



# IFEX Event Linked Futures

*Trading Strategies for Investors*

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# IFEX Event Linked Futures

**Event Linked Futures are exchange traded binary futures contracts modelled on Industry Loss Warranty reinsurance policies**

- § **Contracts for Difference** Although Event Linked Futures (ELFs) are similar to Industry Loss Warranty reinsurance policies, they are contracts for difference and NOT reinsurance policies as they are not contracts of indemnity
- § **Futures** ELFs give the right to receive payments when insured losses caused by specific events reach pre-specified amounts during a particular calendar year risk period
- § **Binary** ELFs are binary or digital contracts
- § **Event Based** ELFs are currently listed as First, Second, Third and Fourth Event contracts for each calendar year. On the occurrence of a First Event CCFE may list an additional Event
- § **Exchange Traded and Cleared** Trading in ELFs is exchange traded and cleared.
- § **Margin** ELFs are margined to ensure that buyers and sellers can meet their obligations and as such are guaranteed by the Clearing Corporation

# Event Linked Futures: US T & P, Florida and US Gulf Coast

## IFEX EVENT LINKED FUTURES: US T&P TROPICAL WIND

- § IFEX Event Linked Futures are triggered by insured losses as calculated by PCS, part of the Insurance Services Organisation
- § The covered territories are: US Territories and Possessions, i.e.:
  - The US states (including Hawaii and Alaska)
  - Washington DC
  - Puerto Rico and the US Virgin Islands
- § The Loss Trigger Levels are for:
  - \$10bn, \$15bn, \$20bn, \$25bn, \$30bn, \$40bn, \$50bn, \$60bn, \$75bn and \$100bn.

## IFEX ELFs: FLORIDA, US GULF COAST, US Eastern Seaboard and US North East

- § IFEX Florida ELF covers losses in the state of Florida
- § IFEX US Gulf Coast ELF covers losses in Alabama, Mississippi, Louisiana and Texas
- § IFEX US Eastern Seaboard covers seaboard states Georgia to Maine
- § IFEX US North East covers seaboard states Virginia to Maine
- § IFEX Florida, US Gulf Coast, US Eastern Seaboard and US North East ELFs have the same Loss Trigger Levels and event structure as IFEX US Tropical wind contracts.



# IFEX Event Linked Futures are Event Based

## EVENT DEFINITION

- § The definition of event followed by the *IFEX* Event Linked Futures contracts follows that of conventional ILW reinsurance policies
- § Each Loss Trigger Level represents a discrete ELF contract
- § For example, the 2009 First Event \$10bn Loss Trigger Level (LTL) represents:
  - ‘The first tropical wind catastrophe in 2009 causing insured losses in excess of \$10bn’
- § Thus a second 2009 tropical wind catastrophe causing insured losses in excess of \$20bn would trigger the Second Event \$10bn LTL and the First Event \$20bn LTL
- § IFEX currently trades First, Second, Third and Fourth Event 2009 and 2010 contracts.

# IFEX ELF Contracts are Margined (1)

## IFEX ELF MARGIN

- § IFEX ELF contracts are margined as futures contracts.
- § Because of the margining system, the security of ELF contracts is excellent
- § Margin is of two types:
  - **Variation Margin**
  - **Maintenance Margin**
- § **Variation Margin** reflects day-by-day the mark to market value of the contract. If the price of a contract falls the buyer pays and the seller receives variation margin.
- § The protection buyer pays the premium through the erosion of the value of the contract if there is no claim. The protection seller receives the premium from the fall in the erosion of the value of the contract if there is no claim.
- § If a LTL is triggered (a claim made) variation margin will flow to the full value of the contract from the seller to the buyer.

