

SUBMISSION COVER SHEET

IMPORTANT: Check box if Confidential Treatment is requested

Registered Entity Identifier Code (optional): 20-339 (1 of 2)

Organization: Chicago Mercantile Exchange Inc. ("CME")

Filing as a: DCM SEF DCO SDR

Please note - only ONE choice allowed.

Filing Date (mm/dd/yy): 10/07/20

Filing Description: Initial Listing of the Pork Cutout Futures and Options on Pork Cutout Futures Contracts

SPECIFY FILING TYPE

Please note only ONE choice allowed per Submission.

Organization Rules and Rule Amendments

- | | | |
|--------------------------|-------------------------------------|------------|
| <input type="checkbox"/> | Certification | § 40.6(a) |
| <input type="checkbox"/> | Approval | § 40.5(a) |
| <input type="checkbox"/> | Notification | § 40.6(d) |
| <input type="checkbox"/> | Advance Notice of SIDCO Rule Change | § 40.10(a) |
| <input type="checkbox"/> | SIDCO Emergency Rule Change | § 40.10(h) |

Rule Numbers:

New Product

Please note only ONE product per Submission.

- | | | |
|-------------------------------------|---------------------------------------|------------|
| <input checked="" type="checkbox"/> | Certification | § 40.2(a) |
| <input type="checkbox"/> | Certification Security Futures | § 41.23(a) |
| <input type="checkbox"/> | Certification Swap Class | § 40.2(d) |
| <input type="checkbox"/> | Approval | § 40.3(a) |
| <input type="checkbox"/> | Approval Security Futures | § 41.23(b) |
| <input type="checkbox"/> | Novel Derivative Product Notification | § 40.12(a) |
| <input type="checkbox"/> | Swap Submission | § 39.5 |

Official Product Name: Pork Cutout Futures & Options on Pork Cutout Futures

Product Terms and Conditions (product related Rules and Rule Amendments)

- | | | |
|--------------------------|---|----------------------|
| <input type="checkbox"/> | Certification | § 40.6(a) |
| <input type="checkbox"/> | Certification Made Available to Trade Determination | § 40.6(a) |
| <input type="checkbox"/> | Certification Security Futures | § 41.24(a) |
| <input type="checkbox"/> | Delisting (No Open Interest) | § 40.6(a) |
| <input type="checkbox"/> | Approval | § 40.5(a) |
| <input type="checkbox"/> | Approval Made Available to Trade Determination | § 40.5(a) |
| <input type="checkbox"/> | Approval Security Futures | § 41.24(c) |
| <input type="checkbox"/> | Approval Amendments to enumerated agricultural products | § 40.4(a), § 40.5(a) |
| <input type="checkbox"/> | “Non-Material Agricultural Rule Change” | § 40.4(b)(5) |
| <input type="checkbox"/> | Notification | § 40.6(d) |

Official Name(s) of Product(s) Affected:

Rule Numbers:

October 7, 2020

VIA ELECTRONIC PORTAL

Mr. Christopher J. Kirkpatrick
Office of the Secretariat
Commodity Futures Trading Commission
Three Lafayette Centre
1155 21st Street, N.W.
Washington, D.C. 20581

Re: CFTC Regulation 40.2(a) Certification. Notification Regarding the Initial Listing of the Pork Cutout Futures and Options on Pork Cutout Futures Contracts. CME Submission No. 20-339 (1 of 2)

Dear Mr. Kirkpatrick:

Chicago Mercantile Exchange Inc. (“CME” or “Exchange”) certifies to the Commodity Futures Trading Commission (“CFTC” or “Commission”) the initial listing of Pork Cutout Futures and Options on Pork Cutout Futures contracts (the “Contracts”) for trading on the CME Globex electronic trading platform (“CME Globex”) and for submission for clearing via CME ClearPort effective on Sunday, November 8, 2020 for trade dated Monday, November 9, 2020.

	<u>Pork Cutout Futures</u> <u>Options on Pork Cutout Futures</u>	
Contract Size	40,000 pounds	
Commodity Code	PRK	PRK
CME Rulebook Chapter	156	156A
Listing Schedule	2 Feb monthly contracts listed the business day after the termination of trading in the Aug contract month 2 Apr monthly contracts listed the business day after the termination of trading in the Oct contract month 2 May monthly contracts listed the business day after the termination of trading in the Dec contract month 2 Jun monthly contracts listed the business day after the termination of trading in the Dec contract month 2 Jul monthly contracts listed the business day after the termination of trading in the Feb contract month 2 Aug monthly contracts listed the business day after the termination of trading in the Apr contract month 2 Oct monthly contracts listed the business day after the termination of trading in the May contract month 2 Dec monthly contracts listed the business day after the termination of trading in the Jun contract month	
Initial Listing Months	December 2020 - April 2022	

