SPECIAL MOBILITY STRAND

INSURANCE AND REINSURANCE IN RISK DISASTER MANAGEMENT

Prof. Asoc. Dr. Gentiana Sharku

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Faculty of Economy, University of Tirana, gentianasharku@feut.edu.al

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Outline of presentation:

- *What is Risk Management?*
- *What does Insurance mean?*
- *How is disaster risk managed with the insurance technique?*
- *Some examples of involvement of insurance companies in DRM*

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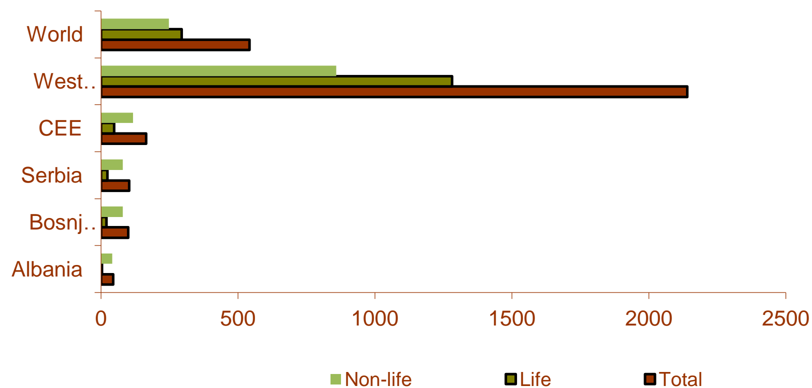
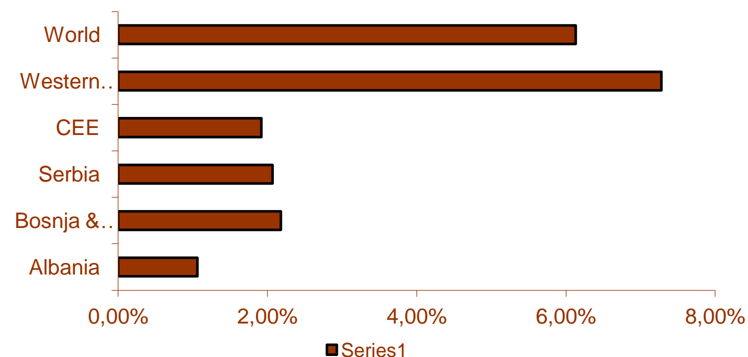
Insurance Market in Figures





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Some concepts related to risk

Risk *- uncertainty concerning the occurrence of a loss.*

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Risk versus Probability

Objective risk *– the relative variation of actual loss from expected loss.*

Subjective risk *– uncertainty based on a person's mental conditions or state of mined.*

Objective probability *– long-run relative frequency of an event based on the assumption of an infinite number of observation and of no change in underlying conditions.*

Subjective probability *– individual personal estimation of t chance of loss.*

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Risk versus Peril & Hazard

Peril– *cause of loss.*

Hazard– *a condition that creates or increases the chance of loss.*

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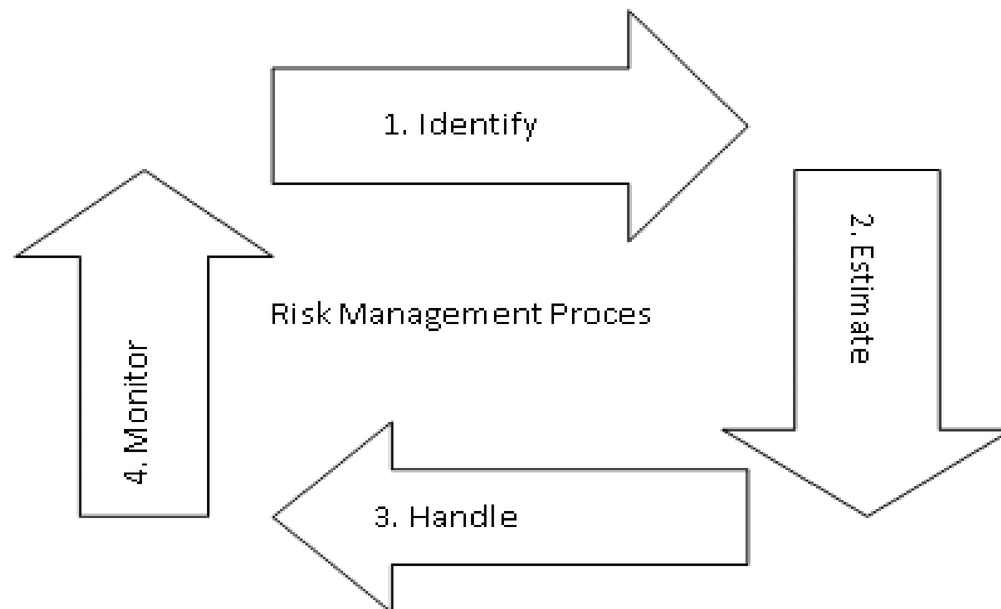
Risk Management Process

Risk Management is a process that identifies loss exposures faced by an organization/individual and select the most appropriate techniques for treating such exposures.



