

Weather Products

Managing global weather exposures.
Growing opportunities. Reducing risks.



In a world of increasing volatility, CME Group is where the world comes to manage risk across all major asset classes — interest rates, equity indexes, foreign exchange, energy, agricultural commodities, metals and alternative investments like weather and real estate. Built on the heritage of CME, CBOT and NYMEX, CME Group is the world's largest and most diverse derivatives exchange encompassing the widest range of benchmark products available. CME Group brings buyers and sellers together on the CME Globex electronic trading platform and on trading floors in Chicago and New York. We provide you with the tools you need to meet your business objectives and achieve your financial goals. And CME Clearing matches and settles all trades and guarantees the creditworthiness of every transaction that takes place in our markets.

WEATHER PRODUCTS

One-third of businesses worldwide are directly affected by weather conditions. These products enable you to manage weather-related risk while also offering opportunities to speculate — absorbing that risk in exchange for possible profit on weather variations. Our weather product suite offers trading opportunities related to temperatures, snowfall, frost and hurricanes. The products are based on a range of weather conditions in more than 45 cities in the United States, Europe, Canada, Australia and Asia, with the hurricane products geared to seven U.S. regions.

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WHY CME GROUP?

CME Group is a company formed by the merger of three long-established U.S. futures exchanges: the Chicago Mercantile Exchange (CME), the Chicago Board of Trade (CBOT) and New York Mercantile Exchange (NYMEX). Specifically, our exchanges offer trading of futures and options based on interest rates, equity indexes, foreign exchange, commodities, energy and a growing range alternative investment products, including products based on weather, real estate and economic events such as nonfarm payroll announcements. Our products cover all major asset classes and represent the widest range of benchmark futures and options products available on any exchange. Together, we offer the global marketplace more than 250 years of exchange expertise, and we are dedicated to ongoing innovation and unsurpassed customer service.

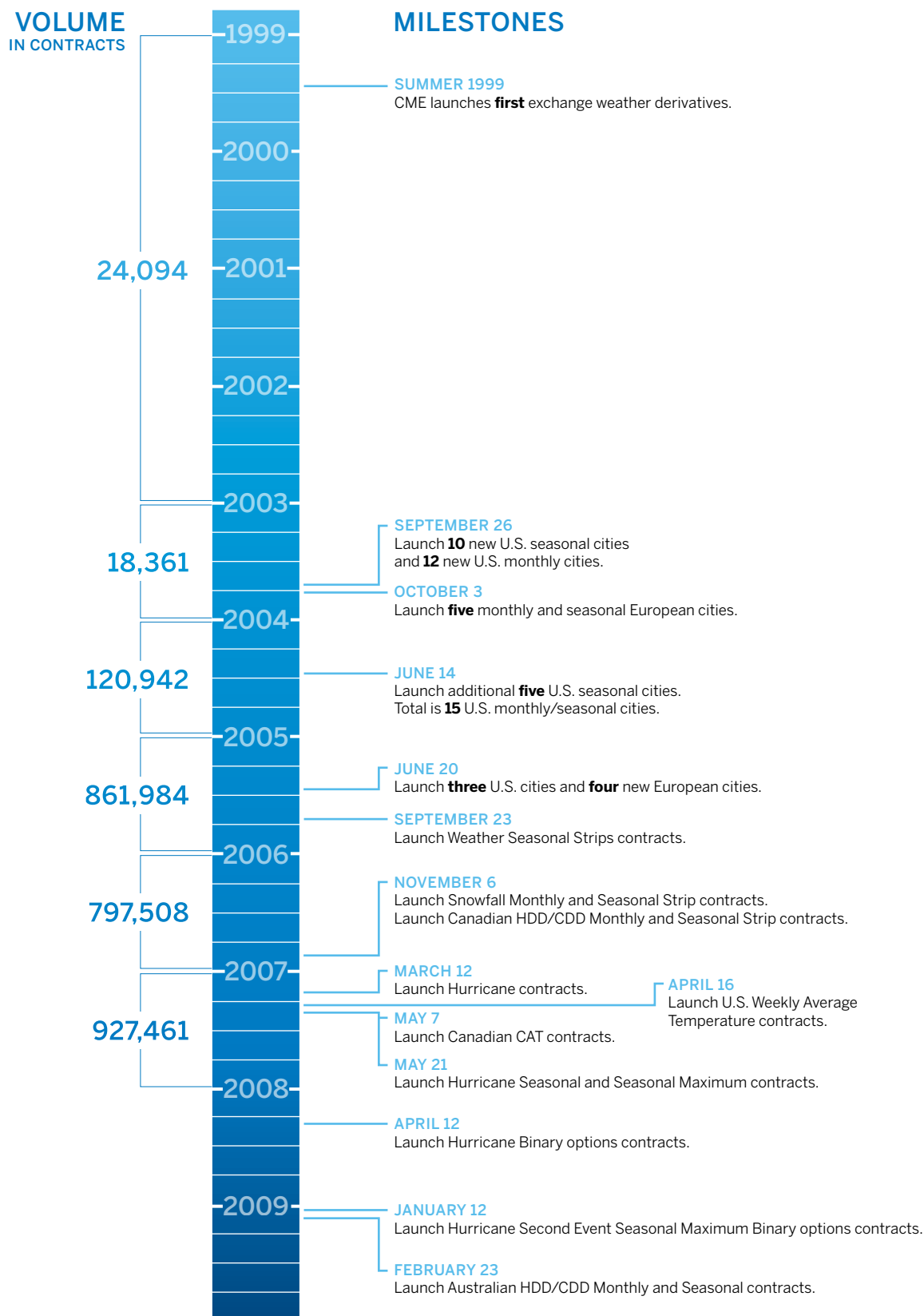
We are committed to helping you see the greatest returns possible from your trading strategies.

We serve customers around the world with a global product line, virtually around-the-clock electronic trading and strategic alliances with other exchanges. More than three quarters of our volume comes from trades made electronically on our CME Globex electronic trading platform. We also offer a number of programs and products designed specifically to appeal to a global audience.

Our Products — Tools for Managing Risk

Risk management. Price discovery. Our markets are publicly traded and transactions represent prices negotiated among a large number of buyers and sellers. In addition, our products offer opportunities for capitalizing on price changes in the markets.

Weather Market Development



ADVANTAGES OF **TRADING** WEATHER FUTURES AND OPTIONS AT CME

Futures are standardized, exchange-traded derivatives, and as such they offer a number of advantages not available in over-the-counter – OTC – markets.

