

CASE STUDIES ON THE SUCCESS OR FAILURE OF FUTURES CONTRACTS

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Abstract

Why do some futures contracts succeed and others fail? Although the U.S. futures markets have evolved in a trial-and-error fashion, research suggests key elements have determined whether particular futures contracts succeeded or failed. This knowledge could be useful for new financial centers as they build successful futures markets. This paper shows that there are three elements that determine 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.

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A Commercial Hedging Need

This section will review how new futures contracts arose to either (a) deal with new risks or to (b) hedge existing risks.

New Risks

Chicago Became a Large-Scale Grain Terminal in the Mid-1800s

Once Chicago became a transportation hub and grain terminal in the mid-nineteen century, grain merchants had to figure out how to manage the price risk for their accumulating volume of grain inventories. Eventually in 1848, the solution was the formation of an exchange: the Chicago Board of Trade (CBOT), whose function gradually evolved from arbitrating commercial disputes and spot trading to bilateral forward trading, and finally to becoming a member-owned exchange with standardized futures contracts.

For further historical context, one should also note that “[b]y the time of the Crimean War in the 1850s, Chicago, with its rich outlying agriculture area, was in an excellent position to supply the disrupted world grain trade. During the [U.S.] Civil War, Chicago served as the chief grain concentration point of the Union armies,” wrote Hieronymous (1971). And with the concentration of grain in Chicago came the need for managing the price risk of these immense inventories during the unpredictable times brought on by the two successive wars. Hence, a commercial hedging need arose that was met with the institutional development of a commodity exchange in Chicago.

Collapse of the Bretton Woods System Ushered in a New Era of Financial Market Volatility

Post-World War II, Essentially the Gold Standard: No Need for Hedging

Another historical example includes the transformation of currency arrangements, as described below.

Examining the history of currency arrangements, in “the summer of 1944, delegates from 44 countries met in the midst of World War II [at Bretton Woods, New Hampshire to reshape] the world’s international financial system,” recounted Schifferes (2008). At this conference, John Maynard Keynes unsuccessfully floated the idea of an alternative post-war currency, the “Bancor,” which was to be anchored by 30 commodities, a broader base than the Gold Standard. Instead, noted Conte and Karr (2001), “the leaders decided to tie world currencies to the dollar, which, in turn, they agreed should be convertible into gold at \$35 per ounce.” This created a modified gold standard. Therefore, when the Bretton Woods system functioned, there was no pressing economic need for derivatives to hedge currency risk.

No Anchor, Post-Bretton Woods

“In 1971, the US ... unilaterally went off the gold standard and devalued the dollar ... This led to the abandonment of fixed exchange rates and the introduction of floating rates, where the value of all the main currencies was determined by market trading,” explained Schifferes (2008). With the U.S. dollar no longer pegged to gold or anything of fixed

value, the risk of large price changes entered the markets. As reviewed by Leo Melamed, Chairman Emeritus of the Chicago Mercantile Exchange (CME) in Melamed (1994), “the collapse of the Bretton Woods Agreement ... ushered in an era of considerable risk in currency price fluctuation – risks which could be limited if there were a viable market for currency futures trading.” As a result, the Chicago futures exchanges developed innovative financial hedging instruments in both currencies and interest rates in the 1970s and 1980s. Equity index futures contracts were added in the 1980s as well. “[T]he economic benefits of risk transfer and price discovery that were indigenous to futures became available to those outside the agricultural sector,” explained Melamed.

Given that the launch of financial futures trading in Chicago did become hugely successful, it may be

surprising to read about the early skepticism that greeted these efforts. According to Melamed (1994), “Some ... thought it ludicrous that [in the early 1970s] a ‘bunch of pork belly crapshooters’ would dare” launch futures contracts on foreign exchange.

Silber (1985) later discussed why financial futures became such a success: “Futures markets bring the low cost of transacting faced by [interbank] dealers to the rest of the financial community. ... [T]his ‘democratization of efficient transactions services’ underlies much of the success of financial futures.” In practice, “high price volatility and a large cash market for the particular financial instrument [has] increase[d] the chances for success for a new futures contract,” added Silber. Figure 1 summarizes the commercial hedging needs that were met by the institutional development of financial futures contracts.

Figure 1. A Summary of Successful Financial Futures Contract Launches Based on Silber (1985)

	Launched	Economic or Unique Contribution	Example(s) of How the Contracts are Used	Substantial Risk Reduction Compared to Other Hedging Vehicles	Public Policy Obstacles
Currency Futures	1972	Provided additional liquidity to the organized forward market	For multinational corporations, a vehicle for hedging international risk exposure		
Treasury Bond Futures	1977	Added price discovery in the opaque dealer market for Treasury securities	- For dealers, short-term hedges of inventory; and - For asset managers, asset/liability matching, hedging, and “temporary substitutes for cash market transactions”	“the reduction in risk offered by the new bond contract ... was significant ... compared with the residual risk of cross-hedging Treasury bonds with [the then existing] GNMA futures”	
Treasury Note Futures	1982			“it offered substantially better facilities for hedging ten-year Treasury notes compared ... with the bond [futures] contract”	
Eurodollar (Short-Term Interest Rate) Futures	1981	Provided short-selling capability to non-financial corporations	- For non-financial corporations, ability to hedge future borrowing costs; and - For banks, asset/liability matching		
Stock-Index Futures	1982	“[S]hort-sale restrictions were overcome by ... stock index futures.”	- For dealers, hedging inventory during institutional block-trading; and - For asset managers, “temporary substitutes for cash market transactions” and passive index-linked strategies		“Extensive regulatory review was required ... primarily because of concerns over the ... similarity of the cash settlement process to gambling.”

Ultimately, “[t]he success of the stock index contracts and the Eurodollar contract ... made the cash settlement procedure the likely source of continued innovation in financial futures,” wrote Silber.

Forced Shift to Spot Oil Market

The volatile 1970s provide another example of new risks arising that were later successfully managed by the development of futures markets. In particular, Yergin (1992) recounted how the structure of the oil industry changed after numerous nationalizations in oil-producing countries in the 1970s. This forced some oil companies to shift from long-term contracts to the spot oil market. Verleger (2012) added that the U.K. government’s choice of how to tax North Sea oil, starting in the 1970s, also contributed to the development of spot oil markets. “[T]he U.K. Treasury granted itself the right to decide the value of

any oil processed by the company that produced it. Exxon, for example, would have been at the mercy of U.K. tax authorities had it processed crude from its fields. Rather than take such a risk, producers chose to sell their crude and then buy crude for processing from others. Their transactions created the first observable spot market for crude.”

With the structure of the oil industry changing, an economic need for hedging volatile spot oil price risk emerged, which the New York Mercantile Exchange (NYMEX) responded to with a suite of energy futures contracts, starting with the heating oil contract in 1978.

