

# Futures

Magazine for technical trading  
July 2007



## The last secrets of the futures markets

Have you ever wondered why you can speculate in orange juice futures, but not lemon juice futures? Or why we're always hearing about weather derivatives, yet you've never met anybody who's ever bought them? In our Futures summer special, we'll be answering these and other infrequently asked questions.

There are things you always wanted to know but were afraid to ask. Such as why, oddly, orange juice seems to be the only fruit juice to have made it as a commodity on the futures market. Frozen Concentrated Orange Juice (FCOJ) has been traded on the New York Board of Trade NYBOT since 1966. The market is moderately liquid: around 80,000 contracts are currently traded each month, representing a volume of 1.2 billion pounds (around 544,000 metric tons) (1 contract = 15,000 US pounds = 6.8 tons). That may sound like a lot, but is negligible when compared with other „soft commodities“ traded on the NYBOT, such as coffee or cocoa. OJ futures, as professional traders casually refer to them, have nevertheless gained notoriety because prices fluctuate so easily according to the expectations of market participants regarding future weather patterns in Florida. If it becomes too cold or dry for the citrus fruit in the main US producing area around Orlando, the harvest will be poor and if tolerance levels are pushed too far in one direction for too long, it can take years for plantations to fully recover. In 1984, Richard Roll, Professor of Economics at the UCLA Anderson School of Management, examined the relationship between price

### Content

Focus on futures markets: A smorgasbord of facts and exotic details about the lesser visited corners of the futures trading world.

Market & opinion: FTC CEO Eduard Pomeranz talks about striking market trends of recent times and the development of FTC funds.

### Imprint

#### Publisher:

FTC Capital GmbH

Concept & Realisation: Wolfgang Schimmel

Translation: James Gray

All: Schottenring 12, 1010 Vienna, Austria

(+431) 585 61 69 | office@ftc.at | [www.ftc.at](http://www.ftc.at)



fluctuations on the OJ market and the weather data of the National Weather Service. As a byproduct of the study, the primary focus of which was issues of market efficiency, he discovered that the weather in Florida could often have been predicted more accurately based on futures prices than the actual official weather forecast.

## Betting on the weather

While we're on the subject of the weather: weather futures do actually exist and have been around on the Chicago Mercantile Exchange (CME) since 1999. These future event-based derivatives regularly fascinate journalists and writers, who think the concept through logically: „hurricane futures“, „avalanche futures“ or even „terrorist attack futures“ were concocted in the 1990s: and, incidentally, the hurricane future does actually exist as of this year.

But trading in weather futures - which at first glance seems pretty exciting - has only caught on gradually over the last two years. Around 200,000 futures contracts and 800,000 options on futures contracts were

traded in 2006, compared with just 4,400 in 2002. Bets on temperatures and rainfall would therefore seem to be on the cusp of a reasonably liquid market. At the moment, it only seems to be the true hedgers who are indulging in the market, hedging themselves against weather-driven fluctuations in demand: for the most part, these are companies in the energy supply sector, but the list also includes companies in the agricultural, tourism and construction industries.

