Developing Catastrophe and Weather Risk Markets in Southeast Europe: From Concept to Reality

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BENEFITS AND OPPORTUNITIES: REACTIONS FROM THE MARKET

Outline

- Introduction
- Traditional Model of Handling CAT and Weather Associated Risks
- Risks Associated with Traditional Model – Why it is Insufficient and Unsustainable
- Initiated Framework – Expected Benefits / Foreseen Challenges

Introduction

Global financing challenges as a consequence of growing threat of increased frequency and intensity of natural disasters caused by climate change

Primarily important to be addressed by developing economies, lacking financial and material resources to mitigate their risks.

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The platform of “Europa Re”

- Represents a public -private partnership, supported by donor community and IFI’s, aiming at development of competitive catastrophe insurance and reinsurance markets
- Addresses the role of insurance, as a risk financing and risk transferring tool, in reducing negative economic impacts of catastrophic and weather risks
- Promotes the insurance sector as an integral part of the country’s economic policy and an important component of a proactive disaster risk management strategy

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- Incorporates a proactive disaster risk management approach for Governments, a comprehensive framework of measures for disaster prevention, risk management and risk financing
- Includes a country catastrophe risk financing model, integrating innovative market-based catastrophic risk financing solutions for empowering homeowners, businesses, farmers and governments to efficiently mitigate their risks
- Envisaged to support national economies in building resilience for recovering from natural disasters, in fiscally affordable and economically sustainable manner

TRADITIONAL MODEL OF HANDLING CAT AND WEATHER ASSOCIATED RISKS

Traditional model of handling CAT and weather associated risks

- Heavy dependence on government post-disaster financing
- Government subsidized program for weather risk insurance of agricultural crops, initiated in 1998 by the Government in cooperation with the domestic insurance market, enfolded certain expectations:

  - to meet demand side market challenges, inadequate risk awareness and perception of weather and catastrophic risk exposure, in particular

  - to stimulate use of ex ante measures for mitigation of weather risks

  - to exploit advantages of operational insurance industry

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- A program follow up is to determine whether the deterring results from:
  - inadequate perception of likelihood and consequences of risk events
  - unjustified premium rates, potentially leading to adverse selection
  - consumer perception that indemnity is uncertain or slow, which may have inhibited widespread use of insurance coverage
  - government not restraining from ample financial assistance provided after hardship, to those not protected with insurance

RISKS ASSOCIATED WITH TRADITIONAL MODEL
-WHY INSUFFICIENT AND UNSUSTAINABLE

Risks associated with traditional model – why insufficient and unsustainable

Households/SME's/Agro sector

- Low-income households and SME's intensely vulnerable to CAT and weather risks due to low asset bases
- Anticipation of losses directs small farmers into conservative production strategies that limit income and growth, as an informal instrument for managing risks
- Perception of farmers as risky borrowers, by banks and insurance companies, enlarges the risk of trapping in low-productivity farming
- Agricultural producers predisposed to a variety of risks - market risks, price risks and production risks

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Production risks associated with adverse weather conditions:

- *Highly covariate, low frequency risks* (such as floods, hurricanes and severe drought)
- *Weakly covariate, high frequency risks* (e.g. deaths and illnesses of people or livestock)
- *Moderately covariate, moderate frequency risks* (less-severe drought, excess rainfall, hail)

➢ Traditional risk-management methods proven least effective at handling low frequency, highly covariate risks that affect many people simultaneously

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Consequences of weather risks on agricultural community:

- Destroying the working capital of small farmers and threatening their future viability as commercial producers
- Poverty trap due to loss of productive assets
- Consequential defaults on loans to banks and other financial institutions, weaken and jeopardize rural financial systems
- Income losses frequently surpass initial production losses, due to the spill over into the non-farm economy

Risks associated with traditional model – why insufficient and unsustainable

Governments

- Model becomes increasingly inefficient and unsustainable, as the frequency and intensity of losses caused by climate changes significantly increase
- Deters future ex ante mitigation actions
- Attaches high opportunity costs for Governments
- Associated with numerous problems (e.g. targeting aid to truly needy)
- Post-disaster assistance from the international donor community, in case it is asked for, may be slow and unreliable