According to Yergin (1992), “The initial reaction to the futures market on the part of the established oil companies was one of skepticism and outright hostility. ... A senior executive of one of the ... [major oil companies] dismissed oil futures ‘as a way for dentists to lose money.’ But the practice ... [of] futures [trading] ... moved quickly in terms of

acceptability and respectability. ... Price risk being what it was, ... no [commercial entity] ... could afford to stay out.”

Gradual Deregulation of the U.S. Natural Gas Market

The success of the petroleum-complex futures markets provided a precedent for how to manage the price risks of natural gas, once this market was deregulated.

In the past, the U.S. natural gas industry was so heavily regulated that there was no need for natural-gas-price hedging, analogous to the Bretton Woods era for currencies. The following is a brief recounting of the history of U.S. natural-gas regulation and deregulation, which is also conceptually illustrated in Figure 2.

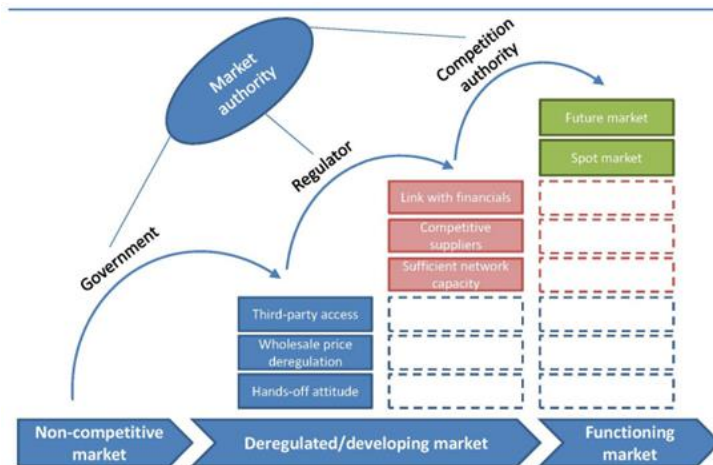
According to IEA (2012), the “1938 Natural Gas Act ... introduce[d federal] regulation ... on gas prices. The next four decades until 1978 saw a progressive growth of regulatory oversight of gas prices.” In particular, “[t]he US system in the 1950s to 1970s” was one where “regulatory agencies controll[ed] most parts of the business in different parts of the gas value chain.” Unfortunately, “[t]his heavy-handed regulation resulted in gas shortages appearing in the regions which needed to import gas from producing areas, notably in the Northeast and Midwest.”

Starting in 1978, a very gradual deregulation of the U.S. natural gas market began. “In November of 1978, at the peak of the natural gas supply shortages, Congress enacted legislation known as the Natural Gas Policy Act (NGPA),” according to the Natural Gas Supply Association in NGSA (2013). “The Natural Gas Policy Act took the first steps towards deregulating the natural gas market, by instituting a scheme for the gradual removal of price ceilings at the wellhead,” recounted the NGSA.

“However, it wasn’t until Congress passed the Natural Gas Wellhead Decontrol Act (NGWDA) in 1989 that complete deregulation of wellhead prices was carried forth. Under the NGWDA, the NGPA was amended and all remaining regulated prices on wellhead sales were repealed. As of January 1, 1993, all remaining NGPA price regulations were to be eliminated, allowing the market to completely determine the price of natural gas at the wellhead,” noted the NGSA.

Continued Joskow (2013): “By the early 1990s, wellhead price regulation had come to an end, the intra-state and interstate markets had been integrated, the natural gas production sector was governed by competitive market forces, and gas shortages ... disappeared. The natural gas market matured during the 1990s as liquid gas trading hubs ... [including the] Henry Hub developed, [and] liquid spot, term, and derivatives markets [also] developed.”

Figure 2. The Steps in Creating a Wholesale Natural Gas Market



Source: IEA (2012), Figure 11.

Johnston (2002) explained that “[in] an important sense, exchange-traded contracts are a substitute for regulation in providing manageable stability in commodity prices, especially for energy.”

Following the creation of a spot market in natural gas, the NYMEX “launched the first gas futures contract with delivery at the Henry Hub in April 1990,” reported IEA (2012). “The trading activity related to financial gas markets has been

increasing, enhanced by the development of internet and electronic trading systems over the past two decades. On the first day of trading on NYMEX, 918 contracts were traded compared to over ... [270,000] today The futures were progressively expanded to 36 months in 1997 and to 72 months in 2001. Today futures reach until 202[3],” noted the IEA (2012)’s report. (Updated figures since the IEA (2012) report was written are shown in square brackets.)

New Ways to Hedge Existing Risks

The launch of successful new futures contracts has not required that new risks emerge. Examples of this are provided in the following section, which includes contracts that provided new ways to hedge *existing* risks from the 1930s through the 1970s.

Futures Contracts in the Soybean Complex

Related Weitzman (2011): “In response to slumping trade in its traditional contracts, the [Chicago] Board of Trade [successfully launched] ... soybean futures in 1936, soybean oil contracts in 1950 and soybean meal futures contracts the following year.”

First Futures Contract on Non-Storable Commodity: Live Cattle Futures Contracts

The CME began introducing livestock futures contracts, starting in the early 1960s. As of 1980, the live cattle futures contract had become the largest contract on the exchange, according to a speech at the time by Melamed.

Chicago Board Options Exchange

The bear market of 1973-74 was so financially destructive that market participants became open to the idea that perhaps there was a “scientific and rational way to tame the markets, to use the power of mathematics to conquer risk,” as explained in the 1999 BBC documentary, “The Midas Formula.” The stage was thereby set for the Chicago Board of Trade to establish an exchange that specialized in equity options in April 1973.

An Insufficient Commercial Need

The following section covers examples of new contracts that failed because of an insufficient need for commercial hedging. This has occurred when the economic risks were not sufficiently material and also when there were already contracts that provided sufficient risk reduction.

Risks Not Sufficient Material

Currency Futures Launch Pre-Bretton Woods

Turning to Weitzman (2011)’s historical recounting once again: “In April 1970 – several years before financial futures traded in Chicago – the International Commodity Exchange ... [in New York] launched futures trading on nine currencies.” But this “effort was introduced while the Bretton Woods system [of fixed exchange rates] was still in place, denying the new market the volatility it needed to flourish,” explained Weitzman.

CPI Futures

Shiller (1998) summarized why CPI futures failed in the United States: “Much has been made of the fact that the U.S. experiment in establishing a consumer price index (CPI) futures market was a failure. The ... futures market cash-settled in terms of the CPI, [which] ... allow[ed] people to hedge inflation risk by making ... offsetting bets on the course of the CPI. ... [The idea was originally] proposed ... [in] 1973.”

Shiller explained that “[d]espite the potentially revolutionary importance of such a market, its establishment was [hampered] ... by regulatory delays, until 1985, when *inflationary uncertainty had [already] died down to virtually nothing.*” [Italics added.] “The CPI futures market had only a couple of flurries of activity in 1985 and in early 1986. ... 1987 volume was 2 contracts, [and] 1988 volume was no contracts,” recounted Shiller.