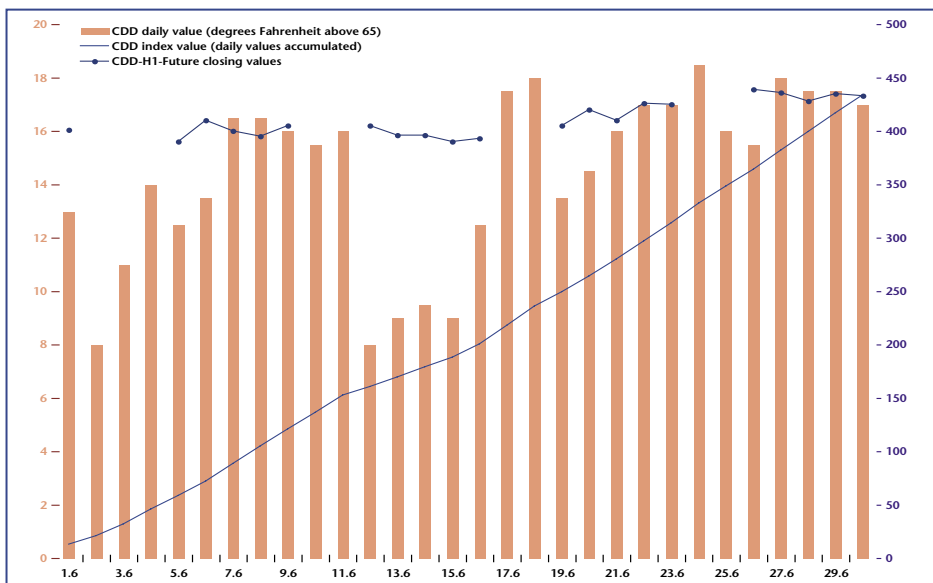
So what do we imagine a weather future to look like? After all, we've come to learn that a future is an implicit contract governing the delivery and receipt of a standardized commodity (or financial instrument) at a specific time in the future. As a buyer, do you then take delivery of the temperature you've ordered? The limits set by currently available technology on the fulfillment of a contract in a case like this are too restrictive. A weather future therefore takes after a bet more than a classic futures contract - essentially, it is closely related to a „contract for difference“. To understand how things work, let's look at the best selling contract class:

By far the most frequent transaction on the market for weather derivatives involves the purchase or sale of a contract on the „Degree Days“ of a certain month in a certain place. In winter, these are days („Heating Degree Days“ or HDD) on which the temperature falls below the reference value of 65 degrees Fahrenheit (around 18 degrees Celsius) and on which, as you would expect, the consumption of energy for heating purposes increases. In summer, these are days on which the temperature exceeds 65 degrees Fahrenheit and where the use of air-conditioning devices increases („Cooling Degree Days“ or CDD). In each case, the base value is one of the current 28 local temperature indices, which are compiled for the USA using the measuring data of the National Climate Data Center (NCDC).

A CDD H1 August contract, for example, is based on the „Cooling Degree Day Index“ for Atlanta (H1), which uses a points system to indicate the number of days by which the temperature deviates from the reference value and how pronounced this deviation is (the key value is the average of the respective daily minimum and maximum).

The calculation goes as follows: the measured average temperature of a day minus the reference value equals the change in value of the base value CDD Index Atlanta. Let's say August 1 shows an average temperature of 75 degrees Fahrenheit, that would give us  $75 - 65 = 10$  points. Given that one index point is worth 20 US dollars based on the contract specifications, the base value at the end of August 1 is 200 dollars.

Each further day where the temperature is higher than the reference value will increase the base value accordingly. Days where the average temperature is lower than or equal to 65 degrees Fahrenheit do not trigger an index change, so the base value does not increase. At the time of writing (July 13 2007), the Atlanta August future measured 463 points, which suggests that market participants are expecting temperatures in August to be slightly above long-term average - 463 points would be reached



June temperatures in Atlanta and their influence on the base value of a CDD future: the light red bars indicate the respective CDD value of a calendar day (exceeding of reference value of 65 degrees Fahrenheit) and the directly dependent trend of the CDD Index. On June 30, 2007, it stood at 434 points, representing a contract value of 8,680 dollars ( $434 \times 20$ ). The futures price during the period meets the expectations of trading participants and finally drops along with the base value.



if the daily mean were around 80 degrees Fahrenheit or 27 degrees Celsius. The long-term August average is 26 degrees Celsius.

On the settlement day (for contracts relating to a specific month, generally the second calendar day of the following month), cash settlement is performed. Let's assume you bought a contract at 440 (index points). Following an extremely hot August, the CDD Index for Atlanta reaches 510 points. In this case, your profit is 70 points at 20 dollars each for a total of 1,400 dollars, which is settled in cash.