Minimum Price Increments	\$0.00025 per pound (\$10.00 per contract) TAS: Zero or +/- 4 ticks in the minimum tick increment of the outright	\$0.00025 per pound (\$10 per contract) - <i>Full Tick</i>
		\$0.000125 per pound (\$5.00 per contract) - <i>Half Tick</i>
Option Type		American Style
Strike Price Listing Procedures		Strikes listed for 50% of the underlying settlement price above and below the at-the-money strike at \$0.02 per pound increments in all months and additional strikes listed for 25% of the underlying settlement price above and below the at-the-money strike at \$0.01 per pound increments in the nearest 3 months
Exercise Procedure		Any business day that the option is traded until 5:30 p.m. CT
Termination of Trading	Trading shall terminate on the 10 th business day of the contract month.	
Delivery	Financially settled to the CME Pork Cutout Index.	
Option Premium Style		Equity Style (premium paid upfront)
Block Trade Minimum Threshold Level	5 contracts	5 contracts
Block Trade Reporting Window	5 minutes	15 minutes
CME Globex Matching Algorithm	F: First In, First Out (FIFO)	
CME Globex	Monday - Friday: 8:30 a.m. - 1:05 p.m. Central Time (CT) <i>Pre-Open</i> 8:00 a.m. – 8:29.59 a.m. CT & 2:30 p.m. - 4:00 p.m. CT TAS on CME Globex: Monday - Friday: 8:30 a.m. - 1:00 p.m. CT	
CME ClearPort	5:00 p.m. Sunday to 5:45 p.m. CT Friday; with a 15-minute break Monday – Thursday each day beginning at 5:45 p.m. CT	

As noted, CME is also enabling block trading in the Contracts and certifying a minimum block threshold level of 5 contracts in Pork Cutout Futures and 5 contracts in Options on Pork Cutout Futures, which represents 200,000 pounds of pork cutout.

The Exchange is also certifying pre-execution communication via the G-Cross and R-Cross protocols in Pork Cutout Futures during CME Globex electronic trading hours. It is certifying pre-execution communication via the R-Cross protocols in Options on Pork Cutout Futures during the CME Globex electronic trading hours as well. Both are currently noted in CME Rule 539.C. (“Crossing Protocols Table”).

The Exchange reviewed the designated contract market core principles (“Core Principles”) as set forth in the Commodity Exchange Act (“CEA” or “Act”) and identified that the following Core Principles may be impacted by this initiative as follows:

- **Compliance with Rules:** Trading in the Contracts will be subject to all CME Rules, including prohibitions against fraudulent, noncompetitive, unfair and abusive practices as outlined in CME Rule Chapter 4, the Exchange’s trade practice rules, the majority of which are contained in Chapter 5 and Chapter 8 of the CME Rulebook, and the dispute resolution and arbitration procedures of CME Rule Chapter 6. As with all products listed for trading on one of CME Group’s designated contract markets, trading activity in the Contract will be subject to monitoring and surveillance by CME Group’s Market Regulation Department. The Market Regulation Department has the authority to exercise its investigatory and enforcement power where potential rule violations are identified.
- **Contracts not Readily Subject to Manipulation:** The Contracts are not readily subject to manipulation because of their structural attributes and active underlying market. Final settlements are based on the CME Pork Cutout Index price which is a volume-weighted average price of pork cutout carcass prices as published daily by the United States Department of Agriculture (“USDA”).
- **Prevention of Market Disruption:** Trading in the Contracts will be subject to the rules of the Exchange, which include prohibitions on manipulation, price distortion, and disruption to the cash settlement process. As with any new product listed for trading on a CME Group designated contract market, trading activity in the option contract proposed herein will be subject to monitoring and surveillance by CME Group’s Market Regulation Department.
- **Position Limitations or Accountability:** The speculative position limits for the Contracts as demonstrated in this submission are consistent with the Commission’s guidance.
- **Emergency Authority:** As with all CME Group futures and options product, the Exchange shall have full authority to act appropriately and as necessary in emergency situations.
- **Availability of General Information:** The Exchange will publish on its website information in regard to contract specifications, terms, and conditions, as well as daily trading volume, open interest, and price information for the Contracts. The Exchange will issue a Special Executive Report (“SER”) regarding the launch of the Contracts. The SER will also be posted on the CME Group website.
- **Daily Publication of Trading Information:** The Exchange will publish contract trading volumes, open interest levels, and price information daily on its website and through quote vendors for the Contracts.
- **Execution of Transactions:** The Contracts will be listed for trading on CME Globex electronic trading platform. Additionally, they will be listed for clearing through the CME ClearPort platform. The CME Globex electronic trading platform provides competitive and open execution of transactions reliably and globally. The CME ClearPort platform provides a competitive, open and efficient mechanism for the novation of transactions that are competitively executed by brokers.
- **Trade Information:** All requisite trade information for the Contracts will be included in the audit trail and is sufficient for the Market Regulation Department to monitor for market abuse.
- **Financial Integrity of Contracts:** The Contracts will be cleared by the CME Clearing, a derivatives clearing organization registered with the CFTC and subject to all CFTC Regulations related thereto.
- **Protection of Market Participants:** CME Rulebook Chapters 4 and 5 set forth multiple prohibitions that preclude intermediaries from disadvantaging their customers. These rules apply to trading in all of the Exchange’s competitive trading venues.