The increased security and counterparty creditworthiness of fully integrated CME Clearing

At CME, we operate our own clearing house that matches and settles all trades and guarantees the creditworthiness and integrity of every transaction that takes place in our markets. We use sophisticated risk management and financial surveillance techniques to protect customers against the possibility of default by participants in our markets. Our integrated clearing function ensures the safety and soundness of our markets and helps differentiate us from our competitors.

With CME Clearing serving as the counterparty to every trade – e.g., in the clearing process it becomes the buyer to each seller of a futures contract and the seller to each buyer – the risk of default is substantially mitigated. Performance bond (collateral) deposits are required at each level in the clearing process – customer to broker, broker to clearing firm, clearing firm to clearing house. The performance bond/margin is a good faith deposit that represents the minimum amount of daily protection against potential losses.

CME Clearing handles the vast majority of all futures and options contracts traded in the United States. This requires management of the substantial exposure that results from transferring more than \$1,230 trillion of risk and guaranteeing the performance of each of more than two billion contracts annually.



Unparalleled electronic trading platform

The CME Globex platform is the world's leading platform for futures and options trading. It offers access to the widest array of benchmark futures and options contracts available on any exchange, virtually 24 hours a day, six days a week – more than any other exchange in the world. Our customers can access the CME Globex trading platform through approximately 1,000 direct connections in more than 90 countries around the world, as well as through telecommunications hubs – located in London, Amsterdam, Dublin, Frankfurt, Milan, Paris and Singapore – that provide reduced connectivity costs, increased accessibility and fast, efficient trading of products.

The platform's open architecture enables customers to use their own proprietary trading applications, systems provided by futures brokers and independent software vendors or a CME Group-provided trading application, EOS Trader. The CME Globex trading platform offers speed of execution, transparency, anonymity and market integrity. Traders can view the top five prices and other data right on their screens and transactions are executed in milliseconds. The advanced capabilities of the CME Globex platform allow traders to execute all of the traditional (outright) transactions in futures as well as a variety of spread trades, including highly complex options spreads.

ADDITIONAL BENEFITS OF TRADING AT CME GROUP

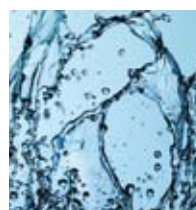


Price transparency

Our electronic marketplace displays the top five bids and offers in each product to all participants.

Level playing field

Our exchange offers all traders, large or small, equal access to the best bids and offers.



Liquidity

Our markets, including our Weather markets, are highly liquid. Many of our markets are supported by designated market makers who ensure a continuous stream of bids and offers.

Accessibility

As a 24-hour global marketplace, we enable customers around the world to take immediate market action in response to market changes and the effects of key events.

Block Trades

as of 12/09/08 02:46 p.m. CT for trade date 12/09/08

DATE	TIME	CONTRACT	PRICE	QUANTITY	CODE
12/09/08	1333	New York HDD Dec	790.0	50	HQZ
		Kansas City HDD Dec	1032.0	100	HQZ
			380.0	50	HQZ

Open Interest (thousand of contracts)

WHY WEATHER FUTURES?



THE **IMPACT** OF WEATHER

The common cliché is that every conversation begins and ends with the weather. That's probably because weather is the most common and pervasive risk factor for individuals or businesses.

Weather influences demand for energy, variations in crop yield and fluctuations in consumer prices. It creates costly delays in construction, influencing home improvement company sales. It causes postponements and cancellations in travel, and makes or breaks seasonal retail sales and activities. In doing so, weather can affect the revenues and earnings of companies doing business locally or anywhere across the globe.

In a new benchmark study on corporate weather management practices commissioned by CME Group and Storm Exchange Inc., a decisive majority of senior finance and risk managers confirm that their businesses are significantly impacted by the weather and a stunning eight out of 10 warn of a new risk: that the emergence of global climate change and accompanying volatile weather patterns will require changes to their business models in the decades ahead.

Despite all this, a scant 10 percent of finance and risk executives say their companies take advantage of readily available financial tools for hedging weather risk today, and only about 12 percent say they plan to do so in the years ahead. **Yet 85 percent of survey respondents who have used weather hedges say they have found them to be useful in mitigating risk.** Seldom have executives been so united in recognizing a threat to their businesses, yet seemingly uncertain about addressing it.

Weather is the most **common and pervasive risk factor** for individuals or businesses.

Benefits of Our Weather Futures and Options

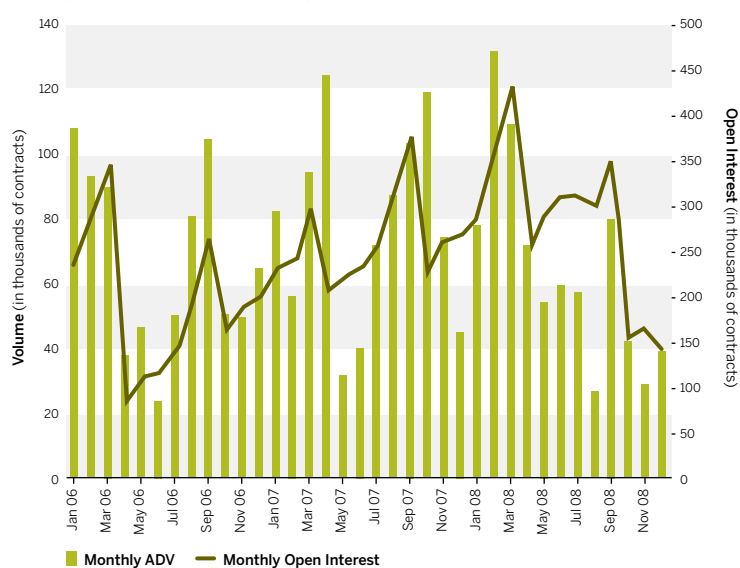
Weather cannot be controlled. But with the introduction of the products we offer, its blame for company losses is no longer justifiable. **Weather, like any commodity, can be traded and its risks mitigated. Our Weather products offer the ability to manage volumetric risk or the risk due to variability in sales revenues, caused by weather-related fluctuation in levels of consumption.** Companies can differentiate themselves from their peer groups by trading weather to optimize their operations and reduce earnings volatility. Benefits of participating in our global weather risk management market include:

- Stabilized cash flow and earnings
- Reduced risk
- Increased opportunity to focus on core businesses
- Further strengthening of the balance sheet
- Maintenance of adequate liquidity via improved and predictable cash flow

CME Group and Weather Markets: Liquid and Growing

Our Weather futures and options have shown tremendous growth as the products have begun to solidify their place in the financial markets. The products offer exceptional market liquidity and a dynamic trading venue for a large pool of financial and asset managers, multinational corporations, speculators, day traders, retail investors and investment banks. Market makers ensure active markets throughout each trading session.

