the different schemes used to construct weights to aggregate the component commodities and explained why the excess returns depend on there being little correlation among returns for the individual component commodities. They also warned against assuming that historical return correlations will persist. Tang and Xiong (2010) showed that the introduction of index trading led to a rise in the correlation among the individual commodities included in an index, thus reducing or even eliminating the gains to diversification within individual index funds. They further showed that the rise in the correlations among the individual components began in 2004, well before the onset of the crisis, and became higher over the next few years as open interest in commodity index futures rose.

Figures 5 and 6 show that the correlation between returns to equity and commodity futures can change sign over time. In a general equilibrium model in which there are no unexploited hedging opportunities, it is straightforward to show that the equilibrium correlation can be either negative or positive, depending on the nature of shocks to the world economy.¹⁵ In particular, the correlations shown in Figures 5 and 6 depend on investors' perceptions about how the domestic economy and commodity production will respond to various shocks.

Conclusion

We offer two possible explanations for the surge in trading commodity derivatives. The first also explains the massive increase in trading of risky mortgage debt and all financial derivatives: Investors were searching for more substantial yields in an environment with very low returns paid on safe assets. This also explains why investors moved from real estate derivatives to commodity derivatives when the problems in the subprime market became apparent.

The second reason is a prevailing notion among institutional investors that commodity derivatives are an asset class that can be used to hedge equity risk, a notion we argue is mistaken. Even if the observed correlation between equity and commodity futures returns were reliably negative, it is likely that this negative correlation would be an equilibrium arbitrage phenomenon that should be expected in a world where no unexploited hedging profit opportunity exists. The rise in commodity derivative trading thus poses a challenge to asset-pricing theorists to explain in a well-articulated rational asset-pricing model.

The lesson from this financial crisis is not that the government should prevent firms and investment funds from investing in commodity futures. As we noted, it was the unregulated, opaque OTC trading that was a critical factor in the financial crisis. The Dodd-Frank Act is intended to limit this type of trading and to make it more transparent. This outcome is already suggested by the incoming data. On organized exchanges (where traders are monitored and protected against counterparty failure), trading of commodity derivatives has nearly recovered to the peak achieved in June of 2008, while OTC trading in commodity derivatives has continued to decline.

A lesson from the crisis is that regulators and policymakers should monitor financial innovations closely to learn whether they are being used to take excessive risks—that is, risks firms would not take if they were operating outside the government's safety net. Under new regulations, the CFTC will collect information that should make trading in commodity derivatives more transparent. Banks argue that they need to use commodity derivatives to help customers manage risks. This may be true, but the recent experience in commodity futures did not reduce risks but exacerbated them just at the wrong time. The challenge to the government is to prevent too-big-to-fail firms from using current and yet invented derivatives to increase overall risk in the financial system.

In-text References

1. See remarks by Gensler (2010).
2. See, for example, Rajan (2005), Ferguson et al. (2007), and Gerlach et al. (2009).
3. See Banerji and Basu (2009) for an example showing how banks could use new and creative contracts to offer new risk-bearing services that would be expected to reduce the risk premium inequity markets.
4. Non-gold precious metals were a small percentage relative to gold and are ignored here.
5. The gold price is a monthly average of the London PM fix; the source for all prices is Haver Analytics.
6. We assume that the S&P GSCI represents the market price for the underlying asset in the OTC commodity contracts.
7. See, for example, Kilian (2009).
8. We are using World Bank estimates of world gross domestic product (GDP) in U.S. dollars.
9. Even at its peak price in July 2008, total world production of oil in 2008 was less than \$4.5 trillion. Oil constitutes the largest share of total commodity production. For example, the estimated worldwide production of corn, wheat, and soybeans in 2009 was less than \$100 billion. See, for example, www.nue.okstate.edu/Crop_Information/World_Wheat_Production.htm.
10. See Cohn and Symonds (2004), Symonds (2004), and Palmeri (2006).
11. Table 3 in Erb and Harvey (2006) reports the portfolio weights for three commodity futures indexes as of May 2004. Crude oil is about 40 percent of the S&P GSCI and all energy commodities make up two-thirds of the weight in the index. This does not include grains used for ethanol. They also report that 86 percent of the open interest in commodity futures indexes was in the S&P GSCI.
12. See, for example, Basu and Gavin (2010).

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Managing the Financialization of Commodity Futures Trading

UNCTAD Task Force on Systemic Issues and Economic Cooperation

About the author

Written by the U.N. Conference on Trade and Development (UNCTAD) Secretariat Task Force on Systemic Issues and Economic Cooperation.

About the organization

The UNCTAD Secretariat Task Force on Systemic Issues and Economic Cooperation is a collection of economists as established by the Secretary-General of UNCTAD, Mr. Supachai Panitchpakdi, in advance of several upcoming international conferences on the global economic crisis.

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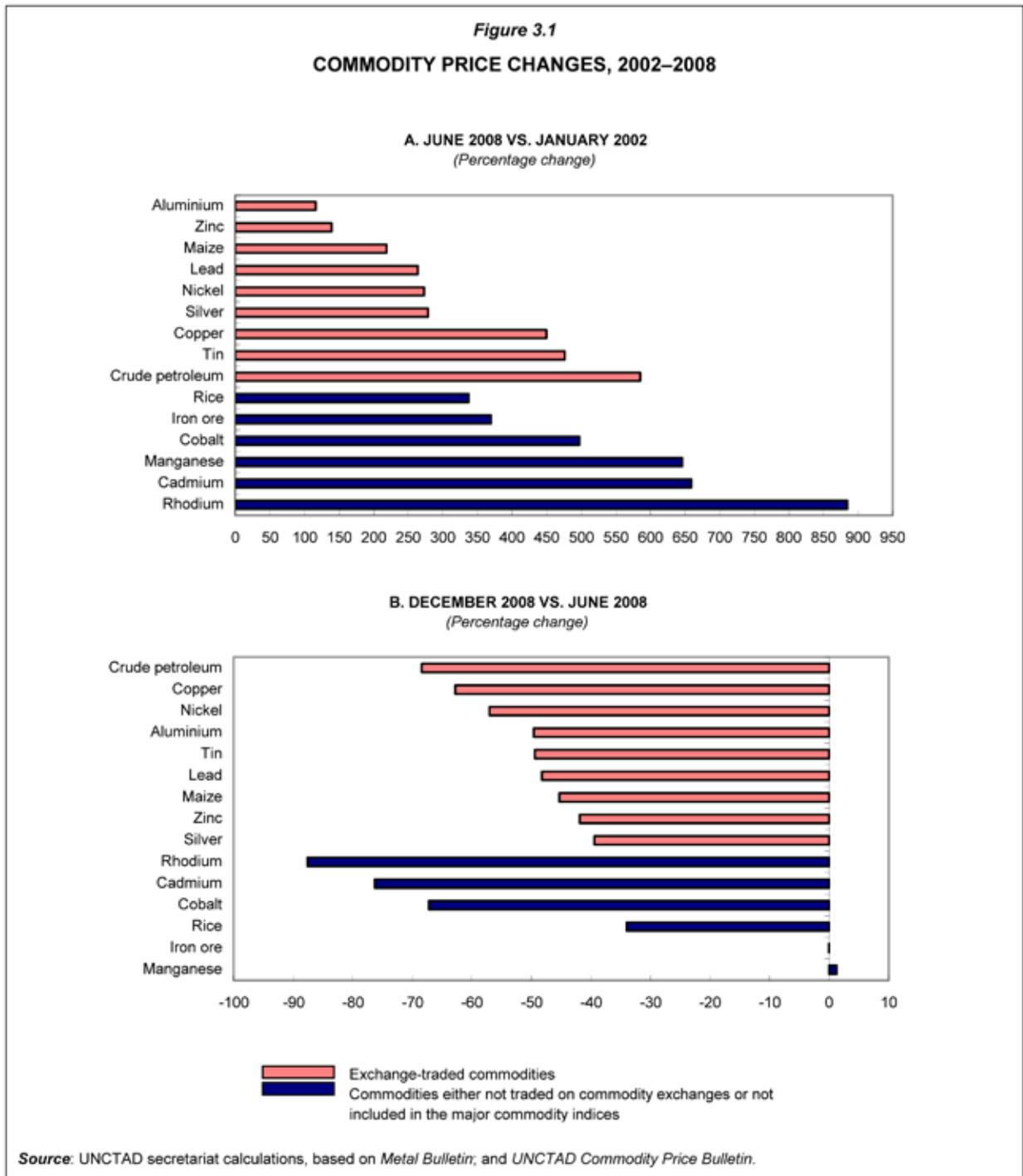
Originally featured on www.unctad.org.

A. Introduction: commodity markets and the financial crisis

The build-up and eruption of crisis in the financial system was paralleled by an unusually sharp increase and subsequent strong reversal of the prices of internationally traded primary commodities. The recent development of commodity prices has been exceptional in many ways. The price boom between 2002 and mid-2008 was the most pronounced in several decades in its magnitude, duration and breadth. The price decline since mid-2008 stands out for its sharpness and number of commodity groups affected. The price hike for a number of commodities put a heavy burden on many developing countries relying on imports of food and energy commodities, and contributed to food crises in a number of countries in 2007–2008, while the slump of commodity prices in the second half of 2008 was one of the main channels through which the dramatic slowdown of economic and financial activity in the major industrialized countries was transmitted to the developing world.

The strong and sustained increase in primary commodity prices between 2002 and mid-2008 was accompanied by a growing presence of financial investors on commodity futures exchanges. This “financialization” of commodity markets has raised concern that much of the recent commodity price developments—and especially the steep increase in 2007–2008 and the subsequent strong reversal—was largely driven by financial investors’ use of commodities as an asset class.

Over the 78 months from early-2002 to mid-2008 the IMF’s overall commodity price index rose steadily and nominal prices more than quadrupled. During the same period, UNCTAD’s non-fuel commodity index tripled in nominal terms and increased by about 50 per cent in real terms. Since peaking in July 2008, oil prices have dropped by about 70 per cent, while non-fuel prices have declined by about 35 per cent from their peak in April 2008. This reversal is considerable; however, it corresponds only to about one seventh of the previous 6-year increase, so that commodity prices remain well above their levels of the first half of this decade. While the timing differed from commodity to commodity, both the surge in prices and their subsequent sharp correction affected all major commodity categories, and they affected both exchange-traded commodities and those that are either not traded on commodity exchanges or not included in the major commodity indices (figure 3.1). It is this latter category that many financial investors use for their investment in commodities.



The sometimes extreme scale of changes in recent commodity price developments and the fact that prices had increased and subsequently declined across all major categories commodities suggests that, beyond the specific functioning of commodity markets, broader macroeconomic and financial factors which operate across a large number of markets need to be considered to fully understand recent commodity price developments. The depreciation of the dollar clearly was one such general cause for the surge in commodity prices. But a major new element in commodity trading over the past few years is the greater weight on commodity futures exchanges of financial investors that consider commodities as an asset class. Their possible role in exacerbating price movements away from fundamentals at certain moments and for certain commodities is the focus of the following sections.

B. The growing presence of financial investors in commodity markets

Financial investors have been active in commodities since the early 1990s. Initially, they mainly comprised hedge funds that have short-term investment horizons and often rely on technical analysis. The involvement of financial investors took on new proportions in the aftermath of the dotcom crash in 2000 and started a meteoric rise in early 2005. Most of this financial investment in commodities uses swap agreements to take long-term positions in commodity indexes. Two common indexes are the Standard & Poor's Goldman Sachs Commodity Index (S&P GSCI) and the Dow Jones–American International Group Commodity Index (DJ–AIGCI), which are composites of weighted prices of a broad range of commodities, including energy products, agricultural products, and metals.¹

Investors in commodity indexes aim at diversifying portfolios through exposure to commodities as an asset class. Index investors gain exposure in commodities by entering into a swap agreement with a bank which, in turn, hedges its swap exposure through an offsetting futures contract on a commodity exchange. All index fund transactions relate to forward positions—no physical ownership of commodities is involved. Index funds buy forward positions, which they sell as expiry approaches and use the proceeds from this sale to buy forward again. This process—known as “rolling”—is profitable when the prices of futures contracts with a long maturity are below the prevailing price of the futures contract with

a remaining maturity of one month (i.e., in a “backwardated” market) and negative when the prices of futures contracts with longer maturities are higher (i.e., in a “contango” market).

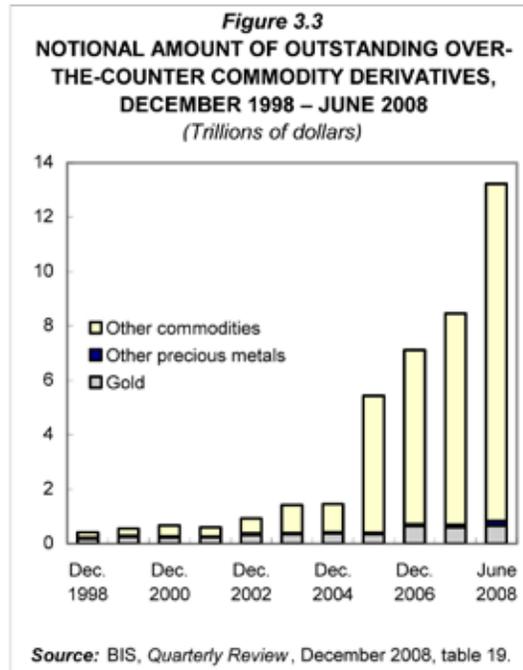
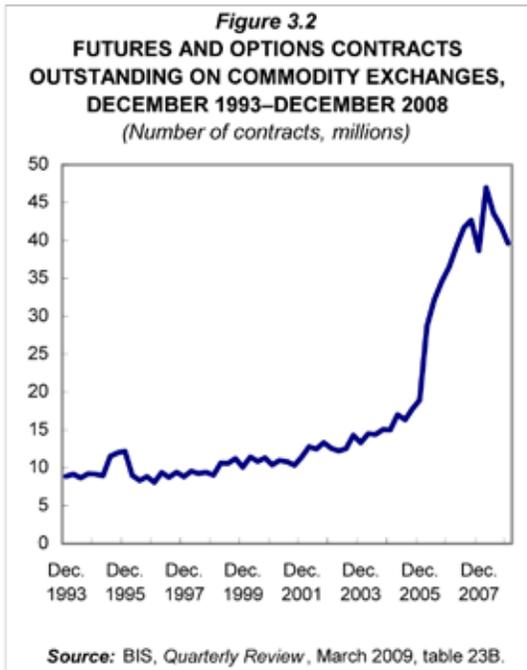
Trading volumes on commodity exchanges strongly increased during the recent period of substantial commodity price increases. The number of futures and options contracts outstanding on commodity exchanges worldwide increased more than fivefold between 2002 and mid-2008 and, during the same period, the notional value of over-the-counter (OTC) commodity derivatives has increased more than 20-fold, to \$13 trillion (figures 3.2 and 3.3).² But financial investment sharply declined starting in mid-2008. This parallel development of commodity prices and financial investment on commodity futures markets is a first indicator for the role of large-scale speculative activity in driving commodity prices first up and then down.

C. The financialization of commodity futures trading

Among economists there is, however, scepticism with regard to the link between speculation and commodity price developments. This scepticism is based on the efficient market hypothesis. According to this view, prices in a freely operating market perfectly and instantaneously incorporate all relevant information available. Thus, if speculators were driving market prices above fundamental levels, consumers would demand less than producers are supplying. The resulting excess supply must appear in inventories. For example, Krugman (2008) argues that no inventory accumulation could be observed during the

sharp increase in oil prices in 2007–2008 so that speculation cannot have played a role in the oil price run-up.

However, the short-term price elasticity of many physical markets for commodities like oil and food is low. Prices can be driven up by the mere fact that everybody expects higher prices, which in itself may be driven by rising futures prices following rising demand for futures by financial speculators. If producers increase prices consumers do not have many means to hold up. If no substitutes are quickly available they have to accept for a time higher prices.



No inventories appear, the market is cleared but prices are much higher than without speculative activity. The efficient market hypothesis fails on commodity markets because the number of counterparties (especially those with an interest in physical commodities) and the size of their positions are less than perfectly elastic. Hence, large orders may face short-term liquidity constraints and cause significant price shifts. This implies the possibility of a “weight-of-money” effect: position changes that are large relative to the size of the total market have a temporary, or even a persistent, price impact.

There is at least one other reason why the efficient market hypothesis may fail on commodity markets. Changes in market positions may result from the behaviour of a certain group of market participants who respond to factors other than information about market fundamentals. Huge amounts of uninformed traders may misinterpret certain pieces of information as a genuine price signal and, by incorporating this signal into their trading strategy, perpetuate the “informational” value of this signal across the market. Given that uninformed traders often use similar trend extraction techniques, they run the risk that collectively they will generate the trends that they then individually identify and follow.

In addition, available inventory data are incomplete. For example, market participants may want to accumulate inventories but do not succeed because of tight supply. In such a situation, mere attempts to accumulate inventories may push up prices without any actual increase in physical inventories. Moreover, a large part of inventories is not included in published data. In the case of some non-ferrous metals for instance, official inventories have strongly increased since mid-2008 despite declining prices. This is likely to reflect a massive de-stocking of private inventories by market participants who had accumulated commodities when prices were rising and the ready availability of physical commodities could provide significant extra benefits and are now depositing their products in official warehouses in exchange for cash. Thus, developments of official inventory data are not reliable indicators in the debate on the relative impact on commodity prices of financial investors and of fundamentals.

Uninformed trading combined with herd behaviour relates to those managed funds that use technical-analysis tools (trend identification and extrapolation, algorithmic trading) for position taking. This can result in increased short-term price volatility, as well as the overshooting of price peaks and troughs. Moreover, if traders react to changes in non-commodity markets and the price changes stemming from their position changes feed into the trading strategies of uninformed traders, commodity markets will become

exposed to spillover effects from other asset markets. Uninformed trading on commodity markets is not a new phenomenon. However, the sustained trend towards greater financialization of commodity trading is likely to have increased the number and relative size of price changes that per se are unrelated to fundamental conditions.

A strong indication for the role of uninformed trading in price setting on commodity markets is the strong correlation between the unwinding of speculation in different markets that should be uncorrelated. Figure 3.4 shows that there are phases of speculative activity where currencies, even those of small countries like Iceland, and commodity prices are clearly driven by factors beyond fundamentals because the fundamentals underlying the different prices cannot go into the same direction. Obviously, all participants react to the same kind of information, to the same “news” by winding or unwinding their exposure to risky assets.

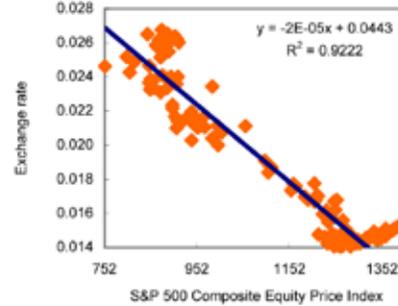
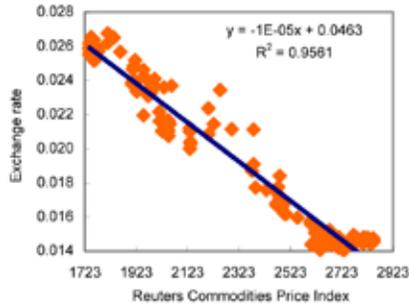
The weight-of-money effect relates primarily to index-based investment, which allocates positions across many commodities in proportions that depend on the weighting formula of the particular index. As a result, index-based investment generates price pressure in the same direction across a broad range of commodities. Moreover, index-based investment positions can be large relative to the size of the entire markets, as shown below.

Making this analytical distinction between informed, uninformed and noise traders is straightforward in principle (table 3.1), but in practice making this separation is not easy. The Commodity Futures Trading Commission (CFTC)—the institution mandated to regulate and oversee commodity futures trading in the United States – publishes trading positions in anonymous and summary form in the weekly Commitments of Traders (COT) report. The CFTC classifies market participants as “commercial” if they are hedging an existing exposure and “non-commercial” if they are not. It is widely perceived that, as a consequence of the increased diversity of futures markets participants and the increased complexity of their activities, the COT data may fail to fully represent futures market activity (CFTC, 2006a). Many institutions reporting positions as hedges, and which therefore are classified as commercial, are held by commodity swap dealers to offset financial positions which, if held directly as commodity futures, would be counted as non-commercial. Responding to these concerns, the CFTC started in 2007 to issue supplementary data on positions of commodity index traders (CITs) for selected agricultural commodities (CFTC, 2006b). According to the CFTC (2009), CITs generally replicate a commodity index but may come from either the commercial or non-commercial categories.

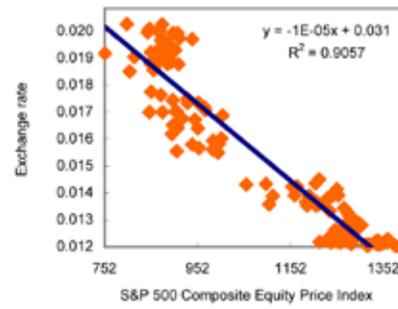
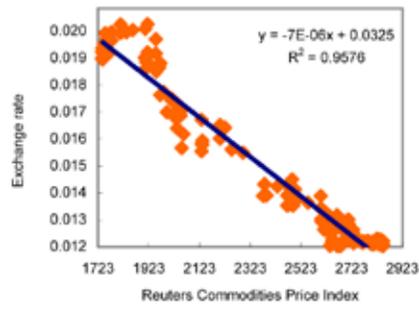
Figure 3.4

CORRELATIONS BETWEEN THE EXCHANGE RATES OF SELECTED COUNTRIES AND EQUITY AND COMMODITY PRICE INDICES, JUNE 2008–DECEMBER 2008

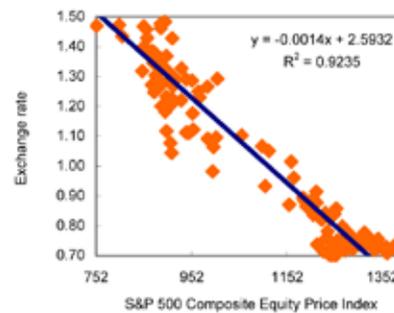
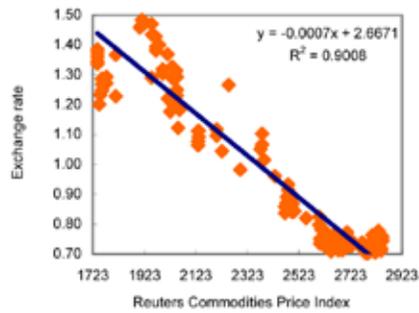
A. BRAZILIAN REAL TO JAPANESE YEN



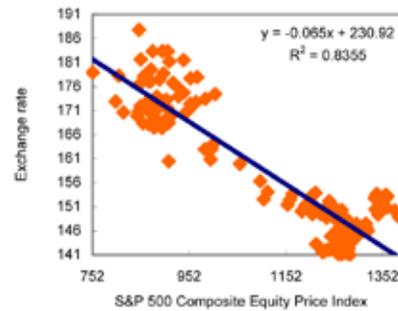
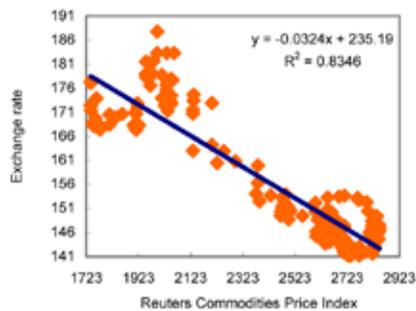
B. NEW ZEALAND DOLLAR TO JAPANESE YEN



C. ICELANDIC KRONA TO JAPANESE YEN



D. HUNGARIAN FORINT TO JAPANESE YEN



Source: Thomson Datastream database.

Table 3.1

**Commodity futures trading behaviour: traditional speculators,
managed funds and index traders**

	<i>Traditional speculators</i>	<i>Managed funds</i>	<i>Index traders</i>
General market position	Active positions on both sides of market; able to benefit in both rising and declining markets	Active, often large positions on both sides of market; able to benefit in both rising and declining markets; relatively opaque positions	Passive, large and long-only positions in swap agreements with banks which, in turn, hold futures contracts to offset their short positions; able to benefit only in rising or backwarddated (spot price > forward price) markets; transparent positions
Position taking behaviour	React to changes in commodity market fundamentals (supply, demand, inventories); mostly trade in one or two commodities on which they have intimate knowledge; leveraged positions	Some (e.g. hedge funds) conduct some fundamentals research and thus react to changes in commodity market fundamentals. Others (e.g. commodity trading advisors) mostly use technical analyses (trend identification and extrapolation, algorithmic trading), which extract information from price movements, thereby risking to misinterpret noise trader position taking for genuine price information, to engage in herding behaviour and to cause snowball effects; leveraged positions	Not interested in fundamentals of specific commodity markets but may take views on commodities as a whole; relative size of positions in individual commodity determined by index weighting formula; idiosyncratic position taking such as rolling at predetermined dates; position changes relatively easy to predict; fully collateralized positions
Impact on liquidity	Improve liquidity	Active, large positions can improve liquidity and make hedging easier for large commercial users. In periods of rapid and sharp price changes, large positions are a "liquidity sponge", making it difficult for hedgers with commercial interests to place orders	Passive, large positions act as "liquidity sponge"
Reaction to sharp price changes	May be taken by surprise if price changes are unrelated to fundamentals; can be forced out of market if insufficient liquidity to meet margin calls triggered by sharp price increases	Taking and closing positions often automatically triggered by computer programmes; risk of causing snowball effect	Different price developments for individual commodities require recomposition of relative investment positions to preserve predetermined index weight pattern; sharp price declines may cause disinvestment
Reaction to changes on other markets	Operate only in commodity markets; normally concentrate on one or a few commodities and, thus, react little to developments in other markets	Operate across different asset classes. Commodities tend to have a fixed weight in managed fund portfolios so that price movements in other markets can lead to position changes in commodity markets	Operate across different asset classes. Potentially strong links between commodity futures market activity and development on equity and bond markets, in two dimensions: (i) risk-return combinations in other asset classes can become more attractive, causing a withdrawal from commodity markets; (ii) margin calls on other investments can trigger closing of positions in commodities and accelerate contagion across asset classes
Classification in CFTC Commitment of Traders Reports	Non-commercial user category	Mostly in non-commercial user category	Mostly in commercial user category

Source: UNCTAD secretariat.

A primary concern often expressed with respect to the financialization of commodity trading relates to the magnitude of index trader activity combined with the fact that they tend to take only long positions. Table 3.2 provides evidence on the relative share of both long and short positions held by different trader categories in those agricultural markets for which the CFTC has published disaggregated data starting in January 2006. The data clearly show that index funds are present almost exclusively in long positions and that they account for a large portion of the open interest in some food commodity markets. Indeed, over the period 2006–2008, the net long positions of index traders in cotton, live cattle, feeder cattle, lean hogs and wheat were significantly larger than the respective positions of commercial traders, while they were roughly of equal size for maize, soybeans and soybean oil.

While the number of index traders is relatively small, their average long position is very large (middle panel of table 3.2), sometimes more than ten times the size of an average long position held by either commercial or non-commercial traders. Positions of this order are likely to have sufficiently high financial power to drive prices (Capuano, 2006). As a result, speculative bubbles may form and price changes can no longer be interpreted as reflecting fundamental supply and demand signals. All of this can have an extremely detrimental effect on normal trading activities and the efficiency of the market, despite the existence of speculative position limits. In fact index traders actually exceeded speculative position limits in wheat contracts on the Chicago Board of Trade (CBOT) and for other commodities they came much closer to these limits than did the other trader categories (right-hand panel of table 3.2). This is legal as index traders are mostly classified as commercial traders and, therefore, are not subject to speculative position limits. But as noted by Sanders, Irwin and Merrin (2008: 8) “it does provide some indirect evidence that speculators or investors are able to use ... [existing] instruments and commercial hedge exemptions to surpass speculative limits.”

D. Financialization and commodity price developments

To gauge the link between changes in trading positions and price changes figure 3.5 shows for the period 2002–2008 net long non-commercial positions for crude oil, copper, wheat, maize, soybeans and soybean oil, as well as the net long index-trader positions for those commodities (wheat, maize, soybean and soybean oil) for which the CFTC has published data separately starting in 2006. A first finding from this figure is that index trader positions are overwhelmingly taken by market participants included in the commercial category, as already indicated in the evidence presented in table 3.2.

However, figure 3.5 provides only scant evidence for a correlation between speculative position and price developments. While there clearly are periods and commodities where positions and prices move together, especially during the recent downturn and occasionally during the previous price upturn, there are other times when positions were not rising during periods of rapid price appreciation. For example, in the wheat market there was no increase in either non-commercial positions or index trader positions during the steep price increase from mid-2007 through the first quarter of 2008. By contrast, during the same period there appears to be a weak correlation between market positions and prices in the maize and soybean markets, while the evidence is mixed for the soybean oil market. For oil and copper, where separate data on index trader positions are not available, non-commercial positions were declining along prices in the second half of 2008. By contrast, evidence for the earlier price increase does not suggest a correlation between noncommercial positions and prices: non-commercial copper positions were declining during the period of the sharpest price increases, roughly from the beginning of 2004 through mid-2006. For oil noncommercial positions exhibited strong volatility, even as oil prices rose almost continuously from the beginning of 2007 through the second quarter of 2008, by which time net oil positions had dropped roughly to zero.

Short-term price effects resulting from index traders' position changes may be misinterpreted by other traders as incorporating new market information. More importantly, in the presence of uninformed traders that use technical analyses such as trend extrapolation to determine their position taking, such short-run effects may well give rise to “explosive extrapolative behaviour” that causes speculative bubbles (Gilbert, 2008a, b).³

Such behaviour has been found for the market of non-ferrous metals prices over the period February 2003 to August 2008, during which ten months with explosive behaviour were detected (Gilbert, 2008a). Similar results were obtained for Chicago grain markets and the period 2006–2008, including numerous instances of explosive behaviour of soybean oil (Gilbert, 2008b). The finding of explosive behaviour of soybean and soybean oil prices is of particular importance because of the pivotal role of soybeans, which are substitutes of wheat and maize in production, of other vegetable oils and animal feedstuffs in consumption, and of crude oil in energy. Taken together these results indicate that explosive extrapolative behaviour is widespread in commodity futures markets, and that this may have contributed to price volatility over recent years. The evidence also suggests “that the efficient markets view that uninformed speculation has no effect on market prices and volatility should be rejected” (Gilbert, 2008a: 21).

Table 3.2
Futures and options market positions, by trader group,
selected agricultural commodities, January 2006–December 2008

(Per cent and number of contracts)

Long positions								
<i>Commodity</i>	<i>Percentage share in total positions</i>				<i>Average position size</i>			<i>Speculative limits</i>
	<i>Non-Commercial</i>	<i>Commercial</i>	<i>Index</i>	<i>Non-reporting</i>	<i>Non-Commercial</i>	<i>Commercial</i>	<i>Index</i>	
	Maize	42.4	23.4	22.8	11.3	1134	1499	
Soybeans	42.1	20.4	25.2	12.2	590	1052	6024	10000
Soybean oil	38.0	28.4	23.8	9.8	790	1719	4418	6500
Wheat CBOT	39.0	12.3	41.1	7.5	553	964	8326	6500
Wheat KCBOT	38.1	23.4	21.0	17.5	680	632	1816	6500
Cotton	41.0	20.1	30.7	8.3	363	1010	4095	5000
Live cattle	39.3	12.0	39.7	9.0	580	409	4743	5150
Feeder cattle	42.5	15.7	24.6	17.2	258	162	469	1000
Lean hogs	36.3	8.7	43.8	11.3	419	712	3983	4100

Short positions								
<i>Commodity</i>	<i>Percentage share in total positions</i>				<i>Average position size</i>			<i>Speculative limits</i>
	<i>Non-Commercial</i>	<i>Commercial</i>	<i>Index</i>	<i>Non-reporting</i>	<i>Non-Commercial</i>	<i>Commercial</i>	<i>Index</i>	
	Maize	34.7	47.2	1.2	16.9	618	2469	
Soybeans	36.4	44.6	1.2	17.8	365	1696	736	10000
Soybean oil	29.1	63.2	0.9	6.7	512	3385	720	6500
Wheat CBOT	41.7	42.3	3.0	12.9	554	2124	1218	6500
Wheat KCBOT	20.4	56.0	0.5	23.1	378	1123	221	6500
Cotton	39.8	54.1	1.0	5.1	380	2706	496	5000
Live cattle	34.5	43.8	0.7	21.0	456	879	487	5150
Feeder cattle	34.0	20.9	1.0	44.2	166	150	213	1000
Lean hogs	38.3	43.1	0.8	17.9	405	1952	353	4100

Source: UNCTAD secretariat calculations, based on data from CFTC; speculative limits from Sanders, Irwin and Merrin (2008: 25).

Note: Following the methodology applied by Sanders, Irwin and Merrin (2008), spread positions were added to both long and short positions for the percentage shares in total positions. Average size of spread position is not reported here.

E. The implications of increased financial investor activities for commercial users of commodity futures exchanges

If the financialization of commodity trading causes futures market quotations to be driven more by the speculative activities of financial investors and less by fundamental supply and demand factors, hedging against commodity price risk becomes more complex and long-term hedging by commercial users may be discouraged.

To the extent that financial investors increase price volatility, hedging becomes more expensive, and perhaps unaffordable to developing country users, as they may no longer be able to finance margin calls. For example, during the period January 2003–December 2008 margin levels as a percent of contract value increased by 142 per cent in maize, 79 per cent in wheat and 175 per cent in soybean on the Chicago Board of Trade (CME, 2008: 17–18). In early 2007, the LME raised its margin requirement by 500 percent over the space of a few months (Doyle, Hill and Jack, 2007). Larger, well-capitalized firms can afford these increases, but smaller participants may need to reduce the number of contracts they hold. This could itself reduce liquidity, add to volatility and discourage more conservative investors. Hedging food commodity exposure may become particularly risky because of the typically long-term nature of such hedges, corresponding to harvest cycles. Evidence reported by the Kansas City Board of Trade (2008) indeed points to a reduction in long-term hedging by commercial users at the beginning of 2008, caused by higher market volatility.

Moreover, since 2006, there have been numerous instances of a lack of price convergence between spot markets and futures contracts during delivery for maize, soybean and wheat. The price of a futures contract that calls for delivery may differ from the current cash price of the underlying commodity, but these prices should very closely match when the futures contract expires. The difference between the futures and the cash price (also called “basis”) will tend to widen when storage facilities are scarce and shrink when physical supply becomes tight. If, in an otherwise balanced market, prices diverge by more than the cost of storage and delivery, arbitrageurs would usually act to make the prices converge eventually. Failure to do so causes increased uncertainty about the reliability of signals emanating from the commodity exchanges with respect to making storage decisions and managing the risk of market positions. This could eventually result in decreased hedging, as commercial users seek alternative mechanisms for transferring and managing price risk (Irwin et al., 2008). The use of commodity exchanges by commercial users could

also decline because, in addition to increased uncertainty, the non-convergence of futures and spot prices increase the cost of hedging (Conceição and Marone, 2008: 56–57).

F. Policy implications

Open-market price discovery and price risk management have traditionally been seen as the main benefits that commodity futures exchanges would provide to developing country users. By reducing price risk, hedging on commodity futures exchanges was also seen by some as an alternative to supply management under international commodity agreements. Meanwhile, commodity exchanges have come to assume a broader developmental role as their utility for developing countries has increasingly been seen as removing or reducing the high transaction costs faced by entities along the commodity supply chains (UNCTAD, 2007b). Given that the financialization of commodity futures trading has made the functioning of commodity exchanges increasingly controversial, the question that the current financial crisis poses is how the functioning of commodity futures exchanges can be improved in such a way that they can fulfil their developmental role. In trying to answer this question, it is useful to look at regulatory issues regarding commodity futures exchanges per se, before addressing broader international policy measures.