# IFEX ELF Contracts are Margined (2)

- § **Maintenance Margin** is payable either by accumulated variation margin and/or by deposits of cash, high grade fixed interest securities or Letters of Credit
- § Before and after the North Atlantic (and Eastern Pacific) hurricane season (June 1 – November 30) Maintenance Margin is \$200 per contract (2% of its notional value or 'limit') for buyers and \$800 for sellers
- § During the hurricane season Maintenance Margin increases to \$600 for the buyer and \$2,400 for the seller
- § If a hurricane or tropical storm poses an 'moderate' or 'severe' margin increases as follows:
  - Moderate Threat: Buyer \$3,000 and Seller \$3,000
  - Severe Threat: Buyer \$8,000 and Seller \$2,000
- § Maintenance Margin requirements are assessed for 'moderate' or 'severe' on the \$10bn and \$20bn LTLs the \$30bn, \$40bn and \$50bn LTLs, and the \$60bn, \$75bn and \$100bn separately.

# Virtual Reinsurer

## USING IFEX ELFs FOR VIRTUAL REINSURANCE

- § IFEX ELF contracts allow investors to carry insurance risk cheaply and conveniently
- § There is no need to establish an insurance or reinsurance company as positions can be made on the same basis as other futures contracts
- § Using IFEX as a medium for carrying insurance risk does NOT require:
  1. establishing and staffing a reinsurance company
  2. underwriting and claims staff
  3. insurance regulation compliance
- § Futures market commissions are regularly significantly less than insurance or reinsurance brokerage
- § *IFEX transactions can be integrated easily with other derivatives trading*

# Insurance Price Risk Trading

## INSURANCE PRICE TRADING: A NEW ASSET CLASS

- § As futures contracts ELF's can be used to trade the price risk of US wind protection separately from the insurance risk
- § *Insurance price risk is a new asset class*
- § The 2010 ELF contracts will only be on insurance risk from Jan 1 2010, but they will be subject to price risk throughout calendar 2009. And significant insurance risk will exist only during the North Atlantic hurricane season (June 1 to November 30 2010)
- § Given the volatility of reinsurance market prices, ELF provide opportunities for trading price risk by traders not interested in carrying insurance risk, in other words they can trade insurance price risk as a separate financial asset
- § US tropical wind ELF prices will change on news concerning:
  - catastrophes affecting the international reinsurance market
  - major entries and exits from the international insurance market
  - developments in capital markets
  - major casualty liability insurance losses
- § IFEX ELF's can be used to trade the insurance *price* cycle without carrying insurance risk

# Trading ELF Pricing Anomalies

## EXPLOITING ELF MISPRICING

- § Opportunistic investors will be able to exploit price anomalies. The international reinsurance market is inefficient and regularly throw up pricing anomalies, more or less than fair prices
- § Because trading *IFEX* ELF contracts are cheap and convenient compared to the alternatives they are the ideal means of exploiting such perceived mispricing
- § For example, if the 2009 \$10bn *IFEX* US Tropical Wind ELF trades at \$44 (the equivalent of a rate on line of 44%) and the exceedance probability (as estimated by competent risk modellers) is say, 30%, then a it becomes attractive to sell the contract
- § Alternatively, at another stage of the insurance cycle, the price might be well below that suggested by the exceedance probability. Again *IFEX* would be the ideal platform for this type of transaction

# Trading Active Hurricanes

## TRADING 'LIVE' AND 'DEAD' CAT

- § IFEX ELF contracts will allow active trading in 'live' and 'dead' cat.
- § It is possible to trade the contracts as hurricanes develop and approach the Covered Territories – 'live cat'
- § It is also possible to trade 'dead cat' - once hurricanes have made landfall and it is unclear whether any or which Loss Trigger Levels have been exceeded
- § There was significant 'dead cat' trading in the \$10bn Loss Trigger Level of the 2008 US Tropical wind contract in October 2008 following hurricane Ike
- § Reinsurers will be able to use IFEX ELFs to increase or decrease their exposures to tropical wind exposures in the covered territories and loss amounts

# Trading IFEX ELF Spreads

## ELF SPREADS

IFEX currently lists US Tropical Wind ELFs for two loss periods (2009 and 2010) and First, Second, Third and Fourth Events. Should a First Event occur then CCFE may list an additional Event

