

Retail Products

Getting a Weather Index on the Retail Market



Aon France

- **Aon Corporation**, leader in insurance and reinsurance brokerage worldwide has set up **Aon Global Risk Consulting**. Together with **Aon Affinity** we have an experienced team specialized in climate related issues for many years with unique skills
 - Climate experts (PhD in climate)
 - Quantitative analysts (actuaries, quants in finance)
 - Concrete experience of trading software implementation
 - Extensive knowledge of banking and insurance products to hedge weather risk
- We provide a complete solution from analysis to contracts management
- A unique industry expertise and the insurance experience to provide our clients with the program solutions they need, through program management and administration

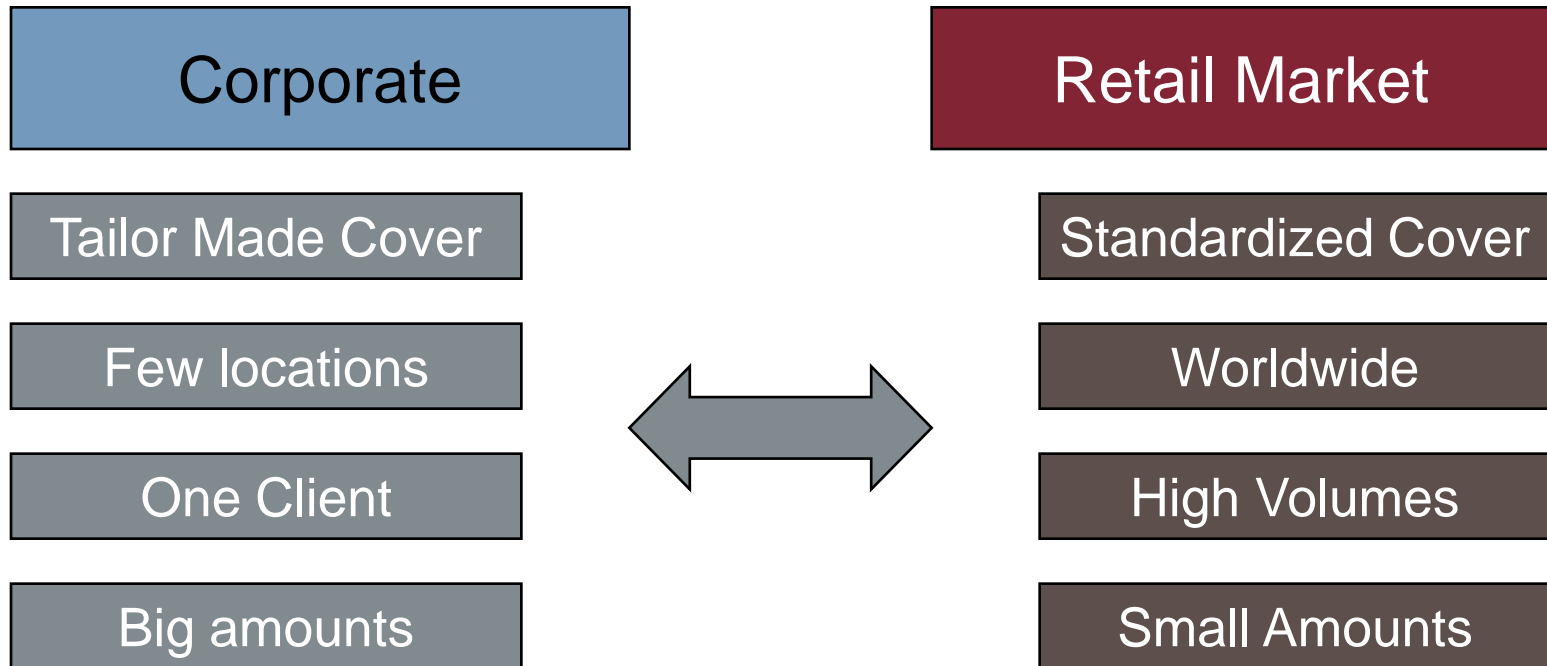


Agenda

1. From Corporate to Mass Market
2. Products definition
 1. How and Where
 2. Best way to cover the risk
3. Pricing the Risk
 1. Pricing
 2. Premium simulations
4. Products Management
5. Experience & Press release

From Corporate to Mass Market

- Most of us have tailored hedging solutions for Corporates
- Shall we re-use these products ?