Investors can therefore speculate on warm or cold weather, the number of frost days or rainfall in a growing number of US and European cities or even on the Carvill Hurricane Index (CHI), which measures the destructive potential of hurricanes to five US coastal regions. Should you have the urge, you will be able to get the current quotations for the first hurricane scheduled to hit the Gulf Coast in September 2007 from your data provider, probably under the symbol "HG1U7".

## Strange symbols

Ticker symbols for futures are, incidentally, one of the last esoteric lores of securities trading. Professional traders who have yet to trade in any weather contracts whatsoever would nevertheless be immediately able to tell you, having been shown the aforementioned combination of letters and numbers, that they relate to a contract which expires in September 2007. The last or last two characters in each symbol always represent the contract year („7" or „07" for 2007) and the letter immediately preceding it indicates the contract month. And „U" indicates the month of September. The logic behind it cannot be figured out intuitively. „U" is neither the ninth letter of the alphabet nor a recognizable abbreviation. The solution to the puzzle: the sequence of the months is F, G, H, J, K, M, N, Q, U, V, X, Z, where „F" represents January, „C" February and so on. But why? Apparently, the devisors of this strange code wanted to avoid letters which could be confused

with abbreviations of commodities as well as letters which could be confused with numbers (such as „I" or „O").

The first few characters of the symbol represent the base value and several abbreviations are, with a little practice, understandable enough to remember. A simple "W", for example, stands for wheat on the CBOT and the symbol WU7 indicates September-Wheat 2007. Other acronyms, by contrast, can only be learnt by heart. "DB" (Dairy Butter) on the CME refers to the butter future - the fact that you have to search for this highly exotic contract with one data provider using a different abbreviation ("BB"), because "DB" stands for Bund future, is the price you pay for a lack of international standards and doesn't exactly make life any easier for newcomers.

## The butter future

Despite its relatively low importance on the Chicago Mercantile Exchange (CME), futures trading in butter enjoys a very long tradition - between 1898 and 1918, the exchange was even known as the „Chicago Butter and Egg Board". Whereas eggs failed to stand the test of time, butter continues to eke out an existence on the CME. Nowadays, a contract encompasses 40,000 US pounds (around

18 tons) of butter („AA" quality) and if you commission a broker, he will send your order directly to his trading partner at the CME to be executed. Whereas today, most futures are already traded electronically, butter - a traditional commodity - continues to be traded exclusively in the pit (at least physically, as „cash-settled butter", i.e. butter contracts settled in cash, are also offered on the CME's electronic Globex platform).

## Pit trading

A pit is a circular area on an exchange's floor where the trading of a specific futures or option contract occurs. There are pits for beef cattle, the S&P 500 equity index and, of course, butter. In the liquid contract pits, trading sessions are a real hive of activity and the noise level can rival that of a packed football stadium, since trading is carried out according to the „open outcry principle": anyone wanting to trade a certain number of contracts does so through verbal bids and offers made in the trading rings or pits. Because there are often dozens of traders all doing this at the same time, it is difficult even for the seasoned pit trader to distinguish individual words from the nerve-grating wall of sound that is generated. Which is why each





bid is also made using special hand signals which it takes considerable practice to decipher. For outsiders, a trading session in the pit of the CME best-seller Eurodollar (the world's most actively traded futures contract) comes across as pure chaos.

But it's a ritual that has developed over almost 150 years and which works very well. The rules are sophisticated and allow for very few misunderstandings. It also encompasses the open auction process, where each participant is his own auctioneer. Once a bid has been made, no bids below this one can be made, provided the original offer hasn't already been accepted by one of the traders - which means that open bids may not be undercut (but may of course be outbid). By the same token, open offers for sale may not be outbid but may be undercut.