1. Regulation of commodity futures exchanges

Most commodity futures trading is executed on exchanges located in the United States, the regulation of which is mandated to the CFTC. Commodity exchange regulation has to find a reasonable compromise between overly restrictive limitations on speculative position holdings, which could impair market liquidity and reduce the hedging and price discovery functions of commodity exchanges, and overly lax surveillance and regulation, which would allow prices to move away from levels warranted by fundamental supply and demand conditions and, thus, equally impair the hedging and price discovery functions of the exchanges. Abuse of futures trading by speculators is addressed through the concept of “excessive speculation” defined as trading that results in “sudden or unreasonable fluctuations or unwarranted changes in the price” of commodities underlying futures transactions (section 4a of the Commodity Exchange Act (CEA)). To limit the amount of speculative trading, the CFTC has set speculative position limits, which define the maximum position, either net long or net short, in one commodity futures (or options) contract, or in all futures (or options) contracts of one commodity combined, that may be held or controlled by one person other than a person eligible for a hedge exemption.

While it is often held that commodity exchanges have generally functioned well, the recent very sizeable price changes, occurring sometimes within a single trading day, have given rise to greater controversy regarding the appropriateness of regulation. This controversy relates to concerns of both the adequacy of information that the CFTC is mandated to collect and the restrictiveness of regulation regarding financial investors relative to that imposed on participants with genuine commercial interests. The need for tighter regulation has been discussed mainly under the “swap dealer loophole.”

The “swap dealer loophole” has played a particularly important role in the current debate on regulatory changes of the CFTC’s regulatory mandates. This is because the greater involvement of financial investors in commodity futures trading has significantly increased the positions that swap dealers hold in commodity futures contracts. Swap dealers typically sell over-the-counter swaps to their customers (such as pension funds buying commodity index funds) and hedge their price exposures with long futures positions in commodities. Swap dealers are generally included in the category “commercial traders” as they use commodity exchanges for hedging purposes. This has allowed them to be exempted from regulation regarding speculative position limits. But contrary to traditional commercial traders, who hedge physical positions, swap dealers hedge financial positions.

Several proposals have been advanced on how to close the swap dealer loophole. For example, the Kansas City Board of Trade (2008) proposes addressing the index fund hedge exemptions by limiting their total direct or indirect futures hedge position to a percentage maximum in the contracts with a remaining maturity of one or two months, thus creating an incentive to spread the total position across several months and ease position concentration. It also suggested changes to the definition of a bona fide hedger and a related bifurcation in margin requirements between those that have true commercial hedge positions and those that hedge financial positions, as well as to alleviate strains to finance margins by accepting commercial agricultural collateral (warehouse receipts, etc). Particularly these last two changes would tend to improve the functioning of commodity exchanges with respect to participants with truly commercial interest.

Given the global character of commodity futures trading and the fact that through trading arbitrage some contracts involve the jurisdiction of regulatory authorities in more than one country, international collaboration of regulatory agencies is required. Such collaboration would involve not only the sharing and publishing of information, some of which is already in place, but also more enhanced cooperation

and greater harmonization in trading supervision.⁴ It would appear particularly urgent that exchanges whose legal basis is London provide data on positions by trader categories similarly to those that the CFTC has made publicly available for some agricultural products through its COT supplementary reports. Moreover, the product coverage of these supplementary reports would need to be enlarged. Product coverage has remained limited because for many commodities traded on US-exchanges look-alike contracts can be traded in London. As a result, data on positions on US-exchanges provide only a partial picture of the total positions of traders that are active on both the United States and London exchanges. Moreover, it would appear that in the absence of such data for energy products, legislation enacted in the United States to address the London loophole will fail to be effective unless similar data on positions taken on (Intercontinental Exchange) ICE will be available.

2. International policy measures

In addition to regulatory issues, the financialization of commodity futures trading confronts the international community with the question as to how supply-side measures can address excessive commodity price volatility. This issue is of particular importance for food commodities because current grain and oilseed stocks are at historic lows so that any sudden increase in demand, or a major shortfall in production, or both, will rapidly cause significant price increase. Hence, physical stocks in food commodities need to be rebuilt urgently and adequately sized to moderate temporary shortages and to buffer sharp price movements and to make speculation much more risky and expensive. Holding large inventories around the world has often been judged economically inefficient. In the light of the crisis and the role of financial “investors” this position is no longer convincing.

Obviously, the world needs a new global institutional arrangement consisting of a minimum physical grain reserve to stabilize markets, to respond effectively to emergency cases and humanitarian crisis and an intervention mechanism. Intervention in the futures markets should be envisaged as soon as an existing global institution or a “global intelligence unit” (von Braun and Torero, 2008) considers market prices to differ significantly from an estimated dynamic price band based on market fundamentals. The global mechanism should be able to bet against the positions of hedge funds and other big market participants and would assume the role of “market maker” (Davidson, 2008). Needless to say, adopting such a mechanism would commit a public agency to second-guess market developments and as the agency would need to

bet against the positions of hedge funds it could itself become a target for speculators, considerations which would have to be addressed in its eventual design.

If a virtual reserve and intervention mechanism could be made to work satisfactorily it would not make more physical commodities available on markets, except for emergency situations. Given that the historically low level of inventories was one determinant of the abrupt price hike of food commodities in early 2008, the question remains how incentives to increase production and productivity could be fostered in developing countries, particularly in food commodities, including through a reduction in trade barriers and domestic support measures in developed countries.

G. Conclusions

Commodity futures exchanges do not function in accordance with the efficient market view. There are an increasing number of market participants with sometimes very large positions that do not trade on the basis of fundamental supply and demand relationships in commodity markets. The evidence to support the view that the recent wide fluctuations of commodity prices have been driven by the financialization of commodity markets far beyond the equilibrium prices is credible. Various studies find that financial investors have accelerated and amplified price movements at least for some commodities and some periods of time. Some of these effects may have been substantial and some persistent, but the non-transparency of existing data and lack of a comprehensive breakdown of data by trader categories make it difficult to examine the link between speculation and commodity price developments directly. The strongest evidence is found in the high correlation between commodity prices and the prices on other markets that are clearly dominated by speculative activity.

These effects of the financialization of commodity futures trading have made the functioning of commodity exchanges increasingly contentious. They tend to reduce the participation of commercial users, including from developing countries, because commodity price risk hedging becomes more complex and because there is greater uncertainty about the reliability of signals emanating from the commodity exchanges with respect to making storage decisions and managing the price risk of market positions.

It is unclear whether financial investors will continue considering commodities as an attractive asset class. The trading strategy of index investors has proven to be strongly dependent on specific conditions (rising or backwardated markets) to be profitable, and it has been fairly predictable so

that other market participants may make sizeable profits by trading against index investors. Hence, financial investors are likely to move away from investing passively in indexes towards a more active trading behaviour either by more flexibly determining how and when to roll forward positions or by concentrating on other investment vehicles, such as commodity exchange traded funds.⁵ This implies that the distinction between short-term oriented managed funds and other financial investors will become less clear. How this affects commodity prices will mainly depend on the extent to which such a shift in financial investors' trading strategy will imply a greater concentration on specific commodities, instead of commodities as an aggregate asset class. But such a potential shift in financial investors' trading behaviour is unlikely to reduce the relative size of their positions which will continue to be able to amplify price movements at least for short periods of time, especially if investors concentrate on individual commodities.

Better regulation of these markets and direct intervention in case of destabilizing speculation is needed more than ever before.

However, the ability of any regulator to understand what is moving prices and to intervene effectively depends upon its ability to understand the market and to collect the required data. Such data is currently not available. Trading on regulated commodity exchanges and off-exchange derivatives trading have become increasingly interdependent. This calls for comprehensive OTC reporting and record keeping in order to examine trading information about sizeable transactions in look-alike contracts that could impact regulated markets.

Enhanced regulation of commodity futures markets also entails closing the swap dealer loophole to enable regulators to counter unwarranted impacts from OTC-markets on commodity exchanges. At present, banks that hold futures contracts on commodity exchanges to offset their short positions in OTC swap agreements vis-à-vis index traders fall under the hedge exemption and thus are not subject to speculative position limits. Therefore, regulators are currently unable to intervene effectively even though swap dealer positions frequently exceed such limits and may represent "excessive speculation."

Another key regulatory aspect regards extending the product coverage of the CFTC's COT supplementary reports and requiring non-United States, particularly London-based, exchanges that trade look-alike contracts to collect similar data. The availability of such data would provide regulators with early warning signals and allow them to recognize emerging commodity price bubbles. Related stepped-up

regulatory authority would allow them to prevent bubble-creating trading behaviour from having adverse consequences for the functioning of commodity futures trading. To the extent relevant in each case, developing country commodity exchanges may consider taking similar measures, though their trading tends to be determined more by local commercial conditions than be subject to sizeable involvement of internationally operating financial investors.

In-text References

1. In the DJ-AIGCI, weights are limited to 15 per cent for individual commodities and to one third for entire sectors, while in the S&P GSCI weights depend on relative world production quantities, with energy products currently accounting for about two thirds of the total index.

2. The Bank for International Settlements (BIS) is the only source that provides publicly available information about OTC commodity markets. However, these data do not allow for commodity-specific disaggregation. Notional amount refers to the value of the underlying commodity. However, traders in derivatives markets do not own or purchase the underlying commodity. Hence, notional value is merely a reference point based on underlying prices.

3. Gilbert (2008a, b) argues that commodity prices are subject to explosive extrapolative behaviour if the current price is related to the past price through an auto-regressive relationship with an auto-regressive factor slightly in excess of unity and if this slight excess prevails only for short periods of time. More formally, tests for explosive extrapolative behaviour are based on the following equation: $\ln f_t = \alpha + \beta \ln f_{t-1} + \varepsilon_t$, where f_t and f_{t-1} are the current and past prices, respectively, β is the autoregressive factor, and ε is an error term.

4. The Financial Services Authority (FSA), which monitors commodity markets in the United Kingdom, has looked at commodity markets as specialised markets which are dominated by professional participants and hence require less regulatory attention than equity and bond markets. It supervises firms active in commodity markets with a view to ensuring financial stability of market participants such that contract settlement can take place on time and without default of any party, and it mandates commodity exchanges to regulate their own markets with a view to providing clearly defined contract terms and ensuring freedom of manipulation. In their advice on the European Commission's review of commodity business, the Committee of European Securities Regulators (CESR) and the Committee of European Banking Supervisors (CEBS) (CESR, 2008) pointed to potential concerns regarding low levels of transparency in OTC commodity derivatives markets, as well as regarding the current client categorisation rules and transaction reporting requirements, but concluded that there was not much benefit to be gained by mandating through legislation greater pre- and post-trade transparency in commodity derivatives markets and that the current practice of how regulated markets report trading was sufficient.

5. Commodity exchange traded funds are listed securities backed by a physical commodity or a commodity futures contract.

Commodity Market Regulatory Pathways Not Yet Chosen

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IATP works locally and globally at the intersection of policy and practice to ensure fair and sustainable food, farm and trade systems.

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Abstract

Despite the extreme commodity price volatility of 2007–08, rules and enforcement practice governing commodity futures markets remain largely unchanged. Markets remain structurally vulnerable to speculation far in excess of the liquidity needs of commercial hedgers. Proposals to regulate over-the-counter (OTC, off-exchange, largely unregulated) trades and to apply position limits to the number of derivatives contracts controlled by any one entity and/or their affiliates during a trading period (i.e., aggregate position limits) are two regulatory pathways for commodity markets. Most of the financial services industry and many corporate derivatives end-users are resisting these proposals. This note explains some proposals, the resistance to them and possible consequences of continuing business as usual, albeit with higher market participant capital reserve requirements.

1. Despite the global transmission of commodity futures prices, there is no global economic governance of commodity markets. The technical committee on commodity futures markets of the International Organization of Securities Commissions (IOSCO) can develop best practice recommendations, e.g., on improving reporting of OTC trade data, as requested by the Group of 20. But the member commodity exchanges are not obliged to implement those recommendations, much less require member governments to regulate OTC derivatives.

2. Nevertheless, the G-20 aspires to provide such global governance. The April 23, 2010 G-20 finance ministers communiqué states, “We will finalize our work to address excessive commodity price volatility by improving the functioning and transparency of physical and financial markets in both producing and consumer countries.” In an annex to the communiqué the ministers announced that they will welcome “contributions” from UNCTAD “as appropriate.” These contributions would help the Financial Safety Nets Experts Group advise the G-20 finance ministers on how to finalize their work on excessive commodity price volatility. Of course, UNCTAD has already made such contributions, most notably in its discussion of the “financialization of the commodity markets” in the Trade and Development Report 2009 and subsequent related publications. An UNCTAD secretariat paper informing UNCTAD (including G-20) member governments stated the situation clearly: “highly volatile commodity prices act as a serious distortion on the development process.”

3. During the past year, commodity and financial market regulators, particularly U.S. and EU regulators, have debated how best to enable market participants to manage market volatility while ensuring adequate liquidity and market information transparency. Some regulatory issues, such as restoration of prudent capital reserve requirements, are relatively uncontroversial. Other issues, such as the regulation of OTC derivatives and the enforcement of aggregate position limits for all market participants, are very controversial. There is greater awareness of the market mechanisms of the “financialization of the commodity markets” and their effect on the risk-management capacity for commodity exports and imports. However, governments and market participants are not yet agreed on how to best regulate commodity markets, which are now exposed

to even greater market volatility following the end of forward contracting in iron and steel, and the advent of a \$200 billion metals derivatives market.

4. The relation of position limits to commodity prices is relatively clear. Exemptions from position limits granted by the Bush administration Commodity Futures Trading Commission (CFTC) allowed financial institution speculators to move prices by their huge “weight of money” advantage over position-limited commercial hedgers. For example, position limit-exempted Goldman Sachs and Morgan Stanley commodity index fund investors controlled about 1.5 billion bushels of March 2008 Chicago Board of Trade corn (maize) futures contracts, while position-limited commercial hedgers controlled about 11 million bushels. Index fund “weight of money” enabled the commodities bubble that burst in July 2008, when the insolvency of “too big to fail” financial institutions, exempted from capital reserve requirements, became aware to insiders. Investigations by the U.S. Senate and the French Ministry of the Economy have determined that financial institutions drove futures contract prices in wheat and oil respectively far in excess of what could be explained by fundamental factors, such as supply and demand and logistical costs. These reports confirmed both academic and non-governmental organization analyses of excessive speculation in commodity markets that led to spikes in agriculture and energy import bills, particularly for developing countries. Nevertheless, given the billions of dollars in fees and proprietary trading earned by financial institutions in a deregulatory environment, there is a very well-financed lobbying resistance to aggregate position limits. On the other side of the ledger are commercial hedgers and their commodity markets, such as the agricultural markets, which according to FAO, remain structurally vulnerable to non-agricultural market investments and regulatory decisions. IATP, as a member of the Commodity Markets Oversight Coalition, has urged the U.S. Congress to include aggregate positions limits in new legislation.

5. There is likewise great resistance in industry and their government allies to proposed U.S. legislation that OTC trading, otherwise known as “dark market” or “shadow market” trading, be pushed on to public and regulated exchanges or regulated derivatives clearing organizations. In the \$600 trillion notional value OTC market (according to June 2009 Bank of International Settlements figures, the latest available), commodity contracts occupy just 1.23 percent. (Notional value refers to the face value of the offset derivatives contracts, not the value finally netted by investors and proprietary traders.) “Unallocated” contracts, of which mixed swaps between financial and commodity instruments (e.g., “hedging” interest rates with oil futures revenues) are a small fraction, amount to about 12 percent of the OTC universe.

6. The Coalition of Derivatives End-Users includes transnational firms, such as Bunge, John Deere and Cargill that are both commercial hedgers and financial speculators. The coalition has argued that OTC trades between financial institutions and non-financial institutions, such as the coalition members, should be exempt from the requirement to clear those trades on public exchanges. At least three reasons are given to justify the exemption. First, non-financial firms pose no systemic financial risk and hence they should not be prevented from “customizing” their interest rate, currency exchange, balance sheet and commodity risk in bilateral deals with financial institutions. Second, the higher margin requirements of trading on exchanges will pose huge cash-flow problems for coalition members. In the coalition language advocated in December to the U.S. Senate Banking Committee, non-financial derivatives end-users would be exempt from margin requirements, i.e., from having to maintain a certain amount of collateral with an exchange clearing organization in order to trade. Third, if bilateral trades are pushed from the dark markets to exchanges or derivatives clearing organizations, trade risks will be concentrated in such a quantity that these centralized clearing (trade processing) platforms will be unable to confirm and verify trades operationally.

7. These objections merit a more detailed response than can be given in this short paper. However, indicative responses can be sketched. First, while no individual non-financial firm poses a systemic financial risk, aggregate OTC trades with financial firms can pose a systemic risk, particularly if financial firms continue to be exempt from position limits. Furthermore, the degree of customization is slight in the copyrighted and therefore highly standardized contract language. Whether trades are accepted by exchanges as clearable should be the trading standard, not whether they are standardized or “customized.” Second, exchange margin collateral requirements are usually 4–8 percent of the value of a trade. While posting such margin may occasionally result in cash-flow problems for corporate OTC derivatives end-users, reduced use of such derivatives is a small price to pay for ensuring the financial integrity of derivatives markets, particularly given the size of the public bailouts of market failure. Third, as bilateral trades move to exchanges and derivatives clearing organizations, their increased capitalization will enable improved infrastructure to confirm and verify trades. Aggregate position limits, if enforced, should also enable exchanges and derivatives clearing organizations to process the formerly bilateral trades.

8. U.S. Commodity Futures Trading Commission (CFTC) Chairman Gary Gensler contends that if proposed end exemptions to clearing OTC derivatives remain in the final version of U.S. reform legislation, up to 60 percent of OTC trades will remain outside effective regulatory purview. With so much of trade data still bilateral and dark, it will be impossible to set position limits with confidence and enforce them uniformly. In August 2009, the CFTC had sent to the Senate a polite but firm critique of the OTC provisions in the U.S. Treasury proposed financial reform bill that reflected Wall Street positions. This was perhaps the first step in a major U.S. interagency confrontation on the future of commodity derivatives, although commodity contracts are only a small percentage of the broad array of derivatives used by transnational firms. As of this writing, the final form of U.S. financial legislation is still being debated. IATP has stated its clear preference for a version of OTC derivatives reform passed by the Senate Agriculture Committee that would allow exemptions for the clearing of derivatives only for commercial hedgers in position-limited contracts. But what might happen under legislation that would allow most OTC derivatives to remain in dark markets, thus preventing regulators from having timely access to all trading information, a prerequisite for effective derivatives regulation?

9. In January, Goldman Sachs advised its clients, “we do not recommend a strategic allocation to a commodity futures index.” Given the technical analysis that accompanies this recommendation, it might be taken as the sign of a market self-correction, following past institutional over-allocation in index funds. However comforting this belief in market self-correction through improved transparency, IATP does not find it any more convincing than the April 23 promise of the G-20 finance ministers to reduce excessive price volatility through non-binding recommendations to increase transparency of trade data reporting. Data transparency is a necessary but insufficient condition for market participants to discover prices through a process in which all market participants contribute price information on a daily basis that all participants and regulators see on a daily basis. The unfair competitive advantage conferred by the OTC trade data reporting delay not only impedes price discovery but makes it exceedingly difficult for exporters and importers to manage price risks and investments, as UNCTAD has noted. If developing countries continue to spend a high portion of hard currency reserves for food and energy imports, while their rate of return in commodity investments remains unpredictable, the “distortion of development” will intensify, resulting in a widespread political instability that certainly will not self-correct.

10. In response to a CFTC request for comment on whether the agency should consider applying position limits to agricultural “softs,” such as cocoa and coffee futures contracts, IATP replied in the affirmative. We noted that such position limits would complement

in the futures market the negotiations for a successor to the International Cocoa Agreement under UNCTAD auspices. Once this agreement is implemented successfully, it will fulfill in part the G-20’s April 23 call for more transparent physical commodity markets that function better for commercial hedgers. However, if the financial markets remain fundamentally unreformed, the contribution of the Cocoa Agreement and similar agreements to revenues for the development of producer countries will likely be diminished by excessive speculation on tropical commodities from consuming country firms. As IATP stated in our CFTC comment, the continued inducement by financial institutions of price volatility in commodities of import- and export-dependent developing countries may lead not only to food and energy price riots, but to broader political instability. Surely, such instability is too high a price to pay for the sake of continued deregulation of the financial services industry to ensure its excessive profitability.

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II.

Excessive Speculation and the Agricultural Price Crisis

Index Funds and the 2006–2008 Run-up in Agricultural Commodity Prices

Daryll E. Ray and Harwood D. Schaffer, Agricultural Policy Analysis Center

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About the organization

The Agricultural Policy Analysis Center (APAC) was created in 1992 at the University of Tennessee around the newly-established Blasingame Chair of Excellence in Agricultural Policy.

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Originally featured on www.agpolicy.org

One of the overriding questions surrounding the sudden and sharp increase in agricultural prices in the 2006-2008 period is the role of the index funds in the increase. We have written about it before, as have Derek Headey and Shenggen Fan in their IFPRI Monograph, "Reflections on the Global Food Crisis." Those who believe that the index funds contributed significantly to the price bubble believe that commodity exchange rules need to be changed. They would like to see similar position limits and other rules put on index funds that are already in place for traditional speculative traders.

Overall, in our view, IFPRI's Headey and Fan report on the 2006-2008 global food crisis is a solid analysis and we commend them for it. We recommend it as required reading by anyone trying to understand what brought about the "2006-2008 food crisis." That said, there are some topics that we believe Headey and Fan glossed over too quickly or omitted completely. In previous columns we have discussed a couple of those perceived shortcomings including the role of stocks as reserves and early farmer-based efforts to boost grain prices by jumpstarting the production and use of ethanol.

We also believe Headey and Fan did not dig deeply enough into whether the index funds were important accelerators of grain prices during that time period. One concern is that Headey and Fan use language at times that suggests a lack of understanding about the futures market or at least could provide readers with a misunderstanding of terms and effects of futures trading. For example, they write, "a short futures position (involving contracts that function up to 6 months) protects against price decreases, whereas a long futures position (involving contracts of longer than 6 months) enables the holder to benefit from price increases in the longer term." The part not included in parentheses is correct but long and short positions are not defined by the length of the contract as suggested in the parentheticals.

At another point Headey and Fan write, "these contracts are just bets on future prices, so why should a bet affect an actual price outcome?" While a single "bet" would not affect an actual price outcome, the total collection of bets or transactions in the futures markets do determine the day-to-day actual prices country elevators offer farmers for their grain as well contribute to the longer-term price discovery process.

Turning specifically to the index funds, Headey and Fan fail to fully explain how the operation of the index funds differs from the way traditional future market participants interact with the market. Producers (or elevator managers after taking possession of the commodity) use the futures market by taking short position on futures contracts to lock in a price for the commodity they are producing or have on hand. Similarly purchasers of these commodities, such as livestock producers or millers, use the futures market by taking long positions as a means to protect themselves against increases in the prices of grain required to produce their products.

Speculators—the other traditional category of participants in futures markets—provide liquidity. They take out both long and short positions, balancing out the market. These traditional speculators may switch from long to short positions or vice versa in a matter of minutes, hours, day, or weeks based on changes in perceptions of market fundamentals, trend analyses or other reasons.

The index funds, on the other hand, are long-only. They buy futures contracts for commodities in the belief that the price in the future will be higher than the present price of that future contract—fundamentals of farm-based commodities are irrelevant to their decision. That is because the prospectus of the index fund sets forth the balance that the fund must maintain among the various commodity futures they are holding. Energy and then mineral commodities typically dominate the basket of commodities with agricultural commodities being a relatively small component.

This means that the fundamentals and/or expectations in the energy and mineral markets rein supreme—grains are along for the ride with little-to-no regard to what is happening in the grain sector. Worries during the period about the availability of oil drove up the price of crude, which caused index funds to rebalance their portfolios by making additional purchases of the other commodities to maintain the specified balance. Since the resulting price increases in agricultural commodities had virtually nothing to do with their market conditions, the record level of activity in the futures market by index funds would seem to make index funds a logical source of possible price overshooting.

At this point, the jury is still out on the importance of the “index fund effect” on farm commodity prices during 2006-2008 but, in our view, it should not be implicitly dismissed as readers could interpret it in the Headey and Fan analysis.

Review of Irwin and Sanders 2010 OECD Report

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About the organization

Better Markets, Inc. is a registered 501(c)3 not for profit organization, specializing in technical and normative research on financial markets and economic theory.

This paper was originally published June 30, 2010 by Better Markets Inc. as a review of the report Speculation and Financial Fund Activity by Scott Irwin and Dwight Sanders of the Organization for Economic Co-operation and Development (OECD).

*Originally featured on
www.bettermarkets.com.*

Last week, OECD published a report co-authored by University of Illinois professor Scott Irwin and University of Southern Illinois professor Dwight Sanders.¹ The study purports to find statistical evidence that speculation played no role in generating the damaging volatility in food and energy prices during 2008. In fact, it even goes so far as to claim the opposite: speculation by long-only index investors with no understanding of underlying supply and demand conditions actually helped reduce volatility, by providing liquidity. The study and its findings can be disregarded for three reasons:

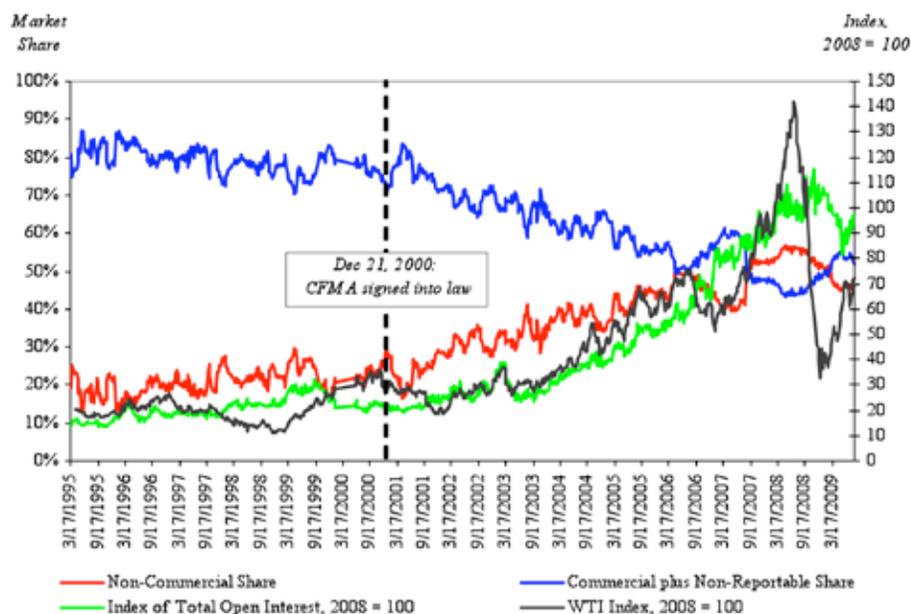
1. The statistical methods applied are completely inappropriate for the data used.
2. The study is contradicted by the findings of other studies that apply more appropriate statistical methods to the same data.
3. The overall analysis is superficial and easily refuted by looking at some basic facts.

In the report, Irwin and co. promise to give “a detailed and dispassionate synthesis of the arguments and latest research” concerning the role of excessive speculation in driving volatile commodities prices in 2008. Recall that in 2008, oil prices shot up to over \$140 per barrel, before crashing back down to around \$30 over the course of a few months. In addition to their synthesis, the authors also promise new and exciting empirical findings. However, the synthesis is unsatisfactory for a number of reasons, and the supposedly new findings are neither as new nor as significant as claimed. Ultimately, the OECD report is merely the latest in a series of attempts by Irwin and Sanders to use ill-suited regression analyses to try to prove that speculation has no impact on prices.²

First, some background that will be familiar to those readers who have followed the debate, but which bears repeating. The level of volatility witnessed in commodity prices through 2008 was unprecedented throughout history. For most of the twentieth century, commodities derivatives were traded on regulated exchanges, and subject to meaningful speculative position limits. Exchangetrading requirements and position limits were originally created in 1936 by the Commodity Exchange Act (CEA). Following this act, commodity markets functioned fairly and effectively for over sixty years. In 2000, the Commodity Futures Modernization Act (CFMA) deregulated commodities markets, weakening speculative position limits and providing loopholes for speculation through completely unregulated shadow markets. From the moment the act passed, non-commercial participants began to increase their share of the commodities futures market, with severe effects (or “misleading coincidences,” as Irwin would argue).

Because of its central role in the economy, oil has taken center stage in most discussions of excessive speculation. The Irwin report focuses on agricultural commodities, but also analyses oil and other energy commodities. Sticking with oil for the moment, consider the following diagram, which illustrates the effects of deregulation on levels of speculation in commodities futures.

Figure 2: Market Composition, Open Interest, and the Price of Oil



Source: Energy Information Administration. CFTC Commitment of Traders Reports
 Reproduced with authors' permission from Medlock & Jaffe 2009.³

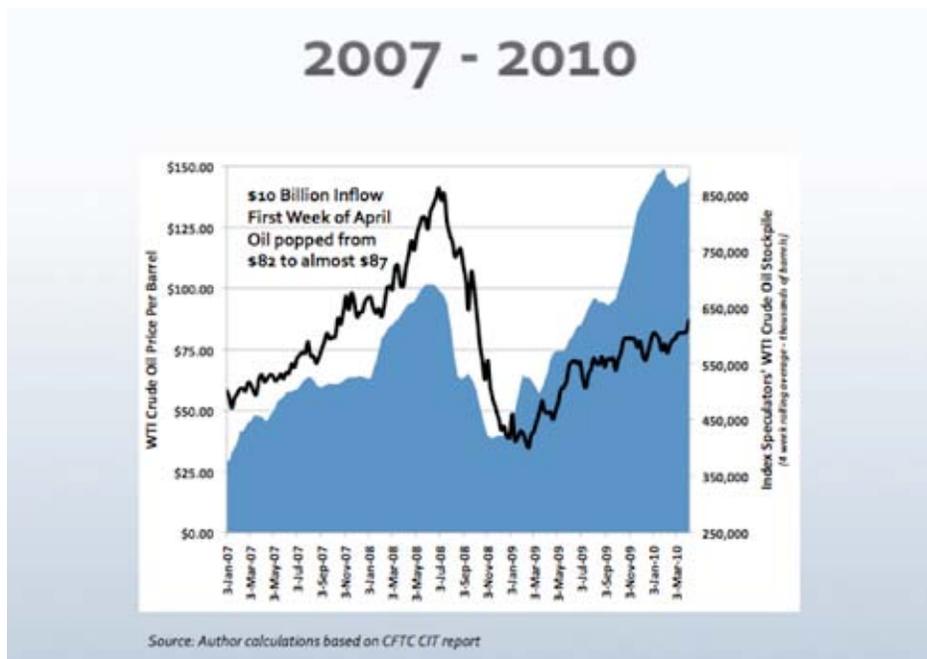
The blue line at the top represents the proportion of oil futures market participants who have a genuine commercial interest in oil. The red line denotes the proportion who are merely non-commercial, financial speculators. The green line is the total open interest (i.e., the total size of the paper oil market). The black line is the price of oil. As the diagram shows, subsequent to the passage of CFMA, the proportion of participants with no legitimate commercial interest jumped from around 20% to over 50%. The overall size of the oil futures market also quadrupled in size due to the sheer volume of these non-commercial speculators.

At around the same time CFMA was passed, the price of oil embarked on a steadily accelerating upward climb, which culminated in the meteoric rise up to \$140+ by mid-2008. It then plummeted back down over the next six months at the fastest rate in recorded history. To reiterate, this sort of volatility was completely unheard of before the tidal wave of speculative money that followed the passage of CFMA. The diagram below shows how the flows of speculative money into oil futures correlated with the price of oil.

Not even the volatility caused by the 1973 oil embargo, the Iranian revolution, or the Persian Gulf War, each of which threatened to

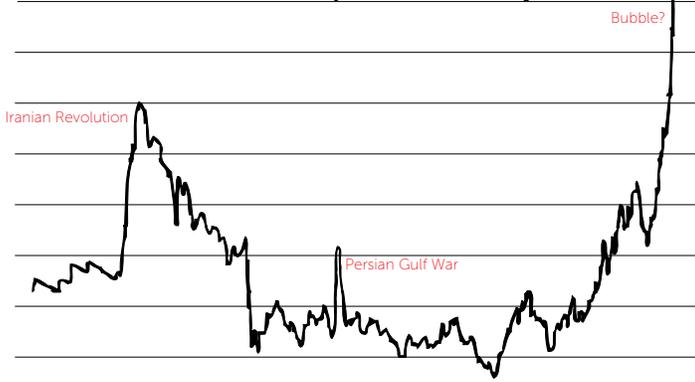
slash the world's supply of oil, was of comparable magnitude. Yet, those wedded to a strict market fundamentalist view continue to point to vague trends in "Chinese demand" to try to explain price fluctuations that radically outweigh those caused by even the most severe oil shocks since World War II.

As noted earlier, the OECD study focuses on agricultural commodities, though the analysis also covers energy commodities. However, the same arguments that apply to oil



Source: Author calculations based on CFTC CTR report

Crude Oil – Inflation Adjusted Monthly Data



Reproduced with permission from <http://www.tradersnarrative.com/price-of-oil-manipulationbubble-supplydemand-1753.html>

hold for other commodities. As Tang and Xiong (2009) have shown, since CFMA opened the loophole that enables index speculation, in 2000, agricultural commodities have begun to behave more and more like the energy commodities they are indexed with.⁴

The following diagram from the same paper clearly illustrates that the link between index flows and price that was demonstrated is not limited to oil; it also holds for agricultural commodities and livestock.

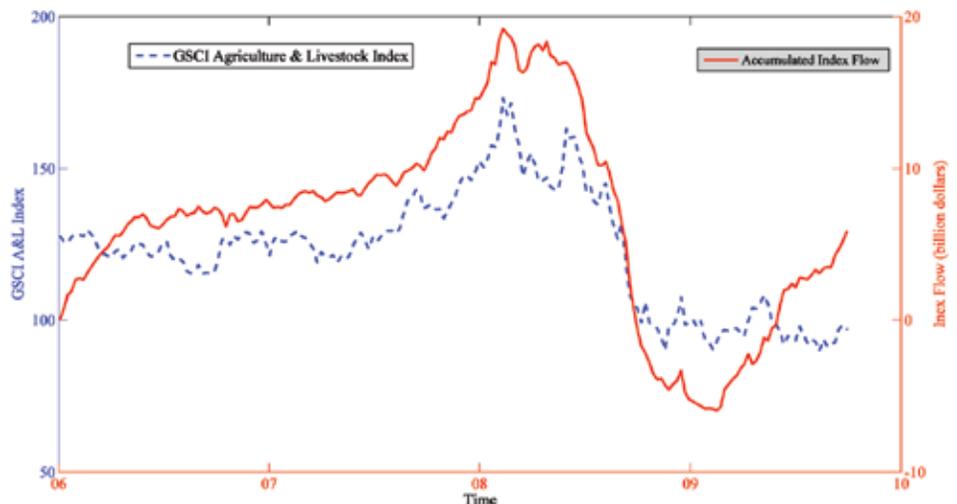
Irwin and Sanders are certainly arguing against the common sense interpretation of these facts. For sixty-plus years, commodities markets were regulated, and speculation was subject to legal limits; the markets functioned well throughout this time, despite wars, revolutions and oil embargoes. Then, those markets were deregulated, and the limits on speculation were lifted; within a decade, commodities were displaying unprecedented volatility. To argue that this is merely correlation and not causation, as Irwin and co. attempt to do, one needs an extremely compelling alternative story. More compelling, at least, than a vague gesture towards “fundamental factors.”

The authors cite “a number of economists”⁶ (specifically, a blog entry by Paul Krugman,⁷ an opinion piece by Craig Pirrong, and one of their own papers) who argue that commodity markets “were driven by fundamental factors that pushed prices higher.”⁸ They add that “the main factors cited as driving the price of crude oil include strong demand

from China, India, and other developing nations [and] a leveling out of crude oil production...”⁹ They provide no data to substantiate this explanation.

