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Ms. Hilary Till, the Contributing Editor of the *Global Commodities Applied Research Digest (GCARD)*, presenting at the J.P. Morgan Center for Commodities' Advisory Council meeting on March 8, 2018.

Introduction

In the <u>Spring 2016 issue</u> of the *GCARD*, we <u>summarized</u> the three conditions that have historically determined whether a futures contract succeeds or not: (1) there must be a commercial need for hedging; (2) a pool of speculators must be attracted to a market; and (3) public policy should not be too adverse to futures trading.





Commercial Need for Hedging

We elaborated on the first condition in the <u>Summer 2018 issue</u> of the *GCARD*. In that issue, we <u>discussed</u> examples of successful futures contracts that responded to new large-scale commercial risks over the past 170 years, noting the new commercial circumstances that ushered in the intense need for hedging instruments.

Pool of Speculators

The second condition for a futures contract's success concerns the need to attract a sufficient amount of speculative interest. This feature was discussed by Professor Robert Webb of the University of Virginia during <u>his lecture</u> at the <u>J.P. Morgan Center for Commodities' August 2018 international commodities</u> <u>symposium</u>.



Dr. Robert Webb, Ph.D., Martin J. Patsel Jr. Research Professor, University of Virginia; and Editor, *Journal of Futures Markets*, provided the keynote address during the first day of the JPMCC's 2nd International Commodities Symposium, which was held at the University of Colorado Denver Business School on August 14 through August 15, 2018. Dr. Webb's presentation answered the question, "What Drives Success in Derivatives Markets?" Dr. Webb is also a member of the JPMCC's Research Council.



Dr. Webb explained that amongst the factors responsible for driving the success of a futures contract is "having speculators willing to risk their own capital ... Large institutions sometimes become risk averse just when the market needs them most."

Absence of Onerous Governmental Intervention

Our current digest article, in turn, covers the third necessary condition for a futures contract's success: a contract must not be subject to particularly onerous regulations or laws.

The Regulation of Futures Contracts

The history of futures regulation is one of infrequent but often disruptive interventions following natural disasters or events that undermine public confidence in exchanges. It turns out that the history of futures regulations reveals four features: (a) a contract must have a convincing economic rationale; (b) it is helpful if contracts are viewed as being in the national interest; (c) competition requires regulatory parity among exchanges; and (d) markets can survive even draconian interventions so long as they are short-term.

If the Economic Rationale Is Not Convincing, a Contract is at Risk of Being Banned or Heavily Curtailed

Berlin Futures Contracts (Late 1890s)

According to Jacks (2007), "In the wake of a disastrous harvest in 1891 at home and [in] Russia, grain consumers in the German Reich suffered an increase in both the level and volatility of prices. Public agitation against speculative ventures on the Bourse was met with open arms ... in the Reichstag ... [Accordingly,] [f]rom January 1, 1897 ... dealing in grain futures was banned outright ..."

"It became apparent that ... [the law] had seemingly failed to accomplish its most touted benefit, the stabilization of commodity prices," noted Jacks. The law "was rescinded early in 1900. In April of that year, the Berlin futures market in grain was reopened."

U.S. Onion Futures Contracts (1958)

Jacks (2007) also discussed the banning of onion futures trading in the United States. "[T]he United States Congress in the fall of 1958 passed the Onion Futures Act. The intent of the Senate Committee on Agriculture and Forestry was clear: given 'that speculative activity in the futures markets causes such severe and unwarranted fluctuations in the price of cash onions ... [a] complete prohibition of onion futures trading in order to assure the orderly flow of onions in interstate commerce' was enacted. ... [T]his law is significant in that it mark[ed] the first ... time in the history of the United States that futures trading in any commodity was banned."

The reason for the "bill's passage could be explained by a basic lack of knowledge on the workings of the fresh onion market. The ability to store crops from year to year is [effectively] nonexistent," explained Jacks. Therefore, it is natural that there are "sometimes large adjustment[s] in price as the harvest



approaches ... The finding that there was ... [significant] price volatility ... should have come as no surprise."

Working (1963) concluded: "futures trading in onions was prohibited because too few members of Congress believed that the onion futures market was, on balance, economically useful."

History of U.S. Futures Market Regulation

Working also noted how close the U.S. came to duplicating the 1890s German experience with a futures trading ban. In the U.S., "a bill that would have imposed destructive taxation on all existing futures trading in farm products narrowly escaped passage by both houses of Congress in 1893 ... A similar bill considered by the ... [next] Congress gained passage only in the House ..."

