

## PRACTITIONER'S POINT



Diego Wauters has extensive experience in the field of insurance/ reinsurance - specialised exotic products, cat bonds, weather derivatives

Investing in Catastrophe Bonds, post Hurricane Katrina ...

Prior to Hurricane Katrina, cat bond investor demand far outstripped supply, but the occurrence of the storm reversed this trend.

What is the status quo now?

And how do you see the cat bond market evolving in the future?

The cat bond market is mainly influenced by two factors - the price of traditional reinsurance and the credit worthiness of the reinsurance industry. Everytime a major event affects the reinsurance industry (such as September 11th, the hurricanes of 2005, the asbestos crisis of the late 90's, etc.) it tries to recoup its losses by raising the reinsurance rates over the ensuing two or three years.

The cat bond market reflects this by offering a higher coupon on the new issues that follow such a major disaster.

Cat bonds are structured such that, the insurance company seeking protection is not exposed to any credit risk borne by the investors. This is achieved by creating trust holding treasuries or high quality corporate bonds.

Rating agencies have systematically downgraded a number of reinsurers following the occurrence of major catastrophe event - such as Katrina. At this stage there is only one AAA reinsurer left in the market, Berkshire Hathaway. As a consequence more cat bonds tend to be issued, as they eliminate

credit risk.

The cat bond market is still recovering from the three hurricanes that hit the US east coast in 2005. Reinsurance rates are still high and insurance companies still like the protection offered by a cat bond as opposed to buying reinsurance from less credit worthy reinsurance companies. In 2006, growth in cat bonds for peril risk outweighed supply. Coupons being paid out currently continue to be attractive.

"It came as a surprise to many that Hurricane Katrina, which was only a marginal category 3, category 4 storm, could result in such an extremely large loss to the reinsurance industry, although there were special factors involved." What caused the risk models to "collapse"?

The major flood associated with hurricane Katrina created significantly higher losses than the hurricane itself. Hence insurance claims were much larger than would have been for a hurricane of that magnitude.

What were the revisions made by major insurance rating agencies and risk modelling firms in their respective methodologies? What impact has this had on the cat bond market and for players such as yourself?

The major rating agencies have modified their methodology to reflect the recent increase in hurricane frequency in the Atlantic. Also, they have developed new models to take into account floods associated with a hurricane.

Has the cat bond market witnessed changes since the occurrence of Hurricane Katrina? Elaborate.

The cat bond market has grown significantly since Hurricane Katrina - with a volume of issuance largely superior to previous years. Also, the cat option market has now developed into a multiple of the size of the cat bond market itself.

A variety of new structures have been introduced in both markets to better reflect the needs of the (re)insurance companies seeking protection. This has led to the creation of "second event", "multiple perils" etc structures.

Finally, a number of new bonds have been issued that cover non-natural catastrophe events, i.e. those linked to human activity (such as mortality, longevity, car accidents etc).

In your opinion, are cat bonds still a lucrative asset class? For whom?

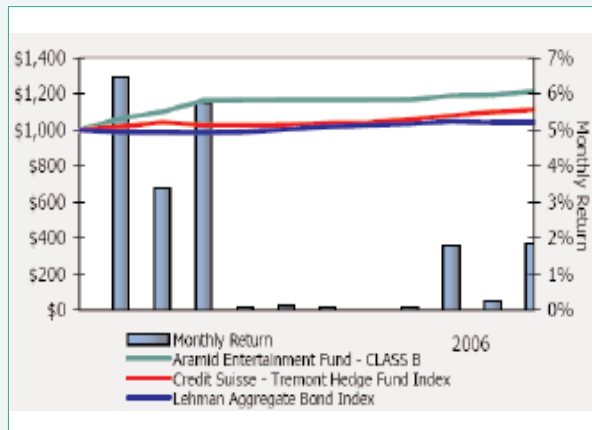
Investors are still attracted by this asset class for various reasons. First, it offers low correlation to traditional financial assets. Second, it provides the investor with a return which is a multiple of the expected loss associated with the risk borne. Investors can now diversify their cat bond portfolio by adding non-natural catastrophe bonds or weather derivatives - as these are based on weather phenomena that are "local".