WEATHER VOLUME AND OPEN INTEREST (JAN 2006 – DEC 2008)





CME Group Weather Futures

U.S.	HEATING OIL FUTURES												CRUDE OIL FUTURES											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT
Atlanta	111V	111A	111C	111D	111E	111F	111G	111H	111I	111J	111K	111L	111M	111N	111O	111P	111Q	111R	111S	111T	111U	111V	111W	111X
Chicago	112V	112A	112C	112D	112E	112F	112G	112H	112I	112J	112K	112L	112M	112N	112O	112P	112Q	112R	112S	112T	112U	112V	112W	112X
Cincinnati	113V	113A	113C	113D	113E	113F	113G	113H	113I	113J	113K	113L	113M	113N	113O	113P	113Q	113R	113S	113T	113U	113V	113W	113X
New York	114V	114A	114C	114D	114E	114F	114G	114H	114I	114J	114K	114L	114M	114N	114O	114P	114Q	114R	114S	114T	114U	114V	114W	114X
Dallas	115V	115A	115C	115D	115E	115F	115G	115H	115I	115J	115K	115L	115M	115N	115O	115P	115Q	115R	115S	115T	115U	115V	115W	115X
Philadelphia	116V	116A	116C	116D	116E	116F	116G	116H	116I	116J	116K	116L	116M	116N	116O	116P	116Q	116R	116S	116T	116U	116V	116W	116X
Portland	117V	117A	117C	117D	117E	117F	117G	117H	117I	117J	117K	117L	117M	117N	117O	117P	117Q	117R	117S	117T	117U	117V	117W	117X
Tucson	118V	118A	118C	118D	118E	118F	118G	118H	118I	118J	118K	118L	118M	118N	118O	118P	118Q	118R	118S	118T	118U	118V	118W	118X
Des Moines	119V	119A	119C	119D	119E	119F	119G	119H	119I	119J	119K	119L	119M	119N	119O	119P	119Q	119R	119S	119T	119U	119V	119W	119X
Las Vegas	120V	120A	120C	120D	120E	120F	120G	120H	120I	120J	120K	120L	120M	120N	120O	120P	120Q	120R	120S	120T	120U	120V	120W	120X
Boston	121V	121A	121C	121D	121E	121F	121G	121H	121I	121J	121K	121L	121M	121N	121O	121P	121Q	121R	121S	121T	121U	121V	121W	121X
Houston	122V	122A	122C	122D	122E	122F	122G	122H	122I	122J	122K	122L	122M	122N	122O	122P	122Q	122R	122S	122T	122U	122V	122W	122X
Kansas City	123V	123A	123C	123D	123E	123F	123G	123H	123I	123J	123K	123L	123M	123N	123O	123P	123Q	123R	123S	123T	123U	123V	123W	123X
Minneapolis	124V	124A	124C	124D	124E	124F	124G	124H	124I	124J	124K	124L	124M	124N	124O	124P	124Q	124R	124S	124T	124U	124V	124W	124X
Sacramento	125V	125A	125C	125D	125E	125F	125G	125H	125I	125J	125K	125L	125M	125N	125O	125P	125Q	125R	125S	125T	125U	125V	125W	125X



WHO TRADES?

WEATHER REPORT

Tuesday, May 24

58°F

UV Index: 1 Low

Wind: From NE at 9 mph

Humidity: 48%

Pressure: 30.18 in.

Dew Point: 39°F

Visibility: 10.0 miles

A DIVERSE POOL OF MARKET PARTICIPANTS

There are two types of traders in the futures industry – **hedgers and investors**. The primary distinction between them is that a hedger uses the futures and/or options markets to reduce or eliminate price level risk, while a speculator uses futures and options to assume market risk for potential profit opportunities.

Hedgers

Businesses that hedge risk using Weather futures and options are those that could be adversely affected by unanticipated temperature swings or unusually high snowfalls. Hedgers include companies in energy-related businesses, as well as a growing number of agricultural firms, re-insurers, retailers and companies involved in tourism and travel. Many OTC weather derivative traders also trade our Weather products for purposes of hedging their OTC transactions.

A hedger typically has a bottom line business interest – either to purchase or sell an underlying physical commodity.

Investors are
essential to the
functioning of
futures markets.

Investors

Investors in the weather markets assume the same role as investors in any other market. They seek profit opportunities by taking on the risk that hedgers are looking to avoid. They are attracted by the opportunity available through anticipating the direction and timing of price changes in today's fastest growing derivatives category. Investors are essential to the functioning of weather futures markets. They provide liquidity — the ability to enter and exit the market quickly, easily and efficiently. Investors include every type of participant from hedge funds, prop firms and large banks to active individual traders.



WEATHER FUTURES AND OPTIONS ON FUTURES

City Codes

TEMPERATURE-BASED PRODUCTS

Our Weather products for the U.S. and Australia winter and summer seasons are all based on the Heating Degree Day (HDD) Index and the Cooling Degree Day (CDD) Index. For Europe, HDD and CAT (Cumulative Average Temperatures); for Canada HDD, CDD and CAT; and the Japan-Pacific Rim, CAT.

City Locations	Index Used – Winter	Index Used – Summer	Time Frames for Contracts
United States	HDD	CDD	Weekly, Monthly, Seasonal Strip: A customized season of two to seven consecutive months within the same general season – October through April for Winter, April through October for Summer
Canada	HDD	CAT, CDD	Monthly, Seasonal Strip: Same as U.S. contracts
Europe	HDD	CAT	Monthly, Seasonal Strip: Same as U.S. contracts
Asia Pacific	CAT*	CAT*	Monthly, Seasonal Strip: A customized season of two to seven consecutive months within the same general season – October through April for Winter, April through October for Summer
Australia	HDD	CDD	Monthly, Seasonal Strip: Same as U.S. contracts

*calculated as described in the Pacific Rim Index section

HEATING DEGREE DAY (HDD) INDEX AND COOLING DEGREE DAY (CDD) INDEX

The HDD and CDD Indexes identify what are called degree days. A degree day is a measure of how much a day's average temperature deviates from 65 degrees Fahrenheit (or 18 degrees Celsius outside the United States). Average daily temperature is defined as the average of a day's maximum and minimum temperature.