Redundant Contracts

U.S. Interest-Rate Futures Contracts (1970s and 1980s)

If a “newly innovated financial futures contract” does not offer a substantial “reduction in risk” as compared to the risk reduction when “cross-hedging the underlying financial instrument with an already existing, close substitute financial futures contract,” then the new contract is at risk to failure, explained Silber (1985). For example, “[t]he commercial paper contract ... failed because it did not significantly reduce price risk exposure below what would be accomplished by cross-hedging commercial paper with the Treasury-bill contract,” continued Silber.

Figure 3 illustrates how 64% of financial futures contracts launched between 1975 and 1982 failed.

Pacific Northwest Wheat Futures Contracts (1950s)

Working (1953) discussed why efforts to “provide good hedging facilities for Pacific Northwest wheat” had invariably failed. As shown in Figure 4, Chicago wheat futures prices exhibited extreme changes when the Portland wheat spot price had also exhibited extreme changes. This meant that Chicago wheat futures contracts could have plausibly protected commercials that had exposure to Portland wheat prices, if imperfectly. Given that Chicago wheat futures contracts were very liquid, the cost of entering and exiting Chicago wheat contracts was small enough to make the cost of this “insurance” sufficiently small as to make Chicago wheat futures contracts attractive to these commercial market participants. This, in turn, meant that illiquid contracts specifically designed for the Portland and other Pacific Northwest wheat markets had trouble attracting enough business to succeed.

Figure 3. The list of contracts and data about them

Contract	Exchange	Date of Innovation	Average Daily Volume	Wall Street Journal Listing	Traded in 1985
GNMA-CDR ¹	CBT	10/20/75	1995	Yes	Yes
Treasury Bills (90-day)	CME	1/6/76	1610	Yes	Yes
Treasury Bonds	CBT	8/22/77	7954	Yes	Yes
Commercial Paper (90-day)	CBT	9/26/77	99	No	No
Treasury Bills	CME	9/11/78	63	No	No
GNMA-CD ²	CBT	9/12/78	180	No	No
GNMA-CD ²	ACE ³	9/12/78	180	No	No
Commercial Paper (30-day)	CBT	5/14/79	12	No	No
Treasury Notes (4–6 year)	CBT	6/25/79	88	No	No
Treasury Bills (90-day)	ACE ³	6/26/79	52	No	No
Treasury Notes (4-year)	CME	7/10/79	93	No	No
Treasury Bills (90-day)	COMEX	10/2/79	286	No	No
GNMA-CD ²	COMEX	11/13/79	47	No	No
Treasury Bonds	ACE ³	11/14/79	130	No	No
Treasury Bonds	NYFE	8/7/80	867	Yes	No
Treasury Bills (90-day)	NYFE	8/14/80	188	No	No
Treasury Notes (2-year)	COMEX	12/2/80	290	No	No
CD (90-day)	NYFE	7/9/81	914	No	No
CD (90-day)	CBT	7/22/81	895	No	No
CD (90-day)	CME	7/29/81	5103	Yes	Yes
Eurodollar (3-month)	CME	12/9/81	2012	Yes	Yes
Value Line Index	KCBT	2/24/82	2683	Yes	Yes
S&P 500 Index	CME	4/21/82	24156	Yes	Yes
Treasury Notes (6-1/2 – 10-year)	CBT	5/3/82	4228	Yes	Yes
NYSE Composite Index	NYFE	5/6/82	11656	Yes	Yes

Notes: CBT = Chicago Board of Trade; CME = Chicago Mercantile Exchange; ACE = Amex Commodity Exchanges; COMEX = Commodity Exchange; NYFE = New York Futures Exchange; KCBT = Kansas City Board of Trade

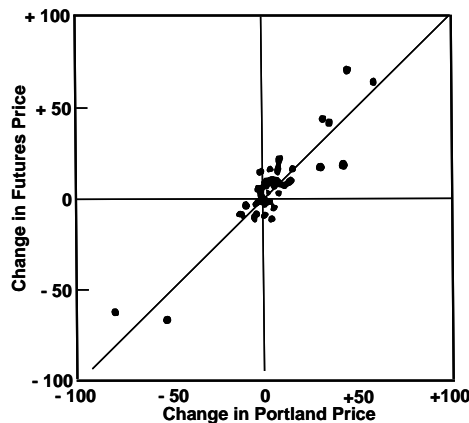
1. GNMA-CDR = Collateralized Depository Receipt GNMA contract

2. GNMA-CD = Certificate Deposit GNMA contract

3. No longer in existence.

Source: Black (1985), as reproduced in Silber (1985).

Figure 4. Relations of Two-Month Changes in Prices of Chicago Wheat Futures to Simultaneous Changes in Portland Spot Prices in Cents per Bushel September 1946 to May 1952



Source: Excerpted from Working (1953), Chart 1.

Canadian Coin Futures Contracts (1973)

Flood (1992) recounted the failed experiment of the Canadian coin futures contract: On “October 1, 1973, the IMM [the International Monetary Market of the CME] opened trading in a new futures contract on Canadian silver coins. The purchaser of a contract promised to pay a certain future amount in U.S. dollars at specific future maturity date; in exchange, the purchaser would receive future delivery of five bags of Canadian silver coins with each bag worth 1,000 Canadian dollars at face value.” But, noted Flood, “[t]his innovation was a failure. After 13 months of meager trading, the IMM discontinued the ... contract. Why did this contract fail? A good cross-hedge [already] existed in the much more liquid silver futures market. There, hedgers could achieve similar results at lower cost.”

Failure of Already Existing Contracts

In reviewing examples of already existing contracts failing, one finds that their failure can be attributed to one or more of the following four factors: (1) Obsolescence, (2) Contract terms becoming disadvantageous for hedgers; (3) The perishable nature of the commodity made physically-delivered futures contracts vulnerable to manipulation, and/or (4) Competition.