Jacks (2007), in turn, documented at least 330 bills introduced to the U.S. Congress between 1884 and 1953 to "limit, obstruct, or prohibit futures trading." Tables 1 through 6 below (and in successive pages) show how frequent government interventions have been in the U.S. futures markets since the 1920s. After reviewing this history, it is clear that it will always be an ongoing effort to demonstrate the economic usefulness of futures trading.

Table 1Governmental Interventions in the U.S. Futures Markets, 1921–1927

Date	Regulation	Action
September 1921	Futures Trading Act	The Act provides for the regulation of futures trading in grains such as corn, wheat, oats, and rye. The Act empowers the U.S. Secretary of Agriculture to designate exchanges that meet certain requirements as "contract markets" in grain futures. The aim was to prevent market manipulation by the exchanges' members, firms, and employees. The Act also imposed a prohibitive USc20 per bushel tax on all options trades and on grain futures trades that were not executed on a designated contract market as specified by the Federal Government.
September 1922	Grain Futures Act	The 1921 Futures Trading Act is declared unconstitutional. Instead of taxing futures and options trading, the 1922 Act bans off-contract-market futures trading.
June 1923		The Grain Futures Exchange implements a large-trader reporting system. It requires each clearing member to report on a daily basis the market positions of each trader exceeding a specified size.
February 1927		The Secretary of Agriculture suspends until November 1927 large-trader reporting requirements. This follows complaints that the requirements were preventing large bullish speculators from entering the market, thus allegedly depressing grain prices. Following the suspension, the Grain Futures Administration determines that large-trader reporting requirements did not discourage bullish speculators.

Source: Lewis (2009).



Table 2Governmental Interventions in the U.S. Futures Markets, 1936–1958

Date	Regulation	Action
June 1936	Commodity Exchange Act	Following the collapse in grain and cotton prices during the 1930s, the Commodity Exchange Commission (CEC) was established. The 1936 Act extends and strengthens the government's regulatory powers to a longer list of commodities. The act provided for the adoption of position and trading limits to restrict the number of futures contracts that could be held by large individual speculators. It also prohibits the trading of options on commodities traded on futures exchanges.
December 1947	Amendment to the 1936 Commodity Exchange Act	The Commodity Exchange Authority replaces the CEC. Following a rise in commodity prices after WWII, the Act allows the publication of the names and addresses and market positions of large traders. In its first declaration, the Secretary of Agriculture publishes the names of 35,000 traders. President Truman orders the CEA to require futures exchanges to raise margin requirements to 33% on all speculative positions.
August 1958	Onion Futures Act	Trading in the Golden Globe onion futures contract on the Chicago Mercantile Exchange is banned. This followed [perceived] excessive moves in the onion price during 1955.

Source: Lewis (2009).

Table 3

Governmental Intervention in the U.S. Futures Markets, 1974

Date	Regulation	Action
October 1974	Commodity Futures Trading Commission Act	The Commodity Futures Trading Commission (CFTC) is established. It extends the jurisdiction of the CFTC from agricultural commodities to futures trading in all commodities, which becomes effective in April 1975.

Source: Lewis (2009).

"U.S. and international commodity markets experienced a period of rapid increases from 1972–1975, setting new all-time highs across a broad range of markets," according to Cooper and Lawrence (1975). Those price increases were blamed on speculative behavior associated with the "tremendous expansion of trading in futures in a wide range of commodities," noted the two authors.

Not surprisingly, "public pressure to curb speculation resulted in a number of regulatory proposals," wrote Sanders *et al.* (2008). "In hindsight, economists generally consider this a period marked by rapid structural shifts such as oil embargoes, Russian grain imports, and the collapse of the Bretton Woods fixed exchange-rate system," according to Cooper and Lawrence (1975). The recognition of the fundamental economic factors explaining the dramatic price rises in commodities helped ensure draconian regulation on futures trading did not ensue.



Table 4

Governmental Interventions in the U.S. Futures Markets, 1977–1979

Date	Regulation	Action
August 1977		The CFTC requests the U.S. District Court in Chicago to instruct the Hunt family of Dallas to liquidate positions that exceed [the] three million bushel speculative position limit for soybean futures on the CBOT.
March 1979		The CFTC votes to prohibit trading in the CBOT March wheat futures contract. This is the first time the Commission has ordered a market to close in the interest of preventing price manipulation.

Source: Lewis (2009).

One significant regulatory change in the 1980s was the removal of the 50-year ban of options on commodities.