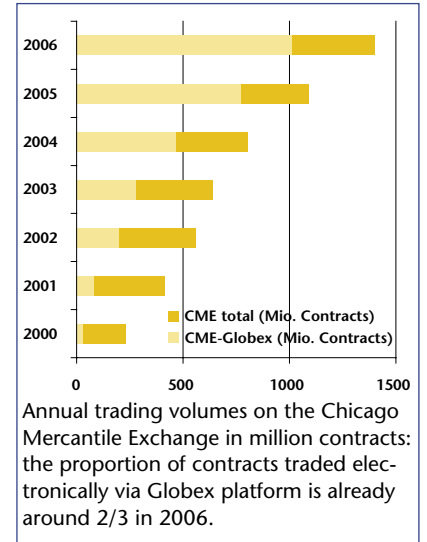
To make things clear, let's assume that a trader opens an auction with the following bid: „Buy ten for five!". He is thereby signaling his intention to buy ten contracts for five units (depending on the market, these could be cents or dollars) above the last valid price. This excludes anybody else from making a lower offer (e.g. „10 for 4"), provided the original offer is not accepted by one of the traders or a higher price is bid. If a seller is found, he simply shouts

„Sell ten for five" and the buyer closes the deal by shouting „Done!" or „Take it!". Among the traders gathered, there are also exchange reporters whose job it is to closely monitor such calls and who record the latest price quotes. Bids made in the next round are then based on this new price.

The CME butter pit hasn't seen chaos like this for several years. With around 4,000 contracts per year, most days see no trades at all. Nobody knows if and whether the pits that are still loud today will ever become quiet. The trend is clearly towards electronic platforms and some exchanges such as the IPE oil exchange, which was taken over by ICE, have closed their floors completely or - as in the case of the German-Swiss Eurex - never actually operated one. On the other hand, however, hundreds of thousands of dollars are still charged and paid for an actual seat on the traditional futures exchanges such as the CME.

### The elite club of clearing members

If you imagine the futures exchanges in terms of an aristocratic hierarchy, the ordinary members would be among the higher ranks. The „royals" in the land of the futures, however, are un-



doubtedly the members of the clearing houses. This institution is as much a part of a futures exchange as the vault of an old bank: in fact, the entire futures trading system is based on the concept of the clearing house. If Mr. Miller sells a pork belly contract to Mr. Smith on the CME, the clearing house acts as a direct intermediary, so that in truth Mr. Miller is selling a contract to the clearing house and Mr. Smith is buying a contract from the clearing house. Each has therefore entered into a contract with the clearing house. It's always the same: each one of the approximately 1.4 billion contracts traded on the CME in 2006 consisted of two independent contracts (buy and sell) which were concluded with the clearing house of the CME. And that's how it is on every futures exchange the world over. The unbeatable advantage of this system is that anybody trading in futures doesn't have to worry whether his counterparty has sufficient funds to fulfill the contract. They don't even have to know each other. Traders always deal with the clearing house and it's the clearing house that is liable for the fulfillment of each and every contract.

### A safe business

The principle of daily margin settlement coupled with the huge financial muscle of the clearing members means that the clearing houses are in such a position. The register of members of the

## Top Contracts 2006

The most traded futures contracts in each class by volume (in millions) and by contract value.

Base	Börse	Mio. contracts	app. equivalent to	units
<b>Commodities</b>				
Energy: Crude Oil (WTI)	NYMEX	192	192 bn.	barrels
Precious metals: Gold	Tocom	22	22.000	tons
Precious metals: Gold	NYMEX	16	45.000	tons
Base metals: Aluminium	LME	36	720 m.	tons
Agriculturals: Mais	DCE	65	650 m.	tons
Agriculturals: Mais	CME	47	6.392 m.	tons
<b>Interest</b>				
Money market: Eurodollar	CME	502	13 bn.	USD / basis point (0,01%)
Bonds: Euro-Bund	Eurex	320	3 bn.	Euros / basis point (0,01%)
<b>Equity Indices</b>				
USA: E-mini S&P Index	CME	258	13 bn.	USD / basis point
Europe: DJ Euro Stoxx 50	Eurex	214	2 bn.	Euros / basis point
<b>Currencies</b>				
Euro FX (to US\$)	CME	41	5.125 bn.	Euros