- **Disciplinary Procedures:** Chapter 4 of the Rulebook contains provisions that allow the Exchange to discipline, suspend or expel members or market participants that violate the Rulebook. Trading in the Contracts will be subject to Chapter 4, and the Market Regulation Department has the authority to exercise its enforcement power in the event rule violations in these products are identified.
- **Dispute Resolution:** Disputes with respect to trading in the Contract will be subject to the arbitration provisions set forth in Chapter 6 of the Rulebook. Chapter 6 allows all non-members to submit a claim for financial losses resulting from transactions on the Exchange to arbitration. A member named as a respondent in a claim submitted by a non-member is required to participate in the arbitration pursuant to Chapter 6. Additionally, the Exchange requires that members resolve all disputes concerning transactions on the Exchange via arbitration.

Pursuant to Section 5c(c) of the Act and CFTC Regulation 40.6(a), the Exchange hereby certifies that the listing of the Contracts complies with the Act, including regulations under the Act. There were no substantive opposing views to this proposal.

The Exchange certifies that this submission has been concurrently posted on the Exchange's website at <http://www.cmegroup.com/market-regulation/rule-filings.html>.

Should you have any questions concerning the above, please contact the undersigned at 212-299-2200 or via e-mail at CMEGSubmissionInquiry@cmegroup.com.

Sincerely,

/s/ Christopher Bowen
Managing Director and Chief Regulatory Counsel

Attachments: Exhibit A – CME Rulebook Chapter 156
Exhibit B – CME Rulebook Chapter 156A
Exhibit C – Position Limit, Position Accountability, and Reportable Level Table in Chapter 5 of the CME Rulebook (attached under separate cover)
Exhibit D – Market Overview and Analysis of Deliverable Supply (attached under separate cover)
Exhibit E – CME Rule 588.H. – (“Globex Non-Reviewable Trading Ranges”) Table
Exhibit F – Exchange Fees

Exhibit A

Chapter 156 Pork Cutout Futures

15600. SCOPE OF CHAPTER

This chapter is limited in application to Pork Cutout futures. In addition to this chapter, Pork Cutout futures shall be subject to the general rules and regulations of the Exchange insofar as applicable.

For purposes of this chapter, unless otherwise specified, times referred to herein shall refer to and indicate Chicago time.

15601. CONTRACT SPECIFICATIONS

Each futures contract shall be valued at 40,000 pounds times the CME Pork Cutout Index®.

15602. TRADING SPECIFICATIONS

15602.A. Trading Schedule

Futures contracts shall be scheduled for trading during such hours and for final settlement in such months as may be determined by the Exchange.

15602.B. Trading Unit

The unit of trading shall be 40,000 pounds of 215-pound, 55-56% lean pork carcasses with 0.55-0.70 inches of back fat at the last rib or equivalent.

15602.C. Price Increments

Minimum price fluctuations shall be in multiples of \$.00025 per pound.

15602.D. Daily Price Limits (up to and including August 31, 2021)

There shall be no trading in Pork Cutout futures at a price more than \$0.045 per pound above or below the previous day's settlement price. Should any Pork Cutout futures contract month within the first eight listed contracts subject to price limits settle at limit, or should any Lean Hogs futures contract month within the first eight listed contracts subject to price limits settle at limit, the daily price limits for all contract months shall expand to \$0.0675 per pound on the next business day. During the last five days of trading, the expiring contract month shall be excluded from triggering expanded limits.

If none of the first eight listed Pork Cutout contracts subject to price limits settles at a price change equal to or greater than \$0.045 per pound on the following business day, and if none of the first eight listed Lean Hogs contracts subject to price limits settles at a price change equal to or greater than the initial price limit the following business day, daily price limits for all contract months shall revert back to \$0.045 per pound on the following business day. There shall be no price limits on the expiring contract month during the last five trading days.

15602.D. Daily Price Limits (commencing September 1, 2021)

Daily price limits for Pork Cutout futures are reset annually on the first trading day in September based on the following: Daily settlement prices are collected for the nearest August contract over 45 consecutive trading days before and including the tenth business day in July (Last Trade Date of the nearest July contract). The average price is calculated based on the collected settlement prices and then multiplied by 5 percent. The resulting number, or \$0.045 per pound, whichever is higher, rounded down to the nearest \$0.0025 per pound, will be the new initial price limits for Pork Cutout futures and will become effective on the first trading day in September and will remain in effect through the last trading day in August of the following year. During the last five days of trading, the expiring contract month shall be excluded from triggering expanded limits.