The utility industry selected 65 degrees as a baseline indicator for energy usage. Days with temperatures under 65 are called Heating Degree Days, as those are days when customers begin turning on their furnaces. When temperatures exceed 65, customers begin turning on air conditioners. These days are called Cooling Degree Days.

Index values are multiplied by a cash amount for settlement. All of our Weather contracts are settled in cash. The U.S., Canada, Europe and Pacific Rim Weather contracts are settled by the final index value recorded by the MDA EarthSat, an international firm that specializes in geographic information technologies. The Australian Weather contracts are settled by Speedwell Weather, a UK-based firm that provides worldwide weather data, forecasts, software and consulting services to the energy and weather derivative markets. MDA EarthSat works with temperature data provided by the National Climate Data Center (NCDC) for all of our U.S. contracts and both MDA EarthSat and Speedwell Weather work with various local meteorological offices overseas for all non-U.S. contracts.

CONTRACTS TRADE ON THE FOLLOWING CITIES:

United States

- Washington D.C.
- Raleigh/Durham
- Los Angeles
- Little Rock
- Jacksonville
- Colorado Springs
- Baltimore
- Salt Lake City
- Detroit
- Sacramento
- Minneapolis
- Kansas City
- Houston
- Boston
- Las Vegas
- Des Moines
- Tucson
- Portland
- Philadelphia
- Dallas
- Atlanta
- Cincinnati
- Chicago
- New York

Canada

- Winnipeg
- Vancouver
- Toronto
- Montreal
- Calgary
- Edmonton

Australia

- Sydney
- Melbourne
- Brisbane

Europe

- Oslo
- Barcelona
- Madrid
- Rome
- Stockholm
- Essen
- Berlin
- Amsterdam
- London
- Paris

For the latest listing of cities, visit www.cmegroup.com/weather.

MEASURING DAILY HDD AND CDD VALUES

HDD Days

To measure an HDD value, subtract a day's average temperature from 65. For example, if the average daily temperature was 40 degrees, you would subtract 40 from 65.

$$\begin{array}{r} 65 \\ - 40 \\ \hline 25 \end{array}$$

That day's
HDD value
would be **25**.

Note: For cities outside the United States, the process is the same, except the calculation is done using 18 degrees on the Celsius scale instead of 65 degrees on the Fahrenheit scale.

If the temperature exceeded 65, the value of the HDD would be zero. The assumption is that people don't turn their heat on during warm days.

CDD Days

To determine a CDD value, subtract 65 from a day's average daily temperature. For example, if the average daily temperature was 80, you would subtract 65 from that number.

$$\begin{array}{r} 80 \\ - 65 \\ \hline 15 \end{array}$$

That day's
CDD value
would be **15**.

Note: For cities in Europe and Canada, the process is the same, except the calculation is done using 18 degrees on the Celsius scale instead of 65 degrees on the Fahrenheit scale.

If the temperature was lower than 65, the value of the CDD would be zero. The assumption is that people don't turn their A/C on during cool days.

MEASURING MONTHLY HDD AND CDD INDEX VALUES

To determine a weekly, monthly or seasonal HDD or CDD index value, simply add the daily HDD or CDD values for the time period.

Let's take a look at the November Monthly HDD value for Chicago in 2007. There was a total of 30 days – the entire month – with temperatures below 65 degrees. The number of degrees each day was below 65 is shown in the table below.

Determining the Value of an HDD or CDD Contract

To determine the value of an HDD or CDD Weather futures contract, multiply the HDD or CDD value you are working with by \$20, the multiplier for each weather index point.

Let's look at the HDD values for the month of November in Chicago. Each of the 30 days that month was under 65, so each had an HDD value.

If you add all the HDDs, the total is 769.

To get the value of that month's contract, multiply 769 by \$20.

$$769 \times \$20 = \$15,380$$

The contract would settle at \$15,380.

Nov. 2007 Chicago	Average Temp	HDD Value
1-Nov	44.50	20.50
2-Nov	44.00	21.00
3-Nov	45.50	19.50
4-Nov	45.00	20.00
5-Nov	45.50	19.50
6-Nov	39.00	26.00
7-Nov	37.00	28.00
8-Nov	43.50	21.50
9-Nov	40.00	25.00
10-Nov	39.00	26.00
11-Nov	49.50	15.50
12-Nov	55.00	10.00
13-Nov	46.50	18.50
14-Nov	47.50	17.50
15-Nov	34.00	31.00
16-Nov	32.50	32.50
17-Nov	40.00	25.00
18-Nov	40.00	25.00
19-Nov	48.50	16.50
20-Nov	50.00	15.00
21-Nov	39.00	26.00
22-Nov	29.00	36.00
23-Nov	27.00	38.00
24-Nov	32.50	32.50
25-Nov	33.00	32.00
26-Nov	35.00	30.00
27-Nov	29.50	35.50
28-Nov	35.50	29.50
29-Nov	26.00	39.00
30-Nov	28.00	37.00

CUMULATIVE AVERAGE TEMPERATURE (CAT) INDEX

The Cumulative Average Temperature (CAT) Index is used for the summer season contracts in Europe and Canada. The CAT Index tracks average daily temperatures over a calendar month in a given city, and that average number is used to calculate a Weather contract value – there is no baseline 65 degree temperature with which HDD or CDD is established. Each particular CME Canadian and European CAT Index is the accumulation of daily average temperatures over a calendar month. The accumulation period of each CME Canadian and European CAT Index futures contract begins with the first calendar day of the contract month and ends with the last calendar day of the contract month. Both CDD and CAT contracts are available for the Canadian summer months.

CONTRACTS TRADE ON THE FOLLOWING CITIES:

Canada	Europe
<ul style="list-style-type: none">• Winnipeg• Vancouver• Toronto• Montreal• Calgary• Edmonton	<ul style="list-style-type: none">• Oslo• Barcelona• Madrid• Rome• Stockholm• Essen• Berlin• Amsterdam• London• Paris

For the latest listing of cities, visit www.cmegroup.com/weather.