Obsolescence

Technological Changes: Butter and Eggs

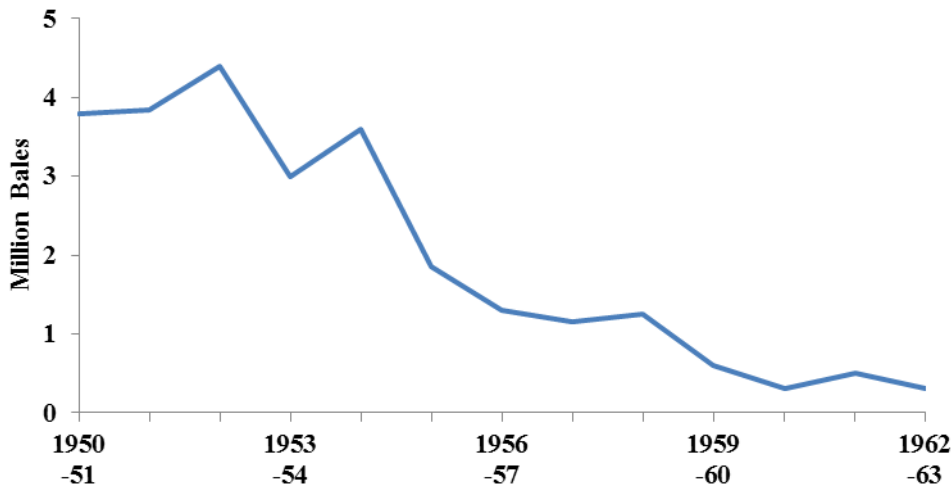
One of the ways that a contract can become obsolete is through technological changes. For example, “[t]echnological changes ... transformed the production and distribution of butter and storage eggs from seasonally produced commodities with classical production and price cycles to basically new and different products in their production, price, and distribution patterns. The economic necessity of hedging markets provided by a futures market had greatly diminished,” recalled Harris (1970) in discussing past challenges of the CME.

Risks Shifted to the Government: Cotton

Another way a futures contract can (at least temporarily) become obsolete is if the price-risks associated with holding inventories of the commodity are shifted to the government. One historical example is from the cotton market.

Wrote Brand (1964): There was a “sharp decline of trading in cotton futures which began in the 1955/56 marketing year,” and which is illustrated in Figure 5.

Figure 5. Cotton, Average Month-End Open Contracts, October Through February, All Markets Combined, Annually, 1950/51 – 1962-63*



Source: Brand (1964).

“The degree ... of governmental intervention in the marketing of various commodities ha[s] probably affected the level of use of futures markets more than any other single factor, excepting of course, outright prohibition. ... [T]he level of use of futures markets is fundamentally determined by the demand for hedging facilities; furthermore, that hedging does not consist primarily in ‘matching one risk with an

opposing risk,’ but is done to facilitate business operations and secure profits in a variety of ways. ... [One] category of hedging ... is carrying-charge hedging [;] that is[,] hedging ‘done in connection with the holding of commodity stocks for direct profit from storage’,” explained Brand (1964).

In the late 1950s, the U.S. Commodity Credit Corporation (CCC), a governmental entity, began

assuming “the cost of carrying cotton stocks for export, so that cotton exporters no longer need[ed] to carry them, nor to hedge in order to secure a carrying charge,” related Brand (1964).

Essentially, the U.S. government took on the role of a cotton merchant, and bore the risk of holding inventories. There was therefore a dramatically declining need for private industry to hedge inventories with the consequence, at the time, that “the cotton futures market became superfluous in ... [that] environment,” concluded Brand (1964).

Risks Shifted to the Government: Butter

Gray (1966) added another example: “A similar fate befell the butter futures market, as government acquisitions of butter stocks ... [eliminated] the need for private interests to carry inventories.”

Contract Terms Becoming Disadvantageous for Hedgers

Futures contracts must serve the needs of commercial hedgers; otherwise, they can become nearly extinct. Working (1954) provided one such example.

Kansas City Wheat Futures Contracts

“In the summer of 1953 a sharp conflict of opinion developed in the Kansas City Board of Trade. Kansas City ... [was] pre-eminently a market for hard winter wheat, and for many years permitted delivery of only that class of wheat on its futures contracts. In 1940, however, the contract was changed to allow delivery, at the seller’s option, of soft winter wheat [also known as ‘soft red’ wheat.] ... The change had little practical effect until 1953, because ... soft red ... ha[d] ordinarily been priced too high in Kansas City to be profitably delivered on futures contracts there,” reported Working (1954).

This changed in 1953 with the price of soft winter wheat becoming depressed relative to hard winter wheat so that “in the spring and summer of 1953 ... the Kansas City future became in effect a red wheat future. ... Prices of different classes of wheat tend to move somewhat differently. Consequently the change in effective character of the Kansas City future made it less effective than before as a hedging medium for millers of hard wheat and dealers in such wheat,” explained Working.

These hedgers “petitioned the Kansas City Board of Trade for a change in delivery provisions that would make the Kansas City future again a hard winter wheat contract.” But this proposal was essentially voted down at the exchange. Eventually, “large numbers of millers withdrew their hedging business from Kansas City.” As a result, “[t]otal open interest at Kansas City dropped rapidly from 30 million bushels on July 15 [1953] to 10 million bushels in November [1953],” continued Working.

Working (1970) recounted this cautionary tale almost two decades later: By not serving the commercial hedgers, the exchange (at the time) “promptly lost most of its futures business, both ‘hedging’ and speculative.”

GNMA (Government National Mortgage Association) Futures Contracts

One can also find an analogous example with GNMA futures contracts. Launched in 1975, the GNMA futures contract was based on a pool of mortgages. “The GNMA contract, the first interest rate future, averaged nearly 2,000 contracts per day during its first three years and traded an average of more than 10,000 per day during the last quarter of 1980,” wrote Silber (1985).

“During the last three months of 1984 the GNMA contract traded an average of only 1,000 contracts per day ... [T]he GNMA contract [was] no longer provid[ing] an effective hedge for GNMA securities. The futures contract [began] pric[ing] off the cheapest deliverable cash GNMA, which ... [for several] years ha[d] been high-coupon GNMA that behave[d] more like two-year securities than like thirty-year mortgages. Thus mortgage bankers, savings and loans, and market makers in cash GNMA ... stopped hedging with the GNMA futures contract,” explained Silber.

Maine Potato Futures Contracts

“Experience with futures markets has shown that it is very difficult to maintain trading in a futures contract with delivery terms that do not reflect commercial reality and facilitate delivery. Commercial traders are reluctant to participate in a market where it is difficult to obtain or ... [make delivery] of the actual commodity,” summarized a report from the U.S. Senate (2009).

“The defunct futures market for Maine potatoes provides a good example of how an inadequate delivery process helped cause the demise of the market. The problems in the Maine potato futures market included a failure of the cash and futures prices to converge at contract expiration.

This lack of convergence resulted from the relatively small amount of potatoes that could be delivered under the terms of the contract,” noted the Senate report.

More precisely, “[t]he basis (difference between futures price and immediate-delivery cash price) ... bec[ame] more variable ... [than in the past,] and it ... tended not to narrow as trading near[ed] an end for a given contract,” explained Paul *et al.* (1981) in a U.S. Department of Agriculture (USDA) study.