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Steps of Risk Management Process

Risk Identification – *Define and identify all sources of risk: actual, anticipated, and perceived.*

Risk Quantification – *Estimate the financial impact on the firm of all pure and speculative risks identified.*

Risk Management – *Decide how to manage pure and speculative risk.*

Risk Monitoring – *Track and assess the performance of the risk management strategy in light of actual experience.*

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Risk Management Techniques

Risk Control Techniques:

- ***Avoidance*** *– the risk is eliminated.*
- ***Loss Prevention*** *– the probability of loss is reduced.*
- ***Loss Reduction*** *– the severity of loss is reduced.*
- ***Diversification****– the risk is reduced, by spreading the loss exposure across different parties.*

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Risk Management Techniques

Risk Financing *techniques:*

Retention *– a business or an individual retains part of all losses that can result from a given risk.*
Self – insurance *is a form of planned retention.*

Risk transfer*– the risk is transferred to another party, by contracts*
Hedging – derivative contracts
Insurance

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Selection of the Appropriate Technique

Loss Frequency	Loss Severity	Appropriate RM Technique
Low	Low	Retention
Low	High	Transfer
High	Low	Loss control
High	High	Avoidance

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Insurance Concept

The transfer of risk from the individual to the insurance company is carried through a contractual agreement under which the insurance company, in consideration of the premium paid by the insured and his promise to abide the provisions of the contract, promises to make payment to or on behalf of the insured, for losses caused by the perils covered under the contract.

- *Pooling of losses*
- *Payment for accidental losses*
- *Risk transfer*
- *Indemnification*

Risks transferred through Insurance

- ***Financial risk*** *and non-financial risk*
- *Dynamic risk and* ***static risk***
- *Fundamental risk and* ***particular risk***
- ***Pure risk*** *and speculative risk*

Speculative risk *– a situation in which either profit or loss is possible*

Pure risk *– a situation in which there are the possibilities of loss or no loss.*

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What types of risks does insurance cover?

- *There must be a sufficiently large number of similar and independent exposure units;*
- *The loss must be accidental and unintentional;*
- *The loss should be definite and measurable;*
- *The loss should not be catastrophic;*
- *The chance of loss must be calculable;*
- *The premium must be economically feasible*

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Are insurance companies willing to cover losses resulting from disaster events?

The natural disaster risk **meets** the following requirements:

- ✓ There are a large number of units exposed to the natural disaster hazards.
- ✓ The losses resulted from the natural disaster risk are out of the individual control. There are accidental and unintentional.
- ✓ If insurers cover a sufficiently large group of exposures the premium may be feasible.

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Are insurance companies willing to cover losses resulting from disaster events?

The natural **disaster risk does not fully meet** the following requirements:

- When a natural disaster takes place, often it is very difficult to measure the amount of loss, or at least the actual loss can be measured only after a certain period of time.

- As the “catastrophe” is the synonym of disaster, the loss resulted from the natural disasters is catastrophic.

- The natural disasters occur in irregular basis, therefore their probability cannot be accurately estimated. As a result the natural disaster risk does not fully satisfy the requirements of an insurable risk.

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How the insurance companies provide coverage to natural disaster losses?

***Insurers cover catastrophic losses through**:*

•Reinsuring their activity – shifting a part or the whole risk written from one insurer to another insurer (reinsurer).

•Dispersing their coverage over a large area – assuming different types of risk.

•Financial markets - issuing financial instruments, contingent surplus notes, catastrophe bonds and exchange traded options.

•*Microinsurance* - providing insurance against natural disasters to poor individuals.