CUMULATIVE AVERAGE TEMPERATURE (CAT) INDEX (PACIFIC RIM INDEX)

The Cumulative Average Temperature (CAT) Index is also available in the Pacific Rim. However, this CAT index is formed slightly different. The Pacific Rim Index is used for both the winter and summer seasons to measure weather in the Asia-Pacific region. The daily average temperature is defined as the arithmetic average of the hourly temperatures accumulated over a 24-hour period as reported by EarthSat using data received from the Japan Meteorological Agency for each of the following meteorological stations:

- Osaka, Japan (WMO 47772): Between 0100 and 2400 JST the current day.
- Tokyo, Japan (WMO 47662): Between 0100 and 2400 JST the current day.
- Hiroshima, Japan (WMO 47765): Between 0100 and 2400 JST the current day.

CONTRACTS TRADE ON THE FOLLOWING CITIES:

Pacific Rim

- Tokyo
- Osaka
- Hiroshima

For the latest listing of cities,
visit www.cmegroup.com/weather.

For detailed contract specifications and listings/expiration dates,
visit www.cmegroup.com/weather and select your desired product.

HURRICANE-BASED PRODUCTS

CME Group addresses the need for managing hurricane-related risk and recognizes the limited capacity in the insurance industry to insure customer claims. It provides a way to:

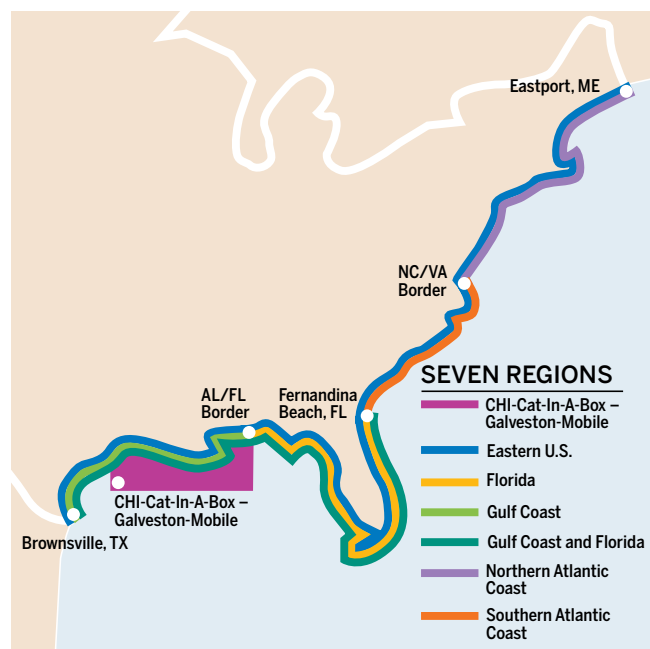
- Help insurers and others transfer risk to the capital markets
- Mitigate exposures for actual named hurricanes and specific regional locations
- Increase insurance capacity in order to insure customers or hedge businesses

CME Group exchanges offers three types of Hurricane contracts:

- Hurricane futures, options and binary options – Covering actual named hurricanes making landfall in the United States Atlantic basin
- Hurricane Seasonal futures, options and binary options – Focusing on the total number of hurricanes that occur within a specific location or geographic area between January 1 and December 31.
- Hurricane Seasonal Maximum futures, options and binary options – Focusing on the largest hurricane to make landfall within a specific location or geographic region between January 1 and December 31.

About the Index

CME Hurricane Index (CHI) determines a numerical measure of the potential for damage from a hurricane, using publicly available data from the National Hurricane Center of the National Weather Service. The CHI incorporates sustained wind speed and the radius of hurricane force winds, and is a continuous measurement.



The commonly used Saffir-Simpson Hurricane Scale (SSHS) classifies hurricanes in categories from 1 to 5; however there are a number of features which make the scale less than optimal for use by the insurance community and the public at large. For example, meteorologists have had to quantify SSHS categories as either “strong” or “weak” in order to make a proper distinction of a storm. As a case in point, Katrina was described as a weak Category 4 storm at the time of its landfall, but this did not provide a real estimate to the actual physical impact. And Hurricane Wilma in 2005 was at one point in its life the strongest storm on record. However, the CHI highlights that at its strongest, Hurricane Katrina had more potential for damage than Wilma, despite its lower wind speed, since Katrina was a far wider storm. The Saffir-Simpson scale would be unable to make this distinction clear.

HURRICANE FUTURES AND OPTIONS

Hurricane futures and options are one of three categories of Hurricane futures and options we offer. They focus on **actual named hurricanes** that make landfall between January 1 and December 31 (listed below).

- The eastern U.S., encompassing the U.S. coast from Brownsville, Texas, to Eastport, Maine
- Cat-in-a-Box, a term used to describe the Galveston-Mobile region, a coastal region encompassing the four largest oil refineries on the Gulf Coast

HOW THE FUTURES WORK

Our exchange lists three Hurricane Index futures contracts at any given time. Each Hurricane Index futures contract is assigned a name which corresponds to the names assigned to storms by the World Meteorological Organization. When the first storm of the season makes landfall or dissipates, the futures contracts associated with that storm are settled and expired. Once this occurs, the next futures contracts would then be listed.

Customers wishing to hedge against the potential damage of a named hurricane would assess their risks and then buy Hurricane Index futures at a specific CHI level, such as 10, a level at which they decide they would need protection from financial loss.

Hurricane Index futures are cash-settled to the CHI value at landfall. That number is multiplied by a cash multiplier of \$1,000 per 1 CHI point. Thus, a futures contract that settles to a CHI of 10 has a value of \$10,000. If the hurricane does not make landfall in the specified region of the contract, then the contract settles to 0.

HOW THE OPTIONS WORK

Two types of options are offered on Hurricane Index futures.

Standard/Vanilla Options

Our exchange lists three Hurricane Index options at any given time. Each Hurricane Index option contract is assigned a name which corresponds to the names assigned to storms by the World Meteorological Organization. When the first storm of the season makes landfall or dissipates, the options contracts associated with that storm are settled and expired. Once this occurs, the next options contracts would then be listed.

Customers wishing to hedge against the potential damage of a hurricane would assess their risks and then buy Hurricane Index options at a specific strike price, such as 10 CHI, a level at which they decide they would need protection from financial loss.

Hurricane Index options are cash-settled to the CHI value at landfall. That number is multiplied by a cash multiplier of \$1,000 per 1 CHI point. Thus, a call option with a strike price of 8 CHI that settles to a CHI of 10 has a value of \$2,000. If the hurricane does not make landfall in the specified region of the contract, then the contract settles to 0. In this case, the buyer of the option would choose not to exercise his call.