In fact, it’s not surprising Irwin and Sanders fail to back up their “supply and demand” story with data, because the actual data clearly proves them wrong. True enough, Chinese consumption of oil-based products did increase in 2008. It rose by around 12%, according to most estimates.¹⁰ But even the rise in Chinese demand wasn’t enough to offset the global decline in demand for oil. Remember that in 2008 the USA, along with most of Europe, was in a recession. At the same time, global oil supply was rising. According to the National Bureau of Economic Research (NBER), the United States entered into an economic recession in December of 2007. So U.S. economic output was dropping during the first six months of 2008. During that time, the worldwide supply of oil was increasing, and the worldwide demand for oil was decreasing. If supply and demand were really driving the oil price, it should have fallen, not risen sharply. Instead, oil defied the economic recession and the laws of supply and demand, and rose over 50% in just six months.

It bears repeating: as oil prices rose steadily by over 50% in six months, supply was rising, and demand was falling. Here [See chart on page 42] are the EIA figures to back it up.”



Reproduced with permission from Tang and Xiong (2009)⁵

Empirical Studies

The analysis in the report clearly does not hold up to scrutiny. What about the “new data” it promises? In fact, there is actually nothing new about the data. It is the same CIT and DCOT data both sides of the excessive speculation debate have been using all along. The new part lies in their choice to apply a different type of test from those used in their previous studies. The specific test they use is a Granger Causality Test. The name sounds impressive, and—used in the right context—the test itself is, too. Granger was a brilliant econometrician who won a Nobel prize for his work on cointegration. His eponymous test sprung from a desire to develop a rigorous way of determining when correlations might have a causal link.¹²

The idea is very simple. If two time series are correlated, try offsetting them a little and see if one appears to “predict” the other. So, instead of looking at the correlation between X and Y on Monday, Tuesday, Wednesday, Thursday, etc., look at how X on Monday correlates with Y on Tuesday, how X on Tuesday correlates with Y on Wednesday, and so on. If you find that the value of X on one day lets you “predict” the value of Y the following day (i.e., correlates pretty well with it), you can say that X “Granger causes” Y.¹³ Ideally, you’re looking for a situation where X Granger causes Y, but the inverse doesn’t hold. That way, you have some reason to suspect that X actually does cause Y. Even then, you’d still have to make a qualitative analysis, and a subjective judgment call to say that X causes Y. It’s standard practice to consider Granger causality to have little intrinsic value unless you have an underlying theory that provides a solid independent basis for believing that there is a real causal link.

Beyond the fact that on its own a Granger test is relatively meaningless, there are several problems specific to the authors’ application of it. First, there is the fact that Granger

tests can’t handle extremely volatile dependent variables. In fact, this is true of all the prior statistical tools used by Irwin and Sanders in their efforts to prove that speculators’ money is somehow worth less than everyone else’s. Pagan and Schwert (1990) showed that stock market prices do not possess the required formal properties for Granger-type tests to be reliable.¹⁴ Phillips and Loretan (1990) extended Pagan and Schwert’s analysis to include commodities, concluding that commodities data are far too volatile for Granger-type tests to mean anything.¹⁵ They actually reached this conclusion studying a period during which commodities were far less volatile than they were during the interval studied by Irwin and Sanders.

These facts (or even just a quick glance at any of the charts presented so far) will attest that commodities prices over the period studied were perfect examples of the kind of volatile variables that Granger tests can’t handle. Indeed, Irwin and his coauthor even admit as much—though they do so as inconspicuously as possible:

The time-series tests may lack statistical power to reject the null hypothesis because the dependent variable—the change in futures price—is extremely volatile.¹⁶

Indeed.

Chart 2. Worldwide Oil Supply

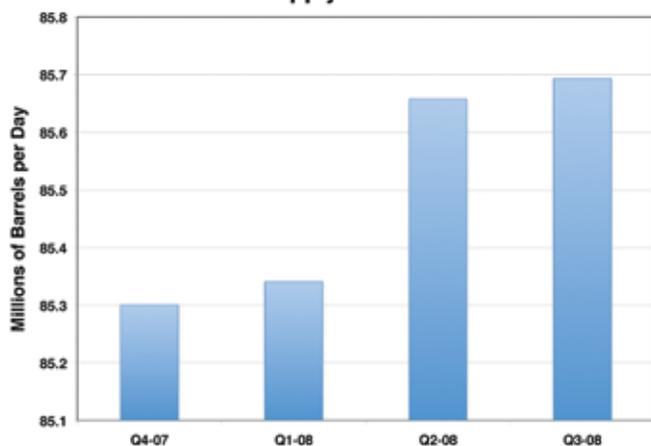
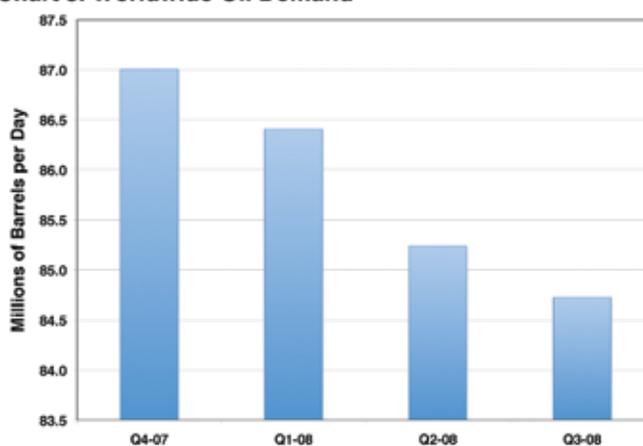


Chart 3. Worldwide Oil Demand



Source: Energy Administration, U.S. Department of Energy, “World Oil Balance 2004-2008,” January 13, 2009.

That alone is enough to discredit the findings of the OECD study. However, there are additional problems with the statistical methodology of the paper. A second major problem with the application of the Granger approach relates to the fact that it is notoriously difficult to choose the right lag for such tests.¹⁷ Singleton (2010) illustrates this point clearly when he says:

Many of the studies that have explored Granger causality between returns on futures positions and trader positions have focused on very short horizons (typically days)...It seems likely that, if the flows of index investors and other trader categories affected futures prices, then these effects would build up over longer histories than just a few days. Put differently, the lead/lag patterns that might be useful for identifying short-term manipulation in futures markets are likely to be very different than the longer-term patterns that would naturally be associated with the ebbs and flows of herding-like behavior.¹⁸

Irwin and Sanders use a lag of one week for almost every commodity they test.¹⁹ Little wonder their test comes out negative. As was already discussed, Granger tests are not even designed to apply to data of this sort. But even if they were, it would not be reasonable to use a lag of one week to test a theory that posits a latency of several weeks at the very least. Just by looking at the charts, it is evident there is some relationship between speculative flows and commodity prices. As many readers probably learnt in their very first statistics class, if one sees a clear relationship in a graph, and the statistical tests imply no relationship exists at all, one ought to regard those tests with some suspicion. One probably made an arithmetic error somewhere, picked bad parameters for the test, or just picked the wrong test outright.

The problem is worse for energy commodities. Irwin and Sanders, like Masters and White (2008) before them, are primarily attempting to measure the specific effect of index speculation.²⁰ This is the mechanism whereby large institutional investors place unidirectional bets that a “basket” (index) of commodities will rise in price. Masters and White use CFTC data in combination with published commodities index weightings to interpolate the flows of speculative money into energy commodities. This is necessary to get a reliable estimate for those flows, since no direct data exists, and there is no good proxy. Irwin and Sanders are well aware of this necessity, and in fact state the case well:

An important question, especially for the energy futures markets, is the degree to which the DCOT swap dealers category represents index fund positions. One can infer from comparisons found in the CFTC’s September 2008 report on swap dealer positions (CFTC, 2008b) that DCOT swap dealer positions in agricultural futures markets correspond reasonably closely to index trader positions. Since swap dealers operating in agricultural markets conduct a limited amount of non-index long or short swap transactions there is little error in attributing the net long position of swap dealers in these markets to index funds. However, swap dealers in energy futures markets conduct a substantial amount of non-index swap transactions on both the long and short side of the market, which creates uncertainty about how well the net long position of swap dealers in energy markets represent index fund positions. For example, the CFTC estimates that only 41 percent of long swap dealer positions in crude oil futures on three dates in 2007 and 2008 are linked to long-only index fund positions (CFTC, 2008b).²¹

In other words, we have data on swaps dealer activity in both agricultural and energy commodities. For agricultural commodities, that activity has pretty much a one-to-one relationship with index speculation; it is all dealers executing orders on behalf of index speculators. For energy commodities, however, only about 40% of swaps dealer activity represents index speculation. As a proxy for index speculation in energy markets, therefore, swaps dealer activity is completely useless. Recognizing this, Masters and White instead used the agricultural data to calculate the total amount of money flowing from index speculators into agricultural commodities. They then looked at the indexes that are most popularly speculated on. By comparing the relative weightings of agricultural vs. energy commodities in those indexes, they were able to infer a reliable estimate of how much money was flowing into energy commodities.

The authors’ comments illustrate that they understand both the problem with using swaps dealer activity as a proxy for index speculation in energy, as well as the appropriate solution. So it is somewhat surprising that they choose to ignore it in their own analysis, and instead revert to using swaps dealer positions as a direct proxy for index speculation in energy commodities, an approach which they themselves earlier dismiss as inadequate:

Lacking any other data to represent in index fund positions in the energy markets, we follow Buyuksahin and Harris (2009) and assume swap dealer positions are representative of index trader positions in the crude oil and natural gas futures markets.²²

By way of explanation for this baffling choice, they offer only:

The following analysis of the summary statistics and data trends helps provide some insight as to the reasonableness of this assumption.²³

Although hard to decipher, this statement appears to mean that the fact the test results come out negative (i.e., support the conclusion already argued for by the authors) justifies the use of clearly unsuitable data.

Irwin and Sanders' Working's T analysis fails for a similar reason.²⁴ They use proxies for hedging and speculation that they themselves have characterized as unsuitable for the task:

A frequent complaint about the traditional COT data is that the trader designations may be somewhat inaccurate (e.g. Peck, 1982; Ederington and Lee, 2002). For speculators, there may be an incentive to self-classify their activity as commercial hedging to circumvent speculative position limits. In contrast, there is little incentive for traders to desire the non-commercial designation...[Additionally, t]he available evidence about the composition of non-reporting traders is dated (Working, 1960; Larson, 1961; Rutledge, 1977-78; Peck, 1982), so little is known about this group other than their position size is less than reporting levels. The data set is further limited because it is purely a classification system and provides no insight as to the motives that drive actual trading decisions (see Williams, 2001).²⁵

And again:

In recent years industry participants began to suspect that these data were "contaminated" because the underlying risk for many reporting commercials were not positions in the actual physical commodity (CFTC, 2006a,b). Rather, the reporting commercials were banks and other swap dealers hedging risk associated with over-the-counter (OTC) derivative positions.²⁶

Yet, rather than heeding their own advice, they proceed to use these categories as straightforward proxies for "hedging" and "speculating."²⁷

The formal conclusion of the OECD study can therefore be paraphrased as follows:

Applying statistical techniques that aren't applicable to volatile data sets like the ones used in this study, and using proxies for energy commodities that the authors themselves argue are unsuitable, we found little historical correlation between how much money flowed into commodities futures one week, and how commodities prices behaved the following week, for a period of 186 weekly observations taken between June 2006 and December 2009. For Cotton and Corn, we actually did find a significant correlation.

In the paper itself, this is stated more succinctly as: "The results summarized above tilt the weight of the evidence even further in favor of the argument that index funds did not cause a bubble in commodity futures prices."²⁸ The authors close by acknowledging that index speculators poured huge amounts of money into commodities, and by expressing their admiration for "the remarkable ability of the commodity futures markets to absorb this increased participation with apparently minimal price impact."²⁹ This review will close with a simple diagram of the oil price over the last twenty or so years, and leave the reader to form his or her own opinion on just how capable of absorbing speculative inflows these markets proved to be.

Figure 1: Crude Oil Price (WTI, Daily – 01/02/90 through 08/19/09)



Source: Energy Information Administration

Reproduced with authors' permission from Medlock & Jaffe, 2009.³⁰

In-text References

1. As is customary with OECD, there are actually several reports, all of which are variations on the same paper. They include Irwin, S. H. and Sanders, D. R., *Speculation and Financial Fund Activity: Draft Report*, Irwin, S. H. and D. R. Sanders, *Annex 1 to Speculation and Financial Fund Activity: Draft Report*, and finally Irwin, S. H. and D. R. Sanders, *The Impact of Index and Swap Funds on Commodity Futures Markets: Preliminary Results*, OECD Food, Agriculture and Fisheries Working Papers, No. 27 DOI: 10.1787/18156797. All page references in this response are to the Annex 1 form of the report.

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22. Op. Cit. p27.

23. Ibid.

24. Op. Cit. p25.

25. Op. Cit. p20.

26. Op. Cit. pp20-21.

27. Op. Cit. p26.

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30. Op. Cit.

Commodity Speculation and the Food Crisis

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Two years ago, the global food crisis and calamitous implications of spiralling food prices were widely reported in the media. Then world trade prices of food grains started falling from the second half of 2008, and global attention wandered, especially as the financial crisis subsumed everyone's attention. Currently there is only muted media discussion or public awareness about the persistent food crisis or of how the large majority of people in the world are engaged in an intensified struggle to ensure adequate food for their families. But in fact the global food situation is not much better than it was two years ago, and there is a real possibility of a repeat of the crazy price movements witnessed during 2007 and 2008, which destabilized food consumption and added to poverty in so many places.

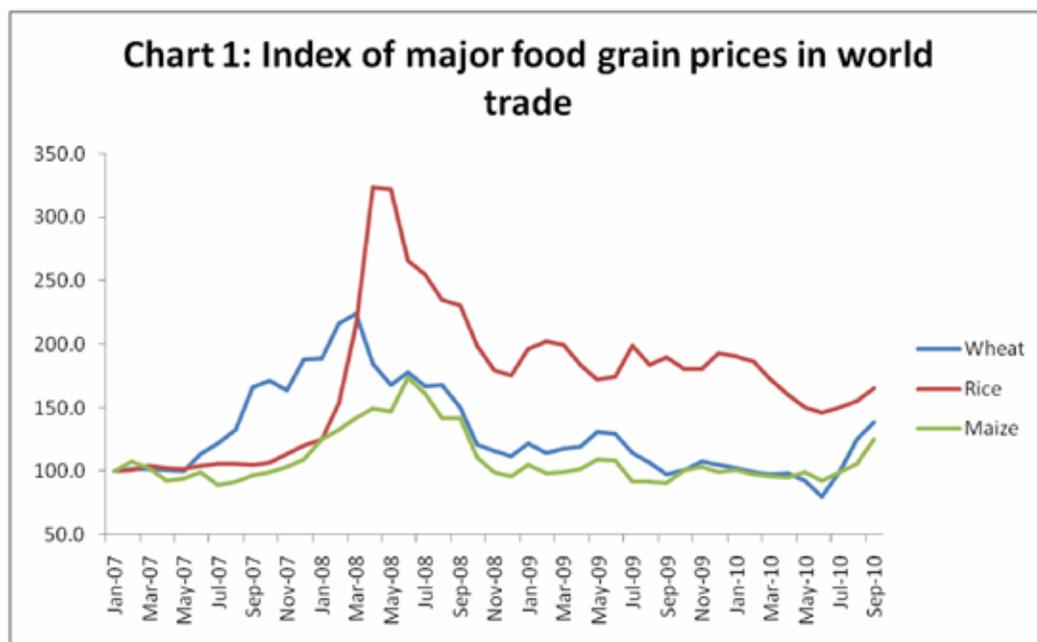
It is important to recognise that the global food crisis is not something that can be treated as discrete and separate from the global financial crisis. On the contrary it has been intimately connected with it, particularly through the impact of financial speculation on world trade prices of food.

This is not to deny the undoubted role of other real economy factors in affecting the global food situation. While demand-supply imbalances have been touted as reasons, this is largely unjustified given that there has been hardly any change in the world demand for food in the past three years. In particular, the claim that food grain prices have soared because of more demand from China and India as their GDP increases, is completely invalid, since both aggregate and per capita consumption of grain have actually fallen in both countries. Supply factors have been—and are likely to continue to be—more significant. These include the short-run effects of diversion of both acreage and food crop output for bio-fuel production, as well as more medium-term factors such as rising costs of inputs, falling productivity because of soil depletion, inadequate public investment in agricultural research and extension, and the impact of climate changes that have affected harvests in different ways.

Another important element in determining food prices is oil prices: since oil (or fuel) enters directly and indirectly into the production of inputs for cultivation as well as irrigation and transport costs, its price tends to have a strong correlation with food prices. So curbing volatility in oil prices would also help to stabilise food prices to some extent.

Price volatility of food items

Despite all these factors, it is clear that the recent volatility in world trade prices of important food items simply cannot be explained by real demand and supply factors. Chart 1 gives some idea of the extent of price changes in the three most important food grain crops: wheat, rice and maize. The extent of price variation in such a short time already suggests that such movements could not have been created by supply and demand, especially as in world trade the effects of seasonality in a particular region are countered by supplies from other regions. In any case, FAO data show very clearly that there was scarcely any change in global supply and utilisation over this period,



Source: Calculated from IMF Commodity prices database, accessed on 14 October 2010

and that if anything, output changes were more than sufficient to meet changes in utilisation in the period of rising prices, while supply did not greatly outstrip demand in the period of falling prices (See FAO (2009 and 2010) and Ghosh (2010)).

The extent of the volatility is even more apparent when we look at the trough to peak changes in the price of any one particular commodity. Chart 2 shows how wheat prices have changed in the past three years. It should be noted that after all these very rapid and extreme changes, global wheat prices are now around 40 per cent higher than they were in January 2007. This is related to the very rapid increase in wheat prices in the very recent past, which is significant because it serves as a warning that the possibility of another price spike in important food items still looms large.

It is now quite widely acknowledged that financial speculation was the major factor behind the sharp price rise of many primary commodities, including agricultural items over the past year (UNCTAD 2009; IATP 2008 and 2009; Wahl 2009; Robles, Torrero and von Braun 2009, World Development Movement 2010, UN Special Rapporteur 2010). Even recent research from the World Bank (Bafis and Haniotis 2010) recognises the role played by the “financialisation of commodities” in the price surges and declines, and notes that price variability has overwhelmed price trends for important commodities.

Of course there continue to be are opinions, which still argue that these price changes have been all about ‘fundamentals’ that reflected real if temporary changes in demand and supply, such as sudden supply shocks in particular areas, as well as the associated impact on panic buying or bans on selling such as export bans in the world trade market. It is then argued that financial activities in the commodity futures markets have had relatively little impact on price volatility, and if anything have operated to stabilise prices rather than destabilise them (for example, OECD 2009).

This is related to the most common argument in favour of allowing speculation, which is simply that

the economics of speculation requires that if such activities are to be profitable, they must be stabilising, rather than destabilising. The vital function of speculators is to predict future market patterns and thereby reduce the intensity and volatility of change. Because speculators are supposed to buy when prices are low and sell when prices are high, they thereby serve to make prices less volatile rather than more so. Futures markets in commodities play a similar role: they allow both producers and consumers (farmers and food purchasers in the case of food grain) to hedge against future price changes and therefore allow them to get on with their real work instead of worrying about possible price changes. According to this perception, therefore, the presence of speculation has a positive effect on the markets, cannot be blamed for rising prices, and certainly should not be curbed in any way.

Taken to its logical conclusion, this argument also suggests that the price rises witnessed in the first half of 2008 were inevitable, reflecting economic fundamentals and requiring adjustment by governments and societies. But this apparently plausible argument dissolved completely in the face of subsequent trends in prices, as shown in Charts 1 and 2. Clearly, such price variation in relatively short periods of time cannot be explained even by panic buying and selling of commodities, and indeed there is no evidence that actual volumes of commodity transactions mirrored these price movements.

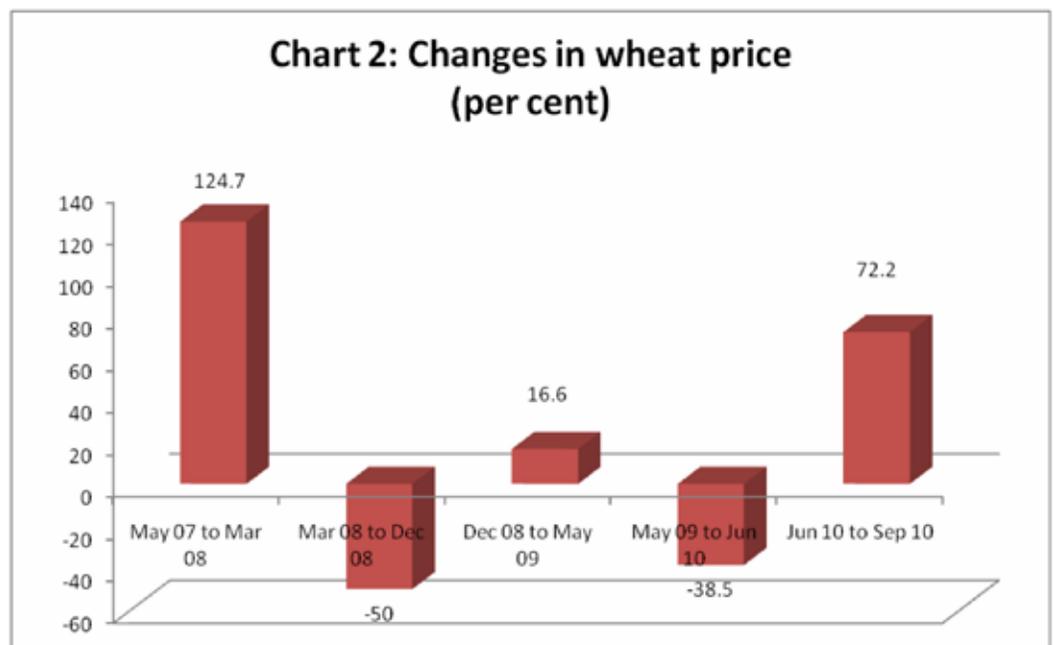
So what exactly happened?

Global commodity prices have always been volatile to some degree and prone to boom-bust cycles, which is one of the many reasons why developing countries have been encouraged to diversify away from dependence on such exports. In the 1950s and 1960s, commodity boards and international commodity agreements were seen as one means of stabilising global prices. Since their decline from the mid 1970s, and especially as financial deregulation and innovation became more pronounced from the early 1980s, the emergence of commodity futures markets was touted as providing the advantages of such agreements in a more market-friendly framework. There were several features of such futures markets that were perceived to be of value: they allowed for better risk management through hedging by different layers of producers, consumers and intermediaries; they enabled open-market price discovery of commodities through buying and selling on the exchanges; they were therefore perceived to lower transaction costs.

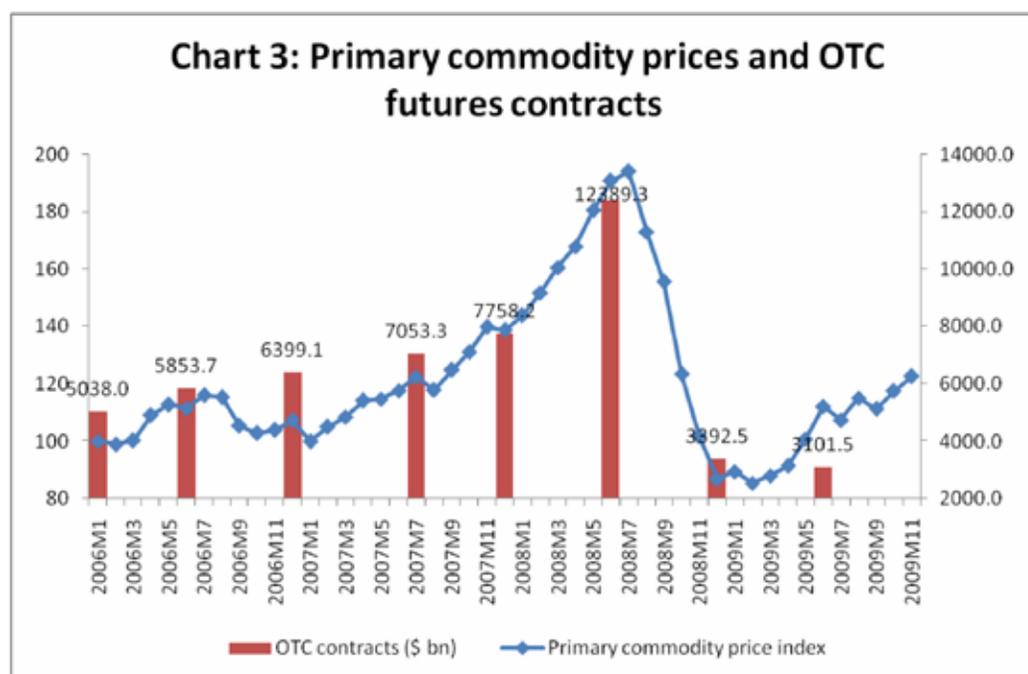
Financial deregulation in the early part of the current decade gave a major boost to the entry of new financial players into the commodity exchanges. In the US, which has the greatest volume and turnover of both spot and future commodity trading, the significant regulatory transformation occurred in 2000. While commodity futures contracts existed before, they were traded only on regulated exchanges under the control of the Commodity Futures Trading Commission (CFTC), which required traders to disclose their holdings of each commodity and stick to specified position limits, so as to prevent market manipulation. Therefore they were dominated by commercial players who were using it for the reasons mentioned above, rather than for mainly speculative purposes. In 2000, the Commodity Futures Modernization Act effectively deregulated commodity trading in the United States, by exempting over-the-counter (OTC) commodity trading (outside of regulated exchanges) from CFTC oversight. Soon after this, several unregulated commodity exchanges opened. These allowed any and all investors, including hedge funds, pension funds and investment banks, to trade commodity futures contracts without any position limits, disclosure requirements, or regulatory

oversight. The value of such unregulated trading zoomed to reach around \$9 trillion at the end of 2007, which was estimated to be more than twice the value of the commodity contracts on the regulated exchanges. According to the Bank for International Settlements, the value of outstanding amounts of OTC commodity-linked derivatives for commodities other than gold and precious metals increased from \$5.85 trillion in June 2006 to \$7.05 trillion in June 2007 to as much as \$12.39 trillion in June 2008 (BIS 2009).

Unlike producers and consumers who use such markets for hedging purposes, financial firms and other speculators increasingly entered the market in order to profit from short-term changes in price. They were aided by the 'swap-dealer loophole' in the 2000 legislation, which allowed traders to use swap agreements to take long-term positions in commodity indexes. There was a consequent emergence of commodity index funds that were essentially 'index traders' who focus on returns from changes in the index of a commodity, by periodically rolling over commodity futures contracts prior to their maturity date and reinvesting the proceeds in new contracts. Such commodity funds dealt only in forward positions with no physical ownership of the commodities involved. This further aggravated the treatment of these markets as vehicles for a diversified portfolio of commodities (including not only food but also raw materials and energy) as an asset class, rather than as mechanisms for managing the risk of actual producers and consumers. At the height of the boom, it was estimated by the hedge fund manager Michael Masters in a testimony to the US Congress that even on the regulated



Source: Calculated from IMF Commodity prices database, accessed on 14 October 2010



Source: IMF Commodity Price Statistics and BIS Quarterly Review June 2010

exchanges in the United States, such index investors owned approximately 35 per cent of all corn futures contracts, 42 per cent of all soybean contracts, and 64 per cent of all wheat contracts in April 2008. This excluded all the (unregulated) ownership through OTC contracts, which were bound to be even larger.

As the global financial system became fragile with the continuing implosion of the US housing finance market, large investors, especially institutional investors such as hedge funds and pension funds and even banks, searched for other avenues of investment to find new sources of profit. Commodity speculation increasingly emerged as an important area for such financial investment. The United States became a major arena for such speculation, not only because of the size of its own crisis-ridden credit system, but because of the deregulation mentioned above that made it possible for more players to enter into commodity trading.

This created a peculiar trajectory in international commodity markets. The declared purpose of forward trading and of futures markets is to allow for hedging against price fluctuations, whereby the selling of futures contracts would exceed the demand for them. This implies that futures prices would be lower than spot prices, or what is known as backwardation. However, throughout much of the period January 2007 to June 2008, the markets were actually in contango, in which futures prices were higher than spot prices. This cannot reflect the hedging function and must imply the involvement of speculators who are expecting to profit from rising prices. Indeed it

has been argued that contango was so strong that the futures markets were essentially driving the spot prices up in this period.

Then, by around June 2008, when the losses in the US housing and other markets because intense, it became necessary for many funds to book their profits and move resources back to cover losses or provide liquidity for other activities. UNCTAD (2009: 25) notes the sharp decline of financial investment in commodity markets from mid 2008. This caused futures market prices to fall, and this transmitted to spot prices as well.

Thus international commodity markets increasingly began to develop many of the features of financial markets, in that they became prone to information asymmetries and associated tendencies to be led by a small number of large players. Far from being 'efficient markets' in the sense hoped for by mainstream theory, they allowed for inherently 'wrong' signalling devices to become very effective in determining and manipulating market behaviour. The result was the excessive price volatility that has been displayed by important commodities over the recent period—not only the food grains and crops mentioned here, but also minerals and oil.

Such volatility has had very adverse effects on both cultivators and consumers of food. It is often argued that rising food prices at least benefit farmers, but this is often not the case as marketing intermediaries tend to grab the benefits. In any case, with price changes of such short duration, cultivators are unlikely to gain. On major reason is because they send out confusing, misleading and often completely wrong price signals to farmers that cause over sowing in some phases and under cultivation in others. Many farmers in the developing world have found that the financial viability of cultivation has actually decreased in this period, because input prices have risen and output prices have been so volatile that the benefit has not accrued to direct producers.

In addition, this price volatility has meant bad news for most consumers, especially in developing countries. It turns out that the pass through of global prices was extremely high in developing countries in the phase of rising prices, in that domestic food prices tended to rise as global prices increased, even if not

to the same extent. However, the reverse tendency has not been evident in the subsequent phase as global trade prices have fallen. In June 2010 the FAO estimated that around 20 countries faced food emergencies and another 25 or so were likely to have moderate to severe food crises. Even in countries that are not described as facing food emergency, the problem is severe for large parts of the population. For example, in India retail prices of some important food items have risen by more than 50 per cent in the past two years, causing great hardship in a country in which just under half the population is malnourished.

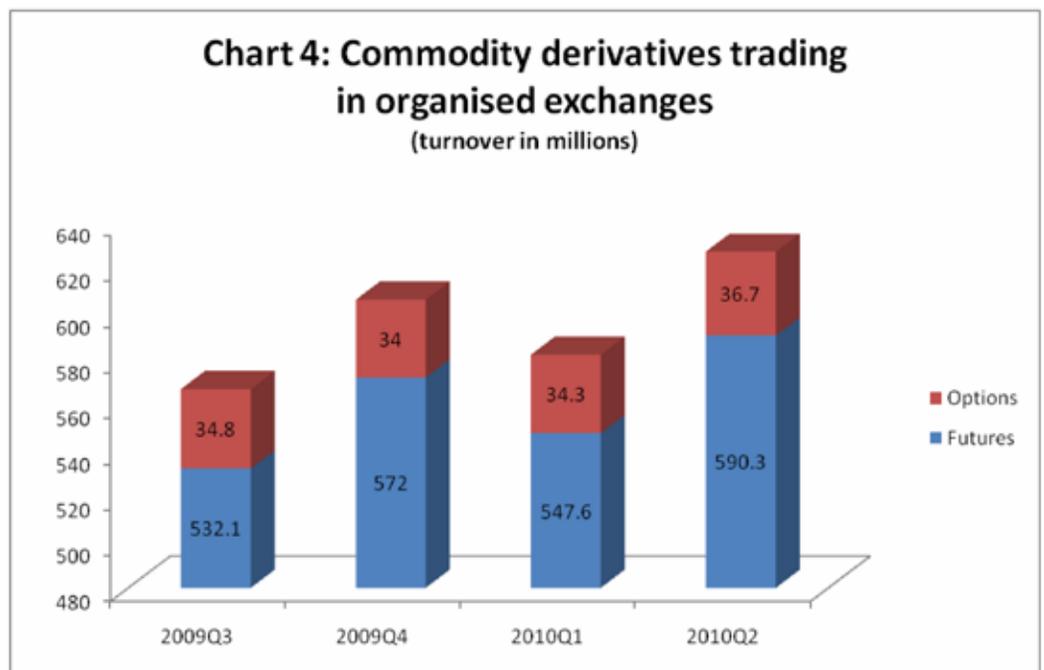
So both cultivators and food consumers appear to have lost in this phase of extreme price instability, with the only gainers from this process therefore being the financial intermediaries who were able to profit from rapidly changing prices. This can easily happen again, unless strict regulation prevents such financial activity. Despite reasonably good harvests in most countries and no likelihood of any serious supply shortfall at the global level, as well as healthy stock-to-utilisation ratios of around 23 per cent for most major food crops, prices have started rising. Wheat prices, as shown earlier, have risen more than 70 per cent in just three months. While the export ban in Russia has been blamed for this, the associated impact on global supply is simply not large enough to explain such a sharp price movement. Instead, it is likely that once again financial speculation is driving up wheat prices as index traders and other players move into futures markets for wheat.

While the data on recent OTC contracts in commodity derivatives markets are not yet available, the evidence on what is happening in the regulated exchanges provides some disturbing pointers. Chart 4 shows that after a period of slight decline, numbers of both futures and options contracts in the regulated exchanges have been increasing in the recent past. Once again long positions are dominating the market, suggesting upward pressure on futures prices and thereby also spot prices. This means that all the features that created the recent food price spiral are still in place. In the current volatile situation, it is quite possible for finance to flow in such destabilizing ways once again.

What financial regulations are required?

Obviously, the need to pass careful regulation controlling such speculative behaviour and then ensure that such legislation is effectively implemented, is absolutely crucial of the crazy price volatility in important food items is to be curbed. But the groundswell of public opinion that can force such changes has not yet been formed.

The recently passed Dodd-Frank Financial Reform Bill in the US does contain some necessary regulations, bringing all futures contracts into regulated exchanges and requiring some position limits for investors (based on proof of actual interest in the commodity). One important proposal in the financial reform legislation seeks to plug, at least partially, the loopholes that allowed such frenzied activity in commodity futures markets. It requires that previously unregulated over-the-counter (OTC) trades be traded on public exchanges. This would reverse the effect of the 2000 Act, and enable the CFTC to analyse daily trade data and determine when traders have exceeded the CFTC's commodity-specific position limits (which provide a percentage ceiling for all commodity contracts open for trade during a specific trading period). It has been estimated that around ninety per cent of this market in the US would move from over-the-counter swaps trading to the more transparent and capitalized exchange trading environment for futures contracts.



Source: Bank for International Settlements Quarterly Report September 2010

In addition, the legislation specifies that position limits must be imposed on traders in agricultural and energy-related commodities. This would require traders to establish that they have an interest in holding the real commodity in question and specify limits on the aggregate number or amount of positions in certain contracts based upon the same underlying commodity that may be held by any one person, including any group or class of traders, for each month. This should prevent or at least reduce the importance of purely financial players such as index traders, but of course it is crucial in this case that the position limits are not set so high as to be meaningless, and therefore the CFTC (US Commodity Futures Trading Commission) will have an important role to play in this. Even if the CFTC acquires the ability to control and regulate trading activity in commodity futures, its actions may not be so effective. For example, in late January this year the CFTC announced that it would place position limits on oil, natural gas, heating oil and gasoline futures. However, the limits announced were so high that, even by the CFTC's own calculations, they were unlikely to affect much of the trade.

