

Economic Aspects of Weather Forecasts on Aviation Sport Activities

Dr. Zelha Altinkaya

Istanbul Aydin University, Istanbul

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- *Climate has direct influences on human life as well as on economics, industrial, agricultural and resource based activities*

- *Forecasts on storms, rain, snow are not only critical in daily life of people but also in cultivation of agricultural products.*

- *Short term weather forecasts, long term climate change and even prediction of natural disasters have been not only avoided the natural disaster and made possible agriculture but also improved the quality of life.*

- *All of the world it should be the same but we have clear information about the US that one seventh of the US economy is weather sensitive (Cahllis, 1999 Hanley 1999)*
- *Weather conditions directly affect agricultural outputs and the demand for energy products and indirectly affect retail businesses.*

- *Weather forecasts have saved lives, reduced weather related economic losses and managed scarce resources efficiently.*

- *Not only agricultural activities but also increasing numbers of industries need information on weather forecasts.*

- *The electric energy industry the industry uses weather information frequently.*
- *But textile industry is also very sensitive to weather forecasts. For example, the inventory level of winter coats at department stores depends on the weather forecast for the coming winter and the eventual sales depend on the actual weather condition (Agind&Kranhold, 1999)*

- *Forecasts reduce industrial operating costs in many industries.*

- *Earning of the power industry depend on the retail prices and the sales quantities of electricity, which in turn are affected by weather conditions.*

- *Until 1997, the price hedging mechanism were providing earning stabilization for utility firms only.*
- *In that case volumetric risks were largely left unhedged.*

- *Increasing competition pushed companies to hedge their risk caused by unexpected weather conditions.*
- *Such needs have created a new class of derivatives, weather derivatives.*

- *Weather derivatives has grown steadily.*
- *The underlying variables for weather contracts include temperature, rainfall, snowfall, and humidity.*
- *However, the most commonly contracted weather variable is temperature.*
- *Most contracts are written on heating degree day and cooling degree day.*

- *Although the main impetus of the weather derivatives market comes from the power and energy sectors and textile industry, weather derivatives have been used by other industries such as the retail business and the tourist industry.*

- *To avoid loss of sales, contracts can be struck to hedge against unfavourable weather conditions.*

- *Both the producers and consumers had opportunity to protect themselves through weather forecasts, which become a financial instrument in financial markets at the same time.*

- *Risk avoiding characteristics of weather forecast would also avoid risks covered in performing high risky aviation sport activities..*

Economic aspects in aviation sport activities and weather forecast would cover different items like

- **cost of gliders,**
- **advantage of energy sources,**
- **organizations of recreation activities,**
- **training activities**
- **Safety providing activities**
- **Insurance services**
- **Treatment activities for injured people**
- **Supportive activities like accommodation, travel, transfers, food, touristic activities**
- **International competitions**

- *These services are a specific part of the whole service spectrum that further contains services related to financial transactions, transport, communication, health and many other types of services.*

- *Aviation sports are classified under outdoor creation activities. Especially high risk sports.*

- ***We had data only for the US. The Active Outdoor Recreation***
 - ***contributes approximately \$730 billion annually in the US (2006)***
 - ***Supports nearly 6.5 million jobs across the US***
 - ***In addition, generates \$289 billion annually in retail sales and services across the US.***

- *Participation in outdoor recreation in 2010 remained steady for a third year as it was in 2008.*
- *49% of Americans ages six and older or 137.9 million individuals participated outdoor activities in 2010 and*
- *10.1 billion outdoor outings.*

- *The safety of consumers is influenced by many factors including the design and manufacture of constructions and products and the behavior of individuals.*

- *The European Commission decided to investigate another important factor in safety: the services that enable the consumer to participate in these high risk sport activities*

- *The consumer Safety Institute has explored the risks related to specific potentially dangerous sports and leisure activities and in particular the accompanying services.*
- *The study focused on injury problems associated with specific sports, such as skiing, non motor aviation sports.*

- *Beside cost of glider, advantage of energy sources, organizations of recreation activities, training activities, it seems risk in aviation sport activities should also be taken into considerations when weather forecast and gliding activities are considered. Weather forecasts would manage these risks better and also cover cost related to these risks.*

- *In Turkey, we have neither weather derivatives nor developed non-motor aviation sports, gliding activities.*
- *Although, gliding activities goes back to 1935 in Turkey, currently the number of people who are interested in gliding activities are very few.*

- *In addition, it is very difficult to have statistical information.*
- *In Turkey, we do not have sufficient data base to predict and avoid the risks of protect gliding activities or related activities.*

THANK YOU

- Dr.Zelha Altinkaya
zaltinkaya@aydin.edu.tr
- Istanbul Aydin University, Istanbul