There shall be no trading in Pork Cutout futures at a price more than the initial price limit above or below the previous day's settlement price. Should any Pork Cutout futures contract month within the first eight listed contracts subject to price limits settle at limit, or should any Lean Hogs futures contract month within the first eight listed contracts subject to price limits settle at limit, the daily price limits for all contract months shall increase by 50 percent the next business day, rounded down to the nearest \$0.0025 per pound.

If none of the first eight listed Pork Cutout contracts subject to price limits settles at a price change equal to or greater than the initial price limit the following business day, and if none of the first eight listed Lean Hogs contracts subject to price limits settles at a price change equal to or greater than the initial price

limit the following business day, daily price limits for all contract months shall revert back to the initial price limit on the following business day. There shall be no price limits on the expiring contract month during the last five trading days.

15602.E. Position Limits, Exemptions, Position Accountability and Reportable Levels

The applicable position limits and/or accountability levels, in addition to the reportable levels, are set forth in the Position Limit, Position Accountability and Reportable Level Table in the Interpretations & Special Notices Section of Chapter 5.

A Person seeking an exemption from position limits for bona fide commercial purposes shall apply to the Market Regulation Department on forms provided by the Exchange, and the Market Regulation Department may grant qualified exemptions in its sole discretion.

Refer to Rule 559 for requirements concerning the aggregation of positions and allowable exemptions from the specified position limits.

15602.F. [Reserved]

15602.G. [Reserved]

15602.H. Termination of Trading

Trading shall terminate on the tenth Business Day of the contract month, 12:00 p.m.

15602.I. [Reserved]

15603. SETTLEMENT PROCEDURES

15603.A. Final Settlement

There shall be no delivery of pork carcasses in settlement of this contract. All contracts open as of the termination of trading shall be cash settled based upon the CME Pork Cutout Index® for the five-day period ending on the day on which trading terminates.

1. The Sample

The sample consists of the daily estimates by the USDA of the value of a 215-pound, 55-56% lean pork carcasses, with 0.55-0.70 inches of back fat at the last rib or equivalent and is based upon negotiated wholesale prices being paid for sub-primal pork cuts. The information upon which the estimates are made and the resulting values are reported daily by the USDA in the "NATIONAL DAILY PORK REPORT FOB PLANT – Negotiated Sales – Afternoon (LM_PK602)".

2. The Calculation

The procedure for calculating the CME Pork Cutout Index is as follows, using data reported on five consecutive weekdays.

- a. The most recent daily number of loads is multiplied by the corresponding daily carcass price to determine the daily value;
- b. The most recent daily value is added to the four previous consecutive daily values to determine the 5-day value;
- c. The most recent daily load count is added to the four previous consecutive daily load counts to determine the 5-day load count;
- d. The 5-day value (i.e. the result from b. above) is divided by the 5-day load count (i.e. the result from c. above) to obtain the CME Pork Cutout Index.

For the purposes of this rule, Friday of one week and Monday of the following week shall be considered to be consecutive weekdays.

Also for the purposes of this rule, any days when the necessary data are not released by the USDA shall not be considered weekdays, in which case the first weekday immediately preceding and the first weekday immediately following such day(s) shall be considered two consecutive weekdays.

15603.B. - H. [Reserved]

15604.-08. [RESERVED]

(End Chapter 156)

Exhibit B

Chapter 156A Options on Pork Cutout Futures

156A00. SCOPE OF CHAPTER

This chapter is limited in application to options on Pork Cutout futures. In addition to this chapter, options on Pork Cutout futures shall be subject to the general rules and regulations of the Exchange insofar as applicable.

For purposes of this chapter, unless otherwise specified, times referred to herein shall refer to and indicate Chicago time.

156A01. OPTIONS CHARACTERISTICS

156A01.A. Contract Months and Trading Hours

Options contracts shall be listed for such contract months and scheduled for trading during such hours as may be determined by the Exchange.

156A01.B. Trading Unit

The trading unit shall be an option to buy, in the case of the call, or to sell, in the case of the put, one Pork Cutout futures contract as specified in Chapter 156.

156A01.C. Minimum Fluctuations

The price of an option shall be quoted in cents per pound. Minimum price fluctuations shall be in multiples of \$.00025 per pound (also known as one tick). A trade may also occur at a price of \$.000125 per pound (\$.50, also known as one-half tick), whether or not it results in the liquidation of positions for both parties to the trade.

156A01.D. Underlying Futures Contract

For regular-cycle options, the underlying futures contract is the futures contract for the month in which the option expires. For example, the underlying futures contract for an option that expires in February is the February futures contract.

156A01.E. Exercise Prices

The exercise prices shall be stated in terms of cents per pound. For all contract months, exercise prices shall be at intervals of 2¢; e.g., 60¢, 62¢, 64¢, etc. In addition, for the first three contract months, some exercise prices shall also be at intervals of 1¢; e.g., 60¢, 61¢, 62¢, etc., as is described below.