Keep it « very » simple

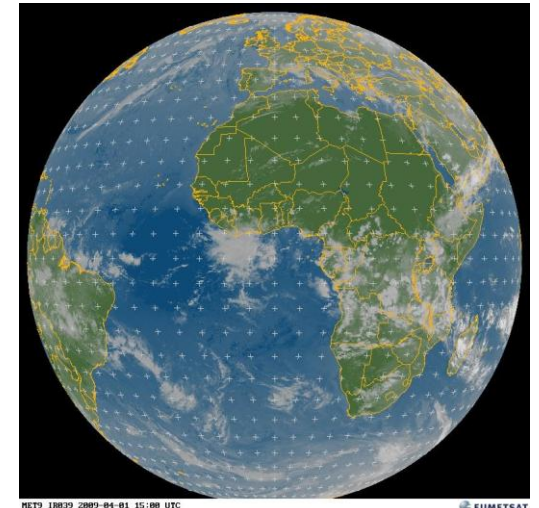
- ➔ Millions of people from the street will need to understand the product « at first sight »
 - We need to transform a complex index calculation in an easily understandable product related to the client's feeling
 - We should transform the retailers promise in weather data

20% Insolation = Mandatory Sunglasses

- ➔ Even claim management should be simplified
 - There is no way a client will understand index calculation and fill in a complex file to be reimbursed

People live and travel Everywhere

- ↪ Just France has 36 600 towns where our potential customers:
 - Live and would like to be covered in case of cold winters
 - Produce Energy and would like to cover their Solar Panels production
 - Travel to and would like have « Sunny » holidays
 - ...
- ↪ Should we cover each town ? or
 - Focus on key destinations
 - Adjust the basis risk to enlarge the cover
 - Exclude some indices (Rain) that are too local



Products definition

High Volumes

Small Amounts

→ Traditional Weather covers are Derivatives

- However, these products are not adapted to a huge number of small repayments without guaranteed volumes

→ Insurance Products are adapted to Retail

- Legal framework is available
- Insurance is already used to handle high volumes (ex. Car Insurance)
- Insurance is well known to the final customers and commonly accepted to cover risk when « Derivatives » have a negative image
- Reinsurance can be used to transfer risk if required

→ However some issues should be fixed

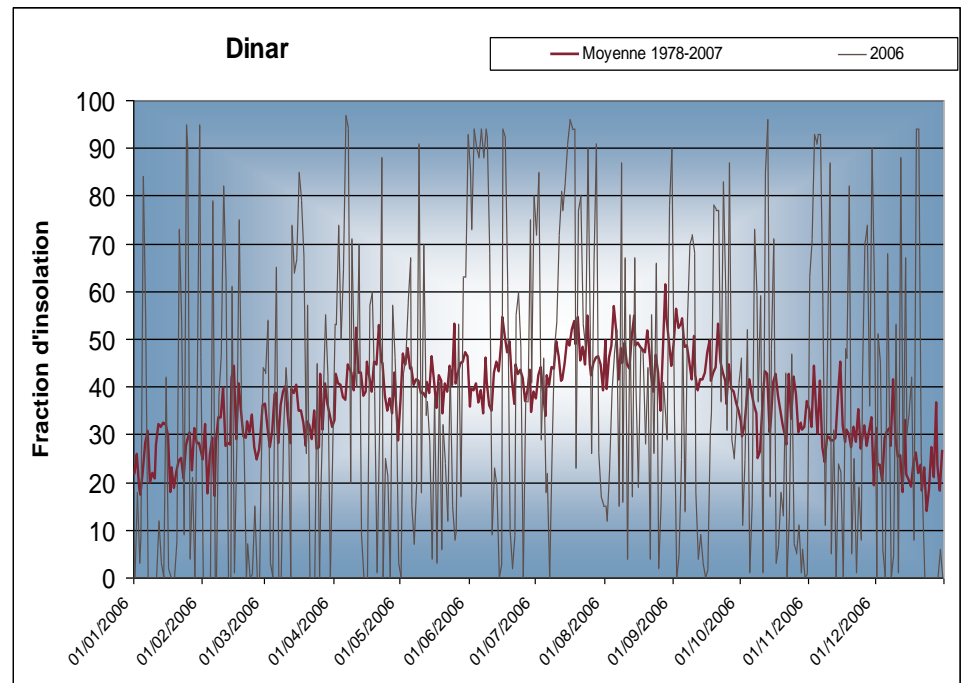
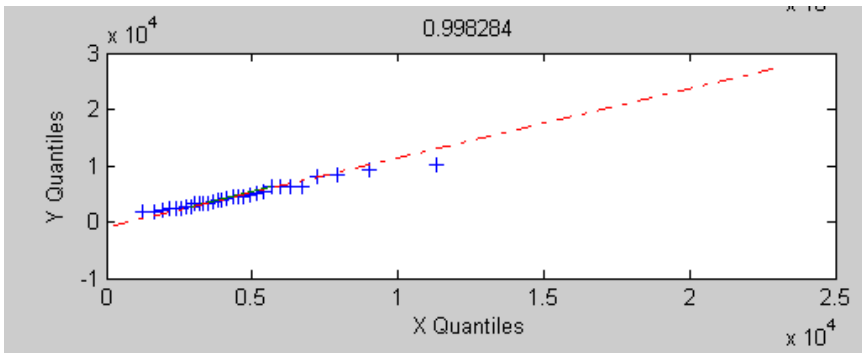
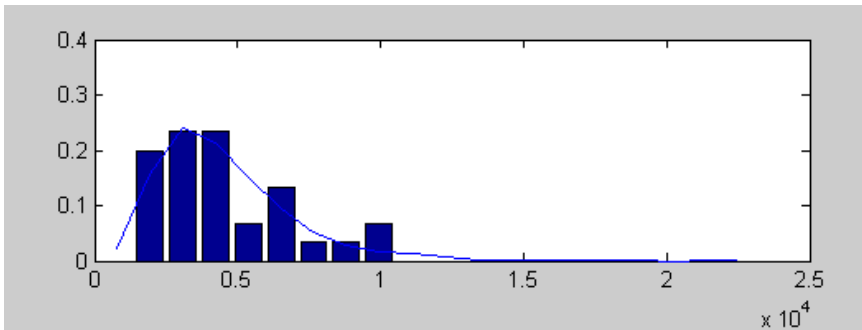
- Realize actuarial risk analysis matching insurance standards
- Claims management has a cost, multiplied by the huge volumes