This array of Events, Loss Trigger Levels and loss periods may throw up pricing anomalies and opportunities for trading

## EXAMPLES

- § Discount or premium of 2009 to 2010 prices
- § Discount or premium of First Event to Second Event
- § Price differences between Loss Trigger Levels

# ELFs as Overlays

## USING ELFs TO OVERLAY US CAT EXPOSURES

- § US Tropical Wind ELF contracts provide cheap, quick and convenient means of adjusting exposures to cat risk
- § Adjustments to exposures can be made rapidly to reflect changing risk preferences rapidly without the need to commute or buy coverages in the conventional reinsurance market
- § IFEX ELF positions can be used to hedge:
  - holdings of reinsurance shares
  - cat bonds, individual and portfolio
  - Industry Loss Warranties
  - Lloyd's commitment.
- § Hedging can simple or dynamic with positions adjusted continuously with changing risk preferences

# Trading IFEX ELF for Investors - Summary

## MULTIPLE USES FOR INVESTORS

IFEX Tropical Wind ELFs can be used by insurers and reinsurers for the following:

- § Virtual reinsurer
- § Trading ELF prices without exposure to insurance risk – a new asset class
- § Exploiting mispricing
- § Trading active tropical storms and hurricanes as ‘live’ and ‘dead’ cat
- § Trading ELF spreads
- § Using ELFs as overlays

# Contacts

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# Climate Exchange PLC Group of Companies

- § **Climate Exchange Plc** is a holding company whose subsidiaries are principally engaged in owning, operating and developing exchanges to facilitate trading in environmental financial instruments including emissions reduction credits in both voluntary and mandatory markets. The two main businesses are the **Chicago Climate Exchange (CCX)** which operates a voluntary but legally binding cap and trade system including an exchange for CO2 emissions as well as SOx and NOx contracts in the US and internationally, and the **European Climate Exchange (ECX)** which operates an exchange focussed on compliance certificates for the mandatory European Emissions Trading Scheme. <http://climateexchange.com>
- § **CCX** is a financial institution whose objectives are to apply financial innovation and incentives to advance social, environmental and economic goals. **CCX** is the world's first and North America's only legally binding rules-based greenhouse gas emissions allowance trading system, as well as the world's only global system for emissions trading based on all six greenhouse gases. **CCX** members are leaders in greenhouse gas management and represent all sectors of the global economy, as well as public sector innovators. Reductions achieved through **CCX** are the only reductions in North America being achieved through a legally binding compliance regime, providing independent third party verification provided by NASD and price transparency. The founder, Chairman and CEO of **CCX** is economist and financial innovator Dr. Richard L. Sandor, who was named a Hero of the Planet by Time magazine for his founding of **CCX**. For a full list of **CCX** members, daily prices and other Exchange information, see <http://www.chicagoclimateexchange.com>.
- § **CCX**, a US corporation, launched its trading platform in 2003. In 2005, **CCX** launched the **European Climate Exchange (ECX)**, now the leading exchange operating in the European Union Emissions Trading Scheme. **CCX** also launched the **Chicago Climate Futures Exchange (CCFE)**, a CFTC-regulated futures exchange for U.S. SO2 allowances and U.S. NOx Ozone Season allowances, the world's first environmental derivatives exchange. Since 2006, **CCX**, **ECX** and **CCFE** have been owned by **Climate Exchange Plc**, a publicly traded company listed on the AIM of the London Stock Exchange.
- § **The European Climate Exchange (ECX)** manages product development and marketing of Carbon Financial Instruments (CFI) futures and options contracts on CO2 EU allowances traded under the EU Emissions Trading Scheme.
- § **ECX** CFI contracts are listed and traded on the ICE Futures electronic platform, offering a central marketplace for emissions trading in Europe with standard contracts and clearing guarantees provided by LCH.Clearnet. **ECX** / ICE Futures is the most liquid, pan-European Exchange for carbon emissions trading. More than 80 leading global businesses have signed up for membership to trade **ECX** products. In addition, several hundred clients can access the market via banks and brokers.