Given the frequency, severity, wide-spread nature of naturally occurring catastrophes - isn't it going to get increasingly challenging to deliver cat bond returns?

So far, we have not seen an increase in the frequency of earthquakes and the (re)insurance industry has already experienced periods, during which multiple hurricanes have occurred. One may remember that forecasters predicted a busy hurricane season for 2006, when hardly any occurred.

In other words, it is difficult to predict, on a short-term basis, the frequency of natural catastrophes. As long as the return remains a multiple of the long-term expected loss and provided one can build a diversified portfolio, it remains an attractive asset class that is broadly uncorrelated with financial markets.

## FINANCIAL FIX: ARAMID ENTERTAINMENT FUND



Growth of initial USD1,000.-  
Source: Aramid Entertainment Fund

**Focus:** Asset-based lending to digital media - principally film and TV production markets. The fund provides short and medium term liquidity to producers and distributors of film, television and other media and entertainment content by way of loans secured against a variety of assets including, but not limited to: tax credits, the film rights, a producer's property asset, the film set, and personal or corporate guarantee revenue participation rights, distribution rights, underlying copyright, sales contracts and other receivables. Where appropriate, the fund may also take into the portfolio at its discretion equity or equity related positions in underlying investments.

**Strength:** expertise in the media and entertainment industry that the fund and its directors have, should give it a material advantage in managing the risks associated with this form of lending

**Weaknesses:** As interest rates rise so do returns and vice versa; liquidity constraints; (fee structure 3%/30% - retail class)

### Opportunities:

The media and entertainment industry has a lot of participants, many of whom are poorly capitalised. It is anticipated that the lack of capital in the marketplace will create strong demand for the liquidity that the fund offers - justifying its premium pricing.

**Threats:** capacity constrained - (currently USD 250mn expected without having to go into more downstream mature assets)

### Risk Assessment

☐ = low ☐ = low/moderate ☐ = moderate ☐ = moderate to high ☐ = high

Major risk lies in whether for eg. the film actually gets made

Ability to understand legal risk entailed: ☐☐☐☐☐

Ability to procure and scrutinise loan relevant documentation (in the event of a default; loan documentation must stand from a legal perspective): ☐☐☐☐☐

Accuracy in valuation of collateral and monitoring of collateral: ☐☐☐☐☐

Ability to identify and extract value from collateral: ☐☐☐☐☐

Ability to recover full value of collateral in a force sellers market: ☐☐☐☐☐

Ability to enforce default procedures: ☐☐☐☐☐

Ability to detect and mitigate fraud: ☐☐☐☐☐

Familiarity with how the intellectual property of film and other entertainment assets are valued, traded and sold: ☐☐☐☐☐

Theatrical performance risk: ☐☐☐☐☐

Leverage risk (the Fund intends to use leverage in tax credit discounting and mezzanine financing, by way of syndicating or laying off a part of these investments to a leading film finance bank): ☐☐☐☐☐

Key man risk: ☐☐☐☐☐

### Performance Parameters

☐ = insufficient ☐ = adequate ☐ = satisfactory ☐ = good ☐ = outstanding

No of loans: expected to be 30 - 50 loans in the portfolio on a rolling annual basis

At USD50m - there will be approximately 25 loans to 15 borrowers on a rolling annual basis

Diversification:

Geographical market focus: US (65%) & UK (20%) initially, with other regions (ROW 15%) including, in due course, Europe, Australia and South Africa

No or minimal correlation between borrowers and cross-collateralisation wherever possible where more than one loan to one borrower

Separate film projects and team diversifies risk

Access to "deal flow": ☐☐☐☐☐

Presence of competitors: ☐☐☐☐☐

### Outlook

↑ upside potential ↗ upside to range bound ↔ range bound ↘ range bound to down ↓ downside potential

Scope for such a fund: ↑ there is always a need for bridge financing

Liquidation timescale - under normal circumstances: 540 days

Barriers to entry: Expertise, network

Ability to deliver returns over:

the next 12 months: high

the next 3 years: high

Worst case scenario: fee structure bridge finance is at 10% for first 4 weeks and then 1%/week thereafter, so should be protected on interest rate decrease. Facility fees on tax credits and mezz of 5-10% also protects against downturn in interest rates

