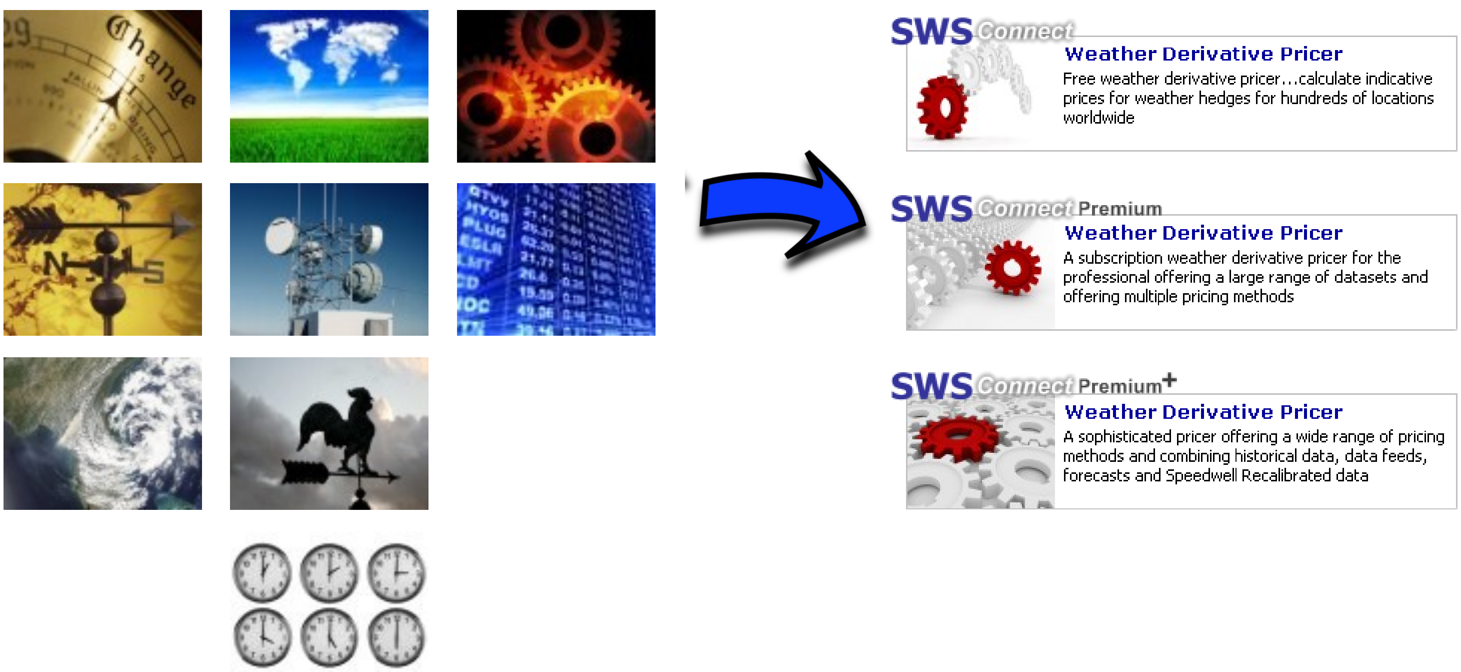
SWSConnect

The web-based weather derivative pricer



SWS*Connect*

- **SWS*Connect*** is a web delivered weather derivatives pricing tool built on the same core **SWS** components that have been tried and tested in the field since 2002. **SWS** is the preeminent enterprise weather derivative risk management system offering pricing, weather data management, portfolio management and back office features

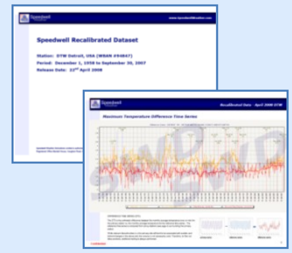
- **SWS*Connect*** combines Speedwell products from all its business areas into one easy to use package:
  - weather derivative pricing tools
  - historical and Speedwell Recalibrated data
  - forecasts
  - CME Market information