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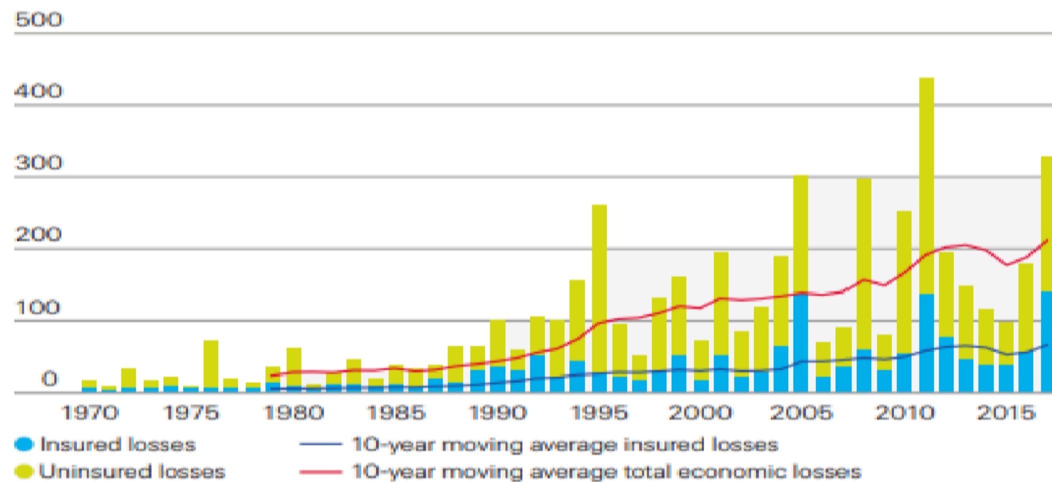
What part of disaster losses is actually insured all over the world?



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How the the insurance market in Albania may be involved in covering the disaster losses?

There are at least two alternatives:

- *The government may manage itself the disaster risk, by collaborating with international reinsurance markets ⟹ under-development of domestic insurance market.*
- *The government may collaborate with domestic insurance company (Germany example) ⟹ due to the low level of insurance culture, the citizens would not pay the premiums and the losses would not be indemnified .*

According to the Wold Bank suggestions (in 2014) – the involvement of insurance market in managing disaster losses ***should be obligatory*** *(following Romanian experience) and a draft law is prepared by AFSA .*

The coverage is suggested to be Euro 20.000-40.000.

The premium is suggested to not exceed Euro 50.

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Examples of participation of insurance companies in Disaster Risk Management

In Mongolia herders can purchase an index-based insurance policy to protect them against livestock losses due to conditions of extreme winter weather. The insurance program is a combination of self-insurance, market-based insurance and social safety net. Small losses which do not affect their viability are retained by the herders, while larger losses are transferred to the private insurance industry. Only the final layer of catastrophic losses is borne by the government.

In France, private insurers are required to offer catastrophe insurance in all-hazards property policy. Policies are not risk based and the program is reinsured through a public administered fund. If the fund does not satisfy the claims, taxpayers will be called to pay.

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Examples of participation of insurance companies in Disaster Risk Management

According to the Turkish Catastrophe Insurance Pool launched in 2000, earthquake insurance policies are obligatory for all property owners in Instanbul and other high-risk urban centers. Apartment owners pay a premium based partly on their risk to a privately administered public fund. If the fund cannot meet claims after a major earthquake, the World Bank provides a contingent loan .to the pool.

The Mexican government has chosen to insure its catastrophe reserve fund, FONDEN, against earthquakes with a mix of reinsurance and a catastrophe bond. In 2006, FONDEN issued a USD 160 million catastrophe bond (CATMEX) to transfere Mexico’s earthquake risk to the international capital markets. It was the first country that issue a multi-peril multi-region cat bond using the World Bank’s Multicat Program.

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Examples of participation of insurance companies in Disaster Risk Management

The Caribbean Catastrophe Risk Insurance Facility (CCRIF) went into operation in June 2007 with the participation of 16 Caribbean countries. The Caribbean Island States have formed the world's first multi-country catastrophe insurance pool, reinsured in capital markets, to provide governments with immediate liquidity in case of large losses due to hurricanes and earthquakes.

In Romania, in 2008, the Pool Against Natural Catastrophes (PAID) was set up as an insurance reinsurance company, formed by the association of 12 insurance companies. The insurers which are members of Catastrophe Insurance Pool, sell mandatory indemnity-based insurance against earthquakes, floods and landslides.

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Summary

- Disaster risk does not fully meet requirements of an insurable risk.
- In spite of that insurers have found solution to cover the losses resulted from natural disasters.
- In practice, the partnership between insurance companies, governments, individuals/businesses, and international institutions is required.

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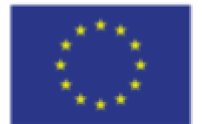

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gentianasharku@feut.edu.al:

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