However, while financial regulation in the US is important, it will not be enough. Currently, only 30 per cent of commodity futures contracts are traded in the US. European exchanges account for the bulk of the rest, followed by Tokyo and Singapore to a much lesser extent. Therefore, appropriate legislation in the EU is absolutely essential. Without it, the danger is that the speculative activity that has so disturbed essential commodity prices such activity will simply move to other financial centres. Unfortunately, the proposed legislation that is currently on the table in the EU has some important weaknesses. Most importantly, it does not provide for position limits in commodity derivatives markets. And the "swap-dealer" loophole that allowed purely financial agents to actively participate in commodity markets would still be operative. A more stringent set of rules is therefore essential.

Of course, this does not in any way mean that the world food crisis is over, or that commodity prices will not continue to behave in a volatile fashion without other measures adopted by governments. At best it may simply mean that developing countries will get some breathing space from excessive price volatility that should help them to get the policies in place to tackle the real problems in the food economy and elsewhere. The need to put such measures into place, to revive the food economy within countries and ensure adequate and universal distribution of essential food items, is more pressing than ever. But in the immediate situation, without stricter and more effective financial regulation, price volatility will only

aggravate and intensify the problem. We need to become more aware of the specific challenge that finance poses for food security, and address it directly.

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Food Commodities Speculation and Food Price Crises

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The U.N. Human Rights Council is an inter-governmental body within the U.N. system made up of 47 States responsible for strengthening the promotion and protection of human rights around the globe.

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Summary

In this briefing note, the UN Special Rapporteur on the right to food examines the impact of speculation on the volatility of the prices of basic food commodities, and he identifies possible solutions forward. The global food price crisis that occurred between 2007 and 2008, and which affects many developing countries to this day, had a number of causes. The initial causes related to market fundamentals, including the supply and demand for food commodities, transportation and storage costs, and an increase in the price of agricultural inputs. However, a significant portion of the increases in price and volatility of essential food commodities can only be explained by the emergence of a speculative bubble.

In particular, there is a reason to believe that a significant role was played by the entry into markets for derivatives based on food commodities of large, powerful institutional investors such as hedge funds, pension funds and investment banks, all of which are generally unconcerned with agricultural market fundamentals. Such entry was made possible because of deregulation in important commodity derivatives markets beginning in 2000. These factors have yet to be comprehensively addressed, and to that extent, are still capable of fuelling price rises beyond those levels which would be justified by movements in supply and demand fundamentals. Therefore, fundamental reform of the broader global financial sector is urgently required in order to avert another food price crisis. Previously unregulated Over the Counter (OTC) derivatives must be subject to rules requiring registration and clearing on public exchanges, and exemptions to these rules must be highly restricted. As regards commodity derivatives trading in particular, States should ensure that dealing with food commodity derivatives is restricted as far as possible to qualified and knowledgeable investors who deal with such instruments on the basis of expectations regarding market fundamentals, rather than mainly or only by speculative motives. These measures would enable States to fulfill their legal obligations arising under the human right to food.

The food price crisis of 2008

As a result of the increases in prices of basic food commodities and oil in 2007-2008, the number of people in extreme poverty rose by 130 to 150 million, according to an estimate of the World Bank¹. At least 40 million people around the world were driven into hunger and deprivation as a result of the 2008 food price crisis, raising the total number of people living in hunger to 963 million in 2008². As is nearly always the case, the brunt of the food price spike was borne by people in the Low Income Food Deficit Countries (LIFDCs), or the poorest developing countries³. In these countries, of special concern are the urban and rural poor who even at the best of times must spend up to four-fifths of their income on food⁴. The food price crisis undermined this already meagre ability to meet essential food needs⁵. This should not be allowed to recur. This note seeks to explain the role that speculation on the commodities markets may play in increasing volatility of prices, and what can be done about it in order to better protect the right to adequate food.

Beginning around 2005, markets for numerous agricultural commodities started to witness price increases and higher levels of volatility (see Figure 1). According to a document circulated under the auspices of the UN Conference on Trade and Development (UNCTAD), food prices rose by 83% between 2005 and 2008⁶, with maize prices nearly tripling, wheat prices increasing by 127%, and rice prices by 170% between January 2005 and June 2008⁷. Moreover, the June 2010 issue of *Food Outlook* published by the UN Food and Agriculture Organization (FAO) finds that implied volatility⁸ in wheat and soy rose steadily from 2005 to 2008, and that the rise in implied volatility for maize continued, albeit at a much lower rate, until 2009⁹.

At present, there is a lively debate as to whether these developments were the result of factors adversely affecting food supply, or whether they were caused by excessive speculation in food commodities derivatives (see page 9). Advocates of the first position maintain that the price spikes were attributable to factors such as a decline in the rate of growth of food production¹⁰, climate change and water depletion¹¹, and the growth of biofuels¹². For instance, Wright and Bobenrieth argue that the roots of the food price crisis lie in the fact that between 2007 and 2008, stocks of world wheat, maize and rice were low¹³. Wheat production, they note, was lower than expected because of a severe drought in Australia, and (according to the IMF¹⁴) consumers in China and India developed a taste for meat which drove up grain prices¹⁵.

Insufficient explanations

Certainly, supply and demand fundamentals played an important role in the creation of the food crisis. However, closer examination reveals that the abovementioned arguments of supply and demand are insufficient to explain the full extent of the increases and volatility in food prices. For instance, the price of rice rose by 165% between April 2007 and April 2008¹⁶—a magnitude difficult to explain by reference to market fundamentals. In fact, Wright and Bobenrieth acknowledge that “rice stocks were not unusually low in 2007/2008” and that even though maize stocks were low, production remained high¹⁷. Nor, as Wahl observes, is it likely that a group of people suddenly developed a taste for consuming vast quantities of dairy products, driving its price up by 157% between 2006 and November 2007, only to lose it starting from July 2008, allowing prices to start falling again¹⁸.

It is also difficult to accept the IMF’s thesis that the food price increases were the result of per capita income growth in China, India, and other emerging economies which fed demand for meat and related animal feeds such as grains, soybeans,

and edible oils. That interpretation is not corroborated by data collected by the FAO for the period concerned: that data shows variously, that the supply and utilization of wheat and coarse grain increased at roughly uniform rates, that end of season stocks for grains had generally increased significantly, and that China and India exhibited falling aggregate and per capita food grain consumption¹⁹.

The speculative bubble effect

Instead, a number of signs indicate that a significant portion of the price spike was due to the emergence of a speculative bubble. Prices for a number of commodities fluctuated too wildly within such limited time-frames for such price behaviour to have been a result of movements in supply and demand: wheat prices, for instance, rose by 46% between January 10 and February 26, 2008, fell back almost completely by May 19, increased again by 21% until early June, and began falling again from August²⁰. The 2008 food price crisis was unique in that it was possibly the first price crisis that occurred in an economic environment characterized by massive amounts of novel forms of speculation in commodity derivative markets.

The particular area of concern is speculation in derivatives based on food commodities. A study conducted by Lehman Brothers just before its bankruptcy revealed that the volume of index fund speculation increased by 1,900% between 2003 and March 2008²¹. Morgan Stanley estimated that the number of outstanding contracts in maize futures increased from 500,000 in 2003 to almost 2.5 million in 2008²². Holdings in commodity index funds ballooned from US\$ 13 billion in 2003 to US\$ 317 billion by 2008²³. In the light of such developments, the UNCTAD Trade and Development Report 2009 found that “the trend towards greater financialisation of commodity trading is likely to have increased the number and relative size of price changes that are unrelated to market fundamentals”²⁴. In other words, the changes in food prices reflected not so much movements in the supply and/or demand of food, but were driven to a significant extent by speculation that greatly exceeded the liquidity needs of commodity markets to execute the trades of commodity users, such as food processors and agricultural commodity importers.

In fact, while the food price crisis may have been sparked off the abovementioned developments affecting demand and supply, its effects were exacerbated by excessive and insufficiently regulated speculation in commodity derivatives. The promotion of biofuels and other supply shocks were relatively minor catalysts, but they set off a giant speculative bubble in a strained and desperate global financial environment. These factors were then blown out of all proportion by large

institutional investors who, faced with the drying up of other financial markets, entered commodity futures markets on a massive scale. Therefore, the policy solutions that are needed to avert another crisis must address both the problems affecting underlying financial market fundamentals, and the conditions under which speculation is allowed to take place in essential food commodities, thereby exacerbating the effects of those movements in market fundamentals.

Speculation in agriculture

Speculation in agricultural derivatives has an ancient history. One of the earliest descriptions of derivatives is to be found in Aristotle's *Politics*²⁵. Aristotle tells of Thales the Milesian, a professional philosopher who began to tire of being mocked for his poverty. His meteorological expertise led him to anticipate a bumper olive harvest that year, so he hired all the oil presses in Chios and Miletus for the relevant period. The owners of the oil presses were glad to sell him those rights in exchange for cash up front. When the bumper harvest materialized as Thales correctly predicted, he exercised his "option" and became a very rich man, thus demonstrating that "philosophers might be rich if they pleased, but that riches were not the object of their pursuit"²⁶.

Traditional speculation

Traditional speculation in agricultural commodities markets is based on market fundamentals—above all on the demand and supply for any particular commodity. Thales purchased his option on the oil presses because he expected the supply of olives to increase. The farmers sold him the option because they were hedging against the risk of a poor olive harvest. This form of speculation is generally considered necessary and useful in the market: it facilitates commercial hedging against risk, and it allows for price discovery, assisting farmers and buyers in discovering the reasonable price for a particular commodity in individual trades and on spot markets²⁷. If the buyer is willing to offer a higher price for a future than before, it means that she expects the eventual price of the commodity to increase further. As such, if the price of commodity futures goes up, it signals to sellers on spot markets to raise their prices. Indeed, the grain futures prices quoted by the Chicago Mercantile Exchange²⁸ tend to be incorporated directly into grain trade contracts the world over. Moreover, it is conventionally thought that such speculation reduces price volatility, because speculators provide a market for hedgers, and because they buy when the price is low and sell when the price is high, thus evening out extremes of prices²⁹.

Of course, such speculation is not an unalloyed blessing: it can have significant price effects without adding anything of economic value³⁰. A speculator, unlike other investors in agriculture, does not create new capital such as barns or tractors. If that speculator goes bankrupt, her creditors will have nothing they may satisfy their debts upon³¹. It can also be extremely dangerous—the terrible Bengal famine of 1943 in which 3 million people died, occurred to a large extent because grain traders hoarded essential food grains in anticipation of future higher prices³². Such hoarding exacerbated the price spike, thus denying the poorest sections of society access to food.

Momentum-based speculation

Another form of speculation is based simply on market momentum. This has been described as "herding behaviour in times of strong (usually upward) price trends, which in developed and easily accessible markets can result in the emergence of speculative bubbles..."³³. Far from providing a stabilizing hand, such speculation tends to increase price volatility³⁴. Such momentum-based speculation may have been the main cause of the food price crisis in 2007–2008.

The particular derivative instruments that require our special attention are the commodity indexes. A commodity index, put simply, is a mathematical value largely based on the returns of a particular selection of commodity futures. The most famous of these is the S&P GSCI, formerly known as the Goldman Sachs Commodities Index, which was set up by Goldman Sachs in 1991. Others include the Dow Jones-AIG Index and the Rogers International Commodities Index. The composition of the basket of commodity futures varies according to the index, but agricultural commodities normally do not account for the majority of the commodities included in the "basket". For instance, agricultural commodities only make up 12.2% of the value of the S&P GSCI³⁵. Commodity indexes themselves form the basis for a number of instruments such as commodities index funds, commodity exchange traded funds (ETFs), and commodity index swaps. For instance, a commodity index fund is a large sum of money managed by a "sophisticated" manager, who uses that money to buy the futures that comprise the basket of futures that make up any particular commodity index.

Even though they were advertised to institutional investors as ideal mechanisms for hedging against adverse movements in other financial markets³⁶, it could be said that the animating principle behind the commodities index funds was momentum. The strategy evolved by the Goldman Sachs managers who ran the GSCI was to have nothing but "long"

positions, to keep on acquiring them, and to “roll” them over as they expired, no matter how high the price of those futures climbed. As Kaufman puts it, the purpose was to accumulate “an everlasting, ever-growing long position, unremittingly regenerated”³⁷.

As mentioned above in the section on speculation based on market fundamentals, speculation can be useful because it helps farmers and buyers determine prices. As such, ordinarily, futures prices are lower than spot prices, and this ordinary situation is known as “normal backwardation”³⁸. However, the effect of the commodities index funds appears to have been to throw the commodities futures markets into “contango”³⁹, producing a vicious circle of prices spiraling upward: the increased prices for futures initially led to small price increases on spot markets; sellers delayed sales in anticipation of more price increases; and buyers increased their purchases to put in stock for fear of even greater future price increases⁴⁰. As is demonstrated by Figure 2, when the spot prices increased, this fed an increase in futures prices, which attracted even more speculation, thus setting the whole process into motion once again. Indeed, the whole structure of commodity index speculation was premised upon contango. Commodity index speculation was the gift that was designed to keep on giving.

It is difficult to imagine creatures more different from Thales than the index speculator and the manager of a commodities index fund. The index speculator and the fund manager, far from being acquainted with crop production cycles and patterns, will never see a grain of wheat in their professional lives. Nevertheless, the index speculator and the fund manager have one thing in common with the traditional speculator: whereas the traditional speculator may drive up the price of a commodity by hoarding the physical commodity, the index speculator and the fund manager accomplish the same by hoarding futures contracts for those commodities⁴¹. However, the index speculator and fund manager are spared the bother of maintaining a warehouse: their hoarding is entirely virtual.

It is important to note that different kinds of speculation in different markets combined to create the food price crisis, and that no one category of market conduct was singly responsible. For instance, market momentum-based speculation in oil contributed to the food price crisis, by affecting fundamental conditions of supply of an essential agricultural input. Petrol is an integral component of modern food supply chains, being used for fertilizers, food processing and transportation, and the rise of bioenergy leads to an increased merger of the food and energy markets⁴². Moreover, small changes in market fundamentals such as oil price increases, the growth of agrofuels, and underinvestment in agriculture

can act as a catalyst for momentum-based speculation. The fact that market-momentum based speculation may have been the main contributing cause of the food price increases is no reason to lower one’s guard against other factors which also cause food prices to rise. Indeed, we should be ever more vigilant, because momentum-based speculation may magnify the effects of changes in market fundamentals.

The larger financial market

The sudden massive entry of index funds into commodities should be placed against the background of developments in the broader financial markets. Following the passage of the U.S. Commodity Futures Modernization Act in 2000, Over The Counter (OTC)⁴³ derivatives were exempted from the oversight of the U.S. Commodity Futures Trading Commission (CFTC). As a result of the Commodity Futures Modernization Act and the decisions of the CFTC, such trading was allowed to take place without any position limits, disclosure requirements, or regulatory oversight⁴⁴. Moreover, the Act permitted for the first time OTC derivatives contracts where neither party was hedging against a pre-existing risk; i.e. where both parties were speculating. Also, it enabled to hedge against those risks by taking positions on exchanges.

At this point, it is crucial to observe the difference between investment in commodities futures and investment in commodity index funds. Commodities futures, being standardized contracts, are traded on exchanges, so investment in them is not OTC. Participation in a commodities index fund, however, is mostly OTC⁴⁵. Institutional investors such as pension funds, typically enter into agreements with fund managers whereby in addition to the investor paying an annual management fee to the manager, it also pays the fund manager the 3-month Treasury Bill rate. In exchange, the fund manager pays the total return on the futures included in the commodities index. Such agreements to exchange streams of income, or “swaps” are almost always traded on an OTC basis⁴⁶. The lack of regulation of such derivatives greatly facilitated the entry of institutional investors into commodities index funds.

To summarise, deregulation in the US allowed purely speculative OTC derivatives to be hedged on exchanges, and institutional investors participated in commodity index funds by arranging OTC swaps. Understandably, the number of futures and options traded globally on commodity exchanges increased by more than five times between 2002 and 2008⁴⁷. The value of outstanding OTC commodity derivatives grew

from 0.44 trillion in 1998, to 0.77 trillion in 2002, to more than US\$ 7.5 trillion in June 2007⁴⁸.

Beginning at the end of 2001, food commodities derivatives markets, and commodities indexes in particular began to see an influx of non-traditional investors, such as pension funds, hedge funds, sovereign wealth funds, and large banks that packaged and dealt the commodity index instruments mentioned above⁴⁹. The reason for this was simply because other markets dried up one by one: the dotcoms vanished at the end of 2001, the stock market soon after, and the U.S. housing market in August 2007. As each bubble burst, these large institutional investors moved into other markets, each traditionally considered more stable than the last. Strong similarities can be seen between the price behaviour of food commodities and other refuge values, such as gold. As the European Commission notes, the prices of both had been largely stable, began to rise slowly in 2005, and accelerated sharply in August 2007, when the subprime crisis hit⁵⁰. Similar behaviour obtained in oil markets, which hit the \$100 per barrel mark in February 2008 and peaked in June 2008, only to fall back subsequently.

In none of these markets was there any restriction of supply or expansion in demand even remotely sufficient to explain the full extent of price increases. The reasons for such movement were twofold. First, because it was thought that markets for food and oil would be profitable because they could not possibly dry up: people may lose interest in asset-backed securitization, but they will always have to eat⁵¹. Second, as mentioned earlier⁵², a portfolio diversification practice appears to have emerged of spreading out risk in any investment portfolio by balancing out investments in securities or bonds with investments in markets that display unrelated or opposite behaviour, such as food and oil. Indeed, total index-fund investment in corn, soybeans, wheat, cattle and hogs increased from US\$ 10 billion in 2006 to more than US\$ 47 billion in 2007⁵³.

But these price increases in commodities futures were possible only if the permanent long positions in them could be funded. Previously, this had been made possible by the low margins that traders had to put up front in order to trade on commodities exchanges. The remainder of the funds could be invested in other financial instruments. The food price bubble burst when the giant non-traditional speculators lost the ability to carry on, as a result of their investments in other markets crashing. When they fell, the upward food price spiral also ended.

Policy responses

The 2008 food price crisis arose because a deeply flawed global financial system exacerbated the impacts of supply and demand movements in food commodities. Reforming the global financial system should therefore be seen as part of the agenda to achieve food security, particularly within poor net food-importing countries.

US & EU initiatives

The recent Dodd-Frank Act⁵⁴ on financial reform passed by the U.S. Congress is encouraging in this regard. With specific relation to agricultural commodities, the Dodd-Frank Act sets out a new Section 4a(c) of the Commodity Exchange Act (CEA), which requires the CFTC to establish, within 270 days of the passage of the Act, limits on the number of agricultural commodities that can be held by any one trader, as well as on energy related commodities and futures. It also requires the CFTC to establish limits on the aggregate number or amount of positions in certain contracts based upon the same underlying commodity that may be held by any one person, including any group or class of traders, for each month. It is to be hoped that the CFTC does not set those limits so high as to be meaningless. On the other hand, the Dodd-Frank Act has not brought about the structural changes in the financial markets many had hoped for; in particular, the “Volcker rule” announced by President Obama in January 2010, which was intended to prevent banks from using taxpayer-backed funds to speculate on financial markets and give up their stakes in hedge funds and private equity funds⁵⁵, has been severely watered down in the Act⁵⁶.

In the European Union, Michel Barnier, the EU Commissioner for the Internal Market and Services, announced on 15 September 2010 a Proposed Regulation on OTC derivatives, central counterparties and trade repositories⁵⁷. This proposed regulation imposes mandatory reporting and clearing (where possible) of OTC derivatives, and stipulates that “nonfinancial actors” will be subject to the same rules as “financial actors” if they meet certain thresholds. More specifically, an information threshold is proposed, which will allow financial authorities to identify non-financial actors that have accumulated significant positions in OTC derivatives, and a clearing threshold, which, if exceeded, will render a nonfinancial actor subject to the clearing obligation⁵⁸. Moreover, the proposal draws a distinction between commercial and financial actors by stipulating that “in calculating the positions for the clearing threshold, derivatives contracts should not be taken into account if they have been entered into to cover the risks from an objectively measurable commercial activity.”⁵⁹

The proposed regulation will place obstacles in the path of index speculators' participation in commodity index funds. However, these obstacles do not appear to be insurmountable: the CME group, for instance, has already successfully developed cleared commodity index swaps⁶⁰. Moreover, there may be a difference between the "position limits" imposed by the Section 737 of the Dodd-Frank Act, and the "concentration limits" imposed by Article 44 of the proposed regulation. The former provision sets out clear restrictions, while the latter appears to set out more variable, individualized limits that could be subject to dispute⁶¹. The goal of commodity derivatives reform is not to inconvenience financial speculation in commodities, but to limit, control, or even prohibit it outright. As such, it cannot be said that the proposed regulation tackles the subject of speculation in commodities directly.

In general, the EU has yet to act as boldly as the US with specific regard to speculation in food commodities, although the consequences of inaction are equally considerable: London is the world's largest agricultural commodities market outside the US⁶². Despite various calls denouncing the impact of speculation in foodstuffs⁶³, such as the demarche by the French government to the European Commission⁶⁴, European regulation of commodities trading remains insufficient. In July 2010, Andrew Ward, the manager of Armajaro, a London-based hedge fund, purchased US\$ 1 billion (€770 million) worth of futures contracts for 241,000 tons of cocoa. This represented about 7% of the world's annual output of cocoa, and is enough to supply Germany for an entire year. Even more amazingly, the contracts were for delivery, which means that Armajaro owned almost all the cocoa beans sitting in warehouses all over Europe. Although the announcement of good harvests ensured that the spot prices did not rise as Armajaro had hoped, that such hoarding is permitted in this day and age stretches belief.

Possible improvements

In general, certain steps could be taken to prevent improper speculation in the commodities derivatives markets.

- Certain important regulatory bodies comprise too few experts in commodity markets⁶⁵: a first improvement could be simply to begin remedying this imbalance.
- Next, all regulators should distinguish between traders hedging against genuine commercial risks from nontraditional, market momentum-based speculators interested simply in making gains on price changes. Whereas the U.S. CFTC does this⁶⁶, others, such as the U.K. Financial Services Authority (FSA), do not. For

instance, the FSA does not "consider activity by financial participants to be de facto manipulative"⁶⁷. As such, it does not "therefore consider that there should necessarily be a distinction made between 'large speculative' and 'large non-speculative' positions for the purposes of combating manipulation—the focus should be on combating 'large positions that lead to manipulation' irrespective of whether they are held by financial participants or not"⁶⁸. Yet, in the view of the Special Rapporteur, the question of whether or not the trader is financial or commercial could at least be indicative of whether or not the transactions being carried out are likely to be manipulative.

- Most importantly, regulators should recognize that there are fundamental conceptual differences between commodity derivatives and financial derivatives. They should not be treated as belonging to the same category of instruments. In order to ensure that such regulatory conflation does not occur, it may be appropriate to assign the task of commodity derivatives regulation to a separate institution staffed specifically with experts in commodity markets.
- Once the distinction is made, access to commodities derivatives markets could be restricted to traders and specialist brokers. A number of proposals could be considered, such as an outright ban on momentum-based speculation, and the compulsory registration of actors trading on commodity futures markets, in order for such exchanges to exclude financial traders⁶⁹.
- In addition, certain regulatory steps could be taken to reduce the incentives for financial speculation. Among such measures are the establishment of spot platforms, as experimented by the Ethiopia Commodity Exchange⁷⁰; the imposition of compulsory delivery, preventing traders from settling their obligations in cash; and, as proposed earlier by the Special Rapporteur, the imposition of higher margins (for instance, from 10 to 30 per cent as down payment), thus forcing speculators to make a larger down payment for their speculation⁷¹.
- Aside from these regulatory changes, strengthening of spot markets may be brought about by investing in better warehousing facilities, communications services and in transport infrastructure⁷². Such steps will not only reduce the influence of non-commercial commodity futures traders, and increase the participation of farmers on such markets, but will also improve the ability of commodity futures to act as price signals.

This is to be desired even if one rejects the speculation-based explanation for the food crisis. It may be noted that the Abhijit Sen Committee Report to the Indian Ministry of Consumer Affairs, Food & Public Distribution called for such strengthening of spot market⁷³, even though it found that speculation in commodity futures did not fuel inflation in food prices⁷⁴.

- At the same time, spot market regulation would be necessary in order to ensure that the delivery requirements do not result in hoarding⁷⁵. As illustrated by the cornering of the cocoa market by Armajaro described above, our concern should encompass not just financial traders, but also speculation by commercial ones in the form of hoarding. The Special Rapporteur believes that spot markets should be made transparent, so that the holdings of any single trader are known to all, and that there should be more transparency also about the strategic reserves held by States. Second, strict position limits should be placed on individual holdings, such that they are not manipulative.

International Cooperation

There is a role for international cooperation in this regard. The ability of individual countries to feed their populations could be bolstered by setting up food and grain reserves. The establishment of food reserves would at least assist in addressing the relatively small supply and demand movements or the impact on supply of events such as droughts or floods that speculators latch upon, thus reducing levels of price volatility⁷⁶. The efficacy of such food reserves would be enhanced if they were established at regional and not just at national level, or if countries exchanged information about their food reserves and insured each other against price volatility by mutualizing such food reserves⁷⁷. But improved regulation preventing large financial actors from influencing the commodity futures markets would also significantly limit volatility⁷⁸.

Other initiatives presently extant at the international level are compensatory financing schemes such as the EU's STABEX and FLEX schemes⁷⁹, the IMF's Compensatory Financing Facility (CFF) and Exogenous Shock Facility (ESF)⁸⁰, and the Food Financing Facility (FFI) mooted in the Marrakech Decision and the WTO Ministerial Conference at Doha. They aim simply to help countries avoid the adverse impact on growth as a result of food price volatility, such as, for instance, by giving access to short-term loans. This however does not address the increased volatility itself, when it is caused by speculation. As such, the international community needs, as

a matter of priority, to explore alternative methods by which the underlying speculation-based causes of food price spikes can be addressed.

Conclusion

Action to address the dangers of speculation in basic food-stuffs is needed. Although considerable progress appears to have been achieved in this regard with respect to financial reform in the US, most other regions in the world, including the EU, still lag behind. The fundamental structure of global financial markets appears to be little different from before the food prices crisis of 2007–8, the lessons of which we have failed to learn. It is crucial that we do so, because we once again find ourselves in a situation where basic food commodities are undergoing supply shocks. World wheat futures and spot prices climbed steadily until the beginning of August 2010, when Russia, faced with massive wildfires that destroyed its wheat harvest, imposed an export ban on that commodity⁸¹. In addition, other markets such as sugar and oilseeds are witnessing significant price increases⁸².

Although the global stocks of grain are higher now than they were previous to the 2007–2008 food crisis, the financial drivers of that crisis remain largely unchanged. More still needs to be done to curb the negative effects of speculation on basic food commodities. This is an important source of vulnerability, particularly, for poor net food-importing countries, whose dependency on food imports has been increasing over the years, and who will in the future suffer more balance of payments problems if they are confronted with a new peak in prices over the coming weeks and months.

Recommendations

1. Given the numerous linkages between agriculture, oil, and other financial markets demonstrated above, comprehensive reform of all derivatives trading is necessary. The very first step would be to require registration, as well as clearing to the maximum extent possible of OTC derivatives, so that there is real time reporting of all transactions made, without information privileges for OTC traders, and in order to allow for effective supervision. The small minority of derivatives that cannot be cleared must nevertheless be reported without a time lag.
2. Regulatory bodies should carefully study and acquire expertise in commodity markets, instead of regulating commodity derivatives and financial derivatives as if they were the same class of assets. It may be appropriate to assign the task of regulating commodity derivatives to a specific

institution staffed with experts in commodity regulation, rather than have a single body regulating both financial and commodity derivatives.

3. Access to commodities futures markets should be restricted as far as possible to qualified and knowledgeable investors and traders who are genuinely concerned about the underlying agricultural commodities. A significant contributory cause of the price spike was speculation by institutional investors who did not have any expertise or interest in agricultural commodities, and who invested in commodities index funds because other financial markets had dried up, or in order to hedge speculative bets made on those markets.

4. Spot markets should be strengthened in order to reduce the uncertainty about future prices that creates the need for speculation. However, these markets must also be regulated in order to prevent hoarding. Spot markets must be transparent, and holdings should be subject to strict limits in order to prevent market manipulation.

5. Physical grain reserves should be established for the purpose of countering extreme fluctuations in food price, managing risk in agricultural derivatives contracts, and discouraging excess speculation, as well as meeting emergency needs. Such measures and the abovementioned reform of commodity derivatives markets should be seen as complementary.

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6. A. Mittal, "The 2008 Food Price Crisis: Rethinking Food Security Policies", (June 2009) G-24 Discussion Paper Series No. 56, UNCTAD, 1.

7. *Id.*

8. Implied volatility refers to the market's expectations of the extent to which the price of a particular commodity will change in future. It is "implied" because such changes cannot be observed directly, being future events, but are implied from the prices of derivatives based those commodities.

9. FAO, *Food Outlook*, (June 2010), 98.

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12. See D. Mitchell, "A Note on Rising Food Prices" (July 2008) World Bank, Development Prospects Group, Policy Research Working Paper 4682: arguing that the large increase in biofuel production in the U.S. and the E.U. was the most important factor behind the food crisis.

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16. P. Wahl, "Food Speculation as the Main Factor of the Price Bubble in 2008", (February 2009) Briefing Paper, World Economy, Ecology & Development, 6 – 7.

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26. *Id.*, 54.

27. EU Commission, "Is there a Speculative Bubble in Commodity Markets?", Commission Staff Working Document, Task force on the role of speculation in agricultural commodities price movements, SEC(2008)2971, 3, 1.

28. In 2007, the Chicago Mercantile Exchange acquired the Chicago Board of Trade, which was the world's first major exchange for derivatives trading.

29. See e.g. J.S. Mill, *Principles of Political Economy with Some of Their Applications to Social Philosophy* (1848) Charles C. Little & James Brown, Boston, Mass., 535.

30. Wahl, *supra* note 16, 9.

31. *Id.*, 10

32. A.K. Sen, *Development as Freedom*, (1999) Oxford, 167.

33. EU Commission, "Is there a Speculative Bubble in Commodity Markets?", *supra* note 27, 1.

34. See S. Newman, "The New Price makers: An investigation into the impact of financial investment on coffee price behaviour" (2009) NCCR Trade Working Paper No. 2009/7. See also Report of the Expert Committee to Study the Impact of Futures Trading on Agricultural Commodity Prices ("Abhijit Sen Committee Report"), (2008) Ministry of Consumer Affairs, Food & Public Distribution, Government of India, ¶ 11.9: "A study of the functioning of existing futures markets and contracts suggests that although the volume of futures trading in India has increased phenomenally in recent years, its ability to provide instruments of risk management has not grown correspondingly, and has in fact been quite poor."

35. See the "Factsheet" downloadable from the S&P GSCI website at: <http://www.standardandpoors.com/indices/sp-gsci/en/us/?indexId=spgscirg--usd----sp----->.

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37. Kaufman, *supra* note 23, 30.
38. The CFTC defines "backwardation" as being the "(M)arket situation in which futures prices are progressively lower in the distant delivery months." See the CFTC's glossary at: http://cftc.gov/ConsumerProtection/EducationCenter/CFTCGlossary/glossary_b.html#backwardation.
39. The CFTC defines "contango" as being the "market situation in which prices in succeeding delivery months are progressively higher than in the nearest delivery month." See the CFTC's glossary at: http://cftc.gov/ConsumerProtection/EducationCenter/CFTCGlossary/glossary_co.html.
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52. See *supra* note 36.
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58. *Id.*, 8.
59. *Id.*
60. J. Bunge, "In OTC Battle, CME Sees Success in Commodity Index Swaps" (16 April 2010) Dow Jones Newswires. Available at: <http://www.nasdaq.com/aspx/company-news-story.aspx?storyid=201004161603dowjonesdjonline000741>.
61. Whereas the new Section 4a(c) of the Commodities Exchange Act provides that "the (CFTC) shall by rule, regulation, or order establish limits on the amount of positions, as appropriate...", Article 44(4) of the proposed Regulation provides that "A CCP (Central Counterparty) shall take into account its overall credit risk exposures to individual obligors in making its investment decision and shall ensure that its overall risk exposure to any individual obligor remains within acceptable concentration limits."
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76. Report of the Special Rapporteur on the Right to Food, Mission to the World Trade Organisation, (25 June 2008) A/HRC/10/5/Add.2, para. 42, 20.
77. The Special Rapporteur has also proposed the establishment of an emergency reserve allowing the World Food Program (WFP) to meet urgent humanitarian needs by distributing grain purchased at pre-crisis levels: see Special Rapporteur on the right to food, Crisis into Opportunity, *supra* note 1, para. 39, p. 22.
78. FAO, Management of Wide International Commodity Price Movements – National and International Experiences and Policy Responses (April 2010) Committee on Commodity Problems, 68th Session, 14 – 16th June 2010, Rome, CCP/04, ¶ 20, 8. See also UNCTAD/GDS/2009/1, 38; Special Rapporteur on the right to food, Crisis into Opportunity, *supra* note 1, ¶¶ 39, 21 – 22.

79. STABEX (Système de stabilisation des recettes d'exportation, or "Stabilization of Export Earnings Program") was introduced in 1975, and was open to African, Caribbean and Pacific countries. In order to be eligible for participation, there had to be a drop of 6.5% in export revenues from trade with the EU in the sector concerned, measured against a four-year average. Following the Cotonou Agreement in 2000, STABEX was replaced by FLEX (Fluctuations in Export Earnings Program), which imposed more onerous eligibility criteria and took into account a broader range of economic indicators.

80. The CFF has fallen into disuse since 2000 due to the stringent conditions it imposes for eligibility for financing. On the other hand, a number of countries adversely affected by the 2007-8 food crisis resorted to the ESF in order to address balance of payments and international reserve position issues. See FAO, Management of Wide International Commodity Price Movements, *supra* note 78, 8 – 9.

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Acknowledgements

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Extraordinary Joint Intersessional Meeting of the Intergovernmental Group (IGG) on Grains and the Intergovernmental Group on Rice

Food and Agriculture (FAO) Committee on Commodity Problems

About the author

The responsibility of the Committee on Commodity Problems (CCP) is to keep commodity problems of an international character affecting production, trade, distribution, consumption and related economic matters under review.

About the organization

The Food and Agriculture Organization (FAO) of the United Nations leads international efforts to defeat hunger. Serving both developed and developing countries, FAO acts as a neutral forum where all nations meet as equals to negotiate agreements and debate policy.

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Originally featured on www.fao.org.

1. Global cereal supply and demand still appears sufficiently in balance. While acknowledging the sudden increase in prices and deterioration of prospects for cereal markets in recent months, for wheat in particular, the Groups did not conclude that this situation was indicative of an impending food crisis. Unexpected crop failure in some major exporting countries followed by national responses and speculative behaviour rather than global market fundamentals, have been amongst the main factors behind the recent escalation of world prices and the prevailing high price volatility. The Low Income Food Deficit Countries (LIFDCs) are most adversely affected by these high prices. The Groups expressed sympathy towards countries which were affected by natural disasters.
2. The Groups recognize that unexpected price hikes and volatility are amongst major threats to food security and that their root causes need to be addressed, in particular:
 - a) The lack of reliable and up-to-date information on crop supply and demand and export availability.
 - b) Insufficient market transparency at all levels including in relation to futures markets
 - c) Growing linkage with outside markets, in particular the impact of “financialization” on futures markets
 - d) Unexpected changes triggered by national food security situations
 - e) Panic buying and hoarding
3. Given the growing complexity of factors influencing agricultural commodity markets, the Groups propose to enhance market information and transparency. The Groups recommend intensification of FAO’s information gathering and dissemination at all levels. They specifically recommend action, including capacity strengthening of all partners in relation to monitoring planting intentions, crop development and domestic market information. They further encourage analysis of different dimensions of futures markets behaviour, including involvement of noncommercial traders.
4. The Groups recognize that the CFS, at its next meeting, will consider issues of vulnerability and risk.
5. The Groups agree that additional work is needed in the following three areas:
 - a) analyses of alternative approaches to mitigating food price volatility, with a view to support policy decision-making
 - b) new mechanisms to enhance transparency and manage the risks associated with new sources of market volatility

c) exploring ways of strengthening FAO's partnerships with other relevant Organizations working on these issues

6. As stated in the Declaration of the World Summit on Food Security of 2009, Member countries “agreed to refrain from taking measures that are inconsistent with the WTO rules, with adverse impacts on global, regional and national food security.”