Binary Options

Binary options on Hurricane Index futures pay a fixed dollar amount if the option is either “at” or “in the money.” This distinguishes them from standard/vanilla options as the value of standard/vanilla options vary depending on the difference between the strike price and the settle price.

If the respective CHI seasonal value is equal to or greater than the strike price, the buyer receives \$10,000. If the respective CHI seasonal value is less than the strike price, the buyer receives nothing. **Only options (options to buy) are available for binary options.** Contracts are automatically exercised at the end of the season or can be exercised at any point during the season once the contract is “in” or “at the money.”

HURRICANE SEASONAL FUTURES AND OPTIONS

Hurricane Seasonal futures and options are one of three categories of Hurricane futures and options we offer. They focus on **all hurricanes** that make landfall within one of several specific locations or geographic regions between January 1 and December 31.

- Gulf Coast, from Brownsville, Texas, to the Alabama/Florida border
- Florida, from the Alabama/Florida border to Fernandina Beach, Fla.
- Southern Atlantic Coast, from Fernandina Beach, Fla., to the North Carolina/Virginia border
- Northern Atlantic Coast, from the North Carolina/Virginia border to Eastport, Maine
- Eastern U.S., from Brownsville, Texas, to Eastport, Maine
- Cat-in-a-Box – a term used to describe the Galveston-Mobile region, a coastal region possessing the largest concentration of oil and gas platforms in the Gulf

HOW THE FUTURES WORK

Hurricane Seasonal futures represent the **sum total of CHI values** of hurricanes that make landfall in a specified region throughout the hurricane season.

Customers wishing to hedge against the potential damage of an entire hurricane season would assess their risks and then buy Hurricane Seasonal futures at a specific CHI level for a specific region, such as 25, a level at which they decide they would need protection from financial loss.

Hurricane Seasonal futures are cash-settled at the end of the hurricane season at the total CHI value of the specified region.

That number is multiplied by a cash multiplier of \$1,000 per 1 CHI point. Thus, a futures contract that settles to a CHI of 25 has a value of \$25,000. If no hurricanes make landfall in the specified region of the contract, then the contract settles to 0.

HOW THE OPTIONS WORK

Two types of options are offered on Hurricane Seasonal futures.

Standard/Vanilla Options

Customers wishing to hedge against the potential damage of an entire hurricane season would assess their risks and then buy Hurricane Seasonal options at a specific strike price, such as 15 CHI, a level at which they decide they would need protection from financial loss.

Hurricane Seasonal options are cash-settled at the end of the hurricane season at the total CHI value of the specified region. That number is multiplied by a cash multiplier of \$1,000 per 1 CHI point. Thus, a call option contract with a strike price of 15 CHI that settles to a CHI value of 25 has a value of \$10,000. If no hurricanes make landfall in the specified region of the contract, then the contract settles to 0.

Binary Options

Binary options on Hurricane Seasonal futures pay a fixed dollar amount if the option is either “at” or “in the money.” This distinguishes them from standard/vanilla options as the value of standard/vanilla options vary depending on the difference between the strike price and the settle price.

If the respective CHI seasonal value is equal to or greater than the strike price, the buyer receives \$10,000. If the respective CHI seasonal value is less than the strike price, the buyer receives nothing. Only call options (options to buy) for binary options are available. Contracts are automatically exercised at the end of the season or can be exercised at any point during the season once the contract is “in” or “at the money.”

HURRICANE SEASONAL MAXIMUM FUTURES AND OPTIONS

Hurricane Seasonal Maximum futures are one of three categories of Hurricane futures and options we offer. They focus on the **largest hurricane** to make landfall within one of several specific locations or geographic regions between January 1 and December 31:

- Gulf Coast, from Brownsville, Texas, to the Alabama/Florida border
- Gulf Coast and Florida, from Brownsville, Texas, to Fernandina Beach, Fla.
- Florida, from the Alabama/Florida border to Fernandina Beach, Fla.
- Southern Atlantic Coast, from Fernandina Beach, Fla., to the North Carolina/Virginia border
- Northern Atlantic Coast, from the North Carolina/Virginia border to Eastport, Maine
- Eastern U.S., from Brownsville, Texas, to Eastport, Maine
- Cat-in-a-Box – a term used to describe the Galveston-Mobile region, a coastal region possessing the largest oil refineries on the Gulf Coast

HOW THE FUTURES WORK

Hurricane Seasonal Maximum futures represents the **largest hurricane to make landfall** in a region throughout the hurricane season.

Customers wishing to hedge against the potential damage of the largest hurricane over the season would assess their risks and then buy Hurricane Seasonal Maximum futures at a specific CHI level for a specific region, such as 25, a level at which they decide they would need protection from financial loss.

Hurricane Seasonal Maximum futures are cash-settled at the end of the hurricane season at the CHI value of the largest hurricane that made landfall in a specific region. That number is multiplied by a cash multiplier of \$1,000 per 1 CHI point. Thus, a futures contract that settles to a CHI of 20 has a value of \$20,000. If no hurricanes make landfall in the specified region of the contract, then the contract settles to 0.

HOW THE OPTIONS WORK

Two types of options are offered on Hurricane Seasonal Accumulated futures.

Standard/Vanilla Options

Customers wishing to hedge against the potential damage of the largest hurricane event over the season would assess their risks and then buy Hurricane Seasonal Maximum options at a specific strike price, such as 15 CHI, a level at which they decide they would need protection from financial loss.

Hurricane Seasonal Maximum options are cash-settled at the end of the hurricane season at the CHI value of the largest hurricane that made landfall in a specific region. That number is multiplied by a cash multiplier of \$1,000 per 1 CHI point. Thus, a call option contract with a strike price of 15 CHI that settles to a CHI value of 20 has a value of \$5,000. If no hurricanes make landfall in the specified region of the contract, then the contract settles to 0.

Binary Options

Binary Options on Hurricane Seasonal Maximum futures pay a fixed dollar amount if the option is either “at” or “in the money.” This distinguishes them from standard/vanilla options as the value of standard/vanilla options vary depending on the difference between the strike price and the settle price.

If the respective CHI seasonal maximum value is equal to or greater than the strike price, the buyer receives \$10,000. If the respective CHI seasonal maximum value is less than the strike price, the buyer receives nothing. Only call options (options to buy) are available for binary options. Contracts are automatically exercised at the end of the season or can be exercised at any point during the season once the contract is “in” or “at the money.”