- **SWS*Connect*** is easy to use while not compromising on sophistication

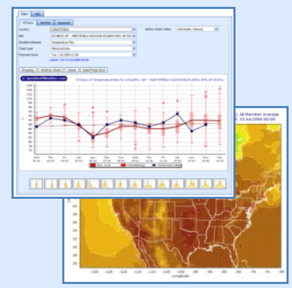
- Scalable to meet the users needs
  - entry-level weather trader
  - companies involved in infrequent transactions
  - individuals looking for a second opinion
  - everyday traders
  - premium version for CME traders

Speedwell Weather System

Data Products



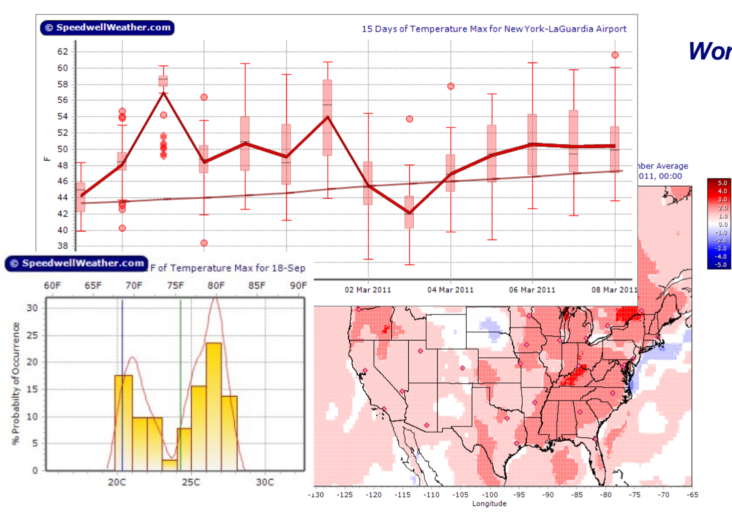
Forecast Products



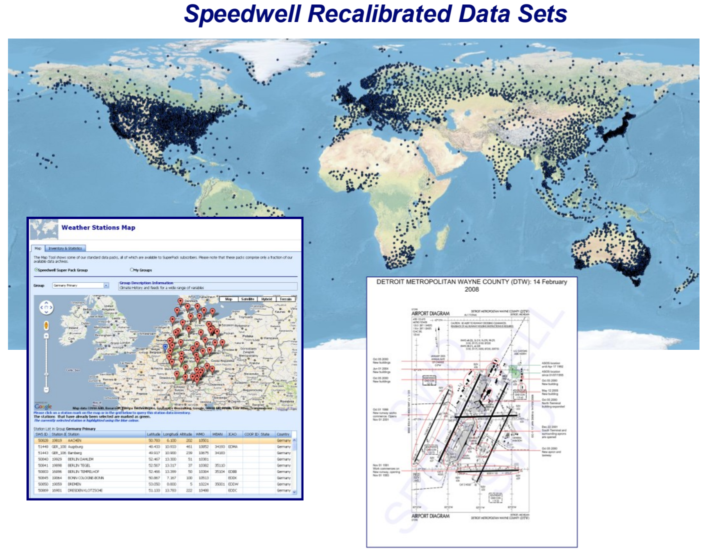
SWS*Connect*

SWS*Connect* Incorporates:

Fully downscaled-probabilistic forecasts

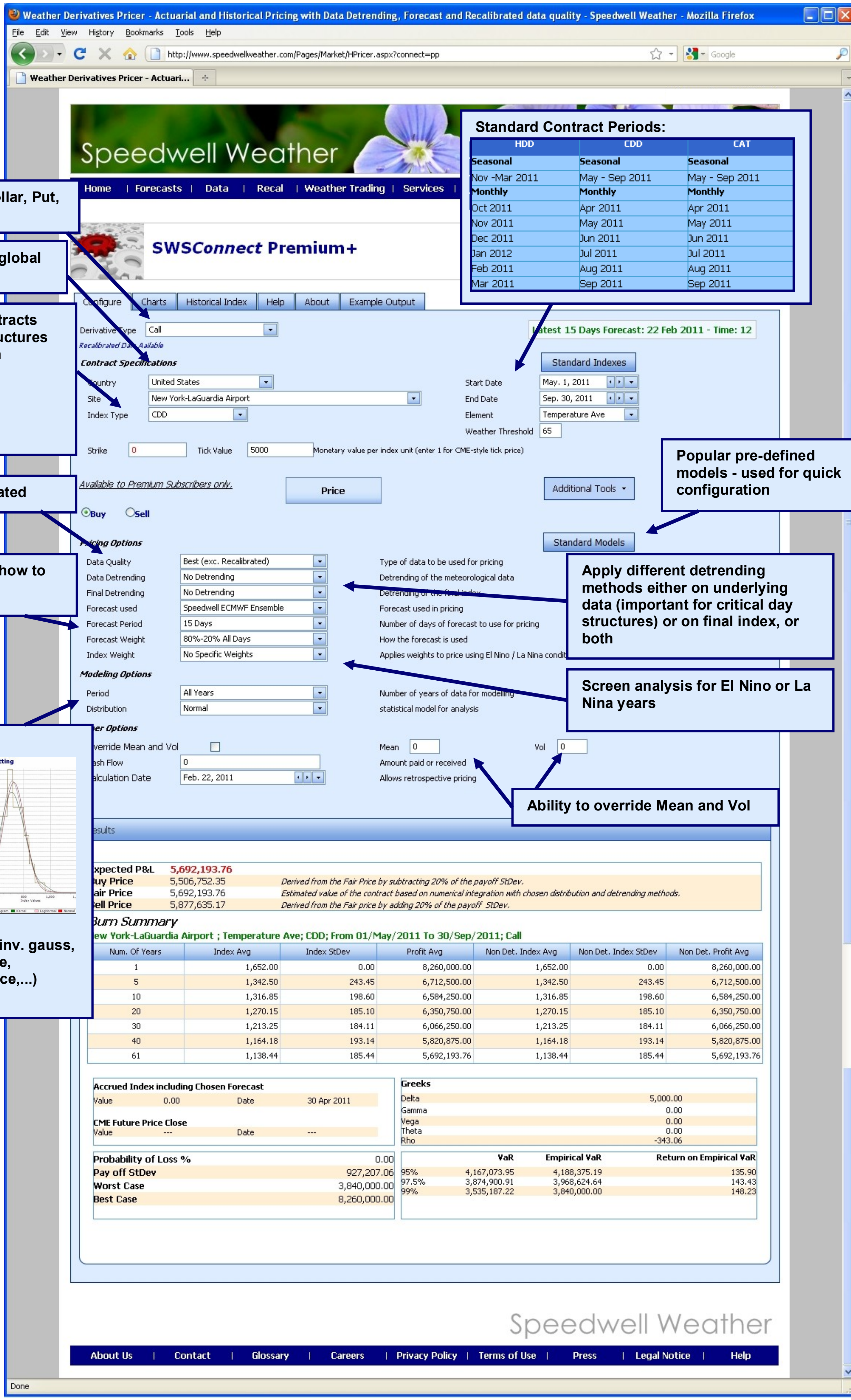


World wide weather data and ..
Speedwell Recalibrated Data Sets



SWSConnect Premium+ Pricing Tool Features

Speedwell Weather



Standard Contract Periods:

HDD	CDD	CAT
Seasonal	**Seasonal**	**Seasonal**
Nov -Mar 2011	May - Sep 2011	May - Sep 2011
Monthly	**Monthly**	**Monthly**
Oct 2011	Apr 2011	Apr 2011
Nov 2011	May 2011	May 2011
Dec 2011	Jun 2011	Jun 2011
Jan 2012	Jul 2011	Jul 2011
Feb 2011	Aug 2011	Aug 2011
Mar 2011	Sep 2011	Sep 2011

Derivative Type - Call, Collar, Put, Straddle, Strangle, Swap

CME Sites and 1000's of global locations, most variables

Price CME, standard contracts and more exotic OTC structures (includes CME Australian contracts)
- **absolute extremes**
- **HDD / CDD**
- **critical events**
- **cumulative**