7. The Groups agree that increased investment in agriculture, new technologies and good policies, amongst others, are key elements to ensure global food security.

Financing Food

FINANCIALISATION AND FINANCIAL ACTORS IN AGRICULTURE COMMODITY MARKETS

Myriam Vander Stichele et al., Centre for Research on Multinational Corporations

About the author

Myriam Vander Stichele has been monitoring international trade negotiations and agreements since 1990, both at a regional and global level.

About the organization

Established in 1973, the Centre for Research on Multinational Corporations (SOMO) is a not for profit Dutch research and advisory bureau.

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Introduction

The sharp increase in the prices of food and agricultural commodities, as well as of oil, in 2007 and 2008, raised many concerns. The high price of basic food commodities contributed to social unrest and an increase in global hunger, undermining development and people's right to food as defined in the Universal declaration of Human Rights. The IMF price index of internationally traded food commodities increased 130% from January 2002 to June 2008, and 56% from January 2007 to June 2008. This period of exceptionally steep price increases ended at the time the financial crisis intensified, mid 2008, with food commodity and oil prices showing a sharp decrease. However, late 2009, the Food and Agriculture Organisation (FAO) issued a new warning about rising food prices.

The causes of the sudden price increases and decreases have been described and discussed intensively in the last two years and continue to be the subject of much debate.

The role played by speculation in relation to the volatility of commodity prices is receiving wide-ranging attention from academics, international institutions, journalists, market regulators, civil society and many others. Views and analyses vary widely, from firm support of 'speculation caused price spikes' and created a commodity bubble, to the standpoint that there is 'no relation between speculative investment and price increases'. Taking a rather moderate approach in the debate, UNCTAD states that 'the trend towards greater financialisation of commodity trading is likely to have increased the number and relative size of price changes that are unrelated to market fundamentals.'

The two fundamentals that traditionally constituted agricultural commodity prices are roughly described as demand side factors (e.g. more people needing food, income growth, and increased demands for bio-fuel) and supply side factors (e.g. yield growth or bad harvests, the prices of inputs, and availability of food reserves). Manipulation of these fundamentals, e.g. by keeping commodities away from the market (hoarding), causing a shortage that results in price increases, is the kind of speculation or price management that might still play a role in today's commodity markets. In addition, the value of the US dollar, in which most commodity trading takes place, can play a role. This paper will focus on the role of financial markets, and especially derivatives markets, in agriculture commodities over the last decade.

Conclusion and recommendations

The financialisation of the agricultural commodity markets is the result of increasing capital flows from 'non-traditional' investors in commodity derivatives, especially agricultural commodity futures, and related investment instruments, serviced by large financial firms. Non-traditional speculators, who are not interested in the commodities themselves, have increased the interdependence between commodity and financial markets. The increasing demand, and at times sudden withdrawal, by

non-traditional speculators on the agricultural commodity futures markets is considered by many to have influenced demand and supply fundamentals, thus contributing to raising and falling food prices.

Non-traditional speculators have so contributed to disrupt the traditional function of agricultural commodity futures markets to discover prices on the spot markets, and to be a reference for prices for futures contracts by which producers and especially end-users can protect themselves against risks.

In order to avoid that (excessive) speculation interacts with prices for food whose access is a fundamental human right, the following measures related to the financial agricultural commodity could be considered:

Deregulation of agricultural commodity derivatives markets and futures exchanges are reversed after public discussions and through legislative initiatives that:

- substantially improve transparency, for supervisors and the public, of the OTC derivatives trading and their actors,
- impose limits on all excessive and non-traditional speculators,
- exclude the many risks of OTC commodity derivative trading as mentioned in this paper,
- resolve the remaining risks of commodity exchanges such as unregulated clearing entities,
- deal with the negative impacts of the composition of indexes and related investment instruments, and
- question the social usefulness of speculation in agricultural commodities.

Special rules and instruments are introduced to prevent the domination of agricultural commodity derivatives markets and services by a small number of large banks that are highly interconnected and take many risks by trading with their own money. Their various functions in the agricultural commodity markets have allowed these few banks to make huge profits that encourage them even further to promote excessive speculation whose social usefulness is questionable.

Responsible investment strategies are being developed and implemented by corporate and institutional speculators and financial firms active in the agricultural commodity derivatives and related funds, in order to prevent their investments

and services from contributing to increases in food prices for the hungry and poor, and from neglecting financing and income for farmers.

Alternative instruments for price setting and risk protection for producers and end-users, as well as for food production and trade, are further explored and developed, in order to guarantee prices that provide farmers with equitable incomes and poor consumers with food that is available at affordable prices.

The entire report is available to read and download online at <http://www.tni.org/briefing/financing-food>.

Commodity Market Deregulation and Food Prices

Steve Suppan, Institute for Agriculture and Trade Policy

About the author

Steve Suppan has been a policy analyst at the Institute for Agriculture and Trade Policy (IATP) since 1994. Much of Steve's work is to explain U.S. agriculture, trade and food safety policy to foreign governments and nongovernmental organizations, especially farmer organizations.

About the organization

IATP works locally and globally at the intersection of policy and practice to ensure fair and sustainable food, farm and trade systems.

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The 200 million person increase in global food insecurity since 2006—over one billion according to UN Food and Agricultural Organization (FAO)—did not result from global production failure or a shortage of supply. Global food production increased on a per capita basis throughout the past decade and 2008 saw a record global cereal harvest.¹ The trigger for food riots in at least 30 net food import dependent developing countries in 2008 was extreme spikes in food and energy prices. A major driver of these price spikes was rather the overwhelming market domination of financial firms over traditional traders in commodity futures markets.

In March 2008, US Commodity Futures Trading Commission (CFTC) rules limited commercial users of commodities to owning 11 million bushels of Chicago Board of Trade (CBOT) maize futures contracts, while Goldman Sachs and Morgan Stanley investors, exempted from contract limits, controlled 1.5 billion bushels. Futures contracts provide short term (generally 90 days for agricultural contracts) protection against abrupt price increases for commodity users (such as bakeries or cereal manufacturers) and against abrupt price decreases for commodity producers (such as farmers). However, investment bank “weight of money” drove prices up and then down, as they “rolled out” of contracts and bought new ones.

CBOT and other US agricultural futures market prices are globally influential, not only because futures and cash contracts are denominated in dollars, but because US prices are used by policy makers in agricultural export and import planning. Futures contracts became ineffective price risk management tools not only for developing country importers, but also for commodity users in developed countries.²

In orderly and transparent markets, futures contract prices should converge to set a predictable cash price based on supply and demand fundamentals. Explaining what the UN Conference on Trade and Development calls the “financialisation of commodity markets”³ is a necessary first step in understanding how the deregulation of commodity and financial markets led to a food price crisis. Without strict regulation and enforcement, spikes in food prices could be repeated in the near term.

Disorderly markets: some origins and consequence

Following the global decline in agricultural futures prices from their June 2008 peaks, the FAO Food Index has risen each month since August 2009. FAO notes that agricultural markets remain structurally susceptible to price volatility originating from nonagricultural markets.⁴ What do oil and gold prices have to do with agriculture prices?

On June 24, 2009, the US Senate Subcommittee on Investigations published “Excessive Speculation in the Wheat Market.” The report concludes that price volatility in wheat futures contracts in 2007-2008 could not be explained by supply, demand and other fundamental factors. The Senate investigators found that commodity

index fund traders had driven up wheat futures prices from US\$3/bushel in 2006 to over US\$11/bushel in mid-2008, collapsing to US\$3.50/bushel by the end of 2008.⁵ Investors in commodity index funds, such as those of Goldman Sachs or Morgan Stanley, bet on the price movements of indices bundling up to 24 commodity futures contracts, including energy, agricultural, base metal and precious metal contracts. Bush administration CFTC waivers exempted index traders and other financial institutions from rules governing how many contracts could be held in a given commodity for a given time period. The rules governing contract position limits were designed to prevent any trader or group of traders from inducing price volatility or otherwise manipulating markets.

Furthermore, under the “Enron Loophole” successfully defended during the Bush administration, the CFTC exempted financial service energy trades from reporting, so CFTC regulators couldn’t effectively monitor dominant market forces. Most index fund contracts are traded “Over the Counter,” (OTC) in “dark markets” not subject to commodity exchange regulation. As a result, the oil futures dominant Goldman index fund and other index funds induced price spikes in wheat and other agricultural commodities until June 2008, when the investment bubble burst and aggregate commodity prices fell about 60% by mid-November 2008.⁶ On January 14, the CFTC proposed a rule, which if approved, would impose the first position limits on energy futures contracts. Two of the five CFTC commissioners who voted to release the rule for public comment expressed US financial industry warnings that even the generous position limit rule would drive energy trades overseas, especially to their London branches.⁷ It almost goes without saying that proposals to regulate European markets are met with industry threats that trades will be executed in US markets.⁸

Won’t get fooled again?

What have investors, legislators and regulators learned since the financial market crisis following the mid-September 2008 bankruptcy of Lehman Brothers? Market analyst John Authers writes, “Usually after such an excessive episode, investors stay away for a while. But this time, they are rushing back into the same places where bubbles burst barely a year ago.”⁹

In January, Goldman reversed more than a decade of advice to clients, when it wrote “we do not recommend a strategic allocation to a commodity futures index.”¹⁰ Although the analysts charted price data going back to 1845 and cited academic analysis, their climb down from recommending index investments was more plausibly dictated by the withering analysis and Congressional testimony about this massively destructive financial instrument.¹¹

Nevertheless, Goldman recommends continued investments in commodities, above all in oil, the underlying asset of their lucrative energy trades, which will affect agricultural prices indirectly in production and transportation costs, even if investors avoid index trading.¹² However, the economic and political dominance of the “too big to fail” banks hardly resides in trading commodity derivatives, which include using futures contracts, e.g. oil, to hedge various financial instrument risks. The value of OTC (off-exchange) commodity derivatives contracts is less than 1% of the estimated US\$592 trillion 2009 global market of OTC derivatives, which include trades in interest rate, foreign currency exchange, debt and other financial instruments.¹³ The new CFTC chair Gary Gensler, formerly a Goldman manager, said that OTC commodity and financial derivative trades were at the heart of the financial crisis, and called for their strict regulation.¹⁴ Preventing effective regulation of the OTC derivatives market is crucial to the banks’ power. Some corporate commodity end users have played the role of “useful idiots” in the banks’ strategy.

On December 11, the US House of Representatives passed financial services reform legislation that includes provisions to regulate OTC trades. Financial markets analyst Adam White estimates that legislative loopholes will exempt at least 40-45% of OTC trades from clearing on exchanges or other regulated venues. Prominent among these exemptions is one for trades between banks and non-bank derivatives “end-users.”¹⁵ Signatories to a Coalition of Derivatives End User letter in support of the exemption include agribusiness firms such as Bunge, Cargill and John Deere.¹⁶ The exemption would allow banks and non-banks to gain competitive advantage from commodity exchange price information while maintaining their own trades in dark markets and part of their debt in off-balance sheet financing vehicles. Déjà vu—unless the US Senate closes the House loopholes.

The coming financial crisis and food security

The outlook for a sustainable and transparent financial system to underwrite trade dependent food security is not good. First, the US needs to know why the system failed, in order to fix it. Consonant with the Obama administration’s stated interest in the future, not the past, the budget for the just launched congressional Financial Crisis Inquiry Commission, scheduled to report December 15, is just \$8 million.¹⁷ The Wall Street lobbying budget for defeating financial reform legislation is thus far \$344 million, a tiny investment for protecting \$35 billion revenue from derivatives trades.¹⁸

Given the thus far successful resistance of Wall Street and its revolving door of government allies to reform, Simone Johnson, former chief economic of the International Monetary Fund, predicts another financial crisis within twelve months.¹⁹ If half of all derivatives continue to trade in dark markets, Wall Street self-regulation is unlikely to prevent another US financial crisis, and a consequent repatriation of capital flows from developing countries, leaving their treasuries bare of hard currencies to pay for food imports.

Two thirds of all developing countries remain import dependent for a critical margin of their food security. Twenty years ago, Solon Barraclough wrote on how an unstable global monetary system intensified commodity price volatility to the detriment of food security.²⁰ Since then, new “financial innovations” have only exacerbated this instability. Advocates of yet greater dependency on trade liberalisation for food security can only hope that the global financial services industry is regulated before it destroys what remains of the liberalisation project.

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Executive Summary: Excessive Speculation in the Wheat Market

Permanent Subcommittee on Investigations, U.S. Senate

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www.senate.gov.*

For several years, the U.S. Senate Permanent Subcommittee on Investigations has been examining the role of speculation in the commodity markets and failures of the federal regulatory structure to prevent excessive speculation from causing unwarranted changes in commodity prices and an undue burden on interstate commerce.

In 2006, the Subcommittee released a report showing how the injection of billions of dollars from speculation into the commodity futures markets had contributed to rising energy prices.¹ In 2007, the Subcommittee released a report and held a hearing showing how excessive speculation by a single hedge fund named Amaranth had distorted natural gas prices and contributed to higher costs for natural gas consumers.² These and other reports offered a number of recommendations for legislative and regulatory actions to enable the Commodity Futures Trading Commission (CFTC) to fulfill its mission under the Commodity Exchange Act to prevent excessive speculation from "causing unreasonable or unwarranted fluctuations in the price of commodities in interstate commerce."

In the Amaranth investigation, the Subcommittee examined how the activities of a single trader making large trades on both a regulated futures exchange and an unregulated electronic energy exchange constituted excessive speculation in the natural gas market. To prevent this type of excessive speculation, the Subcommittee Report recommended that limits on the number of contracts that a trader can hold at one time, known as position limits, be applied consistently to both markets in which the same type of natural gas contracts are traded.

In the current investigation, the Subcommittee has examined how the activities of many traders, in the aggregate, have constituted excessive speculation in the wheat market. To prevent this type of excessive speculation, this Report recommends that the CFTC phase out waivers and exemptions from position limits that were granted to commodity index traders purchasing wheat contracts to help offset their sales of speculative financial instruments tied to commodity indexes.

A commodity index, like an index for the stock market, such as the Dow Jones Industrial Average or the S&P 500, is calculated according to the prices of selected commodity futures contracts which make up the index. Commodity index traders sell financial instruments whose values rise and fall in tune with the value of the commodity index upon which they are based. Index traders sell these index instruments to hedge funds, pension funds, other large institutions, and wealthy individuals who want to invest or speculate in the commodity market without actually buying any commodities. To offset their financial exposure to changes in commodity prices that make up the index and the value of the index-related instruments they sell, index traders typically buy the futures contracts on which the index-related instruments are based. It is through the purchase of these futures contracts that commodity index traders directly affect the futures markets.

The Subcommittee investigation examined in detail how commodity index traders affected the price of wheat contracts traded on the Chicago Mercantile Exchange. CFTC data shows that, over the past three years, between one-third and one-half of all of the outstanding wheat futures contracts purchased (“long open interest”) on the Chicago exchange are the result of purchases by index traders offsetting part of their exposure to commodity index instruments sold to third parties. The Subcommittee investigation evaluated the impact that the many purchases made by index traders had on prices in the Chicago wheat futures market. This Report finds that there is significant and persuasive evidence to conclude that these commodity index traders, in the aggregate, were one of the major causes of “unwarranted changes”—here, increases—in the price of wheat futures contracts relative to the price of wheat in the cash market. The resulting unusual, persistent, and large disparities between wheat futures and cash prices impaired the ability of participants in the grain market to use the futures market to price their crops and hedge their price risks over time, and therefore constituted an undue burden on interstate commerce. Accordingly, the Report finds that the activities of commodity index traders, in the aggregate, constituted “excessive speculation” in the wheat market under the Commodity Exchange Act.

The futures market for a commodity provides potential buyers and sellers of the commodity with prices for the delivery of that commodity at specified times in the future. In contrast, the cash market provides potential buyers and sellers with the price for that commodity if it is delivered immediately. Normally, the prices in the futures market follow a predictable pattern with respect to the cash price for a commodity. Typically, as a contract for future delivery of a commodity gets closer to the time when the commodity is to be delivered under the contract (the expiration of the contract), the price of the futures contract gets closer to the price of the commodity in the cash market. The prices are said to “converge.” In recent years in the wheat market, however, the futures prices for wheat have remained abnormally high compared to the cash prices for wheat, and the relationship between the futures and cash prices for wheat has become unpredictable. Often-times the price of wheat in the Chicago futures market has failed to converge with the cash price as the futures contracts have neared expiration.

The result has been turmoil in the wheat markets. At a time when wheat farmers were already being hit by soaring energy and fertilizer costs, the relatively high price of wheat futures contracts compared to the cash price, together with the breakdown in the relationship between the two prices and their failure to converge at contract expiration, have severely

impaired the ability of farmers and others in the grain business to use the futures markets as a reliable guide to wheat prices and to manage price risks over time.

Participants in the grain industry have complained loudly about the soaring prices and breakdowns in the market. “Anyone who tells you they’ve seen something like this is a liar,” said an official of the Farmers Trading Company of South Dakota. An official at cereal-maker Kellogg observed, “The costs for commodities including grains and energy used to manufacture and distribute our products continues to increase dramatically.” “I can’t honestly sit here and tell who is determining the price of grain,” said one Illinois farmer, “I’ve lost confidence in the Chicago Board of Trade.” “I don’t know how anyone goes about hedging in markets as volatile as this,” said the president of MGP Ingredients which provides flour, wheat protein, and other grain products to food producers. “These markets are behaving in ways we have never seen,” said a senior official from Sara Lee. A grain elevator manager warned, “Eventually, those costs are going to come out of the pockets of the American consumer.”

The inability of farmers, grain elevators, grain merchants, grain processors, grain consumers, and others to use the futures market as a reliable guide to wheat prices and to manage their price risks over time has significantly aggravated their economic difficulties and placed an undue burden on the grain industry as a whole.

This Report concludes there is significant and persuasive evidence that one of the major reasons for the recent market problems is the unusually high level of speculation in the Chicago wheat futures market due to purchases of futures contracts by index traders offsetting sales of commodity index instruments. To diminish and prevent this type of excessive speculation in the Chicago wheat futures market, the Report recommends that the CFTC phase out existing exemptions and waivers that allow some index traders to operate outside of the trading limits designed to prevent excessive speculation.

A. Subcommittee Investigation

To prepare this Report, the Subcommittee conducted a year-long, bipartisan investigation. As a first step, the Subcommittee obtained and analyzed price and trading data from a variety of agricultural futures and cash markets. The Subcommittee obtained, for example, daily and monthly wheat futures and cash price data from the CFTC, U.S. Department of Agriculture, Chicago Mercantile Exchange, Kansas City Board of Trade, and Minneapolis Grain Exchange.

The Subcommittee also examined numerous historical materials on the operations and performance of the grain futures markets, and on the development and application of relevant statutes, regulations, and guidance. The CFTC provided extensive data on index trading, as well as information on the application of position limits and the granting of exemptions. The Subcommittee appreciates the cooperation and responsiveness of the exchanges and federal agencies.

To understand the issues, the Subcommittee interviewed numerous experts and persons familiar with the wheat markets, agricultural commodity markets as a whole, and commodity indexes. The interviews included persons familiar with grain trading and actual traders from a wide range of organizations in the grain industry: farm organizations, grain elevator operators, grain merchants, grain processors, food manufacturers, and agricultural trade groups. The Subcommittee also interviewed farmers, market analysts, agricultural economists, academic experts, financial institutions, and exchange officials. The Subcommittee also benefited from a number of meetings and presentations provided by the CFTC. The Subcommittee appreciates the cooperation and assistance of these individuals, organizations, and agencies.

B. The Cash and Futures Markets for Wheat

Wheat crops change hands primarily through cash transactions. There is no centralized cash market for wheat or other grains; the cash market exists wherever a grain elevator, grain merchant, grain consumer, or other participant in the grain industry posts a price to purchase or sell grain. Cash transactions take place all over the country, at all times of the day, either with or without the use of standardized contracts. In a common transaction, a grain elevator purchases wheat from a farmer for cash and then stores the wheat for sales throughout the year to grain processors.

Wheat futures are sold on three regulated exchanges: the Chicago Mercantile Exchange (CME), the Kansas City Board of Trade (KCBOT), and the Minneapolis Grain Exchange (MGEX). Wheat traded on the Chicago exchange, known as “soft red winter” wheat, is used mainly for crackers, pie crusts, cakes, and biscuits. Wheat traded in Kansas City, known as “hard red winter” wheat, is primarily used to make flour for bread. The Minneapolis exchange trades “hard red spring” wheat, which also is used to make bread, biscuits, and rolls.

All three of these futures exchanges offer standardized contracts to buy or sell standard amounts and types of wheat for which the only negotiated variable is the price. In the vast majority of cases, traders of wheat futures contracts do not take physical delivery of the wheat being bought or sold on the futures market. Rather, the primary purpose of the futures market is to enable market participants to “discover” the price of wheat for delivery at specified times in the future, to purchase or sell such contracts for future delivery at such prices, and thereby to enable wheat market participants to protect their business activities against the risk of future price changes.

C. Increasing Commodity Index Speculation

A commodity index is calculated using the prices of the futures contracts for the commodities that make up the index. Each commodity within a commodity index is assigned a “weight,” and the contribution of each commodity toward the value of the index is calculated by multiplying the current price of the specified futures contract for that commodity by the assigned weight. All of the major, broad-based commodity indexes include soft red winter wheat futures contracts traded on the Chicago exchange as one of their component commodities.

The purchase of a financial instrument whose value is linked to a commodity index offers the buyer the potential opportunity to profit from the price changes in futures contracts for a broad spectrum of commodities, without having to actually purchase the referenced commodities. Typically, hedge funds, pension funds, and other large institutions purchase these financial instruments with the aim of diversifying their portfolios, obtaining some protection against inflation, and profiting when commodity prices are rising. Since they are not involved in selling or buying actual commodities, and do not use these instruments to hedge or offset price risks regarding the actual use of the underlying commodities, the purchasers of commodity index instruments are making a speculative investment.

The large growth in commodity index speculation is a recent phenomenon. It is only over the past six years that financial institutions have heavily marketed commodity index instruments as a way to diversify portfolios and profit from rising commodity prices. The total value of the speculative investments in commodity indexes has increased an estimated tenfold in five years, from an estimated \$15 billion in 2003, to around \$200 billion by mid-2008.³

The amount of speculation in the wheat market due to sales of commodity index instruments has, correspondingly, grown significantly over the past five years. CFTC data indicates that purchases by index traders in the largest wheat futures market, the Chicago Mercantile Exchange, grew sevenfold from about 30,000 daily outstanding contracts in early 2004, to a peak of about 220,000 contracts in mid-2008, before dropping off at year's end to about 150,000 contracts. (Figure ES-1). The data shows that, during the period from 2006 through 2008, index traders held between 35 and 50% of the outstanding wheat contracts (open long interest) on the Chicago exchange and between 20 and 30% of the outstanding wheat contracts on the smaller Kansas City Board of Trade.

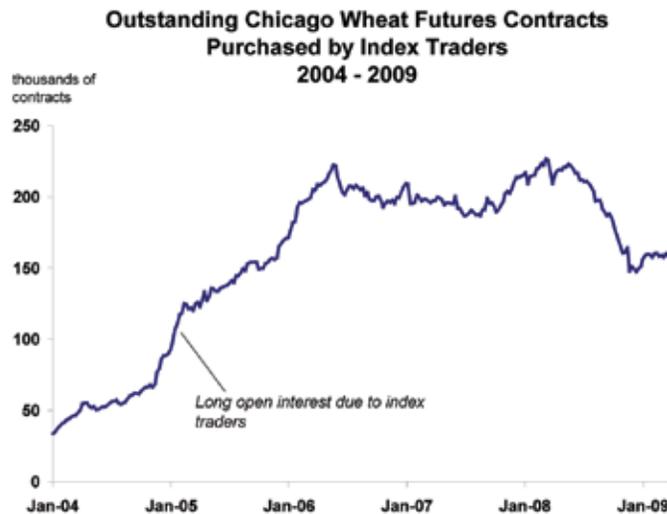


Figure ES-1. Growth in index fund purchases of Chicago wheat futures contracts. Chart prepared by Permanent Subcommittee on Investigations. Data source: CFTC.

The presence of index traders is greatest on the Chicago exchange compared to the other two wheat exchanges, and is among the highest in all agriculture markets. In addition, neither of the other two wheat markets, nor any other grain market, has experienced the same degree of breakdown in the relationship between the futures and cash markets as has occurred in the Chicago wheat market. Accordingly, the Subcommittee focused its investigation on the role of index trading on the Chicago exchange and the breakdown in the relationship between Chicago wheat futures and cash prices.

D. Impact of Index Instruments on the Wheat Futures Market

Commodity indexes have an indirect but significant impact on futures markets. A commodity index standing alone is a computational device unsupported by any actual assets such as futures or commodity holdings. Financial institutions that sell index investments, however, have created three basic types of financial instruments tied to commodity indexes: commodity index swaps, exchange traded funds (ETFs), and exchange traded notes (ETNs). Commodity index swaps are sold by swap dealers and are the most common index instrument; ETFs and ETNs offer index-related shares for sale on a stock exchange. The value of commodity index swaps, index-related ETFs, and index-related ETNs rises and falls with the value of the commodity index upon which each is based.

Speculators who buy index instruments do not themselves purchase futures contracts. But the financial institutions who sell them the index instruments typically do. In the case of

commodity index swaps, for example, swap dealers typically purchase futures contracts for all commodities on which an index is based to offset their financial exposure from selling swaps linked to those futures contracts. CFTC data shows that, over the past five years, financial institutions selling commodity index instruments have together purchased billions of dollars worth of futures contracts on the Chicago Mercantile Exchange.

The Subcommittee investigation has found that the large number of wheat futures contracts purchased by swap dealers and other index traders is a prime reason for higher prices in the wheat futures market relative to the cash market. Commodity traders call the difference between the futures prices and the cash price “the basis.” Index traders typically do not operate in the cash market, since they have no interest in taking delivery or making use of a wheat crop. Instead, index traders operate in the futures markets, where they buy futures contracts to offset the index instruments they have sold. The additional demand for wheat futures resulting from these index traders is unrelated to the supply of and demand for wheat in the cash market.

In the Chicago wheat market, the result has been wheat futures prices that are increasingly disconnected from wheat cash prices. Data compiled by the Subcommittee shows that, since 2006, the daily gap between Chicago wheat futures prices and wheat cash prices (the basis) has been unusually large and persistent. Figure ES-2 presents this. From 2000 through 2005, the average daily difference between the average cash and the futures price for soft red winter wheat



Figure ES-2. Increase in daily difference between futures and cash prices for Chicago wheat. Chart prepared by Permanent Subcommittee on Investigations. Data sources: CME (daily futures prices); MGEX (average daily cash prices).



Figure ES-3. Increase in difference between futures and cash prices for Chicago wheat at futures contract expiration. Chart prepared by Permanent Subcommittee on Investigations. Data sources: CME (daily futures prices) and USDA (cash prices at Chicago).

traded on the Chicago exchange was about 25 cents. During the second half of 2008, in contrast, the price of the nearest wheat futures contract on the Chicago exchange was between \$1.50 and \$2.00 per bushel higher than the average cash price, an unprecedented price gap (basis).⁴

During that period, the average cash price for soft red winter wheat ranged from \$3.12 to \$7.31 per bushel, while the futures price ranged from \$4.57 to \$9.24. The fundamentals of supply

and demand in the cash market alone cannot explain this unprecedented disparity in pricing between the futures and cash markets for the same commodity at the same time.

In addition, increasingly, the wheat futures prices on the Chicago exchange have not converged with the cash prices at the expiration of the futures contracts. Figure ES-3 shows the extent of this price gap (basis).

The data underlying this chart shows that the average difference between the cash and futures price at contract expiration at the delivery location in Chicago for the Chicago wheat futures contract rose from an average of about 13 cents per bushel in 2005 to 34 cents in 2006, to 60 cents in 2007, to \$1.53 in 2008, a tenfold increase in four years.

In the same period during which these pricing disparities occurred, CFTC data shows a very large presence of index traders in the Chicago wheat market. Since 2006, index traders have held between one-third and one-half of all of the outstanding purchased futures contracts (“long open interest”) for wheat on the Chicago exchange. For most of 2008, the demand for Chicago wheat futures contracts from these index investors was greater than the supply of wheat futures contracts from commercial firms selling grain for future delivery. During July 2008, for instance, index traders buying wheat futures contracts held, in total, futures contracts calling for the delivery of over 1 billion bushels of wheat, while farmers, grain elevators, grain merchants, and other commercial sellers of wheat had outstanding futures contracts providing for the delivery of a total of only about 800 million bushels of wheat. Under these circumstances, the additional demand from index traders for contracts for future delivery of wheat bid up the futures prices until prices were high enough to attract additional speculators willing to sell the desired futures contracts at the higher prices.

The investigation found that, in 2008, the greater demand for Chicago wheat futures contracts generated by index traders was a significant factor in the relative increase in the wheat futures price compared to the cash price (the basis) during that period. In addition, a significant cause of the resulting price disparity between the futures and cash markets, which was far greater than the normal gap between futures and cash prices, was the purchases of Chicago wheat futures by index traders.

E. Undue Burden on Interstate Commerce

The ongoing pricing discrepancy between wheat futures and cash market prices has exacerbated many of the recent economic difficulties facing farmers, grain elevators, grain merchants, and grain end-users.

Over the past few years, the prices of many agricultural commodities—like the prices of commodities in general—experienced an unprecedented spike and subsequent collapse. For example, the cash price of wheat rose from just over \$3 per bushel in mid-2006, to over \$11 per bushel in early 2008, before collapsing to about \$3.50 per bushel at the end of 2008. Figure ES-4 shows the average daily cash price of wheat from 2000 to 2008, including the spike in the price of wheat during 2007 and 2008.

A wide variety of factors contributed to the price volatility in the cash market for wheat, including poor weather, changes in agricultural productivity, an increasing demand for commodities in developing countries, changing dietary habits, increasing energy prices, and changes in the value of the dollar compared to other currencies.

Wheat prices in the cash market rose steadily from 2004 to 2008, in part due to steep increases in the price of energy, particularly oil, gasoline, natural gas, and diesel fuel, which sharply increased the costs of farming, transporting grain to markets, and grain processing. Although grain prices in the cash market eventually rose to record highs, farmers and grain merchants often were unable to realize the benefits of those higher prices due to the higher costs. In March 2009, for example, USDA reported that although wheat was selling for very high prices by historical standards, the increase in fuel and fertilizer costs had “offset this unprecedented runup in wheat prices for producers.”

During this same period, futures prices also rose. The steep increases in cash and futures prices severely affected the grain industry in several ways. First, higher futures prices resulted in higher margin calls for wheat farmers, grain elevators, and other sellers of wheat that had hedged in the futures markets, requiring them to make much larger cash outlays than normal. The National Grain and Feed Association estimated, for example, that a typical grain elevator faced a 300% increase in hedging costs in 2008, compared to 2006. It stated that “recent commodity price increases have led to unprecedented borrowing by elevators—and unprecedented lending by their bankers—to finance inventory and maintain hedge margins.”



Figure ES-4. The average daily cash price of soft red winter wheat, the type of wheat traded on the Chicago Mercantile Exchange. Chart prepared by Permanent Subcommittee on Investigations. Data source: MGEX (daily cash index price).

According to the Federal Reserve Bank of Kansas City, in the first quarter of 2008, the Farm Credit System “raised \$10 billion in funds through the sale of debt securities to meet increasing demand from elevators and other processing and marketing entities.” In April 2008, the Federal Reserve Bank of Kansas City reported that nearly one-quarter of all grain elevators it surveyed were struggling to acquire the cash needed to manage margin calls; about 40% stated they had “enough cash to just manage current margin calls.”

The cash flow problems confronting many grain elevators directly affected farmers, as those elevators began to reduce their cash purchases, pull back on forward contracts offered to farmers, and lower the cash prices offered for crops. Some began to require farmers to pre-pay for seed and fertilizer, causing cash flow problems for farming operations. Farmers participating directly in the futures market also were subject to rising margin calls. One wheat farmer explained, “If you’ve got 50,000 bushels hedged and the market moves up 20 cents, that would be a \$10,000 day. If you only had \$10,000 in your margin account, you’d have to sit down and write a check. You can see \$10,000 disappear overnight. . . . Everybody has a story about a guy they know getting blown out of his hedge.”

Other problems arose from the unusually large and persistent gap between the futures and cash prices for wheat and the failure of the two prices to converge as futures contracts expired. This persistent pricing difference and lack of convergence meant that farmers, grain elevators, grain merchants, and others who had used the futures market to hedge their future sales found that when they went to sell their wheat, the cash prices were much lower than they had anticipated based upon the futures market. This persistent price gap significantly impaired the ability of farmers and others to

protect themselves from declining prices during the dramatic price decreases experienced during the second half of 2008. It also meant that wheat industry participants could no longer rely on the futures markets to reliably price their crops and effectively manage their price risks over time.

In a properly functioning futures market, futures and cash prices converge as futures contracts near expiration. Otherwise, if one price were higher, a trader could buy the commodity in the lesser-priced market and immediately sell it in the higher-priced market for a quick profit. Those types of transactions would soon equalize the two prices. But on many occasions during the last few years in the Chicago wheat market, the two prices have not converged.

One key reason is that the large price disparity between the cash and futures price makes it much more profitable for grain merchants to buy grain in the cash market, hold onto it, and then sell it later—at the price of the higher-priced futures contracts—than engage in the type of transactions described above between the cash and futures market that would make the two prices converge. In addition, the large price disparity means that merchants who already have grain in storage and have hedged that grain by selling futures contracts could suffer a loss if they decided to actually sell their grain in the cash market, because they also would have to buy back the futures contract at a higher price than they could get for selling their grain in the cash market.

Virtually all of the traders interviewed by the Subcommittee, from all perspectives within the grain business, identified the large presence of index traders in the Chicago market as a major cause of the price convergence problem. This ongoing problem indicates that at a fundamental level the Chicago wheat futures market no longer effectively serves the needs of many wheat growers or commercial wheat users.

Still another set of problems caused by excessive speculation in the wheat market and the disconnect between wheat futures and cash prices affects the federal crop insurance program. Federal crop insurance, which is supported with taxpayer dollars, is available to farmers who want to cover potential financial losses due to bad weather or crop disease. Several types of federal crop insurance use futures prices to determine how much money should be paid to a farmer who has purchased coverage and suffered a loss in crop income. Futures prices are used in the formulas that calculate both the insurance premiums to be paid by farmers and the indemnity payments made to farmers after an insurance claim. Because they are included in the calculations, futures market prices that are significantly higher than actual cash prices impair the accuracy of the insurance formulas and

can inflate the final figures. Futures prices that are much higher than the prices in the cash market and that do not closely follow the prices in the cash market can increase both the crop insurance premiums paid in part by farmers and can either increase or decrease the ultimate insurance payout to the farmer – thereby either resulting in too large a payout from a taxpayer-funded program or too small a payout to the farmer who has paid for the insurance. Either scenario undermines the effectiveness of the crop insurance program.

The ongoing large gap between wheat futures prices and cash prices is a problem of intense concern to the wheat industry, the exchanges, and the CFTC. The CFTC has conducted several public hearings and recently formed a special advisory subcommittee to make recommendations on how best to address the problem. The Chicago exchange has amended its wheat contract in several respects—to provide for additional delivery locations, to increase the storage rate for wheat, and to change certain specifications for deliverable wheat—in an effort to improve trading and create a more active cash market that will force cash and futures prices to converge.