combined clearing house of CME and CBOT, for example, reads like a who's who of US subsidiaries of international financial groups, some of the biggest US investment bankers and a number of large brokerage firms. A brief extract of well-known names: Bank of America, Bear Sterns, BNP Paribas, Citigroup, Credite Suisse, Deutsche Bank, Goldman Sachs, Merrill Lynch, Morgan Stanley and UBS. The conclusion of a futures contract is therefore regarded as a more or less 100% safe business bet in terms of its fulfillment. Since it was introduced, the system has never once failed and has even managed to withstand major-league bankruptcies such as that of brokerage firm Refco without even flinching.

There is one simple reason why the aforementioned institutions and many other companies scramble to become part of the elite club of clearing members and thus to be answerable for several billion dollars in theoretical non-payment risk: clearing house members are entitled to direct access to the infrastructure of the futures exchange. Coupled with this is the right to clearing during own account trading as well as (depending on the degree of membership) on behalf of other clearing members and non-clearing members (customer business). Which is a lucrative and profitable business for the vast majority. There is a negligible clearing fee of around one dollar for a Eurobund contract, for example, but around 500 million contracts were traded on this market alone last year.

You would be wrong to look at the

clearing house of the CME objectively, for example as a huge warehouse in which millions of frozen pork bellies are stacked. It is simply a committee of the exchange. Although several contracts are still fulfilled through the physical delivery of the base value, the clearing house is not the venue for the movement of goods of a futures exchange. Sticking with the theme of pork bellies at the CME: these can be supplied and collected from any one of around 60 warehouses belonging to various different companies certified by the exchange and located throughout the entire United States.

### What was that about lemons?

Oh yes, we almost forgot: why are there no lemon juice futures? A commodity has to meet a few basic requirements before it can form the basis of a reasonably liquid futures market. It should be suitable for storage (apart from live cattle), must be transportable and it should be affected by fluctuations in supply and demand (otherwise nobody would be interested in futures trading). There is no difference between lemon juice and orange juice when it comes to storage and transportation. So perhaps there is simply too little fluctuation in supply and demand. The average US citizen consumes around 40kg of oranges per year, for the most part in the form of fruit juice straight off the supermarket shelves. The area under cultivation in the USA (the second largest area in the world after Brazil) yields

in excess of 11 million tonnes in a good year. By comparison, per capita lemon consumption is just 1.5kg and domestic production stands at around 800,000 tonnes. What's more, owing to cheaper prices for artificially produced citric acid, the industrial use of lemons is declining. Prices have been stagnating for years.

If demand fails to exceed supply at least intermittently, then it's just not worth getting into futures trading.

## Exoticisms of the futures exchanges

Contracts with which (almost) nobody is familiar, sales in 2006 and their potential

Base	Exchg.	Contracts	Prospect
Diammonium Phosphat (fertilizer)	NYMEX	6	none
Potatoes	Euronext	14.517	shelf warmer
Raw Silk	TGE	ca. 10.000	regional if any
Wool	ASX,SFE	< 20.000	regional
Pulp	NYBOT	13.684	shelf warmer
Desasters (Risik Index)	NYMEX	0	future potential
Snowfall (regional indices)	CME	0	future potential
Hurricanes (5 regional indizes)	CME	0	future potential
House prices (regional indizes)	CME	3.632	future potential



## Market & Opinion by Eduard Pomeranz, CEO

FTC's two diversified managed futures funds are currently making their investors, a group to which I also belong, very happy. FTC Classic has been recording all-time highs since May, while in June FTC Dynamic achieved its highest end-of-month value since February 2003. As of this evening - the time of writing is June 16, 2007 - the fund has also exceeded its highest ever traded NAV (USD 1,819.73), recorded on June 16, 2003. I don't yet know the exact figures in terms of dollars and cents, but I am sure of one thing: our trading systems, which were introduced in their current form in April 2005, have performed outstandingly.