Pricing the Risk

➔ Risk analysis is comparable to « usual » weather coverages...

- Historical analysis with a minimum of 25 years of history (METNEXT)
- Mathematical modelisation, even if the underlying variables are difficult to handle. Ex. Insolation in France



Pricing the Risk

But...Retailers are neither Risk or Weather specialists, they do not feel concerned by Risk Analysis

→ However, the Price being a key factor, the Premium should be available with very short notice and include clients data and variations in products definitions

- Include geographical repartitions (Some people pretend Brittany is more risky than Côte d'Azur)
- Include sales repartition over the season (April is more risky than August, but we have more clients in August...)

→ We propose parametrable tools to match our clients requirements ;

- Which T° index (Min, Moy, Max ?), HDD ou « Cold Days » ?
- How many Hours of Sunshine per days ? How many days per Week ?

Pricing the Risk - Sunshine

Aon Premium Estimation Tool - "Sunshine Guarantee"

Payment 60% is 373 € average price per person and per stay 21,00% Taxes
Bad Weather 4 hours or less of sunshine (10h-18h)
Bad Week 5 days of bad weather (i.e. we promise 3 days of sunshine)
Period Summer **Period** mid-Apr. - Oct. from 15/04 - 31/10



Details for 1 site

Paris

PayOff

Proba

Update All

Premium for all selected sites					Expected Loss	Premium (all included)	Clients	Avg. Price	Perimeter	
					3,27 €	20,01 €	1 464 500	621 €	19 Sites	
Country	Lot	Perimeter	City	Hotel / Club	Open				Covered	
Egypt	Lot 1		Alexandria		All Year	0,525 €	13,370 €	100 000	600 €	Yes
Egypt	Lot 1		Giza		All Year	- €	12,100 €	100 000	600 €	Yes
Egypt	Lot 1		Hurghada		All Year	- €	12,100 €	100 000	600 €	Yes
Egypt	Lot 1		Luxor		All Year	- €	12,100 €	100 000	600 €	Yes
Egypt	Lot 1		Sharm.el.Sheikh		All Year	- €	12,100 €	100 000	600 €	Yes
France	Lot 1		Cannes		All Year	18,280 €	56,337 €	8 000	950 €	Yes
France	Lot 1		Nice		All Year	21,603 €	64,380 €	8 000	950 €	Yes
France	Lot 1		Paris		Summer	157,041 €	392,139 €	8 000	950 €	Yes
Greece	Lot 1		Athens		All Year	9,184 €	34,324 €	6 000	700 €	Yes
Greece	Lot 1		Corfu.Island		All Year	6,735 €	28,398 €	6 000	700 €	Yes
Greece	Lot 1		Heraklion		All Year	2,449 €	18,027 €	6 000	700 €	Yes
Tunisia	Lot 1		Hammamet		All Year	2,974 €	19,297 €	4 500	850 €	Yes
Tunisia	Lot 1		Monastir		All Year	- €	12,100 €	4 500	850 €	Yes
Tunisia	Lot 1		Nabeul		All Year	3,717 €	21,096 €	4 500	850 €	Yes
Tunisia	Lot 1		Sus		All Year	1,487 €	15,698 €	4 500	850 €	Yes
Tunisia	Lot 1		Tunis		All Year	1,487 €	15,698 €	4 500	850 €	Yes
Turkey	Lot 1		Antalaya		All Year	4,329 €	22,577 €	300 000	550 €	Yes
Turkey	Lot 1		Bodrum		All Year	1,137 €	14,852 €	300 000	650 €	Yes
Turkey	Lot 1		Mammaris		All Year	4,548 €	23,106 €	300 000	650 €	Yes

User Defined

Premium < 90% of average

Premium > 110% of average

Please Note : Premium estimated using this tool are not contractual and for information only. This document and it's results are the exclusive propriety of Aon France.