Table 5

Governmental Interventions in the U.S. Futures Markets, 1980–2009

Date	Regulation	Action
March 1980		After careful consideration, the CFTC votes not to use its emergency powers to order suspension of trading in silver futures as prices plummet.
October 1981	Regulation 1.61	The CFTC requires exchanges to establish speculative position limits in all futures contracts.
January 1991		The CFTC reports to Congress that it finds no evidence that the sharp rise in energy prices has been caused by manipulation or excessive speculation.
August 2004		After a seven-month investigation, the CFTC concludes that there is no evidence that any entity or individual attempts to distort natural gas prices in late 2003.
Summer 2009		The CFTC holds three public hearings to discuss speculative position limits and exemptions in energy markets.

Source: Lewis (2009).

Contracts Are Viewed as Being in the National Interest

From a public policy standpoint, it is clearly helpful if futures markets are seen as a benefit to the nation as a whole, as the following examples illustrate.



Foreign Currency Futures

Milton Friedman invoked the national interest argument in a 1971 paper supporting the development of a foreign-currency futures market. "As Britain demonstrated in the 19th Century, financial services of all kinds can be a highly profitable export commodity. ... It is clearly in our national interest that a satisfactory futures market [in currencies] should develop, wherever it may do so since that would promote U.S. foreign trade and investment. But it is even more in our national interest that it develop here instead of abroad," wrote Friedman (1971).

The development of a currency futures market in the U.S. "will encourage the growth of other financial activities in this country, providing ... additional income from the export of [financial] services," concluded Friedman.

Financial Futures

Silber (1985) discussed the advantages for the economy as a whole resulting from the creation of financial futures contracts: the "main contribution" of financial futures "is a reduction in transaction costs [as compared to the relevant cash markets] and an improvement in market liquidity ... the ultimate benefit being a reduction in the cost of capital to business firms [, which, in turn, leads to] greater capital formation for the economy as a whole."

Crude Oil Futures

One crucial economic function of commodity futures markets is to enable the hedging of prohibitively expensive inventories with the assumed result that more inventories are privately held than otherwise would be the case. If commodity futures markets do perform that function, then one would expect their existence would lessen price volatility (Till, 2014). More oil inventories held than otherwise would be the case could lessen the possibility of oil price spikes, as argued in Verleger (2010).

Competition Promotes Regulatory Parity

If a futures exchange does not have regulatory parity with another similar exchange, it could lose market share.

ICE vs. NYMEX

According to Dowd (2007), as of 2006, there was "a significant regulatory imbalance between the two regulating authorities, the ... [U.K. financial regulator] and CFTC. By holding positions in the ICE [WTI] Futures contract, traders d[id] not have CFTC-mandated position limits to worry about, nor ... [were] they required to comply with CFTC weekly position reporting requirements. ... One former director [of oversight at CFTC] said ... [in 2006] that the Nymex '[wa]s at risk of losing WTI', and [then] CFTC Commissioner Walt Lukken ... stated that 'agencies must remain flexible and tailored in their approach or fear losing these markets to other jurisdictions," wrote Dowd.



The regulatory situation was rebalanced in June 2008: "The U.S. commodity futures regulator ... [reported] ICE Futures Europe ... agreed to make permanent position and accountability limits for ... its U.S.-traded crude contracts, subjecting itself to the same regulatory oversight as its New York based counterpart. Following intense scrutiny ... by Congress ... the U.S. Commodity Futures Trading Commission also said it would require daily large trader reports, and similar position and accountability limits from other foreign exchanges" for contracts that are based on U.S. commodities, according to Talley (2008).

Markets Can Survive Even Draconian Interventions So Long as They Are Short-Term

If regulatory interventions are draconian but only short-term, futures markets can survive. The suspension of grain futures trading in January 1980 is summarized in Table 6. Such an action, while "well-intentioned [was] ... a direct restraint on [a] futures market['s] free operation and [was] ... intended to override the ability of buyers and sellers in the market to negotiate prices freely," wrote Johnson and Hazen (2004).

Table 6

Government Intervention in the U.S. Futures Markets, 1980

Date	Regulation	Action
January 1980		In an emergency action, the CFTC orders the <i>suspension of futures trading</i> for two days for wheat, corn, oats, soybean meal, and soybean oil on four exchanges after President Carter announces an embargo on the sale of certain agricultural goods to the Soviet Union that includes substantial amounts of grain. [Italics added.]

Source: CFTC.