These actions to date, however, do not address one of the fundamental causes of the problem—the large presence of index traders in the Chicago wheat market. These index traders, who buy wheat futures contracts and hold them without regard to the fundamentals of supply and demand in the cash market for wheat, have created a significant additional demand for wheat futures contracts that has as much as doubled the overall demand for wheat futures contracts. Because this significant increase in demand in the futures market is unrelated to any corresponding supply or demand in the cash market, the price of wheat futures contracts has risen relative to the price of wheat in the cash market. The very large number of index traders on the Chicago exchange has, thus, contributed to “unwarranted changes” in the prices of wheat futures relative to the price of wheat in the cash market. These “unwarranted changes” have, in turn, significantly impaired the ability of farmers and other grain businesses to price crops and manage price risks over time, thus creating an undue burden on interstate commerce. The activities of these index traders constitute the type of excessive speculation that the CFTC should diminish or prevent through the imposition and enforcement of position limits as intended by the Commodity Exchange Act.

F. Trading Limits on Index Traders

The Commodity Exchange Act (CEA) directs the CFTC to prevent excessive speculation in the futures markets. Specifically, Section 4a(a) of the CEA requires the CFTC to establish and maintain “position limits” on commodity traders to prevent the undue burden on interstate commerce that results from “sudden or unreasonable fluctuations or unwarranted changes” in the price of a commodity caused by excessive speculation. Pursuant to this statutory mandate, the CFTC has established position limits for the agricultural commodities traded on futures markets such as wheat, corn, oats, and soybeans. These position limits specify the maximum number of outstanding futures contracts that any single trader can hold at any particular time. For example, the CFTC has generally prohibited any single trader from holding more than 6,500 wheat futures contracts at any one time. Prior to 2005, the maximum number of contracts that could be held at any one time was 5,000 contracts.

Over the course of many years, the CFTC has made a number of decisions that have enabled certain index traders to hold more than the current limit of 6,500 wheat futures contracts. The first set of decisions resulted in the CFTC’s granting position limit exemptions to swap dealers selling commodity index swaps. Although the CEA directs the CFTC to impose trading limits to prevent excessive speculation, section 4a(c) of the Act also states that these limits are not to be applied to “transactions or positions which are shown to be bona fide hedging transactions or positions.” The CEA provides the CFTC with the discretion to define the term “bona fide hedging transaction” in order to “permit producers, purchasers, sellers, middlemen, and users of a commodity or a product derived therefrom to hedge their legitimate anticipated business needs for that period of time into the future for which an appropriate futures contract is open and available on an exchange.”

Initially, the CFTC limited the concept of a bona fide hedging transaction to transactions directly linked to the business needs of the producers, marketers, and users of a physical commodity in the cash market. But after Congress directed the CFTC, in 1986, to consider expanding its definition to include persons using the futures markets to manage risks associated with financial investment portfolios, the CFTC issued a series of clarifications and interpretations which, in effect, expanded the definition to include trading strategies to reduce financial risks, regardless of whether a matching transaction ever took place in a cash market for a physical commodity.

In 1991, using this expanded definition, the CFTC granted the first exemption from speculative trading limits to a swap dealer seeking to buy futures contracts to hedge its financial exposure

to commodity index swaps it had sold to third parties. According to CFTC data provided to the Subcommittee, the CFTC has currently issued four hedge exemptions to swap dealers seeking to buy wheat futures. Those exemptions permit the swap dealers to exceed the 6,500 position limit and hold up to 10,000, 17,500, 26,000, and 53,000 wheat futures contracts to hedge their exposures to commodity index swaps that reference wheat futures prices. In addition, in 2006, the CFTC staff took another step by issuing two “no-action” letters permitting the manager of one index-related exchange traded fund (ETF) to hold up to 11,000 wheat futures contracts and another fund manager to hold up to 13,000 wheat futures contracts.

Together, these hedge exemptions and no-action letters permit six index traders to hold a total of up to almost 130,000 wheat futures contracts at any one time. Absent these waivers from the position limits, these six index traders would have been limited to a total of about 39,000 wheat futures contracts at a time, or less than one-third of the contracts that they are now permitted to hold.

CFTC data indicates that, from 2006 to mid-2008, the total number of outstanding contracts (long open interest) attributable to commodity index traders in the wheat market was about 200,000 contracts. That means that the six index traders granted waivers from the trading limits may have held up to about 60% of all the outstanding wheat contracts held by index traders.

In directing the CFTC to consider granting position limit exemptions to firms using the futures markets to manage price risks associated with financial portfolios, Congress emphasized that the Commission’s actions should remain consistent with its mandate to prevent excessive speculation from causing unreasonable or unwarranted changes in the prices of commodities traded on the futures exchanges. Because the large amount of index investments in the Chicago wheat futures market have been one of the major causes of “unreasonable or unwarranted” changes in wheat futures prices relative to cash prices, the granting of exemptions and waivers to index traders is inconsistent with the CFTC’s statutory mandate to prevent excessive speculation on futures exchanges. Accordingly, the Report recommends that the CFTC no longer waive position limits for index traders and, in addition, begin an orderly phase-out of the existing waivers.

If the CFTC were to phase out the exemptions and waivers granted to index traders in the wheat market, those traders would become subject to the position limits for wheat futures contracts that generally apply and would be unable to hold more than 6,500 wheat contracts at any one time. The strict enforcement of the

6,500 contract limit should reduce the presence of index traders in the Chicago wheat futures market and help bring the futures market into better alignment with the cash market.

Restoring the 6,500 position limit to index traders may not, however, fully solve the pricing problems in the Chicago wheat futures market and eliminate the problems in the market exacerbated by excessive speculation. CFTC data indicates that at most 60% of the total outstanding wheat contracts (long open interest) which can be attributed to index investors would be affected by restoring the 6,500 limit. If pricing problems persist in the wheat market after the phase-out of these waivers, and after implementation of other actions being taken by the Chicago exchange, the CFTC should consider imposing additional restrictions on index traders to reduce their presence, such as by restoring the pre-2005 position limit of 5,000 wheat contracts per index trader to reduce their aggregate impact on wheat futures prices.

G. Other Commodities

The wheat market illustrates how a large amount of index trading on a futures exchange can significantly impair the ability of the futures market to perform its primary purposes—to enable commercial market participants, including farmers, grain elevators, grain merchants, and consumers, to efficiently price their commodities and manage their price risks over time. The Subcommittee investigation was made possible in large part by the availability of data compiled by the CFTC on index trading in the wheat market. Comparable data on index trading in non-agricultural markets, including for crude oil, natural gas, and other energy commodities, is not presently available. The data problem is due in part to the complexity of the over-the-counter (OTC) energy market, the associated difficulty in tracing index trading in that market, and the difficulty in assessing the impact of OTC energy trades on regulated energy futures exchanges. To understand the role of index trading in energy and other non-agricultural commodity markets, the CFTC will need to improve its data collection and analysis efforts for both the OTC markets and index trading. Given the importance of this issue, despite the difficulties, the CFTC should undertake this effort to bring additional transparency to the impact of index trading on energy futures markets.

H. Findings and Recommendations

Based upon the Subcommittee's investigation, the Report makes the following findings of fact and recommendations to diminish or prevent excessive speculation in the wheat market.

Findings of Fact

(1) EXCESSIVE SPECULATION IN WHEAT. The large number of wheat futures contracts purchased and held by commodity index traders on the Chicago futures exchange over the last five years constituted excessive speculation.

(A) INDEX TRADERS INCREASED FUTURES PRICES RELATIVE TO CASH PRICES. The large number of wheat futures contracts purchased by index traders on the Chicago exchange created additional demand for those contracts and was a major contributing factor in the increasing difference between wheat futures prices and cash prices from 2006 to 2008.

(B) INDEX TRADERS IMPEDED PRICE CONVERGENCE. Over the past few years, the large number of Chicago wheat futures contracts purchased by index investors has been a major cause of the frequent failure of wheat futures and cash prices to converge upon contract expiration.

(C) UNWARRANTED PRICE CHANGES. The additional demand for Chicago wheat futures contracts attributable to commodity index traders contributed to “unreasonable fluctuations or unwarranted changes” in wheat futures prices, resulting in an abnormally large and persistent gap between wheat futures and cash prices (the basis). Largely as a result of index trading, the average difference between the cash and futures price at contract expiration rose from 13 cents per bushel in 2005, to 34 cents in 2006, to 60 cents in 2007, to \$1.53 in 2008, a tenfold increase in four years.

(D) UNDUE BURDEN ON COMMERCE. The unwarranted changes in wheat prices resulting from the large amount of index trading in the Chicago wheat futures market created an undue burden on interstate commerce. This undue burden was imposed on farmers, grain elevators, grain merchants, grain processors, and others by impeding useful hedging strategies, imposing significant unanticipated costs, and providing inaccurate indications of expected prices in the wheat markets.

(2) CFTC WAIVERS FACILITATED EXCESSIVE SPECULATION. CFTC actions to waive position limits for commodity index traders facilitated excessive speculation in the Chicago wheat futures market. Waiving position limits for these index traders is inconsistent with the CFTC's statutory mandate to maintain position limits to prevent excessive speculation.

(3) INFLATED FUTURES PRICES AFFECT CROP INSURANCE. Because federal crop insurance, which is backed with taxpayer dollars, uses futures prices in its calculations, inflated futures prices can inflate insurance premiums, whose cost is shared

by farmers and taxpayers, and impair the accuracy of the formulas used to determine the payouts to farmers, resulting in either overpayments or underpayments.

(4) POOR DATA IMPEDES ANALYSIS. There is a lack of adequate data on the number of futures contracts purchased by commodity index traders for nonagricultural commodities like crude oil. Improved data is essential to analyze the extent to which index traders may be contributing to higher futures prices and excessive speculation in crude oil and other markets.

Recommendations

(1) PHASE OUT EXISTING WHEAT WAIVERS FOR INDEX TRADERS. The CFTC should phase out existing waivers, granted through exemptions or no-action letters, which permit commodity index traders to exceed the standard limit of 6,500 wheat contracts per trader at any one time, and re-apply the standard position limit designed to prevent excessive speculation in the wheat market.

(2) TAKE FURTHER ACTION IF NECESSARY. If pricing problems in the Chicago exchange persist after the phase-out of index trader waivers and after implementation of other actions being taken by the Chicago exchange, the CFTC should consider imposing additional restrictions on commodity index traders to reduce excessive speculation, such as by imposing a position limit of 5,000 wheat contracts per index trader.

(3) ANALYZE OTHER AGRICULTURAL COMMODITIES. The CFTC should undertake an analysis of other agricultural commodities to determine whether commodity index traders have increased futures prices compared to cash prices or caused price convergence problems, and whether position limit waivers for index traders should be phased out to eliminate excessive speculation.

(4) STRENGTHEN DATA COLLECTION FOR NON-AGRICULTURAL COMMODITIES. The CFTC should develop reliable data on the extent to which commodity index traders purchase non-agricultural commodity futures contracts, especially crude oil and other energy commodities. Once this data is collected, the CFTC should evaluate the impact of index trading in these markets, and whether position limits for index traders should be phased out to eliminate excessive speculation.

The following sections of this Report present detailed information on how, in recent years, the high level of commodity index trading in the wheat market constituted excessive speculation. Section

II describes the wheat futures and cash markets, and recent pricing trends that have caused turmoil among wheat producers, merchants, and consumers. Section III provides general information about hedging and speculation in the commodity markets, and why price convergence is important to commercial users of the wheat market. Section IV explains how commodity index trading works, its impact on the futures markets, and how the CFTC has facilitated index trading by waiving position limits for wheat and other agricultural commodities. Section V details the evidence indicating how commodity index trading has been one of the major causes of unwarranted price fluctuations and an undue burden on interstate commerce, and thereby constituted excessive speculation in the wheat market. Section VI describes how inflated futures prices affect the federal crop insurance program.

In-text References

1. In its 2006 Report, "The Role of Market Speculation in Rising Oil and Gas Prices: A Need to Put the Cop Back on the Beat," S. Prt. 109-65 (June 27, 2006), the Subcommittee investigation found that influx of billions of dollars into the U.S. energy markets through commodity index funds had contributed to the rise in energy prices, and that the large influx of speculative investments in these markets had altered the traditional relationships between futures prices and supplies of energy commodities, particularly crude oil. The Report recommended that Congress enact legislation to "close the Enron loophole," the provision in the Commodity Futures Modernization Act of 2000 (CFMA), which exempted from regulation the trading of futures contracts and swaps for energy and metals commodities on electronic exchanges. It also recommended legislation to ensure the CFTC had sufficient authority to monitor U.S. traders trading in U.S. commodities on foreign exchanges. See the 2006 Subcommittee Report at http://hsgac.senate.gov/public/_files/SenatePrint-10965MarketSpecReportFINAL.pdf.

2. In its 2007 Report, "Excessive Speculation in the Natural Gas Market," reprinted in S. Hrg. 110-235 (June 25 and July 9, 2007), at pp. 196-710, the Subcommittee investigation found that Amaranth had distorted the price of natural gas futures contracts as a result of its large purchases of contracts on the regulated New York Mercantile Exchange (NYMEX) and "look-alike" swap contracts on the then-unregulated Intercontinental Exchange (ICE). As a result of several provisions in the CFMA, the CFTC did not have authority to limit the positions of traders using ICE rather than NYMEX. Based on this finding, the Report recommended that Congress enact legislation to close the Enron loophole in order to fully regulate electronic exchanges, like ICE, that are the functional equivalent of futures markets. In the 2008 Farm Bill, Congress enacted legislation to close the Enron loophole by providing that commodity contracts traded on over-the-counter electronic exchanges that perform a significant price discovery function be regulated in the same manner as futures contracts. As a result of this legislation, the CFTC now has the authority—and responsibility—to regulate and monitor these electronic markets to prevent excessive speculation. See the 2007 Subcommittee Report at http://hsgac.senate.gov/public/_files/REPORTExcessiveSpeculationintheNaturalGasMarket.pdf.

3. This estimate reflects both the actual amounts invested in commodity index related instruments and the appreciation in value of those investments due to increasing commodity prices.

4. Typically, traders define basis as the difference between the cash and futures price (basis = cash – futures). In this Report, the basis is defined as the difference between the futures and cash price (basis = futures – cash) in order to give a positive value to the basis when the futures price is higher than the cash price, as it typically is in the wheat market.

III.

Regulating Excessive Speculation

Letter to Majority Leader Reid and Minority Leader McConnell

Commodity Markets Oversight Coalition (CMOC)

About the organization

The Commodity Markets Oversight Coalition is an alliance of consumer advocates and commodity producers, marketers and end-users that rely on derivatives to hedge commodity price fluctuations and to insulate their businesses and consumers from risk.

This letter to the U.S. Senate was authored by the Commodity Markets Oversight Coalition in May 2010 to support a bill to narrow exemptions to trading financial and commodity derivatives contracts on regulated exchanges and opposes broad exemptions to exchange trading proposed by Wall Street and the Coalition of Derivatives End Users.

Document available on
www.iatp.org.

Dear Majority and Minority Leaders:

The Commodity Markets Oversight Coalition is an alliance of consumer advocates and commodity producers, marketers and end-users that rely on derivatives to hedge commodity price fluctuations and to insulate their businesses and consumers from risk. For three years we have called for legislative reform of derivatives markets to strengthen oversight, transparency and stability, address regulatory inadequacies in the existing derivatives markets, and limit the role of financial speculation in regulated, over-the-counter (OTC) and off-shore markets.

In light of these goals, our coalition formally endorsed the “Wall Street Transparency and Accountability Act,” which was reported out of the Senate Agriculture Committee, in a letter dated April 23rd and requested that this legislation be included in the broader financial services package, S.3217. We are pleased that Senators Dodd and Lincoln were able to come to an agreement and that the important derivative reforms will be included in the broader financial reform package to be considered on the Senate floor.

We are especially supportive of the narrow exemption from mandatory clearing requirements for legitimate commercial end-users that use derivatives to manage risks associated with their real-world businesses. Recently, financial entities, including hedge funds, investment banks and insurance companies, have begun to use commodity derivative contracts to hedge the risk of a declining dollar or rising interest rates. While these financial entities have a legitimate interest in hedging their risk, they are not producers, distributors or end-users of physical commodities. Moreover, in recent years their participation in the over-the-counter commodities markets now dwarfs that of bona-fide physical hedgers.

These financial entities’ hedging activities have dramatically increased volatility and uncertainty in commodity prices and have resulted in dramatic price swings that are injurious to traditional commodity end-users. For these reasons, financial entities should not be exempted from the mandatory clearing requirements and the end-user exemption should remain narrowly tailored to those businesses that produce, market or consume the underlying commodity.

We have recently learned that you and your colleagues have received communications from the so-called “Coalition for Derivatives End-Users” and other groups claiming to speak for “derivatives end-users.” Please know that this group **does not** speak for our coalition or its members. This so-called coalition of “end-users” includes many entities that neither produce, market nor consume the physical commodity that they seek to invest in—they are not traditional end-users. Given the nature of their suggested changes to the legislation it is questionable whether in fact they have the issues of commercial end-users at heart.

Our coalition opposes any expansion of exemptions in the derivatives title in such a way as to create new loopholes for financial market interests. If the Senate accepts the recommendations of the “Coalition for Derivatives End-Users” and others claiming to speak for legitimate end-users, it will create new loopholes for financial players, thereby enabling and exacerbating the very speculation and unchecked risk that the bill seeks to eliminate.

Specifically, our coalition:

- **Opposes expanding the end-user clearing exemption to financial entities** or anyone other than legitimate commercial end-users utilizing derivatives markets to hedge commercial risk.
- **Opposes eliminating the category of “Major Swap Participant”** and replacing it with a system of exemptions that would allow hedge funds and other financial players to exempt large portions of their derivatives portfolios.
- **Opposes lowering capital/margin requirements for financial players**, including swap dealers, major swap participants and other financial entities.
- **Opposes eliminating “too-big-to-fail” prohibitions with respect to federal assistance** for swap dealers and other financial participants.
- **Opposes new powers allowing the Treasury Secretary to exempt entire categories of swaps** from regulation, which would undermine the authority of independent regulators like the Commodity Futures Trading Commission and the Securities and Exchange Commission.

None of the above measures will benefit commercial end-users. We urge you to enact responsible legislation that will protect legitimate commercial hedgers and consumers from excessive speculation and systemic risk, not create new loopholes for financial interests.

Thank you for your consideration and we are available to discuss this matter with you further.

Sincerely,

American Cotton Shippers Association
Air Transport Association
American Trucking Associations
Arkansas Oil Marketers Association

Atlantic Cotton Association
California Black Farmers & Agriculturalists Association
California Independent Oil Marketers Association
Colorado/Wyoming Petroleum Marketers Association
Consumer Federation of America
Florida Petroleum Marketers Association
Food & Water Watch
Fuel Merchants Association of New Jersey
Gasoline & Automotive Service Dealers of America
Grassroots International
Independent Connecticut Petroleum Association
Institute for Agriculture and Trade Policy
Louisiana Oil Marketers & Convenience Store Association
Massachusetts Oilheat Council
Maine Energy Marketers Association
Maryknoll Office for Global Concerns
Masters Capital Management
Michigan Petroleum Association
Michigan Association of Convenience Stores
Missionary Oblates
National Association of Oilheating Service Managers
National Association of Truckstop Operators
Nebraska Petroleum Marketers & Convenience Store Association
National Latino Farmers & Ranchers Trade Association
New England Fuel Institute
New Mexico Petroleum Marketers Association
New Rules for Global Finance
New York Oil Heating Association
North Dakota Petroleum Marketers Association
North Dakota Propane Gas Association
North Dakota Retail Association
Oil Heat Institute of Long Island
Oil Heat Council of New Hampshire
Oil Heat Institute of Rhode Island
The Organization for Competitive Markets
Petroleum Marketers Association of America
Petroleum Marketers & Convenience Store Association Kansas
Petroleum Marketers & Convenience Stores of Iowa
Propane Gas Association of New England
Public Citizen
R-CALF USA
South Dakota Petroleum & Propane Marketers Association
Souther Cotton Association
Texas Cotton Association
Utah Petroleum Marketers & Retailers Association
Vermont Fuel Dealers Association
Western Cotton Shippers Association
Western Peanut Growers
West Virginia Oil Marketers and Grocers Association

Testimony of Michael W. Masters

BEFORE THE U.S. SENATE COMMITTEE ON HOMELAND SECURITY AND GOVERNMENTAL AFFAIRS

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About the author

Michael W. Masters is a portfolio manager at Masters Capital Management.

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Good morning and thank you, Mr. Chairman and Members of the Committee, for the invitation to speak to you today. This is a topic that I care deeply about, and I appreciate the chance to share what I have discovered.

I have been successfully managing a long-short equity hedge fund for over 12 years and I have extensive contacts on Wall Street and within the hedge fund community. It's important that you know that I am not currently involved in trading the commodities futures markets. I am not representing any corporate, financial, or lobby organizations. I am speaking with you today as a concerned citizen whose professional background has given me insight into a situation that I believe is negatively affecting the U.S. economy. While some in my profession might be disappointed that I am presenting this testimony to Congress, I feel that it is the right thing to do.

You have asked the question "Are Institutional Investors contributing to food and energy price inflation?" And my unequivocal answer is "YES." In this testimony I will explain that Institutional Investors are one of, if not the primary, factors affecting commodities prices today. Clearly, there are many factors that contribute to price determination in the commodities markets; I am here to expose a fast-growing yet virtually unnoticed factor, and one that presents a problem that can be expediently corrected through legislative policy action.

Commodities prices have increased more in the aggregate over the last five years than at any other time in U.S. history.¹ We have seen commodity price spikes occur in the past as a result of supply crises, such as during the 1973 Arab Oil Embargo. But today, unlike previous episodes, supply is ample: there are no lines at the gas pump and there is plenty of food on the shelves.

If supply is adequate—as has been shown by others who have testified before this committee²—and prices are still rising, then demand must be increasing. But how do you explain a continuing increase in demand when commodity prices have doubled or tripled in the last 5 years?

What we are experiencing is a demand shock coming from a new category of participant in the commodities futures markets: Institutional Investors. Specifically, these are Corporate and Government Pension Funds, Sovereign Wealth Funds, University Endowments and other Institutional Investors. Collectively, these investors now account on average for a larger share of outstanding commodities futures contracts than any other market participant.³

These parties, who I call *Index Speculators*, allocate a portion of their portfolios to "investments" in the commodities futures market, and behave very differently from the traditional speculators that have always existed in this marketplace. I refer to them as "Index" Speculators because of their investing strategy: they distribute

their allocation of dollars across the 25 key commodities futures according to the popular indices—the Standard & Poors-Goldman Sachs Commodity Index and the Dow Jones-AIG Commodity Index.⁴

I'd like to provide a little background on how this new category of "investors" came to exist.

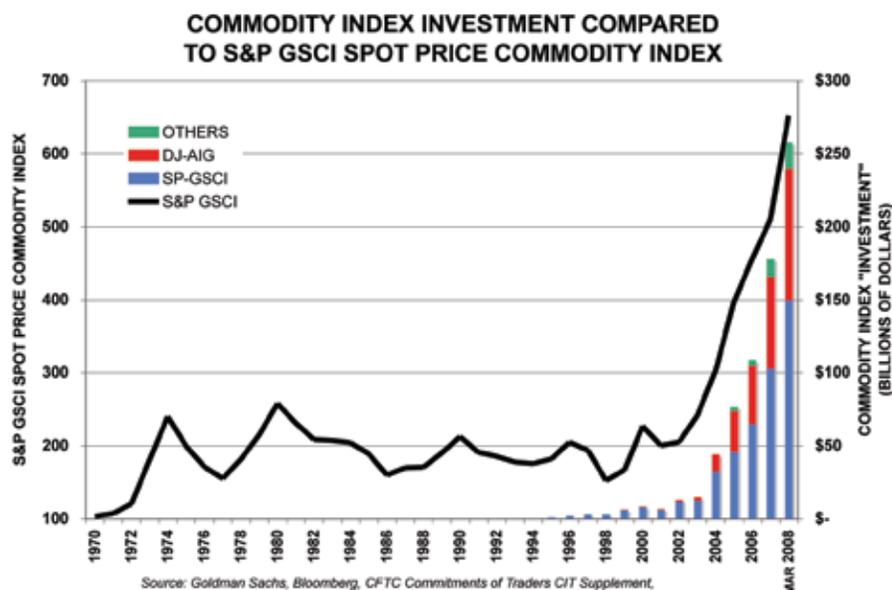
In the early part of this decade, some institutional investors who suffered as a result of the severe equity bear market of 2000-2002, began to look to the commodity futures market as a potential new "asset class" suitable for institutional investment. While the commodities markets have always had some speculators, never before had major investment institutions seriously considered the commodities futures markets as viable for larger scale investment programs. Commodities looked attractive because they have historically been "uncorrelated," meaning they trade inversely to fixed income and equity portfolios. Mainline financial industry consultants, who advised large institutions on portfolio allocations, suggested for the first time that investors could "buy and hold" commodities futures, just like investors previously had done with stocks and bonds.

Index Speculator Demand Is Driving Prices Higher

Today, Index Speculators are pouring billions of dollars into the commodities futures markets, speculating that commodity prices will increase. Chart One shows Assets allocated to commodity index trading strategies have risen from \$13 billion at the end of 2003 to \$260 billion as of March 2008,⁵ and the prices of the 25 commodities that compose these indices have risen by an average of 183% in those five years!⁶

According to the CFTC and spot market participants, commodities futures prices are the benchmark for the prices of actual physical commodities, so when Index Speculators drive futures prices higher, the effects are felt immediately in spot prices and the real economy.⁷ So there is a direct link between commodities futures prices and the prices your constituents are paying for essential goods.

CHART ONE



The next table looks at the commodity purchases that Index Speculators have made via the futures markets. These are huge numbers and they need to be put in perspective to be fully grasped.

In the popular press the explanation given most often for rising oil prices is the increased demand for oil from China. According to the DOE, annual Chinese demand for petroleum has increased over the last five years from 1.88 billion barrels to 2.8 billion barrels, an increase of 920 million barrels.⁸ Over the same five-year period, Index Speculators' demand for petroleum futures has increased by 848 million barrels.⁹ The increase in demand from Index Speculators is almost equal to the increase in demand from China!

In fact, Index Speculators have now stockpiled, via the futures market, the equivalent of 1.1 billion barrels of petroleum, effectively adding eight times as much oil to their own stockpile as the United States has added to the Strategic Petroleum Reserve over the last five years.¹⁰

Let's turn our attention to food prices, which have skyrocketed in the last six months. When asked to explain this dramatic increase, economists' replies typically focus on the diversion of a significant portion of the U.S. corn crop to ethanol production.¹¹ What they overlook is the fact that Institutional Investors have purchased over 2 billion bushels of corn futures in the last five years. Right now, Index Speculators have stockpiled enough corn futures to potentially fuel the entire United States ethanol industry at full capacity

Commodity Purchases By Index Speculators The Last 5 Years

Sector	Commodity	Units	Previous Futures Market Stockpile January 1, 2003	Net Purchases Last 5½ Years	Current Futures Market Stockpile March 12, 2008
Agricultural	Cocoa	Metric Tons	18,828	303,352	322,180
	Coffee	Pounds	195,716,944	2,238,858,056	2,434,575,000
	Corn	Bushels	242,561,708	2,138,383,292	2,380,945,000
	Cotton	Pounds	544,934,999	5,548,915,001	6,093,850,000
	Soybean Oil	Pounds	163,135,678	4,312,624,322	4,475,760,000
	Soybeans	Bushels	81,028,272	890,616,728	971,645,000
	Sugar	Pounds	2,291,358,746	46,094,097,254	48,385,456,000
	Wheat	Bushels	166,738,225	967,351,775	1,134,090,000
	Wheat KC	Bushels	54,746,014	102,618,986	157,365,000
Livestock	Feed Cattle	Pounds	104,446,612	365,453,388	469,900,000
	Lean Hogs	Pounds	517,414,747	3,827,425,253	4,344,840,000
	Live Cattle	Pounds	669,766,732	5,099,033,268	5,768,800,000
Energy	Brent Crude Oil	Barrels	47,075,357	144,524,265	191,599,621
	WTI Crude Oil	Barrels	99,880,741	538,499,579	638,380,320
	Gasoil	Metric Tons	1,682,662	6,027,680	7,710,342
	Heating Oil	Gallons	1,067,859,608	2,568,925,661	3,636,785,269
	Gasoline	Gallons	1,102,184,401	2,488,458,616	3,590,643,018
	Natural Gas	Million BTUs	330,652,415	1,932,356,225	2,263,008,640
Base Metals	Aluminum	Metric Tons	344,246	3,232,406	3,576,652
	Lead	Metric Tons	82,019	158,726	240,745
	Nickel	Metric Tons	20,147	101,988	122,135
	Zinc	Metric Tons	133,381	1,182,091	1,315,472
	Copper	Metric Tons	220,096	1,144,538	1,364,634
Precious Metals	Gold	Troy Ounces	979,863	8,742,401	9,722,264
	Silver	Troy Ounces	11,126,862	152,866,187	163,993,049

Sources: Goldman Sachs, Standard & Poors, Dow Jones, CFTC Commitments of Traders CIT Supplement, calculations

for a year.¹² That's equivalent to producing 5.3 billion gallons of ethanol, which would make America the world's largest ethanol producer.¹³

Turning to Wheat, in 2007 Americans consumed 2.22 bushels of Wheat per capita.¹⁴ At 1.3 billion bushels, the current Wheat futures stockpile of Index Speculators is enough to supply every American citizen with all the bread, pasta and baked goods they can eat for the next two years!

Index Speculator Demand Characteristics

Demand for futures contracts can only come from two sources: Physical Commodity Consumers and Speculators. Speculators include the Traditional Speculators who have always existed in the market, as well as Index Speculators. Five years ago, Index Speculators were a tiny fraction of the commodities futures markets. Today, in many commodities futures markets, they are the single largest force.¹⁵ The huge growth in their demand has gone virtually undetected by classically-trained economists *who almost never analyze demand in futures markets.*

Index Speculator demand is distinctly different from Traditional Speculator demand; it arises purely from portfolio allocation decisions. When an Institutional Investor decides to allocate 2% to commodities futures, for example, they come to the market with a set amount of money. They are not concerned with the price per unit; they will buy as many futures contracts as they need, at whatever price is necessary, until all of their money has been "put to work." Their insensitivity to price multiplies their impact on commodity markets.

Furthermore, commodities futures markets are much smaller than the capital markets, so multi-billion-dollar allocations to commodities markets will have a far greater impact on prices. In 2004, the total value of futures contracts outstanding for all 25 index commodities amounted to only about \$180 billion.¹⁶ Compare that with worldwide equity markets which totaled \$44 trillion¹⁷, or over 240 times bigger. That year, Index Speculators poured \$25 billion into these markets, an amount equivalent to 14% of the total market.¹⁸

CHART TWO

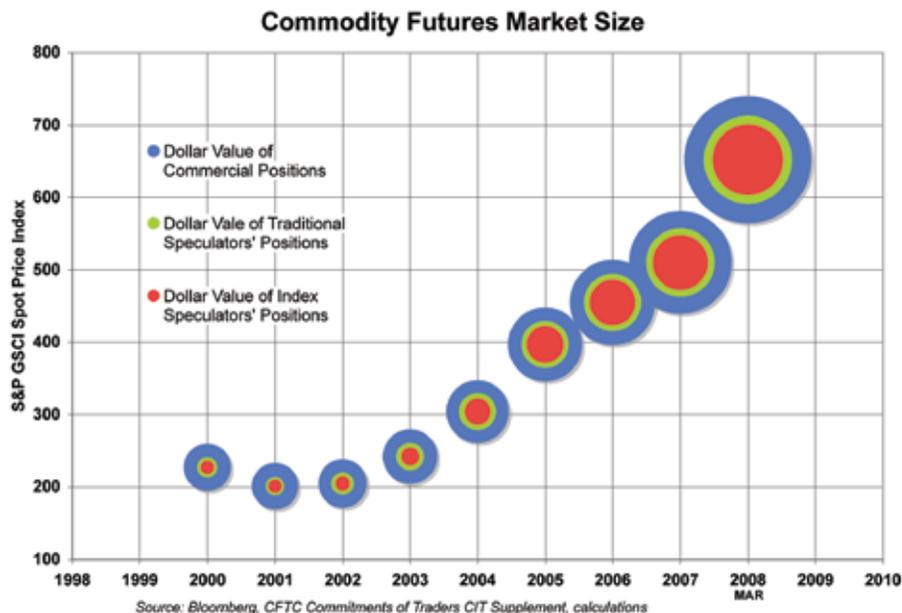


Chart Two shows this dynamic at work. As money pours into the markets, two things happen concurrently: the markets expand and prices rise.

One particularly troubling aspect of Index Speculator demand is that it actually increases the more prices increase. This explains the accelerating rate at which commodity futures prices (and actual commodity prices) are increasing. Rising prices attract more Index Speculators, whose tendency is to increase their allocation as prices rise. So their profit-motivated demand for futures is the inverse of what you would expect from price-sensitive consumer behavior.

You can see from Chart Two that prices have increased the most dramatically in the first quarter of 2008. We calculate that Index Speculators flooded the markets with \$55 billion in just the first 52 trading days of this year.¹⁹ That's an increase in the dollar value of outstanding futures contracts of more than \$1 billion per trading day. Doesn't it seem likely that an increase in demand of this magnitude in the commodities futures markets could go a long way in explaining the extraordinary commodities price increases in the beginning of 2008?

There is a crucial distinction between Traditional Speculators and Index Speculators: Traditional Speculators provide liquidity by both buying and selling futures. Index Speculators buy futures and then roll their positions by buying calendar spreads. They never sell. Therefore, they consume liquidity and provide zero benefit to the futures markets.²⁰

It is easy to see now that traditional policy measures will not work to correct the problem created by Index Speculators, whose allocation decisions are made with little regard for the supply and demand fundamentals in the physical commodity markets. If OPEC supplies the markets with more oil, it will have little effect on Index Speculator demand for oil futures. If Americans reduce their demand through conservation measures like carpooling and using public transportation, it will have little effect on Institutional Investor demand for commodities futures.

Index Speculators' trading strategies amount to virtual hoarding via the commodities futures markets. Institutional Investors are buying up essential items that exist in limited quantities for the sole purpose of reaping speculative profits.

Think about it this way: If Wall Street concocted a scheme whereby investors bought large amounts of pharmaceutical drugs and medical devices in order to profit from the resulting increase in prices, making these essential items unaffordable to sick and dying people, society would be justly outraged.

Why is there not outrage over the fact that Americans must pay drastically more to feed their families, fuel their cars, and heat their homes?

Index Speculators provide no benefit to the futures markets and they inflict a tremendous cost upon society. Individually, these participants are not acting with malicious intent; collectively, however, their impact reaches into the wallets of every American consumer.

Is it necessary for the U.S. economy to suffer through yet another financial crisis created by new investment techniques, the consequences of which have once again been unforeseen by their Wall Street proponents?

The CFTC Has Invited Increased Speculation

When Congress passed the Commodity Exchange Act in 1936, they did so with the understanding that speculators should not be allowed to dominate the commodities futures markets. Unfortunately, the CFTC has taken deliberate steps to allow certain speculators virtually unlimited access to the commodities futures markets.

The CFTC has granted Wall Street banks an exemption from speculative position limits when these banks hedge over-the-counter swaps transactions.²¹ This has effectively opened a loophole for unlimited speculation. When Index Speculators enter into commodity index swaps, which 85-90% of them do, they face no speculative position limits.²²

The really shocking thing about the Swaps Loophole is that Speculators of all stripes can use it to access the futures markets. So if a hedge fund wants a \$500 million position in Wheat, which is way beyond position limits, they can enter into swap with a Wall Street bank and then the bank buys \$500 million worth of Wheat futures.²³

In the CFTC's classification scheme all Speculators accessing the futures markets through the Swaps Loophole are categorized as "Commercial" rather than "Non-Commercial." The result is a gross distortion in data that effectively hides the full impact of Index Speculation.