OTHER CME GROUP WEATHER PRODUCTS:

FROST INDEX AND SNOWFALL

FROST-BASED PRODUCTS

Our Frost Index futures and options are based on the number of Index Points that frost is recorded on weekdays from November through March, and can be traded in monthly or seasonal contracts. The CME Frost Index calculates the number of days in a given month or the entire winter season in which frost takes place, according to specific temperature qualifications.

For complete details on calculating CME Frost Index and the latest listing of cities, please go to the Weather section on the CME Group Web site at www.cmegroup.com/weather.

Contracts trade on the following cities:

- Amsterdam

SNOWFALL-BASED PRODUCTS

Our Monthly and Seasonal Strip Snowfall futures and options are geared to the amount of snowfall recorded in a designated location. It provides a way to:

- Protect revenues and manage risks related to snowfall
- Accept the risks related to snowfall in exchange for possible profit

For complete details on calculating Snowfall and the latest listing of cities, please go to the Weather section on the CME Group Web site at www.cmegroup.com/weather.

Contracts trade on the following cities:

- Boston
- New York

HDD December

City	Last	High	Low	Net Use	Est. Use	Net Proj	Est. Proj
Atlanta	5050			50	5000	5000	5000
Chicago	12000A			50	12000	12000	12000
Cincinnati	9750			50	9750	9750	9750
New York	4650B	750A	780	50	4650	4650	4650
Dallas	4950A	455A	50	50	4950	4950	4950
Philadelphia	8450			50	8450	8450	8450
Portland	7950			50	7950	7950	7950
Houston	3850			50	3850	3850	3850
Des Moines	13070A	1307A	1307A	50	13070	13070	13070
Las Vegas	8020			50	8020	8020	8020
Boston	8580			50	8580	8580	8580
Houston	3400			50	3400	3400	3400
Kansas City	10850A	1075A	1075	50	10850	10850	10850
Minneapolis	15470			50	15470	15470	15470
Sacramento	6350B	635B	625B	50	6350	6350	6350
Baltimore	8820			50	8820	8820	8820
Salt Lake City	10590A	1059A	1059A	50	10590	10590	10590
Detroit	11150			50	11150	11150	11150

CHI-Cat-II
Galveston
Brownsville, TX

AL/FI
Beach

START TRADING WEATHER PRODUCTS



GETTING STARTED TRADING WEATHER PRODUCTS

If you would like to trade our Weather products for hedging purposes and to protect your bottom line, the first thing to do is develop a detailed assessment of the impact of weather on your business. You will need to compare your revenues and costs with historical meteorological data to determine the specific correlations that exist. Are there particular months or seasons when you face greater weather-related risk? Have your costs increased or have other factors, such as changing weather patterns or other identified trends in customer behavior or choices, made your business more exposed to weather risk now than in the past? When you have created a comprehensive picture of your weather-related risk, you must identify your tolerance for risk and decide what portion of that risk you would like hedge.

Alternatively, you may be interested in accepting risk and investing in weather hoping to make a profit. With strong correlations between weather and energy usage, weather and agricultural output, weather and retail sales, as well as the volatility of weather in and of itself, these markets offer virtually endless opportunities for different trading strategies and approaches.

To trade electronically, please contact CME Group customer support at 800 331 3332. You can find more information about electronic trading applications in the electronic trading section of the CME Group Web site at www.cmegroup.com/globex.

Select a Broker

In order to trade Weather futures and options through an OTC-like venue, one must contact a licensed broker that is specialized in the weather market. To view licensed brokers that specialize in trading Weather futures and options please, visit www.cmegroup.com/trading/weather.

Select an FCM

A futures commission merchant (FCM) is involved in the solicitation or acceptance of commodity orders for future delivery of commodities related to the futures contract market. An FCM is able to handle futures contract orders as well as extend credit to customers wishing to enter into such positions. These include many of the brokerages that investors in the futures markets deal with.

To view a list of certified FCMs please visit www.cmegroup.com/clearing.

Margins

After opening an account to trade Weather futures or options, you must deposit a performance bond or margin – either a cash deposit or another form of collateral – with your FCM. We establish minimum initial and maintenance performance bond levels for all products traded at the Exchange, but FCM requirements may be higher. For the most current margin requirements, please visit www.cmegroup.com/margins.

While a futures position remains open, at the end of each trading day, a contract's value is "marked-to-the-market" and each margin account is credited or debited based on the settlement price of that contract on that day's trading session. If one's margin falls below the maintenance level (a set minimum margin per outstanding futures trade), your FCM will contact you for additional funds to meet the new required level.

Commissions

Commission costs vary according to the services provided by a brokerage firm or FCM. Please contact your broker or FCM for further details.

For additional marketing and education material, as well as further information on our Weather futures and options, please call 800 331 3332 (outside the U.S., call 1 312 930 2316) or visit the CME Group Web site at www.cmegroup.com/weather.

SETTLEMENT GUIDELINES FOR WEATHER FUTURES AND OPTIONS

Weather futures and options will be settled at 15:15 CT daily, unless an early close occurs on CME Globex.

All relevant information will be considered in the settlement calculation, including but not limited to: CME Globex bid/ask information, CME Globex trade information, block trade information, CME Clearing360 trade information, and market information from third-party sources.

We reserve the right to deviate from these guidelines if they will lead to a settlement price which compromises the integrity of the market or would otherwise be inaccurate, impartial or unfair to all or any market participants.

Monthly Futures

At approximately 3:00 p.m. – 3:10 p.m. CT, a snapshot of CME Globex market data will be taken.

If a trade exists in an instrument, this will be the baseline for the settlement. If a CME Globex trade and block trade both occurred for an instrument, the more recent of the two will be the baseline.

If the baseline falls outside of the posted CME Globex market, the settlement will be adjusted to either the bid or the offer, depending upon which side of the market the trade falls. Third-party information will also be considered; if there is a better bid or offer posted on third-party bulletins, for example, that is more recent than the trade and falls between the CME Globex

All relevant information will be considered in the settlement calculation.

bid or ask, the settlement price may be adjusted to respect this bid or offer.

In no case will third-party information adjust the settlement price to a level outside of a posted CME Globex market.

Bids and offers smaller than 50 contracts (from any source) may be discarded for the purposes of settlement calculation, and the next best bid or offer that meets that minimum may be used.

In the absence of trade information, the settlement will be the mid-market price of the posted CME Globex market.

In the absence of trade and market information, the settlement will revert to the previous day's settlement, unless the contract is "in period." If the contract is "in period," the settlement will be calculated by adding the actual observed heating or cooling degree days to date to the 10-year average of HDDs or CDDs for the remainder of the period.