"Therefore, to the extent that the markets fall short of the economic theory of pure competition, contributing factors ... must also include acts of government and regulatory intervention," concluded Johnson and Hazen (2004).

Fortunately, the trading suspension only had a minor effect on grain futures trading and did not damage these markets. Lothian (2009) explained why the grain markets were not materially disrupted by the temporary suspension of U.S. grain futures trading: "[W]hen President Carter's administration shut down trading for several days on the U.S. grain futures exchanges, traders ... [responded] by trading contracts on the Winnipeg Commodity Exchange [in Canada.] Rather than waiting to offset their long positions at substantially lower prices when the U.S. exchanges reopened and beg[i]n trading after a limit down move in prices, some traders [immediately] shorted Winnipeg grain futures contracts to hedge their positions. In an example of the law of unintended consequences, price discovery moved from Chicago to Winnipeg for soybeans, corn and wheat through the surrogates of rape seed, feed wheat and other contracts."



Having an alternative exchange in Canada with which to manage risk meant the action taken by the Carter administration did not have a draconian impact on U.S. grain futures traders.

Conclusion

Lawmakers have tried repeatedly to "limit, obstruct, or prohibit futures trading" (Jacks, 2007) based on the public's misunderstanding of how futures contracts are self-regulating and their essential role in helping businesses manage risks. Pressure for increased regulation often follows economic disruptions such as the rapid inflation that followed the collapse of the Bretton Woods system in 1971 and the oil embargo of 1973-1974 when speculators were blamed for price spikes.

Markets discipline government regulators as well as speculators and commercial hedgers. Exchanges compete furiously with one another, requiring national regulators to establish regulatory parity with other countries or risk losing the economic benefits of being the home of successful exchanges. The existence of competing exchanges and futures contracts mean even draconian regulation such as banning trading in a particular commodity cannot prevent markets from finding alternatives ways to manage risk, a fact illustrated by the market response to the Carter administration's suspension of U.S. grain futures trading for two days in 1980.

Futures markets, like all social institutions that have successfully evolved over time, require "umpires," so this article is not advocating the absence of government oversight, but the history of U.S. futures markets has to be seen for what it is: one of continuous confrontation with activist public policy. Accordingly, the industry must educate the public and policymakers about the important role it plays in a global economy and the benefits it produces for the public in order to avoid needless and counterproductive regulation (and laws), which can jeopardize the success of economically useful futures contracts.

Endnotes

This digest article is, in the main, excerpted from a seminar that was prepared by the author for staff at the Shanghai Futures Exchange. In addition, a <u>comprehensive version of this article</u> benefitted from insightful comments and inferences from Joseph Bast.

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Author Biography

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Jointly with Joseph Eagleeye, Hilary Till is also a principal of Premia Research LLC, which designs investment indices that are calculated by <u>S&P Dow Jones Indices</u>. Prior to Premia, Ms. Till was the Chief of Derivatives Strategies at Putnam Investments where she oversaw the strategy development and execution of about \$90 billion annually in exchange-traded and over-the-counter derivatives; and before Putnam, Ms. Till was a Quantitative Analyst at the Harvard Management Company, the university's endowment firm. Ms. Till's additional academic affiliations include her membership in the North American Advisory Board of the London School of Economics and her position as a <u>Research Associate at the EDHEC-Risk Institute</u> (France.)

In Chicago, Ms. Till is a member of both the Federal Reserve Bank of Chicago's Working Group on Financial Markets and the Advisory Board of DePaul University's Arditti Center for Risk Management. She also has provided seminars (in Chicago) to



staff from the Shanghai Futures Exchange, China Financial Futures Exchange, Zhengzhou Commodity Exchange, and the Dalian Commodity Exchange. In addition, Ms. Till is a board member of the International Association for Quantitative Finance (New York).

Ms. Till has presented her analyses of commodity futures markets to the following institutions: the U.S. Commodity Futures Trading Commission, the International Energy Agency, and to the (then) U.K. Financial Services Authority. Most recently, she was a panel member at both the U.S. Energy Information Administration's workshop on the "evolution of the petroleum market and [its] price dynamics" and the Bank of Canada's joint roundtable with the International Energy Forum on "commodity cycles and their implications." She is also the co-editor of the bestselling Risk Book (London), Intelligent Commodity Investing.

Ms. Till has a B.A. with General Honors in Statistics from the University of Chicago and an M.Sc. degree in Statistics from the London School of Economics (LSE). She studied at the LSE under a private fellowship administered by the Fulbright Commission.