Additionally, the CFTC has recently proposed that Index Speculators be exempt from all position limits, thereby throwing the door open for unlimited Index Speculator "investment."²⁴ The CFTC has even gone so far as to issue press releases on their website touting studies they commissioned showing that commodities futures make good additions to Institutional Investors' portfolios.²⁵

Is this what Congress expected when it created the CFTC?

Congress Should Eliminate The Practice Of Index Speculation

I would like to conclude my testimony today by outlining three steps that can be taken to immediately reduce Index Speculation.

Number One:

Congress has closely regulated pension funds, recognizing that they serve a public purpose. Congress should modify ERISA regulations to prohibit commodity index replication strategies as unsuitable pension investments because of the damage that they do to the commodities futures markets and to Americans as a whole.

Number Two:

Congress should act immediately to close the Swaps Loophole. Speculative position limits must "look-through" the swaps transaction to the ultimate counterparty and hold that counterparty to the speculative position limits. This would curtail Index Speculation and it would force ALL Speculators to face position limits.

Number Three:

Congress should further compel the CFTC to reclassify all the positions in the Commercial category of the Commitments of Traders Reports to distinguish those positions that are controlled by "Bona Fide" Physical Hedgers from those controlled by Wall Street banks. The positions of Wall Street banks should be further broken down based on their OTC swaps counter-party into "Bona Fide" Physical Hedgers and Speculators.

There are hundreds of billions of investment dollars poised to enter the commodities futures markets at this very moment.²⁶ If immediate action is not taken, food and energy prices will rise higher still. This could have catastrophic economic effects on millions of already stressed U.S. consumers. It literally could mean starvation for millions of the world's poor.²⁷

If Congress takes these steps, the structural integrity of the futures markets will be restored. Index Speculator demand will be virtually eliminated and it is likely that food and energy prices will come down sharply.

In-text References

For the full list of references, please see the testimony in its entirety at http://hsgac.senate.gov/public/_files/052008Masters.pdf.

Statement to the UN Round Table on Financial Regulation

Steve Suppan, Institute for Agriculture and Trade Policy

About the author

Steve Suppan has been a policy analyst at the Institute for Agriculture and Trade Policy (IATP) since 1994. Much of Steve's work is to explain U.S. agriculture, trade and food safety policy to foreign governments and nongovernmental organizations, especially farmer organizations.

About the organization

IATP works locally and globally at the intersection of policy and practice to ensure fair and sustainable food, farm and trade systems.

This paper was originally published by the Institute for Agriculture and Trade Policy on June 25, 2009 as a statement to the United Nations Multi-stakeholder Round Table on Financial Regulation.

Originally featured on www.iatp.org.

Thank you for inviting me to speak with you today. The United Nations High-level Meeting on the economic crisis and development, and the Commission of Experts advising the HLM, rightly focused on the role of financial services deregulation in triggering the crisis. However, a major category of financial services institutions has been overlooked by the HLM outcome document and the Commission of Experts, namely, commodities futures markets. Since only about 10 percent of futures contracts result in the delivery of a commodity, they are primarily a financial instrument. Commodity futures prices are a crucial link in the price transmission of food security, energy security and in the use of base and precious metals. Commodity exchanges have a structural economic importance far greater than the value of futures contracts, to say nothing of how their operations affect the everyday lives of people around the world. Futures prices have global consequences and hence, I will argue, require global economic governance under United Nations aegis.

Futures prices are benchmarks for cash prices that affect export revenues, prices for essential food and energy imports, and investments that are particularly important for commodity dependent exporting countries. In 2007 and 2008, extreme price volatility in the futures markets made it exceedingly difficult to use traditional futures contracts to manage price risks. For example, huge jumps in the price of oil—\$25 dollars a barrel in one day!—were inexplicable in supply and demand terms. Similarly inexplicable was the doubling of wheat futures prices in less than two months on the Minneapolis exchange. Recognizing the economic damage caused by deregulated and de-supervised derivatives trading, the U.S. House of Representatives has drafted legislation to prevent excessive speculation in U.S. commodity markets. The bill also has measures to discourage regulatory arbitrage, i.e. evasion of trading rules by traders exploiting weaker regulatory jurisdictions. However, the bill and the Obama administration's proposed rules are strongly opposed by a financial services industry that has grown rich by creating and exploiting regulatory loopholes.

Of the reasons that an intergovernmental agreement on commodity exchange regulation is needed, one stands out to me. Even if the United States successfully implements limits on the number of futures contracts held by one trader to minimize the "weight of money" effect on futures prices, this U.S. limit can be evaded. Traders can obey the futures contract position limits in each regulatory jurisdiction, but by aggregating contracts across markets and jurisdictions, they can continue to create extreme price volatility that they can exploit to the detriment of development. The communiqué of the just concluded meeting of G-8 finance ministers expressed concern about the sharp increase in the price of oil over the past month. Hence, there must be an intergovernmental agreement on commodity exchange regulation, if only to harmonize national exchange rules. The HLM outcome document should authorize a working group towards preparation of such an agreement.

However, a harmonization agreement alone will not suffice to regulate the massive

intra-day trading that is a main driver of commodity price volatility. Professor Stephan Schulmeister has proposed a .01 percent Financial Transactions Tax to reduce the frequency of both financial and commodities derivatives trading. The tax would have little effect on commodities buyers and sellers trading a contract a few times a month, but would dampen the automated trading of contracts dozens of times a day. According to our calculations, based on 2007 notional values of commodity futures contracts reported to the Bank for International Settlements, such a tax would raise about \$10 billion. The tax, readily collected by national exchange authorities and discounting for an administrative fee paid to those authorities, could be put in a UN endowment for development projects.¹ To those who oppose any international taxation, we would respond in the words of U.S. Supreme Court Justice Oliver Wendell Holmes: “Taxes are the price we pay for civilization.”

In-text References

1. Steve Suppan, “Regulating commodities speculation: normative and fiscal means,” Institute for Agriculture and Trade Policy, May 2009. Available at <http://www.tradeobservatory.org/library.cfm?refID=105922>.

Comment on “Review of the Markets in Financial Instruments Directive”

Steve Suppan, Institute for Agriculture and Trade Policy

About the author

Steve Suppan has been a policy analyst at the Institute for Agriculture and Trade Policy (IATP) since 1994. Much of Steve’s work is to explain U.S. agriculture, trade and food safety policy to foreign governments and nongovernmental organizations, especially farmer organizations.

About the organization

IATP works locally and globally at the intersection of policy and practice to ensure fair and sustainable food, farm and trade systems.

This comment was originally published by IATP on February 2, 2011 as a response to the “Review of the Markets in Financial Instruments Directive (MiFID)” consultation document of the European Commission Directorate General Internal Markets and Services.

Originally featured on www.iatp.org.

“Many policymakers are seriously scared of making fundamental policy decisions. People in the banking industry have an interest in making the situation seem complex and difficult, even when it isn’t.”

Dennis J. Snower, President, Kiel Institute for the World Economy at the Davos World Economic Forum¹

The Institute for Agriculture and Trade Policy (IATP), a U.S.-headquartered, nongovernment organization with offices in Geneva, Switzerland, is pleased to have the opportunity to comment on the proposed revision of the Markets in Financial Instruments Directive (MiFID). IATP, as a member of the Commodity Markets Oversight Coalition (CMOC), an alliance of over 80 commodity derivative users organizations, former Commodity Futures Trading Commission (CFTC) officials, hedge fund traders, farmer organizations and nongovernmental organizations, played a small role in proposing provisions that were incorporated into Title VII of the “Dodd-Frank Wall Street Reform and Consumer Protection Act” (Dodd-Frank). CMOC letters and testimony to Congress and the CFTC are posted at <http://www.nefiactioncenter.com/commoditymarkets.php>. IATP analysis on excessive speculation in commodities and related writing is posted at www.tradeobservatory.org.

It is on the basis of our experience with the CMOC and the U.S. legislative and regulatory process that we submitted a July 23 comment on the draft revision of the Market Abuse Directive and participated in the commission’s September 20–21 hearing on over-the-counter (OTC) derivatives. We submit this comment to enhance further U.S.-EU regulatory cooperation on financial market regulation, particularly in commodities derivatives. The comment comprises a general comment and responses to some of the 148 questions posed in the consultation document.

General Comment

Since MiFID was approved in 2004, the shift of financial market volume and value weight from regulated exchanges to largely unregulated over-the-counter trading has been, as the consultation document notes, one factor that requires the updating of both MiFID and its 2007 implementing legislation and regulation (2). Most of OTC trading and the MiFID consultation document concerns financial derivative instruments that are beyond IATP’s expertise. Nevertheless, the proposed MiFID revisions that affect commodity derivatives likewise are driven by a massive shift from regulated exchange trading to unregulated OTC derivatives that was even greater than the increase in equity derivatives. According to a recent study, “The ratio of the notional amount of commodity derivatives contracts in June 1998 to world GDP rose from 1.5 percent in 1998 to 21.6 percent in 2008. Over the same period, the ratio of equity derivatives to world GDP rose from 4.2 percent to 16.7.”² Some OTC commodity derivative trading has shifted onto exchanges since the historic commodities price collapse of 2008. However, as of September 2010, long positions in commodity index funds had approached the record-high June 2008 levels.³ As institutional investors

continue to use commodity derivatives for portfolio diversification, these long-only positions have become a structural feature of commodity “bull runs,” including the present one.⁴

In view of this massive shift in trading practices and values, the commission has anticipated in the consultation document “possible changes in the implementing legislation that would follow at a later stage” (1). In view of the financial industry resistance to regulation of the OTC markets⁵, IATP believes that the commission should not delay in drafting implementing legislation and regulation, so that both can enter into effect, following the MiFID revision by the Parliament and Council, as soon as technically possible. In the impact study that the commission will publish with the revised directive, the impacts measured should concern not just the regulated industry, but also public interest impacts, e.g., the effects of transparent price formation and real time data reporting on food and energy security.⁶

In addition to revising MiFID implementing legislation and regulation, the commission should provide for the Parliament and Council the estimated budget and staffing levels required to implement and enforce the revised financial markets directives. We believe that these estimates will help foster the upward regulatory harmonization between EU member state chartered markets and the provisions applying to Foreign Boards of Trade in the U.S. financial reform bill, Dodd-Frank (Section 737). If the European Securities Market Authority (ESMA) is funded and staffed inadequately to perform a coordinating role among the Member State authorities charged with the data surveillance and enforcement of the revised financial market directives, the likelihood of excessive speculation will increase proportionately with the lack of effective supervision.

We join those who fear that a combination of reduced supervision resources, increased trade volume, High Frequency Trading, and broad regulatory exemptions and waivers will favor the fortunes of financial institutions deemed to be “systemically important” (“systemic internalizers” if we correctly understand the consultation document’s terminology) but expose the rest of the financial system and the broader economy to unconscionable risk.⁷ We fervently hope that the commission and the Member State authorities will resist the temptation to “protect” the national offices of transnational financial service firms by not providing sufficient resources to enforce regulations.

The consultation document does not request comment on whether a commodity regulatory authority separate from ESMA is needed to oversee implementation and enforcement of the provisions of MiFID and related directives pertaining

to commodity derivatives. Nevertheless, we take this opportunity to request that the commission hold a public hearing on issues raised by the French government demarche of August 27, 2010, concerning the need for such a separate authority.⁸

IATP believes that the relation of physical commodities to commodity derivatives is materially different from that of financial assets and their derivatives, and poses different regulatory challenges that demand specialized regulatory expertise. For example, understanding how revisions to the Common Agricultural Policy will affect both market dynamics and valuations of inputs costs, land valuations, rural credit policies and other production factors is crucial to understanding what part of price formation may be attributed to market fundamentals versus the portion that may be ascribed to excessive speculation by financial entities. Fulfilling the public interest purposes of commodity derivatives markets, in the service of commercial hedgers and ensuring fair and transparent price formation, requires a specialized agency. The commission notes, “MiFID is predicated largely on markets in shares” (8). So too is ESMA largely predicated on equity markets, not on the expertise required to regulate commodity markets.

The commission’s request for comment occurs in the midst of grave international concern about the consequences for food security of opaque physical and swaps markets in agricultural commodities. An emergency September 24 intergovernmental meeting hosted by the United Nations Food and Agriculture Organization (FAO) noted “unexpected price hikes and volatility” were “major threats to food security” and agreed that among the root causes of these threats are “lack of reliable and up-to-date information on crop supply and demand and export availability,” “insufficient market transparency,” and the “impact of “financialization” on futures markets.”⁹ Since that meeting, FAO’s Food Price Index has spiked, and with it concern that Net Food Import Developing Countries will not have sufficient hard currency reserves to purchase adequate and timely agricultural imports at affordable prices to help prevent food price riots and attendant political instability, such as in Tunisia last month.

Responses to specific questions in the consultation document

Of the 148 questions in the consultation document, we have selected those questions which we believe affect the trading of commodity derivatives. We hope that the following responses contain opinions and information that market participants may not present to the commission and that will aid the commission in revising the MiFID.

(3) What is your opinion on the definition of an organized trading facility? What should be included and excluded?

We sympathize with the commission's objective of developing a broad definition of "organized trading facility" to prevent the regulatory arbitrage that could ensue, if financial "innovations" and new computer technology applications are employed to circumvent MiFID rules covering exchanges and Multilateral Trading Facilities. The general requirements the commission has outlined for all organized trading facilities seem reasonable. However, the acid test of all rule-making is whether a given rule is enforceable by the competent authority. IATP doubts whether the projected staffing level of ESMA and all other European supervisory authorities (150 total for the three agencies in 2011, doubling by 2015, according to the *Financial Times*¹⁰) would suffice to carry out the surveillance requirement for the proposed inclusion of trades executed by "voice and/or hybrid voice electronic execution" (9). We do not believe that a data stream of trades so executed could be effectively monitored by the projected ESMA staffing. In the United States, retail brokers cannot accept orders placed by voicemail. We fail to understand why institutional investors or broker dealers should be allowed to do so, particularly if such trades remain below the organized trading facility threshold of qualifying as an MTF. However, we are optimistic that greater post-trade transparency will partially compensate for whatever pre-trade transparency is lost if voicemail trading on OTFs is allowed.

IATP is also puzzled by the exclusion of "pure OTC trading" (9) as a bilateral, ad hoc trading practice from the definition of "organized trading facility," if one purpose of the OTF is to avoid regulatory arbitrage. Assuming that a "pure OTC" trade is a bilateral swap that cannot clear because it purportedly cannot be standardized, "pure OTC" trades, if they are not to be banned, should be traded on OTFs with the strong pre-trade and post-trade reporting requirements required of MTFs, and stronger margin requirements than for standardized trades. The general principle for derivatives trading should be that if a trade can clear, it must clear. If a "pure" OTC counterparty is not subject to MiFID because it is excluded from the definition, how would aggregate position limits, contemplated in consultation document questions 145–148, be reported, calculated and enforced? Does the commission believe that rumors about large-scale "pure" bilateral swaps have no influence on price formation in regulated venues?

(8) What is your opinion of the introduction of a requirement that all clearing eligible and sufficiently liquid derivatives should trade exclusively on regulated markets, MTFs, or organized trading facilities, satisfying the conditions above? Please explain the reasons for your views.

The recommendation of the Group of 20 (G-20) that "standardized OTC derivatives move to exchanges or electronic trading platforms" and be cleared on Central Clearing Platforms surely requires that the commission's response to this question be "yes." However, the commission's proposed definition of "organized trade facility," with its inclusion of "voice-activated" trading and exclusion of "pure OTC trades" in the definition of "organized trading facilities," as noted above, opens up a field of questions that need answers in the MiFID revision.

First and most simply, are "pure OTC trades," customized or bespoke derivatives, and if so, what are the characteristics of customization that remove those derivatives from MiFID oversight and from the clearing requirement of the G-20 commitment for 2012? Secondly, if no clearinghouse will accept a customized OTC contract for trading, why should such contracts be admitted into trading at all? OTC traders seek to offset the risks of their purportedly customized contracts with bets in standardized and clearable versions of those contracts. Just four firms (JP Morgan, Goldman Sachs, Bank of America and Morgan Stanley) were counterparties to 96 percent of U.S. OTC derivatives as of December 31, 2009. The EU OTC market is similarly, it not as intensively, concentrated in Credit Suisse, Deutsche Bank, HSBC, Rabobank and UBS.¹¹ How does the continuation of customized OTC contracts that must be offset in the highly concentrated OTC universe serve the purpose of a fair and transparent financial system? Surely, whatever benefits of financial information advantage may accrue to the counterparties' opaque, customized trades are not proportional to the undisclosed risks that are transferred to other traders and to the broader financial system. Although governments have spent trillions of dollars to bail out and back stop firms deemed too big to fail, allowing the risks of "pure OTC trades" to be passed on through standardized versions of these trades can serve only those firms' interests, and not the public interest in fair and transparent financial markets.

(31) What is your opinion about keeping the large in scale waiver thresholds in their current format?

OTC traders take advantage of the financial information that exchange traders provide to price discovery and price formation while providing no information of their own in the same time frame. Preserving the large in scale waiver of up to four days of delay in trade data reporting would maintain the opaque market practices that the G-20 has committed

to making transparent. The consultation document justifies the waiver by noting, “Publishing a large trade immediately could move the market against the person taking the position and make it more costly to execute large orders” (footnote 72). Although this waiver protects institutional investors and senior executives who are looking to buy or sell large positions, IATP’s belief is that commodity market integrity is best served if such large positions are not allowed to accumulate by one entity and its affiliates. We believe that if aggregate position limits are effectively implemented and enforced (see our responses to questions 145–148), positions will not become so large as to justify the triggering of the waiver. Our understanding is that U.S. commodity futures and options data are reported to the CFTC with an average delay of about 15 minutes. If OTC derivatives are allowed an up to four day delay in trade reporting in EU markets, IATP believes that it will be very difficult, if not impossible, for U.S. authorities to make a determination that U.S. and EU commodity market oversight is “equivalent,” as required under Section 737 of Dodd-Frank.

(32) What is your opinion about the suggestions for reducing delays in the publication of trade data? Please explain the reasons for your views.

IATP agrees with the commission’s proposals for “real time publication.” We believe that the commission’s proposals for “the deferred publication regime of large transactions” would represent an improvement over the current delays in large transaction trading. We are concerned, however, that these proposals still may not meet the regulatory harmonization requirements of Dodd-Frank for commodity derivatives.

(63) What is your opinion about requiring organized commodity trading venues to design contracts in such a way that ensures convergence between futures and spot prices? What is your opinion about other possible requirements for such venues, including introducing limits to how much prices can vary in a given time frame? Please explain the reasons for your views.

IATP has no expertise in contract design and so cannot offer a technical comment. However to judge by the recent U.S. regulatory discussion of contract design in wheat, it appears to be difficult to ensure convergence through contract design alone. In the August 2010 and October 2009 meetings of the CFTC’s Agricultural Markets Advisory Committee (AMAC), representatives of the Chicago Mercantile Exchange (CME) offered their views on how to repair the failure of wheat market price convergence through contract redesign.¹² At the October meeting, adjusting delivery points and warehousing receipt rates were among the contract design elements that the CME would incorporate in its new wheat contracts. However, after

a lengthy CME technical presentation, a very brave baking industry lobbyist commented that excessive speculation by swaps dealers, and not contract design flaws, was the major factor driving the failure of futures and spot prices to converge. The CME opposes hard position limits to prevent excessive speculation, preferring instead exchange-enforced “position accountability.”¹³ It does not believe that there was excessive speculation in 2008 contracts and that the failure for wheat futures and cash prices to converge was a contract design problem that can be remedied. At the August 2010 AMAC meeting to discuss, among other things, the new CME wheat contract, CFTC Chairman Gary Gensler asked when the wheat contract redesign would be ready for comment. By October or November was the answer. On the basis of a quick check of the CME website, we could not find a press release about the forthcoming contract. Whatever contract design emerges, we do not believe that a redesigned contract alone will enable price convergence if liquidity far in excess of commercial hedger and clearing requirements is driving prices.

Exchange or MTF “circuit breakers” to counter extreme price volatility are necessary, but they are second-best options that may be applied for a day or two if the markets are shocked by force majeure incidents, such as armed conflict or extreme weather events. But “circuit breakers,” no matter how well designed or enforced, are no remedy for the longer term and structural price volatility of excessive speculation.

(70) What is your opinion on the extension of the transaction reporting regime to transactions in all commodity derivatives? Please explain the reasons for your views.

IATP believes that the commission’s reasons for this extension are sound, both for reasons of regulatory coherence with the revised Market Abuse Directive and because of the potential for commodity derivatives cross-market manipulation with physical commodities. Because major swaps dealers are allowed to own physical commodities, particularly in oil, natural gas and precious metals, the potential for derivatives price movements resulting from their physical stocks trading exists even without manipulative intent. Transaction reporting for all commodity derivatives in as close to real time as is technically possible is a necessary first step for regulator surveillance to ensure fair and orderly markets.

(138) In your opinion, is it necessary to introduce a third country regime in MiFID based on a principle of exemptive relief for equivalence jurisdictions? What is your opinion on the suggested equivalence mechanism?

(139) *In your opinion, which conditions and parameters in terms of applicable regulation and enforcement in a third country should inform the assessment of equivalence. Please be specific.*

(140) *What is your opinion concerning the access to investment firms and market operators only for non-retail business?*

Since third-country firm access to EU markets is at the discretion of the Member States, IATP agrees that an equivalence provision should be included in MiFID. The commission proposes that "strict equivalence regimes" be modified through a "principle of exemptive relief" whose characteristics remain to be defined by commission implementing regulations. IATP is unfamiliar with how this principle operates in EU law and regulation, but it appears to give the commission considerable discretion to negotiate Memoranda of Understanding (MoU) with third countries.

Most equivalence agreements involve document reviews and on-site audits, particularly to determine the implementation and enforcement capacities of competent authorities. As part of the document review, the commission should review its commitments and third-party commitments in the World Trade Organization General Agreement on Trade in Services and the 1997 Understanding on Financial Services. Furthermore, the commission should consider how, proposed in the GATS Working Party on Domestic Regulation, disciplines on governments to regulate will affect both parties of any MoU in financial services, particularly where commitments have been made in commodity derivatives and physical markets. The proposed revisions to the commission's financial services directives require a thorough analysis of EU Member States GATS commitments as well as of prospective third country parties to MoUs.¹⁴

IATP believes that on-site audits should include at least one annual unannounced audit, as well an audit with agreed terms of reference with third countries' competent authorities. IATP does not believe that MoU's should be negotiated with industry associations having self-regulatory powers granted by competent authorities, since enforcement must remain a prerogative of the competent authority with whom the MoU is negotiated.

IATP agrees that any equivalence MoU's negotiated should concern only non-retail business. We do not believe it would be possible for ESMA to monitor third country retail transactions in Member States markets, particularly in commodity derivatives.

(145) *If regulators are given harmonized and effective powers to intervene during the life of any derivative contract in the MiFID framework directive, do you consider that they could be given the power to adopt hard position limits for some or all types of derivatives contracts whether they are traded on exchange or OTC? Please explain the reasons for your views.*

(146) *What is your opinion of using position limits as an efficient tool for some or all types of derivative contracts in view of any or all of the following objectives: (i) to combat market manipulation; (ii) to reduce systemic risk; (iii) to prevent disorderly markets and developments detrimental to investors; (iv) to safeguard the stability and delivery and settlement arrangements of physical commodity markets. Please explain the reasons for your views.*

Apologists for a continuation of light touch regulation claim that there was no excessive speculation by financial institutions in commodity markets in 2007-08. For example, in response to a CFTC hearing on releasing for comment a draft position limit rule, Michael Cosgrove, managing director of GFT Groups, a large commodity trading firm, recently stated, "Position limits are a dangerous cure for an imagined disease which even the proponents admit has never been diagnosed or detected."¹⁵ Cosgrove's "imagined disease" is excessive speculation in U.S. commodity markets, i.e., the exceeding of the liquidity levels required to fulfill the transparent price discovery and orderly market requirements of the Commodity Exchange Act for specific commodity contracts. Contrary to Cosgrove's characterization of the proponents of position limits, excessive speculation has been detected, despite the regulatory exemptions and waivers that limited and distorted both the type and scope of trading data that regulatory economists could analyze. Because at least one commission communication¹⁶ presents a more technocratic version of Cosgrove's allegation, IATP would like to explain first and briefly why the "conclusive evidence" of excessive speculation demanded by the commission communication is not available. Then we review some of the strong circumstantial evidence for the extent of excessive speculation. Finally we review the use of position limits in terms of the commission identified objectives.

During the Bush administration, exchanges failed to enforce "position accountability" rules, the weak form of position limits.¹⁷ Furthermore, swaps dealers were exempted from position limits. As a result, for example, commercial hedgers were able to control just 11 million bushels of March 2008 Chicago Board of Trade corn (maize) contracts, while those trading in the exempted OTC commodity index funds of Goldman Sachs and Morgan Stanley indices controlled about 1.5 billion bushels of the March 2008 corn contracts.¹⁸ OTC

energy traders, under the notorious Enron and Dubai loopholes, were not required by the Bush administration to report trades at all. Oil contract–dominant index funds drove prices in physical markets.¹⁹ Oil contracts made up to 70 percent of the price influential Standard and Poors/Goldman Sachs Commodity Index in 2008 and averaged a 40 percent weight from 2007 to 2010.²⁰ Agricultural contracts in this energy-dominant index swung up and down as index investors rolled in and out of contracts until commodity prices began their historical collapse in July 2008.²¹

In the absence of standardized OTC energy trade data, comparable to the data that exchanges must report daily, analysts have sought to explain the speculative factor of price volatility in correlative terms of the composition of trading positions, the huge increase in OTC commodity trading, and the lack of proportionate supply and demand factors to account for trends in market price volatility. According to an analysis by Michael Masters and Adam White of CFTC Commitment of Traders reports and other data, from 1998 to 2008, “Physical Hedger positions have risen 90%. During this same time, Speculator positions have grown by more than 1300%.”²² This analysis underestimates the disparity between physical hedgers and speculators because, as Masters and White state in a footnote, “Any Traditional Speculators [as opposed to Index Speculators] using the swaps loopholes show up here as Physical Hedgers.”²³

To illustrate the commodity-specific effect of this broad change in trader composition, in 1998, physical hedgers held about two-thirds of wheat contracts bet to increase in price (long open interest): by 2008, they controlled only about 16 percent, with commodity index speculators controlling about two-thirds.²⁴ Commodity index funds ballooned from \$20 billion in 2002 to \$250 billion in 2008.²⁵ Index fund speculator “weight of money” adds liquidity to the market. However, excess liquidity, whether invested in equity or commodity instruments, can swamp a market, rather than provide the means for executing and clearing trades.²⁶ Whether index funds or notes are traded OTC or on exchanges, their excess liquidity distorts commodity prices for the bona fide physical hedgers who, unlike index speculators, actively manage their contracts with respect to market fundamentals and their commodity uses.

Agricultural economists, accustomed to working with standardized exchange reported data, could not “detect,” in Cosgrove’s words, the excessive speculation that could be readily observed in the huge long bet composition of agricultural and non-agricultural contracts summarized above. For example, Irwin and Sanders’ detection of “no excessive speculation” in a study for the Organization for Economic

Cooperation and Development (OECD) was predicated on both empirical and methodological errors for which they were cogently criticized in a Better Markets Inc. review.²⁷

Positions limits are “dangerous” for traders such as Cosgrove only in the sense that if they are based on reliable trading data and are effectively enforced, position limits restrain the ability of his firm and its investors to profit from the “weight of money” effect that occurs when there are no limits or when swaps dealers are exempted from position limits. Position limits based on uniformly coded and daily reported data and applied indiscriminately to all traders ensures as fair and transparent a market as is humanly and technically possible. Position limits are a precautionary measure against the disruption of price discovery function of the underlying assets. Once aggregate position limits are set for commodity derivatives traded in EU member state markets, the surveillance of exchange and OTC data by adequately resourced commission and competent national authorities should be able to detect excessive speculation and take measures to reduce it without having to demonstrate the intentionality of market manipulation. Position limits are not a panacea against extreme price changes that result from investor decisions based on fundamental factors. But if enforced, position limits should aid commodity producers and users to hedge commercial risk, and in so doing enable commodity processors to control costs and plan investments with more reliable calculations of costs and rates of return on investments.

The discussion of reduction of systemic risk usually concerns the defaulting of so-called too-big-to-fail financial institutions, who, not coincidentally, are also major swaps dealers. Derivative end-user opponents of position limits and other regulations of OTC swaps argue that even if they were to default, the size of those defaults would not pose a systemic risk.²⁸ While this argument is likely true, it is irrelevant to the systemic risks faced by derivatives end users, who are hedging commercial risks in commodities. When everyone from Cargill to the local grain elevators stops forward contracting, and farmers without financial reserves face cash-flow crises because nobody can tell them why wheat and corn futures prices are so volatile, as happened in the United States in 2008—that too is a systemic risk. When futures prices no longer serve as a reliable benchmark for forward contracting prices, rural banks stop lending to grain elevators. Representative Colin Peterson, then Chairman of the House of Representatives agricultural committee, recognized this risk to agricultural production and its financial system. In April 2008 he began to hold the hearings that eventually resulted in the House passage in September 2008 of the “Commodity Markets Transparency and

Accountability Act of 2008 (H.R. 6604) by a not-quite Presidential veto—proof 283-133 vote.²⁹ The bill became the foundation for key sections of the Dodd-Frank.

(148) How could the above position limits be applied by regulators: a) To certain categories of market participants (e.g. some or all types of financial participants or investment vehicles?); (b) To some types of activities (e.g., hedging vs. non-hedging)?; (c) To the aggregate open interest/notional amount of a market?

Although EU commodity markets differ from U.S. markets in the kinds of commodities and the volume and value of open interest in those commodities, IATP nevertheless hopes that the commission will continue to study closely how the CFTC is developing its aggregate position rule, as well as how it applies the rule. The CFTC, in releasing its draft proposed rule on position limits³⁰, states that Dodd-Frank “requires aggregate position limits for swaps that are economically equivalent to DCM [Derivatives Clearing Mechanism] futures and options contracts with CFTC-set position limits.”³¹ The agency acknowledges that due to a lack of OTC derivatives data, the initial phase of spot-month position limits will be expressed in formulas based on existing DCM futures and options contract exchange data. Only in a subsequent rule-making phase, after CFTC-authorized Swaps Execution Facilities report trading data on a daily basis and with the same degree of disaggregation as exchange trading data, will it be possible to compile and evaluate data to set aggregate position limits for specific commodities based on open interest outside the spot months. These limits will be revised periodically in response to the liquidity needs of bona fide hedgers hedging commercial, and not all financial, risk, as proposed by the International Swaps and Derivatives Association (ISDA).³² ISDA is rightly concerned that however the commission defines, develops and applies position limits, it bear in mind the Section 737 Dodd-Frank requirement that Foreign Boards of Trade be able to demonstrate a comparable regulatory system with comparable enforcement mechanisms, in order to access U.S. markets.

Conclusion

IATP would like to thank the commission for this opportunity to comment on a wide-ranging and very challenging consultation paper. We would be pleased to respond to any questions that commission staff may have about these comments. We look forward to participating in future commission hearings about the revision of commodity market directives and their implementing legislation and regulation.

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Comment on CFTC Proposed Rule for Agricultural Swaps

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About the organization

IATP works locally and globally at the intersection of policy and practice to ensure fair and sustainable food, farm and trade systems.

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The Institute for Agriculture and Trade Policy (IATP) is a nonprofit, 501.c3 nongovernmental organization, headquartered in Minneapolis, Minnesota with offices in Washington, D.C. and Geneva, Switzerland. Our mission states, "The Institute for Agriculture and Trade Policy works locally and globally at the intersection of policy and practice to ensure fair and sustainable food, farm and trade systems." To carry out this mission, as regards commodity market regulation, IATP has participated in the Commodity Markets Oversight Coalition (CMOC) since May 2009, and in international regulatory meetings, most recently, the European Commission's (EC) public hearing on commodity derivatives on September 21 in Brussels. We have submitted comments on CFTC rule-making, most recently on March 10, and on the EC's DG Internal Markets draft directive consultation papers.

IATP is grateful for the CFTC's transparent and ambitious rulemaking process to implement Title VII of the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank). We are aware of the financial service industry pressure that the Commissioners and staff are under to exempt their firms from Dodd-Frank requirements.¹ However, the CFTC's impartial and full implementation will benefit all stakeholders in commodity markets. The following response to the ANPRM comprises a general comment on agriculture and over-the-counter (OTC) trading practices and data reporting, followed by responses to some of the 27 questions posed by CFTC staff.

General comment

The CFTC requests comment on factors concerning the development of a rule on agricultural swaps, i.e., as a non-technical definition, the off-exchange (OTC) trading of agricultural futures and options financial flows without the prospect or costs of the physical delivery of a commodity. This request for comment occurs in the midst of grave international concern about the consequences for food security of opaque physical and futures markets in agricultural commodities. An emergency September 24 intergovernmental meeting hosted by the United Nations Food and Agriculture Organization (FAO) noted "unexpected price hikes and volatility" were "major threats to food security" and agreed that among the root causes of these threats are "lack of reliable and up to date information on crop supply and demand and export availability," "insufficient market transparency," and the "impact of "financialization" on futures markets."²

The CFTC does not have regulatory authority over physical markets and supply and demand information about them. Nevertheless, the agency should consult with the U.S. Department of Agriculture, which has such authority, and the Department of Justice about whether off-exchange trading of agricultural futures and options contracts may increase the likelihood of cross-market manipulation between futures and physical markets and other violations of U.S. law. (The French government, following its studies of extreme price volatility in the oil and wheat markets likely resulting from cross-market manipulation, proposed on August 27 that the European Commission draft new legislation to create a European commodity regulatory

authority.³) Even if markets are not manipulated in the legal sense of the term, extreme price volatility resulting from speculative trades based on unanticipated outlook reports in physical stocks, such as the Russian and Ukrainian wheat shortage and the recent USDA outlook for corn, should be a matter of interagency concern for reasons of market integrity and of food security.

Commodity traders are extending their market reach beyond serving as intermediaries between producers and buyers, to control most segments of global and national farm to fork supply chains.⁴ The longer and more complex these supply chains become, the greater will be the temptation for firms to manage their financial risks, as well as their commercial risks in physical hedging, through off-exchange futures and options trading. Swaps dealers have sought to maintain their trading information advantage in opaque markets by claiming that they too merit the status of physical hedgers seeking to manage “commercial risk” in bilateral swaps with non-financial firms. To implement the Congressional intent of Dodd-Frank, the CFTC must ensure that the bill’s very narrow end-user exemption for commodity swaps pertains only to bona fide physical hedging of commercial risk for commodity producers, distributors and end-users and not to all financial risk, as proposed in the International Swaps and Derivatives Association definition of “commercial risk.”⁵

The Bush administration CFTC staff decision to interpret the Commodity Futures Modernization Act of 2000 (CFMA) as allowing swaps dealers to trade agricultural (and other commodity) futures and options contracts without position limits and without regard to the physical delivery of a commodity greatly changed the structure of who traded, why, and with what effect on price discovery and risk-management capacity for physical hedgers. According to an analysis by Michael Masters and Adam White of CFTC Commitment of Traders reports and other data, from 1998 to 2008, “Physical Hedger positions have risen 90%. During this same time, Speculator positions have grown by more than 1300%.”⁶ This analysis underestimates the disparity between physical hedgers and speculators because, as Masters and White state in a footnote, “Any Traditional Speculators using the swaps loopholes show up here as Physical Hedgers.”⁷

While the Master and White analysis of long passive investment composition also includes oil, gas, gold and silver swap trades, the portion of agricultural open interest traded by physical hedgers vs. index and traditional speculators likewise shows a huge shift in the composition of traders towards speculation during the ten-year period. For example, in 1998, physical hedgers held about two-thirds of wheat contracts

bet to increase in price (long open interest): by 2008, they controlled only about 16 percent, with commodity index speculators controlling about two-thirds. Index fund speculator “weight of money” adds liquidity to the market. However, excess liquidity, whether invested in equity or commodity instruments, can swamp a market, rather than provide the means for executing and clearing trades.⁸ Whether index funds or notes are traded OTC or on exchanges, their excess liquidity distorts commodity prices for the bona fide physical hedgers who, unlike index speculators, actively manage their contracts with respect to market fundamentals and their commodity uses.