### International front runners

Both of our flagship funds have emerged from a long-term trough and are now among the world's best funds in the systematic, broadly diversified managed futures class. The recovery of our funds is not simply the result of favorable market conditions, but is closely tied to a considerably improved trading logic.

Looking back over the last 27 months (i.e. since the launch of our new systems), FTC Dynamic has left virtually all of the internationally established CTAs standing, posting an overall performance of 82.1% and an annualized yield of over 30% (in each case as per the end of June 2007). The less aggressive FTC Classic remains an international front runner with an ac-

cumulated performance of 49.6% and an annualized yield of 19.6%.

### Ever greater challenges

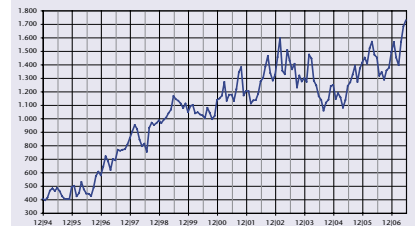
However, that doesn't mean we should be resting on our laurels - our next challenges are already upon us. The long upward market on the stock markets is under threat. Daily volatility has increased sharply, which is always a sign of danger. A fair number of currency markets - especially the galloping euro and falling yen - are already making a frenzied impression. And the long upward trend of the interest markets and the knock-on effect on bond prices is coming to an end. A turnaround in these long-term trends will inevitably have repercussions for other areas of the financial system.

In short, we will again witness adjustments in our funds, triggered by the restless periods between two cycles - but I can't predict when these will be. Next week, in two months or even a year - I don't know and I doubt that anybody else does either.

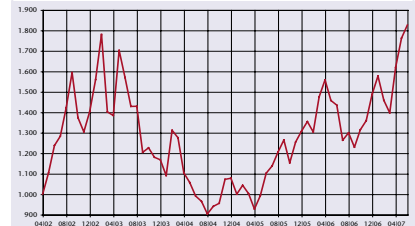
We are already seeing the effects of such phases with FTC Commodity Fund Alpha: the heavily sideways volatile energy markets allow a trend-following system hardly any scope for trading profits. Although broad diversification by time slots offers a certain amount of protection and prevents losses from spiraling out of control, losses cannot be completely ruled out.

Which is why we've been working flat out on further improvements for around a year, in the hope of being better able to deal with short-term volatility on the basic markets. We've learnt one thing the hard way: if you wait for the market environment to change before you act, you're already way too late.

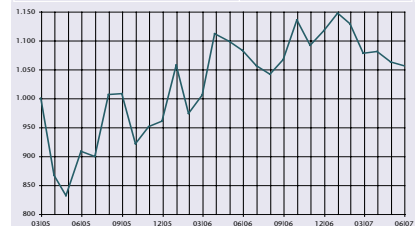
FTC Futures Fund Classic	
Month:	+2,71 %
Year:	+15,94 %
Since inception:	+325,49 %
NAV Euro:	1.727,50



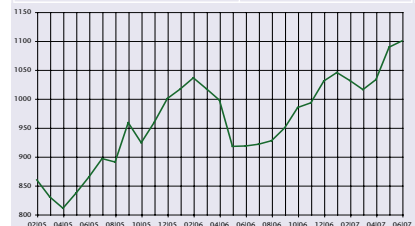
FTC Futures Fund Dynamic	
Month:	+3,63 %
Year:	+22,77 %
Since inception:	+82,57 %
NAV USD:	1.825,74



FTC Commodity Fund Alpha	
Month:	-0,61 %
Year:	-5,45 %
Since inception:	+5,59 %
NAV Euro:	1.055,88



FTC Gideon I	
Month:	+1,00 %
Year:	+6,73 %
Since inception:	+31,94 %
NAV Euro:	1.099,76



Data as of June 29, 2007. We cannot guarantee the accuracy or integrity of the data. Past results are no indication of future trends.