At the commencement of option trading in a contract month, the Exchange shall list put and call options in a range within 50 percent above and below the strike closest to the previous day's settlement price of the underlying futures contract (the at-the-money strike). If the previous day's settlement price is midway between two strikes, the at-the-money strike shall be the larger of the two.

When a contract becomes the third nearest contract month, the Exchange shall add exercise prices at 1¢ intervals at a range within 25 percent above and below the strike closest to the previous day's settlement price of the underlying futures contract (the at-the-money strike). If the previous day's settlement price is midway between two strikes, the at-the-money strike shall be the larger of the two.

All strikes will be listed prior to the opening of trading on the following business day. As new strikes are added, existing strikes outside of the newly determined strike ranges without open interest may be de-listed.

New strikes may be listed for trading up to and including the termination of trading.

The Exchange may modify the procedure for the introduction of strike prices as it deems appropriate in order to respond to market conditions.

156A01.F. Position Limits, Exemptions, Position Accountability and Reportable Levels

The applicable position limits and/or accountability levels, in addition to the reportable levels, are set forth in the Position Limit, Position Accountability and Reportable Level Table in the Interpretations & Special Notices Section of Chapter 5.

A Person seeking an exemption from position limits for bona fide commercial purposes shall apply to the Market Regulation Department on forms provided by the Exchange, and the Market Regulation Department may grant qualified exemptions in its sole discretion.

Refer to Rule 559 for requirements concerning the aggregation of positions and allowable exemptions from the specified position limits.

156A01.G. [Reserved]

156A01.H. [Reserved]

156A01.I. Termination of Trading

Options trading shall terminate on the same date and time as the underlying futures contract.

156A01.J. [Reserved]

156A02. EXERCISE AND ASSIGNMENT

In addition to the applicable procedures and requirements of Chapter 7, the following shall apply to the exercise of Pork Cutout options.

156A02.A. Exercise of Option by Buyer

An option may be exercised by the buyer on any Business Day that the option is traded. To exercise an option, the clearing member representing the buyer shall present an exercise notice to the Clearing House by 5:30 p.m. on the day of exercise.

An option that is in the money and has not been liquidated or exercised prior to the termination of trading shall, in the absence of contrary instructions delivered to the Clearing House by 5:30 p.m. on the second Business Day following the Expiration Day by the clearing member representing the option buyer, be exercised automatically. An option is in the money if the final settlement price of the underlying futures contract lies above the exercise price in the case of a call, or lies below the exercise price in the case of a put.

Corrections to option exercises may be accepted by the Clearing House after the 5:30 p.m. deadline and up to the beginning of final option expiration processing provided that such corrections are necessary due to: (1) a bona fide clerical error, (2) an unreconciled Exchange option transaction(s), or (3) an extraordinary circumstance where the clearing firm and customer are unable to communicate final option exercise instructions prior to the deadline. The decision whether a correction is acceptable will be made by the President of the Clearing House, or the President's designee, and such decision will be final.

156A02.B. Assignment

Exercise Notices accepted by the Clearing House shall be assigned through a process of random selection to clearing members with open short positions in the same series. A clearing member to which an Exercise Notice is assigned shall be notified thereof as soon as practicable after such notice is assigned by the Clearing House, but not later than 45 minutes prior to the opening of trading in the underlying futures contract on the following Business Day.

The clearing member assigned an Exercise Notice shall be assigned a short position in the underlying futures contract if a call was exercised or a long position if a put was exercised. The clearing member representing the option buyer shall be assigned along position in the underlying futures contract if a call was exercised and a short position if a put was exercised.

All such futures positions shall be assigned at a price equal to the exercise price of the option and shall be marked to market in accordance with Rule 814 on the Trading Day of acceptance by the Clearing House of the Exercise Notice.

156A03. [RESERVED]

156A04.-29. [RESERVED]

(End Chapter 156A)

Exhibit C

**CME Rulebook
Chapter 5
("Trading Qualifications and Practices")**

Position Limits, Position Accountability and Reportable Level Table

(attached under separate cover)

Exhibit D

Market Overview and Analysis of Deliverable Supply

Background

Hogs originate from several different types of hog farms: farrow-to-finish, finish-only, farrow-to-feeder, and farrow-to-wean. Farrow-to-finish operations handle all stages of a pig's life, from birth to the sale of a market-ready hog. Farrow-to-feeder operations raise pigs from birth to the feeder pig stage - about 40 to 60 pounds - when they are ready to be sold to a finishing farm. Farrow-to-wean farms raise pigs from birth to about 10 to 15 pounds, when they are sold and fed to market weight by a feeding operation. The swine industry has experienced dramatic change over the last fifteen years due to contract and vertically coordinated hog production.