Cleaned data or Recalibrated

Select forecast source + how to incorporate the forecast

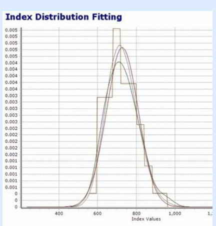
Popular pre-defined models - used for quick configuration

Apply different detrending methods either on underlying data (important for critical day structures) or on final index, or both

Screen analysis for El Nino or La Nina years

Ability to override Mean and Vol

Modelling Options: Choice of multiple distributions and tool to test which is most appropriate (normal, log normal, gamma, kernel, kernel trun at 0, weibull, inv. gauss, generalized beta, extreme, histogram, logistic, laplace,...)



SWS*Connect* Premium+ Results Display

Modeled Results (based upon the distribution selected in the pricing features)

Results

Expected P&L	5,692,193.76	
Buy Price	5,506,752.35	*Derived from the Fair Price by subtracting 20% of the payoff StDev.*
Fair Price	5,692,193.76	*Estimated value of the contract based on numerical integration with chosen distribution and detrending methods.*
Sell Price	5,877,635.17	*Derived from the Fair price by adding 20% of the payoff StDev.*

Burn Analysis (based upon historical observations)
- **breakdown by # years**
- **average**
- **volatility**
- **detrended vs. non-detrended**

Burn Summary

New York-LaGuardia Airport ; Temperature Ave; CDD; From 01/May/2011 To 30/Sep/2011; Call

Num. Of Years	Index Avg	Index StDev	Profit Avg	Non Det. Index Avg	Non Det. Index StDev	Non Det. Profit Avg
1	1,652.00	0.00	8,260,000.00	1,652.00	0.00	8,260,000.00
5	1,342.50	243.45	6,712,500.00	1,342.50	243.45	6,712,500.00
10	1,316.85	198.60	6,584,250.00	1,316.85		
20	1,270.15	185.10	6,350,750.00	1,270.15		
30	1,213.25	184.11	6,066,250.00	1,213.25		
40	1,164.18	193.14	5,820,875.00	1,164.18		
61	1,138.44	185.44	5,692,193.76	[illegible]		

Greeks - Showing the sensitivities **Delta**, **Gamma**, **Vega**, **Theta** and **Rho**

Accrued index - useful during the risk period, quickly summarizes period-to-date

Accrued Index including Chosen Forecast

Value	0.00	Date	30 Apr 2011

CME Future Price Close

Value	---	Date	---

Greeks

Delta	5,000.00
Gamma	0.00
Vega	0.00
Theta	0.00
Rho	-343.06

Probability of Loss %	0.00
Pay off StDev	927,207.06
Worst Case	3,840,000.00
Best Case	8,260,000.00

	VaR	Empirical VaR	Return on Empirical VaR
95%	4,167,073.95	4,188,375.19	135.90
97.5%	3,874,900.91	3,968,624.64	143.43
99%	3,535,187.22	3,840,000.00	148.23

Probability of Loss statistics
# of years of loss / total years

VaR analysis
- **expiration VaR at 3 levels using the chosen distribution**
- **expiration VaR at 3 levels using the actual detrended**

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Done

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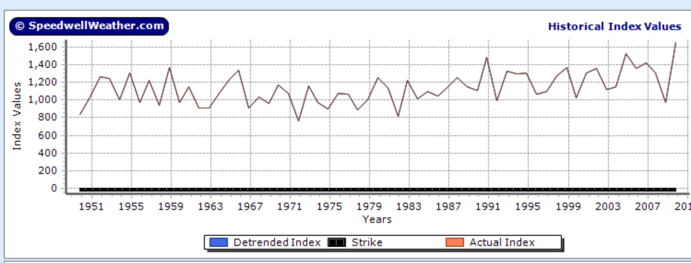
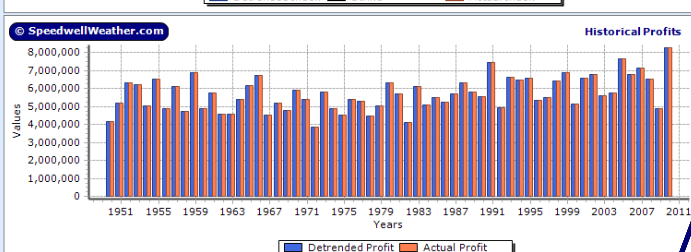
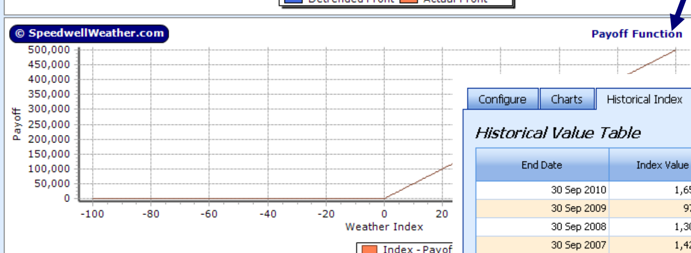