Monthly contracts with no trade information may be adjusted to reflect price discovery in the strips of which they are a component.

Options trades may be considered for the purposes of futures settlements in the absence of futures trades.

Seasonal or Strip Futures

Seasonal or strip futures will be settled according to the same procedures detailed above for monthly futures, with a few notable exceptions:

In the absence of trade data, the seasonal or strip settlement will be the sum of the component month settlements. If this falls outside of a posted CME Globex bid or offer, the strip settlement will be adjusted to that bid or offer and the appropriate component months will also be adjusted to reflect the change.

In the case of "in period" strips with expired components, the final settlement price of the expired component will be used in the sum-of-months calculation; components that settled with a decimal component will be rounded to the nearest integer and "halves" will be rounded up.

Options

The Jewson model for valuing options will be used to establish settlement prices for the options. Trades with caps will be settled at their “uncapped” prices, preserving the differential between strikes.

When a trade occurs in a contract that is “out of period,” the appropriate underlying futures settlement and the trade price will be used to determine the implied standard deviation for the trade. This standard deviation will be used to establish all option settlements for this city and expiration going forward until either another option trade occurs and implies a new standard deviation or the contract period begins.

If no underlying futures settlement is available, the 10-year historical average contract value will be used as the underlying settlement and for the purposes of implied standard deviation calculation.

Once a contract is “in period,” whether a monthly option or a seasonal or strip option, the standard deviation will begin to decay. This decay function will form a ratio between the historical standard deviation on the date of the trade and the historical standard deviation for the

remainder of the period on the date the function is run. This ratio will then be multiplied with the implied standard deviation of the trade, and the result will be used to determine the settlement prices for all options in that city and expiration. This decay function will be run as frequently as twice weekly for monthly options that are in period, on Mondays and Wednesdays; for seasonal and strip options it will be run once every two weeks initially with increasing frequency until there is only a month left. CME Group exchanges reserve the right to suspend activation of this decay function when implementing it would motivate a settlement price that is outside of an observed bid or offer.

If multiple option trades occur in a given city and expiration, a linear programming algorithm may be used to determine the appropriate standard deviation and underlying futures settlement that will settle both trades at their respective prices.

Fees

Fees are dependent on how one executes their trades.

Fees for electronic trades for each side include:

- Clearing fee
- Globex fee

Both discounted for members

Fees for block trades and ex-pit trades include:

- Clearing fee
- Block fee

Clearing fee is discounted for members; block fee same for members and nonmembers

Fees for pit trades include:

- Clearing fee

Discounted for members

For a list of detailed clearing and trading fees, visit www.cmegroup.com/company/clearing-fees.

FREQUENTLY ASKED QUESTIONS

HOW DOES FUTURES TRADING WORK?

Buy low, sell high ... but not necessarily in that order.

The secret to futures trading is the same as in other business transactions: buy low, sell high. People who buy something at one price and sell at a higher price make money. If they buy something at one price and sell it at a lower price, they lose money. In futures and options on futures people can buy and sell in whatever order they want; it's just as easy to "sell high, buy back low," as it is to buy low, sell high. If people think prices are going up, they establish "long" (buy) positions, and if they think prices are going down, they initiate "short" (sell) positions.

The Power of Leverage

Our futures markets, like futures markets everywhere, are "leveraged" markets. That means that people need only to commit a little money to control a lot of product – in other words, when they initiate futures positions, they usually put up only an initial "performance bond" of about 5 percent to 10 percent of the value of the position, and are then required to maintain a specific amount in their trading accounts while their positions are still open.

HOW DOES FUTURES WEATHER WORK?

Trading weather is essentially trading an index, similar to trading a stock index value. The weather indexes quantify conditions, measuring how warm or cool a season is, how strong a hurricane is, or how much snow or frost is on the ground. A weather hedger's job is to assess business expenses or potential losses in regard to various weather conditions as related to the weather index values. A weather investor's job is to study weather patterns and take positions based on expectations for weather behavior.

Traders can choose weather futures or options on futures. The options products offer greater flexibility, in that they confer the right, but not the obligation, to trade a weather contract at a certain value, up to a certain date.

ARE CME GROUP WEATHER PRODUCTS TRADED ELECTRONICALLY?

Our Weather futures trade on the CME Globex electronic trading platform, but options do not. **All weather trades are available via block trades.**

WHAT ARE BLOCK TRADES?

A block trade is a privately negotiated transaction executed via voice brokers, either on or off the Exchange trading floor, then reported to the Exchange (within 15 minutes) and cleared by CME Clearing. **The minimum order size for a Weather block trade is 20 contracts for futures or options.** For more information on CME Weather block trading, visit www.cmegroup.com/clearing/trading-practices/block-trades.html.

HOW DOES MARGINING WORK IN TRADING CME GROUP WEATHER PRODUCTS?

CME requires that traders of its products maintain performance bond requirements (as good faith deposits) to protect against trading losses. These requirements allow traders to use leverage to hold a position larger than their initial deposit amounts.

For more information, visit www.cmegroup.com/margins.

DOES CME GROUP OFFER SUPPORT TO CUSTOMERS TRADING ITS PRODUCTS?

Yes. CME Group employees are available to explain the products and answer questions. For both electronically traded Weather futures products and all Weather block trades, the CME Globex Control Center (GCC) provides 24-hour assistance and technical support for registered users via telephone. Registered users are typically brokers and traders. Contact the GCC at 312 456 2391.

HOW MUCH DOES IT COST TO TRADE CME GROUP WEATHER PRODUCTS?

The cost varies. Brokers charge different fees, and the fees are also different for electronic and floor-traded products. In addition, the performance bond/margin requirements vary by product.

CAN CUSTOMERS WORK THROUGH ANY FUTURES COMMISSION MERCHANT – FCM – OR FUTURES BROKER TO TRADE CME GROUP WEATHER PRODUCTS?

No, only certain FCMs handle our Weather trades. Please consult our Web site at www.cmegroup.com/clearing to view a list of FCMs that will work with you to trade Weather.

ADDITIONAL INFORMATION

For additional information about our Weather products, please visit our Web site at [**www.cmegroup.com/weather**](http://www.cmegroup.com/weather). You will be able to access a number of other brochures and marketing education materials that can answer your questions or help you begin trading these products.

Additionally, if you would like to talk to a CME Group representative, please call our Customer Service Line at **800 331 3332**. Outside the United States, please call **1 312 930 2316**.



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