Most hog operations that involve finishing are in the Western Corn Belt (principally Iowa and Minnesota) and North Carolina. Per the most recent USDA National Agriculture Statistics Service (NASS) Quarterly Hogs and Pigs report, Iowa accounted for approximately 32% of the total inventory of all hogs and pigs in the US with 24.6 million of the 77.6 million total head. The following table details US inventory:

State	'000 Head	% of US Total
Iowa	24,600	32%
Minnesota	9,300	12%
North Carolina	9,200	12%
Illinois	5,400	7%
Indiana	4,150	5%
Nebraska	3,800	5%
Missouri	3,750	5%
All other States	2,819	4%
Ohio	2,800	4%
Oklahoma	2,260	3%
Kansas	2,100	3%
South Dakota	2,030	3%
Pennsylvania	1,360	2%
Michigan	1,250	2%
Texas	1,120	1%
Utah	950	1%
Colorado	740	1%
TOTAL	77,629	

Source: USDA Quarterly Hogs & Pigs as of 3/1/20

Hog facilities have grown dramatically larger, evolving from small hog farms to large corporate and private operations. According to the last "Overview of the United States Hog Industry" published on October 29, 2015, 93 percent of the annual pig crop is produced on operations with at least 5,000 head, up from 88 percent in 2008 and up from 27 percent in 1994. The 2012 Census of Agriculture indicated that only 5 percent of hog and pig operations had 5,000 or more head, but accounted for 68 percent of the nation's inventory. Conversely, 95 percent of operations had fewer than 5,000 head, but accounted for only 32 percent of the inventory¹.

The life cycle begins with the baby piglet. Each gilt (young female that has not given birth) and sow (mature female that has given birth) is typically bred twice a year on a schedule that provides a continuous flow of pigs for the operation. To obtain the breeding stock, operators retain gilts that show superior growth,

¹ October 29, 2015 Overview of the United States Hog Industry USDA NASS:
<http://usda.mannlib.cornell.edu/usda/current/hogview/hogview-10-29-2015.pdf>

leanness, and reproductive potential as seen in their mothers. Boars (sexually mature males) used for breeding are generally purchased from breeding farms and have a working life of approximately two years. The gestation period for a bred female is approximately 4 months, at which point the female will give birth to an average of nine to 10 piglets. As of March 1, 2020, the average number was 11.00 for operations with more than 5,000 hogs and pigs², which set a new record. The number of pigs per litter has increased steadily in recent years due to improved herd health, genetics, and production efficiencies. This trend is an important factor explaining the growing US hog inventory.

After piglets are weaned around three to four weeks of age, the sows are either re-bred or sent to market. Sows are generally kept in the breeding herd for two to three years when they are sold for slaughter; however, depending on their genetics, health, and weight, they may be sold earlier. Between farrowing and weaning, death loss to piglets is about 5 percent. Death can occur from disease, weather, or by suffocation when a sow lies on a baby piglet, plus a multitude of other external factors. Depending on the facilities used for farrowing, death loss due to weather conditions can be higher in severe winters.

Typically, it takes six months to raise a pig from birth to slaughter. Hogs are generally ready for market when they reach a weight of approximately 270 pounds. According to the USDA National Daily Direct Hog Prior Day – Slaughtered Swine (LM_HG201), the average federally inspected slaughter weight (or live weight) was 281 pounds with an average carcass weight of 212 pounds in 2019.

Generally, market-ready hogs are sold directly to a packer; however, some are sold through buying stations and auctions, and a small number are sold through terminal markets. Hog producers sell their hogs either as a negotiated transaction for a particular day or as part of a formula price. Formula pricing may be used when a large number of hogs are forward contracted with a packer or another producer over an extended time period.

As pork carcasses enter the fabrication portion of a processing plant, they are broken into primal units. These consist of the loin (25%), ham (25%), belly (16%), butt (10%), picnic (11%), rib (5%), and a remainder that includes the jowl, feet, neck bones and tail (10%). These primal units make their way to cutting tables where they are fabricated into various sub-primal styles. In the process, various by-products such as trimmings and fat are made.

The sales price and volume of the various sub primal pork cuts and pork byproducts sold by packers to their customers are mandatorily reported to the USDA every day and reflected in a “cutout” or estimated hog carcass price. This cutout price gives an indication of the overall supply and demand situation of the entire wholesale pork market as expressed through a “whole hog” value.

The Livestock Mandatory Reporting Act of 1999 (“LMR”) requires large packers to report to the USDA all the details associated with their hog purchases. LMR requirements apply to any plant in the US that processes 100,000 hogs or more per year. Plants that meet that requirement account for approximately 96% of all federally inspected barrow and gilt slaughter³.

LMR laws were amended in October 2012 requiring packers to report their wholesale pork sales to the USDA beginning in January 2013. LMR requires packers to report the daily prices and quantities for pork cuts sold. Daily USDA reports are issued on cuts sold on a negotiated basis, while weekly reports are issued on cuts sold on any basis (i.e. negotiated, formula, forward, export, etc.). The USDA calculates primal and carcass prices derived from the cuts reported in negotiated trades only.