Historical Index Values - This graph shows the historic values of the index on which the chosen weather derivative is based. This is shown on both a detrended and non-detrended basis. Right click to export.



Historical Profits - This graph shows the payout the structure would have generated for each historic year. This is done both on a non-detrended and detrended basis. Right click to export.



Payoff Function

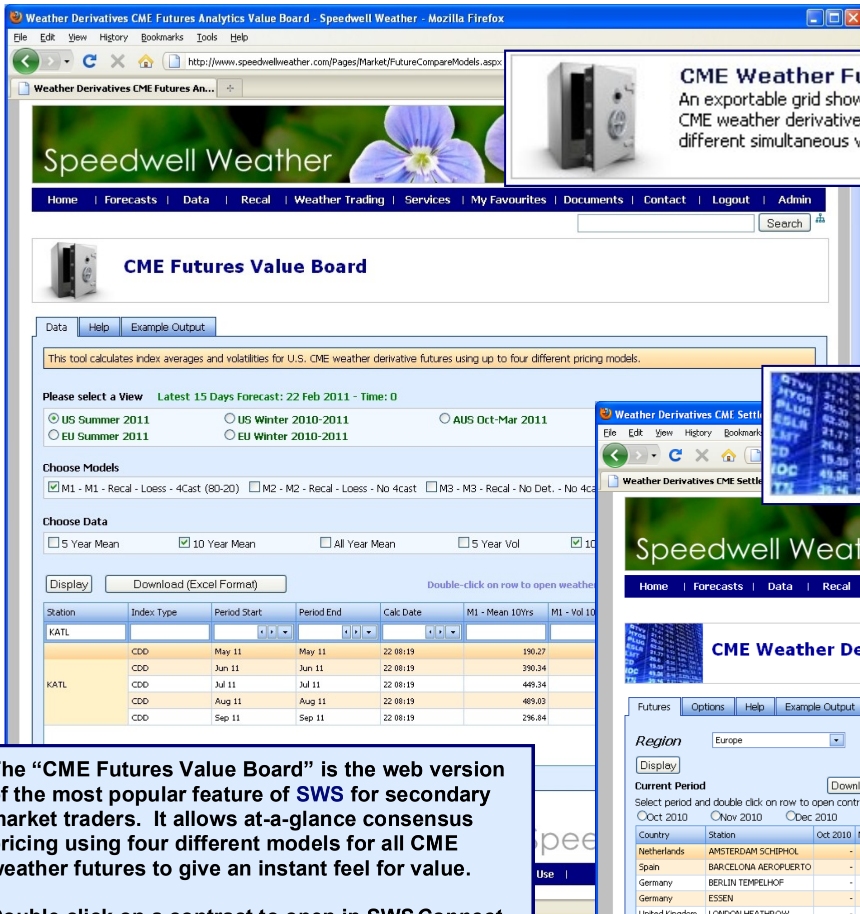
Historical Value Table
- **index values (detrended and non-detrended)**
- **exportable to Excel**
- **profit using non-detrended index**

Configure | Charts | Historical Index | Help | About | Example Output

Historical Value Table

Download (Excel Format)

