



## **Weather and climate derivatives as risk mitigation tool in the warming World.**

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The evidence of anthropogenic influences on climate change has been outlined by IPCC Fourth Assessment Report. That implies the leading role of Climate and Weather Forecasting and research under the global warming processes to provide solid base for adequate pricing of weather derivatives. Weather derivatives are used as main tool to mitigate and hedge the economical risks for most industries as energy production and agriculture as well as fashion and tourism, those depends on the performance of environmental conditions. These financial instruments are traded at Chicago Exchange since 1997 and become now the principal tool to reduce trade value loses caused to unexpected fluctuations of mean environmental factors, like seasonal temperature.

Adequate pricing of these derivatives based on worldwide weather monitoring and prediction system in combination with climate prediction research might definitely enlarge the weather derivatives values and that will increase stability of global economy during the ages of global warming and environmental degradation.

Long term climate forecasting for probability of season mean temperature and precipitations could create basis for industry, economy and trade milestones. Middle and short term probability weather forecasting will determine the foundations for pricing of weather derivatives on the basis of present knowledge of geophysical dynamics.

The rise of trading values of weather derivatives could mitigate the risks and loses due to great weather and climate fluctuations and reduce the negative impact of climate changes on national and global economy, industry, trade and environmental instability

in the warming World.

The comparison of weather derivatives practices used in Europe, North America and Russia, presented in this paper, could be useful for this financial instrument development and makes it more widely used.

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