### Investment Insights

Target audience: institutional and retail: min initial investment USD1m /USD 50,000

Fund targets: 20% net annualised return

Hurdle rate 2% per quarter +high water mark

Base currency: USD

Level of complexity for an investor: low

Available to investors: globally

Fees: management 2%/3%; performance- 20%;30%

Redemption fee: 3% in first 12 months/1.5% in the first 12-18 months

## RESOURCEFUL: THE DIAPASON COMMODITIES AGRICULTURE NON-GMO INDEX



Index performance figures (1.1.'01-30.01.'07)  
in light blue = excess returns; dark blue=total returns  
source: DiapasonCommodities Management

**Focus:** The Diapason Commodity Agriculture Non-GMO\* Index is designed to be a liquid, international benchmark for \*Non-Genetically Modified Organisms (NGMO) investments in the OECD. Two principles were used in designing the index: World Trade Significance (WTS) and World Contract Liquidity (WCL). The Index, is currently composed of 5 physical, agricultural commodities and is weighted to reflect the relative size of international exports for NGMO products, as well as to reflect the liquidity of the relevant futures contracts (33.33% WTS to 66.67%WCL). The index constituents are: TGE NGM Soybean (42.10%); Euronext Milling Wheat (16.85%); Euronext Feed Wheat (11.61%); Euronext Corn (8.99%) and Euronext Rapeseed (20.45%). The Index is rebalanced monthly and the liquidity weights are readjusted annually - International contract universe (57.90%in EU; 42.10%in Japan) ie the index constituents are non-US-centric

**Strengths:** Access to investing in non-genetically modified commodities

**Weaknesses:** Concentrated exposure

**Opportunities** there is a growing awareness among and resistance to genetically modified products from consumers - one could expect other futures - NGM corn, canola, soybeans - to emerge in the future

**Threat:** low barriers to entry

### Risk Assessment

☐ = low ☐ = low/moderate ☐ = moderate ☐ = moderate to high ☐ = high

As applicable to the index underlyings:

Ability to optimise the rolling of the underlying futures: ☐☐☐☐

Ability to mitigate risk posed by roll over effect: ☐☐☐☐

Currency related risk: **major (posed by JPY exposure)** ☐☐☐☐

Weather related risk : **positive high influence** ☐☐☐☐

Relevance of macro economic, financial, legal, political risk: ☐☐☐☐

At the index level:

Diversification achieved by index:

Geographically: **(57.90% in EU;42.10% in Japan)**

Commodity level: **(high conc. in NGM Soybean)**

Avg. correlation between contracts: ☐☐☐☐

### Performance Parameters

☐ =insufficient ☐ =adequate ☐ = satisfactory ☐ = good ☐ = outstanding

No. of index components: 5

Criteria that would lead to the inclusion of one/more contracts: **would need to respect the 2 principles: World Trade Significance and World Contract Liquidity**

Targeted volatility of index: **max 15%**

Ability of the index to perform in:

Rising: **yes**

Sideway trending: **no**

Falling markets: **no**

Index has been back tested to withstand: **contrarian/ extreme weather**

### Outlook

☐ upside potential ☐ upside to range bound ☐ range bound ☐ range bound to down ☐ downside potential

Scope for non genetically modified commodities: ☐

The EU still exercises the so-called 'precautionary principle' owing to the uncertainties associated with the human consumption of genetically modified food  
Current political and consumer resistance to genetically modified crops can pose a threat and can disrupt the entire agricultural economy

Barriers to entry: **Reduced liquidity**

Conditions that support an out performance: **Political/public reluctance to genetically modified organisms in favour of non genetically modified organisms**

Ability for the Index to deliver targeted returns: **cyclical out-performance in agriculture expected, Non GMO premium not yet priced by the market**

### Investment Insights

Target audience: **broad based , thematic investors**

Level of complexity for an investor: **low**

NGMO Index offers exposure to investing in non-genetically modified crops

To optimise returns: **recommended holding period: 2- 5 years**

Base and other currencies: **EUR**

Fee: **1% annual management fee**

Expected annual expense ratio: **1.50%**

Daily liquidity

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