End Date	Index Value	Detrended Index Value	DataType	Profit	Profit using Detrended Index
30 Sep 2010	1,652.00	1,652.00	153/153 days, Other=0, C=153, R=0, M=0	8,260,000.00	8,260,000.00
30 Sep 2009	977.50	977.50	153/153 days, Other=0, C=153, R=0, M=0	4,887,500.00	4,887,500.00
30 Sep 2008	1,303.00	1,303.00	153/153 days, Other=0, C=153, R=0, M=0	6,515,000.00	6,515,000.00
30 Sep 2007	1,421.50	1,421.50	153/153 days, Other=0, C=153, R=0, M=0	7,107,500.00	7,107,500.00
30 Sep 2006	1,358.50	1,358.50	153/153 days, Other=0, C=153, R=0, M=0	6,792,500.00	6,792,500.00
30 Sep 2005	1,527.00	1,527.00	153/153 days, Other=0, C=153, R=0, M=0	7,635,000.00	7,635,000.00
30 Sep 2004	1,149.50	1,149.50	153/153 days, Other=0, C=153, R=0, M=0	5,747,500.00	5,747,500.00
30 Sep 2003	1,114.50	1,114.50	153/153 days, Other=0, C=153, R=0, M=0	5,572,500.00	5,572,500.00
30 Sep 2002	1,355.00	1,355.00	153/153 days, Other=0, C=153, R=0, M=0	6,775,000.00	6,775,000.00
30 Sep 2001	1,310.00	1,310.00	153/153 days, Other=0, C=153, R=0, M=0	6,550,000.00	6,550,000.00
30 Sep 2000	1,025.50	1,025.50	153/153 days, Other=0, C=153, R=0, M=0	5,127,500.00	5,127,500.00
30 Sep 1999	1,370.00	1,370.00	153/153 days, Other=0, C=153, R=0, M=0	6,850,000.00	6,850,000.00
30 Sep 1998	1,277.50	1,277.50	153/153 days, Other=0, C=153, R=0, M=0	6,387,500.00	6,387,500.00
30 Sep 1997	1,093.50	1,093.50	153/153 days, Other=0, C=153, R=0, M=0	5,467,500.00	5,467,500.00



CME Weather Futures Value Board

An exportable grid showing critical valuation statistics for the CME weather derivative contracts. The grid offers up to four different simultaneous valuation methods.

CME Weather Derivatives Prices

View CME weather derivative prices

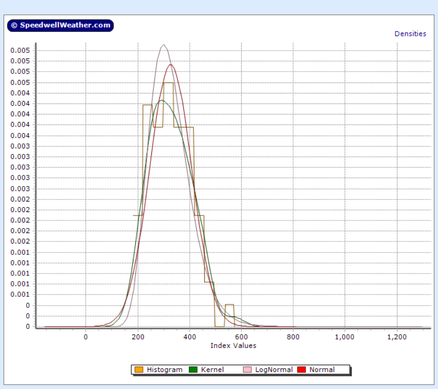
The "CME Futures Value Board" is the web version of the most popular feature of SWS for secondary market traders. It allows at-a-glance consensus pricing using four different models for all CME weather futures to give an instant feel for value.

Double click on a contract to open in SWS*Connect*

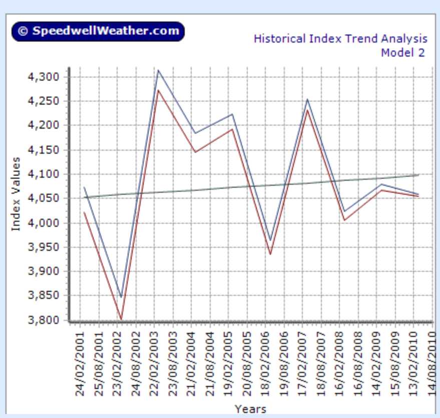
Latest closing prices for futures & options contracts as quoted on the CME