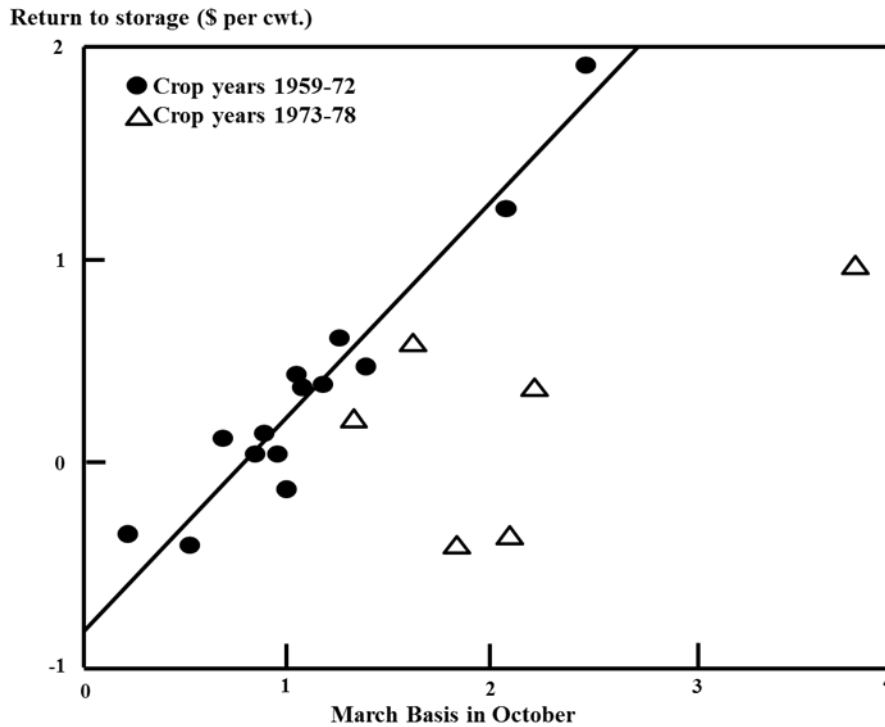
“In a properly functioning futures market, cash and futures prices generally converge as trading ceases and the contract matures. Lack of convergence for potato contracts stem[med] from [the] increasing

hardship (high cost) in making acceptable delivery of the actual commodity,” continued the USDA study.

“Hedges (taking a [short] position in futures) ... [were] less successful as a result. In 1973-78 ...

[futures hedging] did not stabilize returns as well as they had done in 1959-72,” and as shown in Figure 6, drawing from the USDA study.

Figure 6. Relation Between March Basis in October and Return to Storage



Note: “cwt” stands for 100-pounds.

Source: Paul et al. (1981), Figure 11.

The USDA researchers reported that from 1959 to 1972, “approximately 92 percent of the variation in the return to storage was associated with the initial basis; that is[,] a close predictable relationship existed. This relationship deteriorated badly in 1973-78; only 30 percent of the variation in the change in the basis can be associated with the initial basis. Returns to storage in Maine were far less in 1973, 1975, 1976, and 1978 than would have been expected based on prior historical relationships ...”

The contract thereby became less useful to a number of hedgers.

“The default in the delivery of 50 million pounds of potatoes in 1976, and the failure of deliveries to pass inspection under the March 1979 contract hastened the loss of confidence in this futures market. After years of declining volume, the NYMEX delisted the Maine futures potato contract in 1986,” noted the U.S. Senate (2009) report.

Failed Existing Contracts Because Perishable Nature of the Commodity Made Physically-Delivered Futures Contracts Vulnerable to Manipulation

Maine Potato Futures Contracts

“[I]n 1976, both a big long [commercial] and a big short [commercial] were trying to manipulate the contract simultaneously, with the short trying to ship huge quantities of potatoes from Idaho to Maine (the delivery point) and the long tied up most of the railroad cars on the Bangor & Aroostook Railroad (in which delivery had to be made). There was a large default against the futures contract. The default severely damaged NYMEX’s reputation,” summarized Pirrong (2007).

Potatoes are perishable

“Perishability makes prices inherently volatile, and also can make some manipulative strategies possible. Indeed, short manipulations are likely to be more profitable for [commodities] like ... potatoes than

other products because dumping additional supplies on the market can depress prices sharply because the perishable good must be consumed almost immediately. This allows someone short futures to profit substantially,” hypothesized Pirrong (2007).

Competition

Bund Futures Contracts on the London International Financial Futures and Options Exchange (LIFFE)

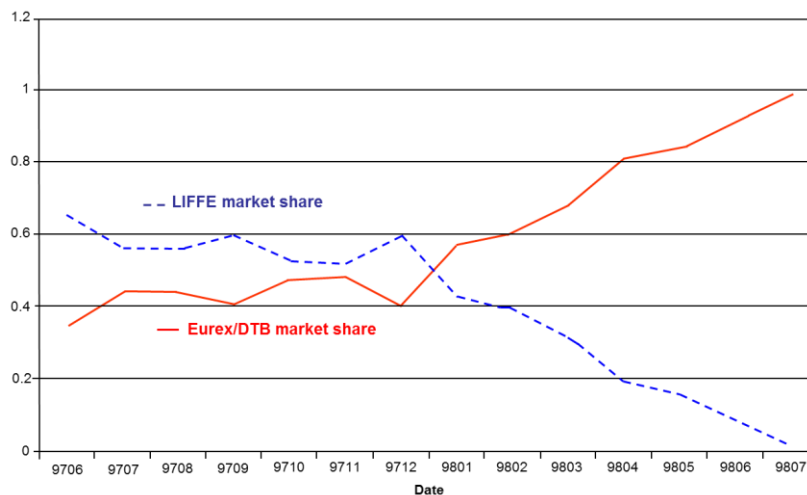
Competition has also been a reason why existing futures contracts can fail. “In 1998, trading on [German] Bund futures ... [moved] from LIFFE (an open outcry exchange) to Eurex (an electronic exchange),” reported Pirrong (2005). “Eurex had grown prior to 1997 due primarily to the patronage of

German banks that ... [also owned] the exchange. These banks provided sufficient volume to permit Eurex to survive and provide liquidity-related costs that were at worst only slightly higher than those on LIFFE,” explained Pirrong.

“This put Eurex within striking distance of LIFFE. Lower access costs due to the operational efficiencies of an electronic market apparently attracted additional business (from the United States), which narrowed the liquidity cost differential further throughout the course of 1997 ... When the liquidity differential was nearly closed by the end of that year, Eurex was positioned to ... [win] with its fee cut,” noted Pirrong.

Unfortunately for LIFFE, they did not respond quickly enough to this fee cut for its contract to survive, as shown in Figure 7.

Figure 7. Eurex/DTB and LIFFE Bund Market Shares



Source: Pirrong (2005).

“If LIFFE had responded in kind rather than ... [waiting] for 3 crucial months, it might have hung on to a big chunk of the Bund business,” argued Pirrong (2006).

Continued Success of Existing Contracts and Exchanges

This section will cover contracts and exchanges that were under competitive threat, but were able to survive.

NYMEX WTI vs. Intercontinental Exchange (ICE) WTI

Like the LIFFE’s Bund futures contract, the NYMEX WTI futures contract could have experienced a similar fate. “On February 3, 2006 the [innovative] ICE Futures [exchange] introduced electronic trading of ... WTI crude oil futures contracts that compete[d] directly with the NYMEX benchmark light, sweet

crude oil contracts traded on the floor. ... The ICE’s futures contract replicate[d] most of the terms of the NYMEX contract and ... [was] also based on the WTI crude oil,” reported Skouratova *et al.* (2008).