Pricing the Risk - Temperature



Simulateur de Primes - Assurance Température

Simulation	
Choix de la région	Toutes les Régions
Données sous-jacentes	T° moyenne minimale
Répertoire de travail	C:\Temp

MISE A JOUR

Paramètres Globaux	
Début de la période	Décembre
Fin de la période	Mars
Mode de vente	Inclusion

Légende :
Zone modifiable par Aon
Zone modifiable librement

JOURS DEGRES

Définition de la couverture		
Indemnisation	Seuils	
Indemnité Unitaire	1,00 €	
Mode de couverture	Saison	
Seuil	Jours	Indemnité
Froid	3	10 €
Glacial	10	50 €
Polaire	20	100 €

Définition de la couverture		
Indemnisation	Seuils	
Indemnité unitaire	1,00 €	
Mode de couverture	Saison	
Seuil	Degrés	Indemnité
Froid	10	10 €
Glacial	30	50 €
Polaire	50	100 €

Cas où la couverture porte sur les degrés et les jours

Toutes les Régions	Station	Seuil	Prix à facturer (TTC)
ALSACE	67124001	-5	28,63 €
AQUITAINE	33281001	0	24,47 €
AUVERGNE	63113001	-4	24,02 €
BASSE-NORMANDIE	14137001	-1	24,47 €
BOURGOGNE	21473001	-5	19,15 €
BRETAGNE	35281001	-1	23,11 €
CENTRE	37179001	-2	26,35 €
CHAMPAGNE-ARDENNES	51183001	-4	20,07 €
FRANCHE COMTE	25056001	-5	18,22 €
HAUTE-NORMANDIE	76116001	-3	23,57 €
IDF	91027002	-2	24,02 €
LANGUEDOC-ROUSSILLON	34154001	2	24,02 €
LIMOUSIN	87085006	-2	24,47 €
LORRAINE	54405001	-6	19,61 €
MIDI-PYRENEES	31069001	-1	18,69 €
NORD-PAS-DE-CALAIS	59343001	-3	21,64 €
PACA	13054001	1	17,75 €
PAYS-DE-LOIRE	44020001	0	28,63 €
PICARDIE	80001001	-3	19,15 €
POITOU-CHARENTE	86027001	-2	24,47 €
RHONE-ALPES	69299001	-4	18,69 €

Prix Moyen France	22,53 €
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➔ Such tools will allow a tailor made approach, even on huge volumes with high reactivity



Products Management

High Volumes

Small Amounts

- ↳ **Multiplying the number of clients multiplies the cost of claims management**
 - Usually in France, opening an insurance file costs a minimum of 40€
- ↳ **Aon France has setup a « Paper Free » and fully automated system; clients do not claim**
 - Subscriptions are automatically transferred to Aon France
 - Matching with METNEXT Index is done automatically
 - Payments are sent by the post on a weekly basis
- ↳ **Such an IT system requires**
 - Weather data of excellent quality (thanks to METNEXT)
 - Important IT investment (Core system, payment system, reporting...)
- ↳ **Additional services ensure clients satisfaction**
 - Pro-Active communication (Mail, e-Mail, SMS...) generated by the IT system
 - A Call Center in France answers requests on the product



Our running experience...

↳ **Tour Operator** (184 Resorts) – from 2008

- Sunshine Guarantee from May to October
- 3 days of **Sunshine** (2 hours of direct sunshine) per week or 150€ back
- Optional, embedded in a an Insurance Package

↳ **Camping operator** (44 Camping sites) – from 2009

- Sunshine Guarantee in July and August in France
- 4 days of **Rain** (0,1 mm 3hours in a row) per week and 400€ back
- Optional

↳ **Energy retailer** – from 2008

- **Temperature** Guarantee (heating bill during winter season)
- Average T° below a threshold
- Customers get 1€ per every °C below the threshold during very cold winters
- Optional

↳ **And more to come in 2009 and 2010...**



Press Release

- ↪ The media showed great interest in our products over the last months
- ↪ Over 60 articles or interviews
 - Television : TV1 Russia, TF1 (France) interviewed METNEXT & AON France
 - Radio : 5 interviews in France
 - Press : 18 articles in France and UK, in Professional (Insurrance Day, L'Argus de l'Assurance) and General papers (The Sun, Daily Mail, Metro, Le Figaro, Le Monde, France Soir...)
 - Internet : 35 articles (Reuters, Les Echos, LePoint.fr...) in various countries
- ↪ This is an additional benefit for our clients



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