Double click on a contract to open in SWS*Connect*

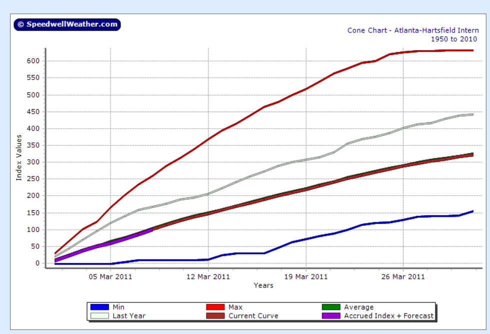
Additional Tools:



Distribution Fitting



Trend Analysis



Cone Chart

SWS*Connect* - Versions

→ **Free indicative pricer allowing those looking to hedge weather risk to establish an indicative price**

→ **Subscription based pricer offering a wide range of pricing, detrending methods and analytical tools**

→ **Ideal for those trading the CME weather derivative contract this Subscription integrates of Speedwell fully-downscaled probabilistic forecasts and Speedwell Recalibrated Data Sets.**

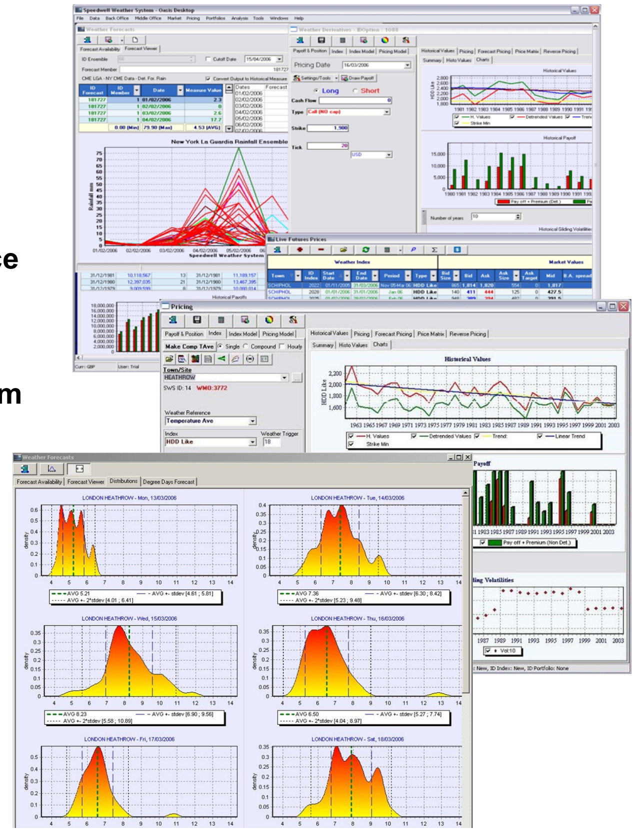
Version	Features
SWS*Connect*	• **FREE** • Access to unlimited number of raw historical datasets for indicative weather derivative pricing using up to 10 years of historical data. • Pricing of calls and puts only. • Summary table of burns and index values (5, 10, years)
SWS*Connect* PREMIUM	**SWS*Connect*** but with: • Access to cleaned data where available. • Wider range of index types supported. • Wider range of derivative types including collars. • Pricing methods available include a wide range of detrending methods, lengths of history used, and distributions. • Value-at-risk statistics shown. • Full break-down of annual index and payoff values. • Choice of detrending methods for both underlying data and/ or index. • Option to override means and volatilities. • Unlimited number of users at a given site.
SWS*Connect* PREMIUM +	**SWS*Connect* PREMIUM** but with: • Integration of fully downscaled **Speedwell** probabilistic forecasts for CME sites. • Integration of all available **Speedwell Recalibrated Datasets** • Unlimited number of users at a given site. • “CME Futures Value Board” whole-market perspective • Index distribution-fitting tool • Index detrending tool

Speedwell Weather System (SWS)

Speedwell Weather System, SWS

For more information on the full, client-installed enterprise version, SWS please contact us.

- **SWS Enterprise is a full client-server application offering portfolio risk management and back office tools with full user permissioning**
- **SWS is an open system supporting multiple data and forecast providers.**
- **SWS database and components can be called from other systems**
- **SWS can also be remotely hosted by us for our users.**



Contact Us

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Veronica Chamaedrys ("Speedwell")
Known since Roman times as a medicinal herb