When deciding whether and how to propose a rule for agricultural swaps, the CFTC’s protection of the public interest in market integrity (Commodity Exchange Act, Sec. 3) requires that the price discovery needs and trading practices of bona fide physical hedgers take regulatory priority over other investors in commodity markets. But enabling the continuation of agricultural swaps trading faces a difficult challenge. Any such rule will have to be designed so that swaps enable significant price discovery for physical hedgers and do not induce speculator driven price volatility, whether through OTC “weight of money” or information advantage with respect to exchange traders.

In August 5, 2009 testimony to the CFTC, former CFTC Commissioner and Department of Justice prosecutor Michael Greenberger said that agricultural swaps are per se violations of the CFMA.⁹ The ANPRM notes that “There is limited legislative history regarding the CFMA to explain Congress’ intent in excluding “agricultural commodities” from the Sec. 2 (g) swaps exemption.” Commissioner Greenberger’s interpretation of the agricultural commodities exclusion awaits a plaintiff with little fear of commercial retaliation to test whether the Bush administration CFTC carried out the will of Congress in the CFMA exclusion of agricultural commodities from the swaps exemption. Commissioner Greenberger’s interpretation is not probative, and Dodd-Frank’s grant of authority to the CFTC gives the agency discretion about whether or not to write a rule to permit the continued trading of agricultural swaps. Nevertheless, his interpretation is sufficiently authoritative to serve as a cautionary guidepost as the agency deliberates whether agricultural swaps trading complies with the CFMA and serves the Commodity Exchange Act’s significant price discovery parameters for agricultural commodity hedgers.

Comments in response to some questions posed by the ANPRM

1. How big is the current agricultural swaps business [...]? As indicated in the 2008 Masters-White analysis of long open interest composition, cited above, index and traditional speculators predominate over physical hedger contracts in all agricultural commodities listed. Sometimes, the predominance is overwhelming, e.g., index investors holding 61 percent of live cattle contracts bet long. In 2008, most index speculation was done OTC, although since the bursting of the commodities bubble more long passive investment has moved to Exchange Traded Funds and Notes, about which IATP is likewise concerned, despite the greater transparency of exchange trade data reporting. ETF passive “weight of money” can distort price discovery even if trade data transparency has improved over the inconsistent, incomplete and delayed reporting of OTC swaps. Goldman Sachs, one of the five largest swaps dealers, advised a tactical retreat in 2010 from investing through index funds. However, the firm remains bullish on commodities, albeit more in energy commodities, in which it also is allowed to own physical stocks.²⁰ IATP has not been able to analyze the supplementary Commitment of Traders reports to determine the size of the agricultural swaps market, but on the basis of anecdotal evidence believes it to be large, although smaller than in most commodities in 2010. For this reason, IATP has not answered those questions that request a quantified response.

7. What would be the practical and economic effect of a rule requiring agricultural swaps transactions (other than those eligible for the commercial end-user exemption) generally to be cleared? The CFTC requests responses to this question from swaps dealers and swaps participants. IATP is neither, yet there is a public interest in mandatory clearing that should be expressed. The failure to clear trades, combined with Securities Exchange Commission capital reserve waivers for a half dozen highly favored banks that were also the major swaps dealers,²¹ exposed the entire financial system to gargantuan and grotesque levels of counterparty credit risk. Clearing manages counterparty credit over time by requiring sufficient collateralization to protect counterparties from defaulting on the swap. Whether or not the CFTC and SEC curtail High Frequency Trading in the wake of the May 6th “flash crash,” the myriad trading of contracts is sufficient reason, if any more were required, to extend mandatory clearing as broadly as permitted under Dodd-Frank. Agricultural swaps are a minor part of the half percent of commodity based swaps in the \$600 trillion notional value swaps universe, according to December 2009 Bank of International Settlements reporting. Nevertheless, for agricultural swaps participants trying to manage risks in the midst of growing climate change induced volatility, mandatory clearing is essential. At the September

21 EC public hearing on commodity derivatives, IATP learned that some producer cooperatives were considering participation in the agricultural swaps market as a way to hedge against below cost of production prices for agricultural raw materials. We would hope that the higher collateralization and business conduct standards of mandatory clearing would help discourage producers from participating directly in agricultural swaps or indirectly through Commodity Pool Operators. (These last two sentences are also in response to CFTC question 13.) Although mandatory clearing of agricultural swaps would likely shrink market liquidity, we believe that the excess liquidity thus drained would clarify and enhance significant price discovery for physical hedgers.

9. Have current agricultural swaps/ATO participants experienced any significant trading problems, including: (a) economic problems [...]? IATP does not have direct knowledge of economic problems experienced by swaps participants but we do have anecdotal knowledge about the effect of a swaps dominated market on producers and distributors. In May 2008, Tom Buis, then president of the National Farmers Union and William Dunevant, then president of one of the three largest cotton traders, told the House of Representatives Committee on Agriculture that, as Dunevant phrased it, “Futures markets are broken for agriculture.” Futures prices and cash market prices were not converging at the expiration of a contract, as they usually do in orderly and regulated markets. The lack of convergence meant that futures prices could not serve as reliable benchmarks for forward contract prices, and as a result firms as small as country elevators and as large as Cargill stopped forward contracting, and a cash-management crisis loomed for many farmers and ranchers who relied on forward contracting. One final anecdote: at the October 29, 2009 meeting of the Agricultural Markets Advisory Committee (AMAC) one agenda item was how to explain poor futures and cash price convergence in wheat contracts. A representative of the Chicago Mercantile Exchange mooted various possible factors in poor wheat contract design, such as variable storage rates and delivery points, which would explain poor convergence. But a lobbyist for the American Baking Association intervened to ask, in effect: Why do we devote so much AMAC discussion to contract design when the failure of exchange and swap dealer self-regulation, particularly in CFMA “position accountability,” sent torrents of liquidity into the market that made price convergence impossible? However relevant CME or any exchange contract design may be to improving convergence, the contract design focus of the AMAC price convergence discussion in August 2010 indicates that there is still denial among some market participants to that futures markets were broken for agriculture in 2008 and may be broken again if passive investors return to dominate agricultural markets. A 2010 Organization for Economic Cooperation study purporting to show that neither swaps dealers nor index funds drove agricultural price volatility

in 2008 is another symptom of this denial. The OECD study was eviscerated by a Better Markets Inc. review that IATP encourages all CFTC commissioners and staff to read.¹²

20. Should agricultural swaps be permitted to trade outside of a DCM [Derivatives Clearing Mechanism] or SEF [Swaps Execution Facility] to the same extent as all other swaps? No, they should not be permitted to trade to the same extent, given the economic structure of the underlying assets of agricultural derivatives.

22. If not, what other requirements, limitations or conditions should apply? As the cash prices of agricultural commodities become more volatile, due to climate change related supply factor variability, IATP believes that producers may be tempted to manage their price risks through agricultural swaps to avoid the higher transaction costs of exchange trading and to benefit by the information advantage of residual opacity in swaps data reporting. Particularly as direct agricultural subsidies could be eliminated in the 2012 Farm Bill and the EC's 2013 Common Agricultural Plan, the search for farm and ranch level income assurance may drive more producers to rely in part on swaps trading. Given the volatility of projected and actual supply and demand information of the underlying assets of agricultural commodities, we believe that most retail investors will hedge unsuccessfully through agricultural swaps. Therefore, in principle, we oppose a CFTC rule to allow retail investment in agricultural swaps. IATP believes that if agricultural swaps are to be traded by institutional investors, they should be centrally cleared, both for reducing counterparty credit risk to the financial system and for increasing the efficiency of CFTC monitoring and enforcement at a time when federal regulatory budgets will be tightly constrained, both for reasons of real budgetary competition and by those who seek to undermine CFTC's regulatory effectiveness in implementing Dodd-Frank. A higher collateral and capital requirement should be applied to any bilateral swaps a CFTC rule would allow.

24. In general, should agricultural swaps be treated like all other physical commodity swaps under Dodd-Frank? To reiterate, IATP believes that agriculture swaps do not serve the price discovery and risk management needs of agricultural commodity hedgers and opposes in principle a rule to allow retail agricultural swap investment. IATP believes that each category of commodity swaps poses specific regulatory challenges because of the economic and environmental characteristics of the underlying asset of the swap. The economic fundamentals of agriculture will be more vulnerable than any other asset category to the short term effects of weather and the longer term effects of climate change. This vulnerability

will persist not only in terms of supply and demand and price volatility in U.S. regulated markets, but in the exposure of retail and institutional investors to agricultural swaps, either through indexed investments or non-indexed trading, putatively to diversify financial risk exposure in other asset classes. IATP believes that because of the underlying vulnerabilities of agricultural assets, the collateral, capital reserve, business conduct and other requirements of clearing organizations should be higher and more stringent for agricultural swaps than for other physical commodity swaps. We hope to see the day when leverage for agricultural commodity swaps will be deemed a bad credit risk, but that assumes that there will be fundamental reform of the credit rating agencies, which is beyond the CFTC's regulatory remit. Finally, we believe that the public interest requirement of the CEA as regards agricultural commodities trading includes the maintenance of orderly markets in the service of food security. As the aforementioned FAO report suggests, continued financialization of agricultural commodity markets, particularly through increasing trade in agricultural swaps, is inimical to fulfilling that public interest objective.

IATP wishes to conclude by thanking the CFTC Commissioners and staff for their energetic and dedicated public service in implementing Title VII of Dodd-Frank. We look forward to submitting future comment as IATP and jointly with the CMOC to assist the CFTC in this endeavor

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2. "Final Report," Extraordinary Joint Intersessional Meeting of the Intergovernmental Group on Grains and the Intergovernmental Group on Rice, Committee on Commodity Problems, United Nations Food and Agriculture Organization, September 24, 2010 (CCP:GR-RI 2010/2), paragraph 2.
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Testimony of Michael Greenberger before the CFTC

Michael Greenberger, on behalf of Americans for Financial Reform

About the author

Michael Greenberger is a law professor University of Maryland School of Law.

About the Sponsor Organization

Americans for Financial Reform is a coalition of nearly 200 national, state and local consumer, employee, investor, community and civil rights organizations who seek meaningful reform of our banking system and financial markets.

This excerpt is taken from the testimony of Michael Greenberger on behalf of Americans for Financial Reform before the Commodity Futures Trading Commission on Excessive Speculation: Position Limits and Exemptions on August 5, 2009.

Originally featured on www.michaelgreenberger.com.

Excessive Speculation Has Caused Price Volatility and Otherwise Wreaked Havoc on Food and Energy Prices. Based on the PSI's *Wheat Report* and the great weight of accumulated Congressional¹, physical hedgers', consumer, and academic concerns expressed on a worldwide basis about excessive speculation, there can be no reasonable doubt about three salient facts:

(1) the physical derivatives markets are now very likely overrun by speculation (i.e., bets about the direction of those markets unmoored from market fundamentals) that far exceeds liquidity needs;

(2) that, as a result, physical futures markets have become so unstable and volatile that physical hedgers are rapidly abandoning the hedging function of exchange traded derivatives, thereby often leaving themselves and their consumers to the mercy of unpredictable and volatile prices; and

(3) that, as result of the prior two factors, prices for Americans' (and indeed, especially in the case of food, the world's) basic necessities have been subject to crippling and unpredictable volatility which has a bias toward establishing on a repeated and ever increasing basis world record high prices for food staples, oil, gasoline, heating oil and natural gas.

Indeed, Congress has been so concerned about these kinds of dysfunctions in the natural gas and crude oil futures markets, it required the Federal Energy Regulatory Commission (in 2005) and the Federal Trade Commission (in 2007), respectively, to share jurisdiction with the Commission in oversight of these derivative markets to investigate Congressional concerns that the spot prices for natural gas and energy are being adversely affected by excessive speculation in natural gas and crude oil derivatives markets.²

The Commission Must Assert Position Limit Authority for All Physical Futures Markets within Its Jurisdiction. Given the powerful nature of the position limit tool provided to the Commission by Congress to prevent excessive speculation in physical futures markets, the time has come for the Commission to take back from the exchanges their authority to set position limits on non-agricultural physical futures trading. Moreover, the Commission must carefully weigh the effectiveness of the existing position limits for those agricultural products the Commission itself now sets. Also, in determining whether to deploy as its own those spot month position limits presently set by the exchanges, the Commission must carefully examine the effectiveness of those limits as now set. As these hearings have already demonstrated, the Commission clearly has existing legislative authority to take all of these actions.

As I understand it, the CME has now acknowledged the need for hard position limits for "single months" and "all months" combined. We applaud that action; but for *now all three types of "hard" limits must be set by the Commission itself.*

Exemptions from Position Limits Should Not Be Granted to Hedge Financial Risk. Both the Chairman, in his opening statement, and the PSI *Wheat Report* have identified the question whether the statutory definition of “bona fide hedging transaction” (i.e., a transaction not subject to position limits) should include the hedging of financial risk, e.g., index commodity swap traders offsetting their exposure to their swaps customer by buying corresponding physical futures contracts on a regulated exchange.)

For purposes of wheat futures, the PSI Wheat Report recommends the phasing out of hedge exemptions of this nature for commodity index traders. Again, it must be remembered that only 5.2% of the Goldman Sachs Commodity Index, for example, is composed of Chicago wheat. The other 94.8% of the physical commodities referenced within that index similarly require hedging by commodity index traders in the corresponding agricultural, crude oil, and natural gas futures contracts. The Wheat Report’s findings on commodity index trading on wheat prices corroborates the abundance of information described above that price spikes in other physical commodities trace their origins to commodity index hedge exemptions from position limits on all exchange traded futures markets that correspond to the commodity index product makeup.

Until the Commission is convinced that these physical futures markets have returned on a stable basis to economic fundamentals, it should not exercise its discretion to grant any hedge exemptions to hedge financial risk and it should phase out all existing exemptions of this nature. Again, as mentioned above, Congress has not mandated that those hedging financial risk be deemed “bona fide hedgers.” By a 1987 interpretation only (and not even by a substantive rule), the Commission has afforded itself the discretion (not the obligation) to grant such exemptions. It must exercise that discretion with great prudence.

It should be noted that experience may very well demonstrate that the elimination of hedge exemptions to offset financial risk may, in and of itself, cure problems with the setting of position limits. For example, the PSI Wheat Report first recommended the abolition and phasing out of troublesome speculative hedge exemptions and then only, secondarily, suggested that consideration be given by the Commission to lowering the spot month limit for Chicago wheat from 6500 contracts to 5000 contracts where it had previously been.³ This suggestion implicitly recognizes that the problem may not be with the setting of spot month position limits, but with the unwise granting of hedge exemptions for financial risk management from those limits.

The Methodology for Establishing CFTC Established Position Limits. In terms of the Commission methodology for establishing position limits, the first proposition must be that the Commission itself—not the Commission staff or the exchanges—should be the final decision maker about those limits. We understand that there may be a fine line between encouraging enough speculation to accommodate liquidity, but not allowing so much that speculation is excessive. However, the Commission has the experience of setting those limits for agricultural products. It has regulations that broadly govern and direct the methodology for position limit establishment.⁴ We agree with those who have recommended that physical hedgers be very actively involved in that process. Indeed, we recommend that meetings equivalent to these very hearings be established to allow a broad array of participants to offer on a transparent basis technical guidance to the Commission about the establishment of these controls.

However, action of this nature must be done expeditiously with the recognition that the Commission has authority to fine tune limits it initially sets as experience dictates. The Commission may also want to prioritize its actions to address first those physical markets about which it has particular concern. It should also consider using emergency agency decision making authorities afforded by the Administrative Procedures Act or, where appropriate, the express emergency authority within § 8a (9) of the CEA to expedite its processes. The latter provision expressly authorizes on an immediate basis both the establishment of temporary emergency margining and/or position limits if the Commission finds that there is a “major market disturbance which prevents the market from accurately reflecting the forces of supply and demand for such commodity.”

The CFTC Should Press for Legislation to Set Aggregate Position Limits. Originally proposed by Chairman Joseph Lieberman and Ranking Member Susan Collins of the Senate-Homeland Security and Government Affairs Committee, the Senate Democratic Leadership in the last Congress sponsored and brought to the Senate floor on July 25, 2008, S. 3268, which required that position limits be set in the aggregate upon traders in energy derivatives markets, rather than on an exchange-by-exchange basis. Fifty of 93 senators present at that time voted in favor of S. 3268, but the bill’s supporters were not able to invoke cloture by gaining the support of the additional Senators necessary to close off debate.⁵ As these hearings have suggested, there continues to be strong support for aggregate limits of this kind.

Aggregate position limits mean that the corporate control entity under which physical futures trading is done would be assigned limits on futures trading for the entire entity for each physical derivatives market. Those limits could be expended by traders in the control entity in any manner which they see fit whether it be in regulated or unregulated futures exchanges; on the unregulated over-the-counter markets; or any combination among those markets. Once the trading entity's limits were hit, however, all traders within the entity would be barred from further trading in any of these derivatives venues. Under S. 3268, exemptions from aggregate limits were strictly tied to commercial (not financial) risk hedging.

By setting aggregate position limits on the trader's control entity wherever its affiliates trade, rather than establish limits within each exchange over which the CFTC has jurisdiction, the aggregate controls apply whether or not the trading venue is regulated. In other words, by applying overarching limits to the derivatives trader's control entity wherever trading is conducted, rather than establishing limits for trading on each regulated venue, the aggregate position limits make the regulatory nature of the trading venue irrelevant.

The question has been raised at these hearings whether aggregate position limits can be established by the Commission under existing law. While not a model of clarity, §4a(c) appears to be tied to trading done on markets over which the CFTC has jurisdiction. It may be that there could be aggregate position limits among those markets over which the CFTC now has jurisdiction; but not OTC markets. Accordingly, legislative authority should be sought as a high priority to allow the CFTC to utilize overarching limits across all markets by all trading done within a control entity whether the trading venue is directly regulated or not.

Of course, if, as is the recommendation of the Obama Administration, all standardized derivatives must ultimately be traded on an exchange⁶, much of what is now the OTC physical derivative trading would be subject to CFTC oversight. Accordingly, even without further legislative authority, position limits could then be set for each exchange, and in setting those limits, the CFTC could accommodate and control trading patterns across all markets within each venue. Either individual exchange-based position limits could be established consistent with aggregate patterns of trading; or the CFTC might adopt aggregated limits for traders to use among all regulated markets.

If legislation is passed that requires mandatory clearing, rather than mandatory exchange trading, it should be clarified that CFTC position limits would apply to clearing facilities. Indeed, the recent articulation of "Principles for OTC Derivatives Legislation" announced on July 30, 2009 by House Chairmen Barney Frank and Collin Peterson of the Agriculture and Financial Services Committees, respectively, provide that the federal regulator "should have authority to prohibit or regulate transactions that are not traded on exchange or cleared."⁷ This principle therefore includes the authority of the regulator to oversee transactions that are otherwise deemed subject to off exchange or off clearing trading. That power would certainly include the ability to develop aggregate position limits that cover all derivatives markets whether directly regulated or not.

The Commission Has Concluded That the CEA Does Not Authorize Agricultural Swaps in The Absence of A Transparent CFTC Section 4 (c) Exemption. As the *PSI Wheat Report* makes clear about 18% of the Goldman Sachs swaps-based Commodity Index is based on agricultural products. Moreover, the *PSI Wheat Report* notes that not only is trading in existing commodity index funds rising, but that certain traders had advised the subcommittee that "that the OTC market for agricultural swaps has recently begun expanding."⁸

However, the plain language of the CEA, even as amended by the highly deregulatory CFMA, does not permit an OTC agricultural market in the absence of an exemption from the Act's exchange trading. That exemption can only be granted by the CFTC exclusively under §4(c) of the Act. Indeed, the CME has recognized this limitation by seeking a §4(c) exemption to market certain agricultural swaps; and the Commission, in granting that 4(c) exemption, expressly concluded: "A number of exemptions and exclusions for off-exchange derivatives transactions were subsequently added to the Act by the Commodity Futures Modernization Act of 2000, but none apply to agricultural contracts."⁹

In reaching the conclusion that agricultural swaps are not automatically excluded from the exchange trading requirement of the CEA, the Commission cited §§ 2 (d), (g) and (h) of the Act. Section 2 (g) of the Act, which expressly concerns swaps transactions excluded from the Act's exchange trading requirement, expressly states that that section shall apply to any contract "*other than an agricultural commodity*" (emphasis added). Section 2 (h), which concerns "exempt commodities," by that term's definition in § 1a(14) does not include "an . . . agricultural commodity." Section 2 (d) concerns "excluded derivative transactions," other than swaps. The definition of

excluded derivatives transactions in § 1a (13) does not include commodities for which there is a “cash market,” such as agricultural products.¹⁰

Accordingly, swaps indexes or bi-lateral negotiated swaps that relate to agricultural products are, as the Commission concluded, unlawful *unless* the CFTC has authorized them under § 4(c) as being consistent with the purposes of the Act and the public interest. It is our understanding that none of the commodity indexes now marketed have such a § 4(c) exemption.

The CFTC Should Exercise Its Authority to Directly Regulate All Crude Oil Futures Trading on U.S. Terminals. Another of the issues which has arisen in this hearing is whether ICE Futures Europe, which trades on U.S.-based trading terminals a cash settled crude oil WTI futures contract linked to NYMEX WTI contracts, will be subject to new CFTC position limits and hedge exemption policies. NYMEX is a U.S. designated contract market directly regulated by the CFTC. Positions limits affecting NYMEX’s traditional physical futures trading are squarely within the CFTC’s jurisdiction. ICE Futures Europe, however, operates its WTI crude oil derivatives futures contract trading under a 1999 CFTC staff no action letter issued to a predecessor U.K. exchange, the International Petroleum Exchange, which places ICE Futures Europe’s substantial U.S. terminal trading under the direct regulatory supervision of the U.K.’s Financial Services Authority.¹¹

There has been substantial debate within Congress over ICE Futures Europe’s regulatory status as a U.K. regulated company at the same time it offers U.S. citizens trading privileges on U.S. terminals in a futures contract denominated in U.S. dollars and premised on the U.S. benchmark WTI contract. No doubt in response to that Congressional concern, on June 17, 2008, the CFTC staff amended ICE Futures Europe’s no action letter to add four new conditions to maintaining its status as a U.K. regulated entity, including a requirement that ICE Futures Europe adopt the position limits used by its principal U.S. competitor in energy futures trading, NYMEX.¹² Therefore, any CFTC mandated changes in WTI position limits applicable to NYMEX would also indirectly be applicable to ICE Futures Europe.

While the CFTC therefore has an indirect method for establishing its position limit and hedge exemption regime upon ICE Futures Europe, there continues to be considerable discussion about why the CFTC does not simply terminate ICE Futures Europe’s no action letter (as that letter and amendments to it expressly allow), thereby bringing that exchange under CFTC day-to-day supervision for its U.S.-based trading. Subcommittee Chairman Stupak raised this point in this

testimony in these hearings, and he led the legislative fight to include within the Housepassed American Clean Energy and Security Act of 2009 a provision that would require ICE Futures Europe to be regulated directly by the CFTC with regard to WTI crude oil trading on its U.S. terminals.¹³

As hinted at in other testimony in these hearings, some hold the position that, because § 4(a)’s registration requirements do not apply to any exchange “located outside the United States” and § 4(b) does not allow CFTC rules to “govern in any way” foreign exchanges, ICE Futures Europe’s trading of the U.S. benchmark WTI contract on U.S. trading terminals with U.S. servers in U.S. denominated dollars is outside the reach of the CFTC.

Even if this were a correct reading of § 4, the trading on ICE Futures Europe’s U.S.-based terminals can not in any sense be deemed “foreign.” In this regard, ICE Futures Europe is the wholly owned subsidiary of a U.S. holding company, the Intercontinental Exchange (“ICE”), which is a Delaware corporation located in Atlanta, Georgia. ICE operates exempt commercial markets and regulated contract markets in the U.S. ICE Futures Europe has trading terminals in the U.S.; its trading engines are in Chicago, Illinois; and it has traded a considerable portion of U.S. WTI crude oil futures market. Whatever protection section 4 has for exchanges “located outside the United States,” ICE Futures Europe, insofar as it trades the U.S. benchmark crude oil futures contract in the United States with U.S. trading engines and terminals, is very much located here.

Moreover, the underlying premise of the no action letter on which ICE Futures Europe relies is that, but for the no action letter, that exchange would be fully subject to U.S. regulation when it brings its trading terminals physically into the U.S. That was true when the no action letters were first issued in 1999;¹⁴ when the CFTC issued its 2006 Policy on this subject;¹⁵ and it is evidenced by the CFTC staff’s June 17, 2008 letter to ICE Futures Europe expressly stating that the failure to comply with the four new conditions, including position limits, imposed by the CFTC staff at that time would lead to a recommendation to “institute enforcement action against [ICE Futures Europe] based on a failure to seek contract market designation or registration as a DTEF under Sections 5 and 5a of the Act.”¹⁶

The CFTC’s stance in its June 17 letter to ICE Futures Europe is in keeping with a host of federal cases and CFTC enforcement actions making it clear that the prohibitions on the CFTC with regard to foreign exchanges within section 4

only applies when *foreigners* trade *foreign* futures contracts in *foreign* countries on foreign exchanges that do not significantly impact U.S. markets.¹⁷

As evidenced by the June 17, 2008 CFTC staff letter establishing further conditions on ICE Futures Europe's U.S. trading operations, it appears that the CFTC is trying hard to indirectly create *equivalency* between what is required of a U.S. exchange directly regulated by it and a direct competitor exchange, ICE Futures Europe, in the latter's present capacity as a U.K. regulated exchange for purposes of its substantial futures trading in the U.S.

In so doing, the CFTC is dependent on data flowing smoothly from the U.K.'s market regulator, the Financial Services Authority ("FSA"), and the CFTC. Media reports have suggested that in important instances data of this nature has not always flowed as effectively as the CFTC would have hoped. Nevertheless, under the present dependency of the CFTC on the U.K.'s FSA, for trading done by ICE Futures Europe in the U.S., and despite the CFTC's hard work in gaining equivalency with regard to direct competition in the U.S. between U.S. DCMs and ICE Futures Europe, important regulatory measures applicable in the U.S. still do not apply to ICE Futures Europe. For example, the self regulation required of U.S. DCMs (so that they are the CFTC's frontline against market abuses) *in practice* is much more demanding here than what is required in the U.K. Also, § 8a (9)'s important grant of emergency powers to the CFTC to take strong, direct and immediate action in markets under its jurisdiction does not apply to those exchanges falling under the FSA's authority. As a matter of prudence, the CFTC should assume direct supervision of substantial futures trading done in the U.S. by U.S. citizens on important U.S. benchmark crude oil futures contracts which is in direct competition in the U.S. with a U.S. regulated exchange.

In-text References

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2. See supra note 71.

3. Wheat Report, supra note 16, at 13-14.

4. 17 C.F.R. § 1.3(z) and Part 150.

5. See S.3268, 110th Cong. (2008), available at <http://ecip.loc.gov/cgi-bin/bdquery/z?d110:SN03268>: (last visited Aug. 2, 2009).

6. Letter from Americans for Financial Reform, supra note 2, at 2.

7. "Description of Principles for OTC Derivative Legislation," available at http://www.securitiesindustry.com/news/-23750-1.html?source_dept=compliance_regulation (last visited Aug. 2, 2009).

8. Wheat Report, supra note 16, at 104, n. 187.

9. 74 Fed. Reg. 12316 (March 24 2009) (emphasis added and internal citations omitted.).

10. See, e.g., Written statement of Daniel J. Roth, President and Chief Executive Officer, National Futures Association, Hearing before the Committee on Agriculture, U.S. House of Representatives (Feb. 3, 2009) at 4 ("[Excluded commodities] are primarily financial commodities, indices, and contingencies."), available at <http://agriculture.house.gov/testimony/111/h020309/Roth.doc> (last visited Aug. 2, 2009); Glenn S. Arden, JONES DAY COMMENTARIES, Commodity Futures Modernization Act of 2000 3 ("excluded commodities . . . encompass most derivative financial products"), available at http://www.jonesday.com/pubs/pubs_detail.aspx?pubID=S1962 (last visited Aug. 2, 2009).

11. International Petroleum Exchange of London Limited, CFTC No-Action Letter, CFTC Letter No. 99-69, available at <http://www.cftc.gov/tm/letters/99letters/tm99-69.htm> (last visited Aug. 2, 2009).

12. International Petroleum Exchange (now ICE Futures Europe), CFTC No-Action Letter, CFTC Letter No. 08-09, available at <http://www.cftc.gov/stellent/groups/public/@lrllettergeneral/documents/letter/08-09.pdf> (last visited Aug. 2, 2009).

13. H.R. 2454, 111 th Cong. §351(2009).

14. The no action letters at issue originated from a rulemaking proceeding, that by its very terms, provided that permission to put terminals in the U.S. derived from Section 4 (c)'s exemption from U.S. contract market registration requirements and not from a statutory prohibition from regulating foreign exchanges "outside of the United States." See LIFFE Administration & Management, CFTC No-Action Letter, 1999 CFTC Ltr. LEXIS 38, 3n. 4 (July 23, 1999); Access to Automated Boards of Trade (proposed rules), 64 Fed. Reg. 14,159, 14,174 (Mar. 24,1999).

15. "In the absence of no-action relief, a board of trade, exchange or market that permits direct access by U.S. persons might be subject to Commission action for violation of, among other provisions section 4 (a) of the CEA, if it were not found to qualify for the exclusion from the DCM designation or DTEF registration requirement." 71 Fed. Reg. 64,443, 445 n.23 (Nov. 2, 2006).

16. See June 17, 2008 CFTC Staff Letter, supra note 82.

17. See the discussion of relevant cases in Written Testimony of Professor Michael Greenberger, Energy Speculation: Is Greater Regulation Necessary to Stop Price Manipulation? – Part II: Hearing Before the House Energy and Commerce Subcomm. on Oversight and Investigations 9-12 (June 23, 2008), available at http://www.michaelgreenberger.com/files/June_23_2008_testimony.pdf (last visited Aug. 2, 2009).

Regulation of Commodity Derivatives Markets

French Ministries of Finance, Energy and Environment, and Agriculture

This paper is an unofficial English translation of the French government proposal to the European Commission's Michel Barnier proposing the drafting of legislation to establish a European commodity regulatory authority. It was originally published in September 2010.

Translation provided by David Frenk, Better Markets, Inc. and Steve Suppan, Institute for Agriculture and Trade Policy.

Document available on www.iatp.org.

Markets for primary resources or commodities and their products (petrol, metals, CO₂ quotas, agricultural products and markets for gas and electricity) are becoming more and more financialized. For certain commodity markets, the degree to which the volume of derivative products overshadows the volume of the physical market has become considerable over the course of the last few decades. These developments differ widely depending on the commodities in question.

Originally conceived as instruments to manage risks, the markets for financial derivatives on commodities also play an important role in price discovery and in the formation of price expectations for primary resources. Whereas physical markets understand the considerable peculiarities in function specific to each different commodity, the markets for financial derivatives on commodities resemble classical financial markets: their developments are strongly tied to the underlying physical markets and the fundamentals that drive them: supply, demand, and inventories. They distill at each moment the equilibrium conditions stemming from the physical market.

The spike in price volatility in 2007-8 gave rise to the fear of contagion from the financial sphere to the physical sphere: it was not merely changes in "fundamentals" which governed the price of primary resources, but also the movements observed in derivatives markets. For example, the price of agricultural products and derivatives on those products, in particular for grains, witnessed a strong price volatility during the years 2007-8, provoking spectacular price increases. The price of wheat futures contracts quoted on Euronext NYSE Liffe thus doubled in the space of six months at the start of 2007. If it was disconnected from the physical realities of the market, such an increase in the prices of agricultural products unfairly penalized producers just as much as it did consumers. The question of understanding the role of financial investors in the volatility of commodity derivatives markets is still not resolved.

This fear of contagion from the financial sphere to the physical sphere must be treated with special attention at all times, in order to restore the confidence of market participants in the suitability of commodity derivative markets: financial commodity markets suffer today from an incomplete and ill-suited European regulatory regime.

Physical markets today are not the object of real measures of supervision and surveillance. At the same time, just one section of commodity derivatives currently fall under financial regulations. The directive on financial instrument markets and their texts for application draw a distinction between two categories of commodity derivatives: financial instruments, and commercial futures. Only commodity derivatives with the qualification of financial instruments enter today under the scope of financial regulation. On top of this, there is supervision of commodity instruments that are traded on regulated markets.

Only "traditional" financial actors who participate in these markets are fully covered by financial regulation. Thus, numerous participants in derivatives markets, such as producers and suppliers of electricity or gas, or specialized traders in commodities

markets, who constitute the majority of participants in the CO₂ market, are not covered by financial regulation, even when they participate in financial derivatives transactions. Nor, therefore, are they subject to principles of good information, protection of client interests, and good execution. Moreover, these same actors are not subject to any capital requirements.

Commodity derivative markets are exposed to risk of abuse in specific markets. In effect, the regime for prevention and punishment of market abuse of existing “classic” financial instruments is not entirely adapted to commodity derivative markets. Such adaptations as exist have not demonstrated their effectiveness. For example, there is nothing planned for [new] regulation to discipline cross market manipulation between derivatives markets and physical markets.

The oversight framework of these commodity markets is not satisfactory: if financial regulators have an important role to play in the oversight of these markets, it is necessary to ensure that they understand the fundamental dynamics of physical markets, just as they would for financial markets. In this regard, the cooperation between financial regulators and sectoral regulators of certain commodity markets is today too limited.

A better regulation of European wide commodity derivative markets is therefore necessary today.

It is crucial that Europe is fully engaged from now on in the regulation of commodity derivative markets. France welcomes the recent significant regulatory advances under the aegis of the European Commission, particularly in gas and electricity markets. Though it is certain that progress will be necessary in each sector of the commodity markets, the Commission should likewise commit to a global regulatory approach.

Financial regulatory work, whether it be in over-the-counter derivatives, in the financial markets directive or the market abuse directive will have implications for the framework of regulating commodity market derivatives. Therefore, given the enormity of what is at stake in the revision of these texts, it necessary to ensure that issues relative to commodity markets are not forgotten on the way [to overall financial reform].

Given the foregoing, France believes that the European Commission usefully could undertake an initiative to draft a specific directive for the regulation of commodity derivative markets, drawing upon principles for regulatory action common to commodities and related products.

This legislative text could tackle the following issues:

- Propose the means to cover the field of commodity derivatives and like products (such as mixed swaps), by means of an ample definition of commodities;
- Think of the pathways between oversight of physical commodity markets and theregulation of commodity derivative markets
- Propose steps to ensure an oversight framework for all market participants relative to the scale of their market participation
- Consider a market abuse discipline based on a specific definition of privileged kinds of information and on the analysis of forms of market manipulation specific to commodity derivatives markets, above all in their interaction with physical markets;
- Pose the question of the necessity of a special treatment of over-the-counter derivatives in these markets;• Inquire about the need to promote measures of increased transparency, above all in physical markets, in order to improve price formation mechanisms and to ensure the capacity of regulators to monitor the global operation of these markets
- To outline broadly the architecture of effective European wide oversight of commodity derivative markets, taking into consideration present regulatory options and the devolution of increased power to a European authority of financial markets.

France wishes to collaborate fully with the European Commission on a subject about which the stakes for the real economy of the Member States is considerable.



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