Risks associated with traditional model – why insufficient and unsustainable

Insurance Industry

Obstacles impeding the development of sufficient insurance protection against risks posed by climate change:

- Limited technical capacity of the industry i.e. advanced financial and actuarial expertise and catastrophe risk modeling, needed to design and price catastrophe insurance programs

  CAT modeling is considered essential for assessing the risk in a portfolio of exposures, for guiding the underwriting strategy and for designing an adequate reinsurance placement

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- Lack of sophisticated financial infrastructure. Credible hazard and catastrophic risk data are essential for proper pricing
- Lack of climate change impact analyses or poor and costly geographical and climate data impede sufficient reinsurance placing
- High exposure to reinsurance market's fluctuations in supply and pricing
- Weak control of risk framework (land development, construction, etc.) leads to a "moral hazard"
- Risk of "adverse selection". Improper pricing, as a result of insufficiency or unavailability of data, or absence of modeling, may result in an adverse selection

INITIATED FRAMEWORK – EXPECTED BENEFITS

Initiated Framework – Expected Benefits

Households/SME's/Agro sector

Insurance services can prove valuable to homeowners / SME's /agro sector

- ✓ Insurance products assume the risk, thus reducing household/SME/farmer efficiency losses and protecting assets
- ✓ Effective risk transfer insurance markets encourage farmers to invest in productive activities with subsequent economic benefits for producers and local communities
- ✓ By compensating the effects of covariate shocks, it helps to freeing up household capital for investment in small businesses, as well as SME's to engage in more productive activities
- ✓ It ensures a reliable level of cash flow
- ✓ Insurance may help unlocking agricultural growth, empower small farmers and deepen rural financial markets, ensuring that gains in development are sustainable.

Initiated Framework – Expected Benefits

Governments

- ✓ Designed to support governments in rendering efficient, effective and fiscally responsible relief programs in times of catastrophes
- ✓ Aims at minimizing developmental implications of natural disasters and at attaining fiscal discipline and debt sustainability
- ✓ Promotes a proactive disaster risk management (DRM) approach for governments - comprehensive framework of measures for disaster prevention, risk management and risk financing
- ✓ Supports governments in managing regulatory reform and creation and implementation of regulatory risk-based solvency calculation tools

Initiated Framework – Expected Benefits

National Insurance Markets

- ✓ Regional CAT insurance pooling, which can facilitate access to the reinsurance markets on competitive terms
- ✓ Design of innovative low cost insurance products
- ✓ IFI's support in facilitating the development of risk market infrastructure that enables creation of public goods
- ✓ Regional and international cooperation in the data collection and sharing, as to achieve harmonization and upgrade of statistics on weather and CAT risks
- ✓ Web-based underwriting platform – as insurance markets are heavily dependent on information flows
- ✓ High-resolution CAT risk models developed for the region
- ✓ Automate back-office operations (underwriting, pricing and risk management operations) in support of sales of insurance products

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International Reinsurance Markets

- ✓ Benefits from regional pooling, significant new business opportunities for international reinsurance industry to approach unattained markets
- ✓ Allocation of catastrophe reinsurance capacity to new, relatively large markets, which is fundamental for portfolios diversification

INITIATED FRAMEWORK – CHALLENGES

Initiated Framework – Challenges

- Use of data on relevant hazards as a basis for a sound foundation for risk assessment
- Design of the risk model for estimation of a probabilistic loss distribution, probable maximum losses (PMLs) and average annual losses (AALs) calculated from it
- General agreement over the reinsurance model - Quota share vs. Excess of loss arrangement

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- Government subsidization

  - Direct insurance premium subsidies at a general level Vs. subsidization exclusively to targeted households.

  - Potential subsidization for institutional capacity building.

- Compulsiveness of insurance products. Households/farmers/ businesses only encouraged, through economic incentives, or, legally required to obtain insurance or other protection measures
- Consumer education and risk awareness campaigns. Informing the public of the Government policy to restrain from post-disaster financing, if adopted as such

Q&A

THANK YOU FOR YOUR ATTENTION

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