The USDA publishes its National Daily Pork Report FOB Plant – Negotiated Sales – Afternoon (LM_PK602) each day. The report is a daily estimate of the value for a 215-pound, 55-56% lean hog carcass with 0.55-0.70 inches of back fat at the last rib or equivalent and is based upon wholesale prices being paid for sub-primal pork cuts. The CME Pork Cutout Index is calculated using data from the LM_PK602 report.

² Quarterly Hogs and Pigs USDA NASS: <http://usda.mannlib.cornell.edu/usda/current/HogsPigs/HogsPigs-06-29-2017.pdf>

³ “U.S. Market Hog Sales, 2002-2015” University of Missouri: <http://agebb.missouri.edu/mkt/vertstud15.pdf>

The CME Pork Cutout Index[®] Price and Calculation Methodology

The Pork Cutout futures contract is a cash-settled contract. The final settlement price of the futures contract is based upon the CME Pork Cutout Index[®] Price (the “Index”) for the five-day period ending on the day on which trading in the futures contract terminates; or the 6th, 7th, 8th, 9th, and 10th business days of the contract month. The relevant Index is released one business day after trading terminates in the expiring contract month. The Index is published on the CME website⁴. As noted above, the Index is comprised of a 5-business day (five-day period ending on the day on which trading in the futures contract terminates) weighted average of estimated pork carcass values reported by the USDA. This average is calculated using negotiated load counts and carcass values for 215-pound, 55-56% lean pork carcasses with 0.55-0.70 inches of back fat at the last rib or equivalent delivered within 0-14 days.

The procedure for calculating the Index is as follows, using data reported in the LM_PK602 on five consecutive business days:

- a. The most recent daily number of loads is multiplied by the corresponding daily carcass price to determine the daily value;
- b. The most recent daily value is added to the four previous consecutive daily values to determine the 5-day value;
- c. The most recent daily load count is added to the four previous consecutive daily load counts to determine the 5-day load count;
- d. The 5-day value (i.e. the result from b. above) is divided by the 5-day load count (i.e. the result from c. above) to obtain the CME Pork Cutout Index.

As noted above, the Index is based on negotiated trade as reported by the USDA. Pursuant to the LMR, large packers (processing 100,000 hogs or more per year) are required to report daily to the USDA the prices and quantities of their pork cuts sold. Plants that meet this requirement account for approximately 96% of all federally inspected barrow and gilt slaughter. In 2019, based on daily LM_PK602 reports, there were approximately 80,000 total loads of pork carcasses. One load is equal to 40,000 pounds of pork cuts and trim/processed pork used to calculate the value of an equivalent 215-pound pork carcasses. That equates to approximately 15 million pork carcasses. As such, the Exchange believes that the liquidity in the USDA report is robust.

Pork Cutout Futures and Deliverable Supply

As noted in the background section of this analysis, the USDA issues daily (LM_PK602) and weekly (LM_PK610) reports on pork cuts sold on a negotiated basis. The reports on cuts sold in the other transaction categories of formula (LM_PK620), forward (LM_PK630), and export (LM_PK640) basis are only reported weekly. In 2019, there were a total of 315,350 loads of pork sold and reported across all sale categories. Of those loads, 79,559 (25%) were reported as negotiated (LM_PK610). The following tables show load totals by category and their corresponding percent of total transactions for the previous three calendar years (volume in loads by category):

Loads	Negotiated (LM_PK610)	Formula (LM_PK620)	Forward (LM_PK630)	Export (LM_PK640)	Grand Total
2017	74,900	167,332	27,985	30,925	301,142
2018	78,199	167,070	29,754	33,467	308,490
2019	79,559	166,853	32,062	36,876	315,350
3-Year Average	77,553	167,085	29,934	33,756	308,327

⁴ <http://www.cmegroup.com/market-data/reports/cash-settled-commodity-index-prices.html>

% of total	Negotiated (LM_PK610)	Formula (LM_PK620)	Forward (LM_PK630)	Export (LM_PK640)
2017	24.87%	55.57%	9.29%	10.27%
2018	25.35%	54.16%	9.65%	10.85%
2019	25.23%	52.91%	10.17%	11.69%
3-Year Average	25.15%	54.21%	9.70%	10.94%

Deliverable supply is conservatively measured as the total weight of the relevant transactions used in the Index calculation that are reported for the five-day period ending on the day of the futures contract expiration. This represents all of the supply included in the calculation of the Index. The data for the total weight of loads used in the five-day weighted average calculation on each expiration day of the contract months listed and the corresponding 3-year average is shown below (in pounds).