“This was the first time that US crude oil futures contracts were traded on an exchange outside the US. By early September [2006], trading of the ICE WTI contract had attracted nearly a 35% market share. ... NYMEX faced growing competition from ICE WTI contracts and pressure from its customers to offer electronic trading ... Thus on September 5, 2006 NYMEX launched its physically-delivered electronic standard-size crude oil futures contracts on the CME Globex platform. Electronic trading of ICE WTI Crude Oil contracts fell to about a [stabilized] 30% market share by February 2007,” explained Skouratova *et al.* Although the NYMEX contract lost market share, it did not experience extinction like the LIFFE Bund contract.

Chicago Exchanges

In 1998, the CBOT and CME had to face up to competitive threats resulting from electronic trading, which brought about wrenching change. As noted previously, the electronic exchange, the EUREX (DTB), successfully wrestled control of the 10-year German government bond futures contract, the Bund contract, from the (then) open-outcry LIFFE exchange in London with a “price war on fees.” This unprecedented victory of an all-electronic venue accelerated change in Chicago. Soon thereafter both the CBOT and CME embraced concurrent open-outcry and electronic trading.

And yet, the worries on Chicago’s continued competitiveness continued unabated. According to Melamed (2009), “the only way to prepare [the CME] for the twenty-first century” was to demutualize; a member-driven organization would be too slow in its decision-making. In the latter case, the result could be that the CME would lose the first-mover advantage that could result from taking advantage of expected disruptive changes that, in turn, could occur from globalization and technological changes. Therefore, the CME went public in 2002, becoming the first U.S. financial exchange to do so.

By 2006, the Chicago Mercantile Exchange’s trading volume “exceeded 2.2 billion contracts – worth more than \$1,000 trillion – with three-quarters of ... trades executed electronically,” according to the CME Group (2007). In 2007 the CBOT merged into cross-town rival CME; and in 2008, the NYMEX merged into the combined Chicago exchange.

The CME Group has continued to respond to market, customer, and regulatory pressures, including establishing an exchange domiciled and regulated in London, and separately launching gold futures contracts that physically deliver into gold held in Hong Kong.

Pool of Speculators Must Be Attracted to a Market

At the outset of this paper, we had noted that not only must a futures contract respond to a commercial need for hedging, but the contract must also attract a pool of speculators. Arguably, there are three aspects to attracting speculators: (1) A futures exchange must already have a community of risk-takers; (2) There must be a level playing field for speculators; and (3) A speculator must have the ability to actually manage the price risk of taking on the other side of a commercial hedger’s position.

Community of Risk-Takers

In discussing the need for a community of risk-takers, this section of the paper will examine (a) Chicago as a case study, (b) other financial centers’ experiences, (c) the practical approach of speculators, and (d) the

requirement that speculators must be willing to risk failure.

Chicago as a Case Study

The history of Chicago is inextricably linked to financial risk-taking. As early as the mid-nineteenth century, Chicago was already a well-established center of financial risk-taking because of the land speculation that had occurred in Illinois in the 1830s during the building of a crucial canal that ultimately linked productive Illinois farmland to major population centers. “Even before construction [of the canal] began, speculators flocked to Chicago to buy up land in what they hoped would be a thriving canal port. Many made huge profits,” noted Baldwin (2000).

In the mid-nineteenth century, the CBOT’s first directory of 25 members included “a druggist, a bookseller, a tanner, a grocer, a coal dealer, a hardware merchant and a banker,” according to Lurie (1979). From this directory, we can see the start of commodity speculation as being separate from the business of the commodity itself. Stassen (1982) explained that the formation of the CBOT resulted from businessmen seeking “some order in a world of chaos, and some relief from a hostile judicial system, which only reluctantly enforced businessmen’s bargains.”

“The Crimean War and subsequently the Civil War resulted in sharply fluctuating prices. Chicago merchants were reluctant to bid vigorously for deferred delivery. They tended to keep the forward bids below prices that they thought would prevail at the time of delivery because of the danger of a price decline. There were other, more venturesome people who would bid up to or above current prices. Many of these were not connected with the grain trade; they were merchants in other lines, land speculators, lawyers, physicians, and the like,” wrote Hieronymous (1971).

With hindsight, we now know that Chicago’s century-plus heritage of financial risk-taking has served the city well. For example, it was Chicago futures traders who successfully responded to the dislocations that were caused by the collapse of the Bretton Woods system of fixed exchange rates.

Another aspect of Chicago’s endowment is the University of Chicago. In the 1970s, the university already had a tradition of training graduates with the skills that would become very useful in the then new field of mathematical finance. Many of these graduates would later staff up Chicago’s proprietary trading firms from the 1970s onwards and deepen Chicago’s already diverse group of financial risk-takers.

Chicago’s endowment of financial risk-takers and quants arguably allowed the CBOE to succeed. The exchange “opened for business ... just one month before the Black-Scholes paper appeared in print,”

noted Van Overtveldt (1998). According to derivatives expert, Stan Jonas, in his interview during “The Midas Formula” documentary: “Word of the [Black-Scholes] model began to circulate, particularly amongst people in the University of Chicago and more particularly amongst the option traders and literally before the official publication of the model[,] traders had effectively started to programme the model and begin to use it to trade” at the CBOE.

In present-day Chicago, the tradition of having an in-depth pool of financial risk-takers and quants continues. In a 2013 *Opalesque* Round Table on Chicago, Paul MacGregor of FFastFill noted in his interview with Melin (2013): “Chicago is ... the only town in the world ... where you can walk into a large proprietary firm [and] what you see is literally three guys: The trader, the technology guy and the manager, and that’s it. And then you look at the kind of volumes they are trading and you are just staggered. You don’t see that ... anywhere else in the world.”

Other Financial Centers

The experience of other financial centers in attempting to launch futures contracts points to the need to have a deep pool of already existing financial risk-takers in order to increase the chances of success for new contracts. The Kansas Board of Trade “launched the Value Line stock index futures in February 1982 ... two months before the ... [CME] introduced S&P futures. ... Two years earlier, the world’s first cash-settled futures contract had been launched ... at the Sydney Futures Exchange – a U.S. dollar currency future. ... Nevertheless, ultimately [financial futures] contracts thrived ... in Chicago, which contained by far the biggest pool of experienced futures traders,” wrote Weitzman (2011).

But admittedly, Chicago has not been the only center of innovation in U.S. futures market development. In the 1970s, for example, the New York Mercantile Exchange (NYMEX) had arguably faced possible extinction when its mainstay contract, the Maine potato, lost credibility during scandals in 1976 and 1979. Fortunately, the NYMEX responded to structural changes in the energy markets with its launch of petroleum-complex futures from the late 1970s through the mid-1980s, and with its launch of natural gas futures in 1990, as noted previously.