Pork Cutout Index 5-day total weight at expiration (contract months):

Total Weight	Feb	Apr	May	Jun	Jul	Aug	Oct	Dec	Average
2017	54,432,000	52,182,800	58,688,000	55,940,800	54,331,200	59,631,200	61,702,400	69,897,600	58,350,750
2018	56,867,600	65,505,600	59,280,000	54,867,600	62,326,800	61,641,200	66,241,200	64,563,200	61,411,650
2019	62,483,600	55,297,600	52,316,400	58,679,600	63,472,000	59,381,600	66,688,000	64,074,000	60,299,100
3-Yr Avg	57,927,733	57,662,000	56,761,467	56,496,000	60,043,333	60,218,000	64,877,200	66,178,267	60,020,500

The average five-day deliverable supply at expiration over the past three years has been 60,020,500 pounds, which equates to 1,501 contracts (60,020,500 / 40,000). The Exchange has determined that a spot month speculative position limit of 350 contracts as of the close of trading on the fifth business day of the contract month will ensure that no single position holder will have a position equal to or greater than 25% of deliverable supply during the last five trading days of an expiring contract.

25% of Deliverable Supply	Feb	Apr	May	Jun	Jul	Aug	Oct	Dec	Average
2017	340	326	367	350	340	373	386	437	365
2018	355	409	371	343	390	385	414	404	384
2019	391	346	327	367	397	371	417	400	377
3-Yr Avg	362	360	355	353	375	376	405	414	375

Long-Term Commitments:

While there may be negotiated, non-consummated commitments, the Exchange estimates the deliverable supply based on actual consummated transactions reported into the USDA for the Negotiated sale category.

Seasonality:

The Exchange evaluates seasonality on the deliverable supply across all Pork Cutout futures contract expirations. To the extent that 25 percent of any contract month's future estimated deliverable supply falls below the current spot month limit, the Exchange will evaluate whether there is a need to adjust the spot-month position limit for that corresponding contract month.

Exhibit E

**CME Rulebook
Chapter 5
("Trading Qualifications and Practices")**

Rule 588.H. – ("Globex Non-Reviewable Trading Ranges") Table

Instrument	Globex Symbol	Outrights			Spreads	
		Globex Non-Reviewable Ranges (NRR)	NRR: Globex Format	NRR: Ticks	NRR: Globex Format	NRR: Minimum Ticks
<u>Pork Cutout Futures</u>	<u>PRK</u>	<u>\$.01 per pound</u>	<u>1000</u>	<u>40</u>	<u>Each leg evaluated as an outright</u>	
<u>TAS on Pork Cutout Futures</u>	<u>PKT</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

Outrights

Globex Symbol	Globex Non-Reviewable Ranges (NRR)
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Pork Cutout Options

PRK

The greater of the following:

- Delta multiplied by the underlying futures non-reviewable range
- 20% of premium up to ¼ of the underlying futures non-reviewable range
- 2 ticks

Exhibit F

Exchange Fees

Membership Type	Venue/Transaction Type	Fee
Individual Members Clearing Members Rule 106.J Equity Member Firms & Rule 106.J Qualified Subsidiaries Rule 106.I Members & Rule 106.I Qualified Affiliates Rule 106.S Member Approved Funds	CME Globex	\$0.51
	EFP	\$1.90
	EFR	\$1.90
	Block	\$1.90
	Delivery	\$0.15
	Exe Asn Future From	\$0.20
Rule 106.D Lessees Rule 106.F Employees	CME Globex	\$0.67
	EFP	\$2.06
	EFR	\$2.06
	Block	\$2.06
	Delivery	\$0.31
	Exe Asn Future From	\$0.36
Rule 106.R Electronic Corporate Members (For other than CME Globex - Non-Member rates apply)	CME Globex	\$0.81
Rule 106.H and 106.N Firms	CME Globex	\$0.81
	EFP	\$2.24
	EFR	\$2.24
	Block	\$2.24
	Delivery	\$0.49
	Exe Asn Future From	\$0.54
International Incentive Program (IIP) and International Volume Incentive Program (IVIP) Participants (Open Outcry at same rate as Globex for Interest Rate products only)	CME Globex	\$0.81
Central Bank Incentive Program (CBIP), Emerging Markets Bank Incentive Program (EMBIP), Latin American Fund Manager Incentive Program (FMIP), Participants (For other than CME Globex - Non-Member rates apply)	CME Globex	\$2.03
CBOE Members (For S&P products only; for all other products - Non-Member rates apply)	CME Globex	\$2.03
	EFP	\$2.44
	EFR	\$3.03
	Block	\$3.03
	Delivery	\$0.69
	Exe Asn Future From	\$0.74
CTA/Hedge Fund Incentive Program Participants (For other than FX CME Globex - Non-Member rates apply)	CME Globex	\$2.03
Members Trading Outside of Division (For other than CME Globex During ETH - Non-Member rates apply)	CME Globex During ETH Only	\$1.05

Non-Members	CME Globex	\$2.03
	EFP	\$2.44
	EFR	\$3.03
	Block	\$3.03
	Delivery	\$0.69
	Exe Asn Future From	\$0.74

Processing Fees	Fee
106.D Lessee/106.H Brokerage	\$0.13
106.F Employee Brokerage	\$0.13
Floor / "New" Brokerage	\$0.04
Position Adjustment/Position Transfer	\$0.10
Give-Up Surcharge	\$0.05
Facilitation Fee	\$0.40