A Practical Approach

From the mid-nineteenth century to the present day, another characteristic of successful speculators is an intensely practical approach.

“[W]e need look no further back than the frontier of the U.S. in the mid-19th century for the origin of the modern futures trading,” wrote Hieronymous (1971). Hieronymous quoted Emery (1896) as follows in describing the business

conditions of the mid-nineteenth century: “Untrammelled by business traditions of past centuries [,] the trade of this country has unconsciously adopted new and direct means for attaining its ends. ... There has been little ‘history’ or ‘evolution’ about the process, for the practical mind of the businessman has simply seized the most direct method of ‘facilitating’ business, a course forced on him by the constantly increasing size of transactions.”

It was not only the 1970s with all its financial dislocations that resulted in experimental product development at the Chicago futures exchanges. Throughout the 1960s, as grain futures trading volumes slumped, the Chicago exchanges launched a whole host of new commodity futures contracts, of which the livestock futures contracts were the most successful. “We weren’t looking in terms of a new exchange. We weren’t out to create a whole new world. We just wanted a little pit in the corner of the trading room,” recalled a CBOT trader in Weitzman (2011).

With lightning-fast execution in the new electronic markets, a “whole new world of very short-term algorithmic trading [opened up] to speculators in the [futures] market[s],” wrote Dowd (2007). Product innovation is arguably now moving “from [the] exchanges to electronic trading firms, which develop their own algorithms rather than [relying] ... on the exchanges to create new instruments,” explained Weitzman (2011).

And innovation by Chicago’s proprietary trading firms continues, of necessity.

In the 2013 *Opalesque* Round Table, Alex Brockmann of TradeLink Capital described a current trend to Melin (2013): “What I have noticed is that the profitability of the prop[rietary] trading businesses has actually been declining since about 2009, and what you see as a consequence is that some proprietary trading firms are edging toward asset management as a way to earn something from the infrastructure and the intellectual capital they have developed.”

Willingness to Risk Failure

Vince (1992) states that trading “requires discipline to tolerate and endure emotional pain to a level that 19 out of 20 people cannot bear. Anyone who claims to be intrigued by the ‘intellectual challenge of the markets’ is not a trader. The markets are as intellectually challenging as a fistfight. ... Ultimately, trading is an exercise in self-mastery and endurance.”

Perhaps the same can be said about product development in the futures markets.

Harris (1970) noted that an enduring philosophy of the CME has been an acceptance of the possibility of failure in its new product ventures: “Necessity is the mother of invention. Beginning in the early fifties ... [CME] members have vigorously researched, tested, and promoted many new contracts for futures

trading. ... Some have succeeded and some have failed, but fear of failure has not impeded progress,” concluded Harris.

Level Playing Field for Speculators

Another key aspect to attracting speculators to futures markets is that commercial hedgers cannot have an undue advantage in predicting prices, as demonstrated with two examples below.

Grains

With the highly successful soybean, corn, and wheat futures contracts, the primary uncertainty is the outcome of supply. Therefore, speculators and hedgers are on a level playing field. Hedgers would not have an informational edge over speculators.

In contrast, with agricultural contracts where the primary uncertainty is demand, and where this demand is concentrated amongst large commercials, a speculator could be at an informational disadvantage.

In summary, “speculators have gradually been attracted to commodities ... [in which] price fluctuations ... occur mostly on the supply side and haven’t been attracted to commodities where the price fluctuations come from demand,” observed Gray (1966).

Equities

A similar consideration applies to equities. “One of the problems inherent in market making with specific equities is the risk that a buyer or seller has information that will affect the specific price of a stock. The trade is then information based rather than liquidity motivated,” wrote Silber (1985). “A dealer will make a better market for a package of equities rather than one or two individual stocks because it is then less concerned about inside information. Such buy or sell programs for groups of large blocks of stock are ideally hedged in the stock index futures markets,” contributing to the success of equity index futures contracts, according to Silber.

The Ability to Actually Manage Risk

In order to participate, speculators must be able to manage the risk of taking on the other side of a commercial hedger’s position. There are actually a number of ways in which professional speculators provide risk-bearing services. A speculator may be an expert in the term structure of a futures curve and would spread the position taken on from the commercial hedger against a futures contract in another maturity of the futures curve. Or the speculator may spread the position against a related commodity.

Alternatively, a speculator may detect trends resulting from the impact of a commercial’s hedging

activity, and be able to manage taking on an outright position from a commercial because the speculator has created a large portfolio of unrelated trades. In this example, the speculator’s risk-bearing specialization comes from the astute application of portfolio theory.

CPI Futures: Specific Example

If a speculator has no way to manage the risk of taking on an outright futures contract, then it is unlikely that the futures contract will succeed. “Hedging by itself is not sufficient to ensure success; ... [in addition], speculators must provide liquidity to take the other side of a market where hedgers are net short or net long. ... For ... [those] who might supply speculative capital, one way to minimize these risks is to enter spread positions across markets. By monitoring the basis between related markets, traders are more likely to present bids and offers and supply the necessary liquidity to a new market without incurring too much risk,” explained Petzel (2001).

“[T]he lack of a spread vehicle in the 1980s ultimately led to the failure of the CPI futures contract on the” Coffee, Sugar, and Cocoa Exchange in New York, wrote Petzel.

Public Policy Should Not Be Too Adverse

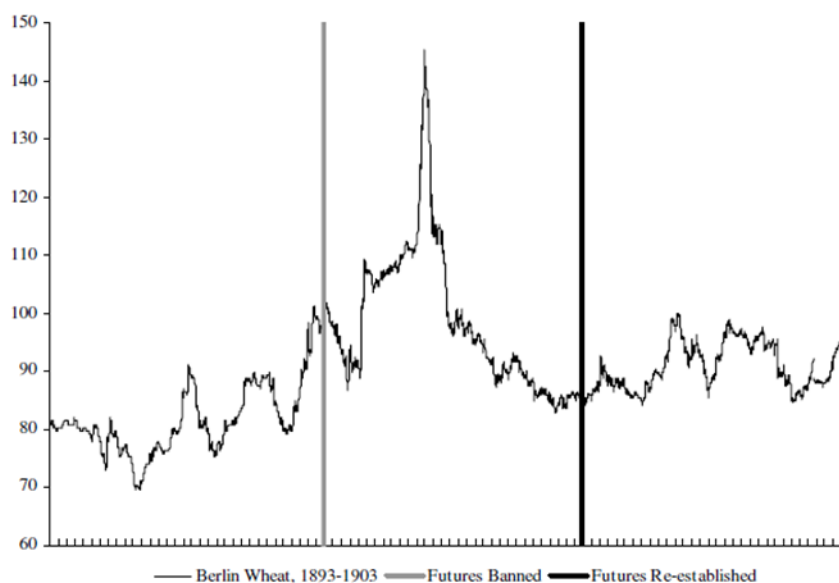
Besides a contract serving a commercial hedging need and being able to attract a pool of speculators, a third factor determining the success of a futures contract relies on public policy not being too adverse. For this discussion, there are four relevant factors: (1) A contract must have a convincing economic rationale; (2) It is helpful if contracts are viewed as being in the national interest; (3) Regulatory imbalances should be avoided; and (4) Regulatory interventions should not be too draconian.

If Unconvincing Economic Rationale, a Contract is at Risk to 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 ...”

But “[i]t became apparent that ... [the law] had seemingly failed to accomplish its most touted benefit, the stabilization of commodity prices,” noted Jacks, and as illustrated in Figure 8. The law “was rescinded early in 1900. In April of that year, the Berlin futures market in grain was reopened,” recounted Jacks.

Figure 8. Index of Wheat Prices Over 4015 Days

Source: Jacks (2007).

Onion Futures Contracts (1958)

Jacks (2007) also discusses 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,” concluded Jacks.

Working (1963) explained that “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 (1963) 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, cites research that there were at least 330 bills introduced to the U.S. Congress between 1884 and 1953 to “limit, obstruct, or prohibit futures trading.”

Figures 9 through 14 show how frequent governmental interventions have been in the U.S. futures markets since the 1920s. After reviewing this history, it is clear that it always will be an ongoing effort to demonstrate the economic usefulness of futures trading.

“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). These 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) while “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,” again according to Cooper and Lawrence (1975). The recognition of the fundamental economic factors explaining the dramatic price rises in commodities helped ensure that draconian regulation on futures trading did not ensue.

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

Figure 9. History of U.S. Futures Market Regulation

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 US 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 US\$20 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 requirement did not discourage bullish speculators.
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 regulator's 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 WWI, 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.
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.
August 1977		The CFTC requests the US 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.
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 being in the national interest, as the following examples illustrate.

Foreign Currency Futures

Milton Friedman invoked the national interest 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.

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 that resulted 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 that their existence would actually lessen price volatility. More inventories held, than otherwise would be the case, would lessen the possibility of commodity price spikes, as argued in Verleger (2010), regarding crude oil.

Regulatory Issues

ICE vs. NYMEX: A Question of Regulatory Parity

If a futures exchange does not have regulatory parity with another similar exchange, then it could lose market share. According to Dowd (2007), as of 2006, there was “a significant regulatory imbalance between the two regulating authorities, the ... [U.K. financial regulator] and [the] 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 the 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 2008. In June 2008, “[t]he U.S. commodity futures regulator ... [reported that] 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,” according to Talley (2008).

CME-Europe: The Provision of Regulatory Choice

As noted earlier, the CME Group continually examines ways to retain its competitiveness. This even includes establishing an exchange in Europe. “The decision by the CME Group to establish a European derivatives exchange [in London] highlights the growing demand among trading firms for ‘regulatory choice’ ... Clients should not have to choose to trade in the U.S. regulatory environment, or not to trade with us at all. That is not a real choice. The more we have invested in our global infrastructure, the more we have realized that there are customer acquisition opportunities by creating regional access to our services,” according to a CME official quoted in Price (2012).

According to Caruthers (2014), “CME Europe made its official debut ... [in April 2014], initially launching with 30 foreign exchange futures contracts and biodiesel futures. For CME Group, owner of the world’s largest futures exchange, the market is its first outside the U.S.” “‘London will give us the best location to serve both European and Asian market participants, allowing those clients to have the choice of trading and clearing with CME in a relevant time zone and jurisdiction,’” said Terry Duffy, executive chairman and president of CME Group,” in the article by Caruthers.

If Interventions, Not Too Draconian

Another public policy consideration is that if there are regulatory interventions, as long as they are not too severe, futures markets can still thrive.

The suspension of grain futures trading in January 1980 is summarized in Figure 10.

Figure 10. History of U.S. Futures Market Regulation (1980-s)

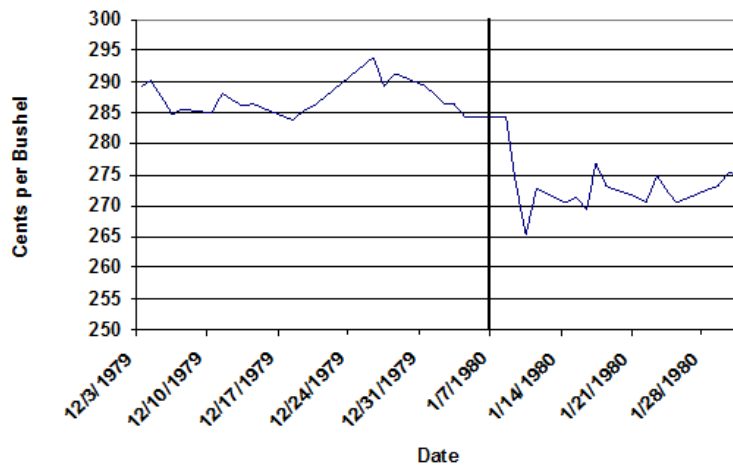
Date	Regulation	Action
January 1980		In an emergency action, the CFTC orders the <i>suspension of futures trading</i> for two days for wheat, corn, oats, soybean meal, and soybean oil on four exchanges after President Carter announces an embargo on the sale of certain agricultural goods to the Soviet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

Source: http://www.cftc.gov/About/HistoryoftheCFTC/history_1980s, which was accessed on October 21, 2014.

Such an action, while “well-intentioned [was] ... a direct restraint on [a] futures market[’s] free operations and [was] ... intended to override the ability of buyers and sellers in the market to negotiate

prices freely,” wrote Johnson and Hazen (2004). Figure 11 shows that trading suspension only had a minor effect on grain futures trading, and so did not damage these markets.

Figure 11. Corn: March 1980 Contract (12/3/79 to 1/31/80)



Source: The Bloomberg.

Note: The vertical line is at 1/6/80, when the CFTC announced the two-day suspension of futures trading.

“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).

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[an] 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 that the action taken by the Carter administration did not have a draconian impact on U.S. grain futures traders.

Conclusion

In a sense, futures trading can be seen as a game where the competing players, the hedgers and the speculators, each have sufficient economic reasons to participate. The referees of this game, the government authorities, have the power to stop the game, if there is not a convincing economic rationale for a futures contract’s existence.

Therefore, a futures contract can succeed only if it responds to a commercial hedging need, and if speculators are able to manage the risk of taking on the hedger’s positions. In addition, a convincing case must be made that the contract serves an economic

purpose; otherwise the contract is at risk to either being banned or heavily curtailed.

Endnotes

This article is excerpted from a seminar that was prepared for staff at the Shanghai Futures Exchange.

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The information in this article has been assembled from sources believed to be reliable, but is not guaranteed by the author.

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