



PRIVATE SECTOR PERSPECTIVE: TERMINOLOGY

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Sept 28th, 2015

Disaster risk (new July 2015)

Disaster risk is considered to be a function of hazard, exposure and vulnerability. It is normally expressed as a probability of loss of life, injury or destroyed or damaged assets which could occur to a system, society or a community in a specific period of time.

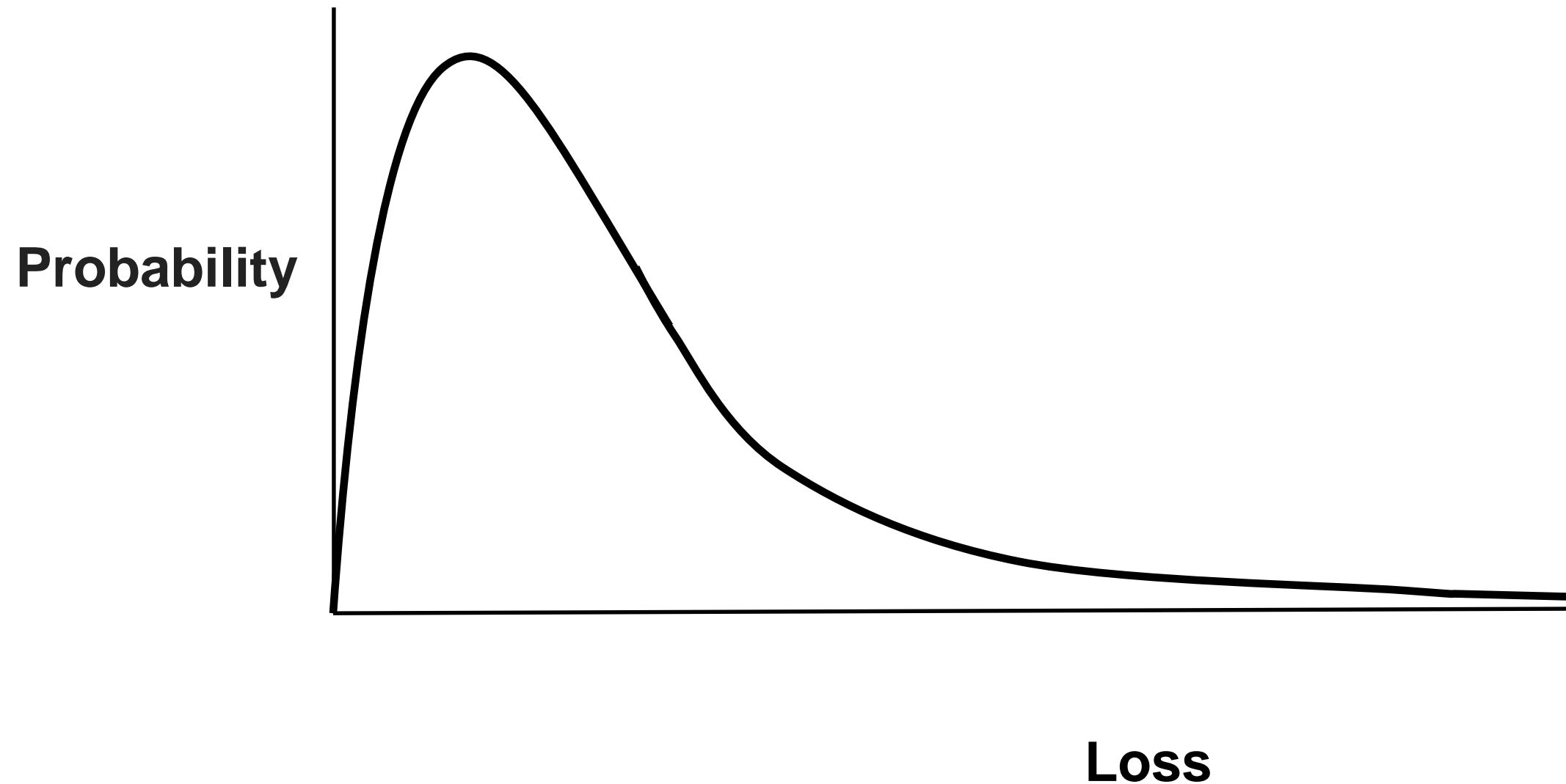
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In the insurance industry this can be measured by the **‘Average Annual Loss’ (€)** and **Losses (€) at Return Periods**

ILLUSTRATING DISASTER RISK – WHAT IS THE AVERAGE?

A continuous distribution



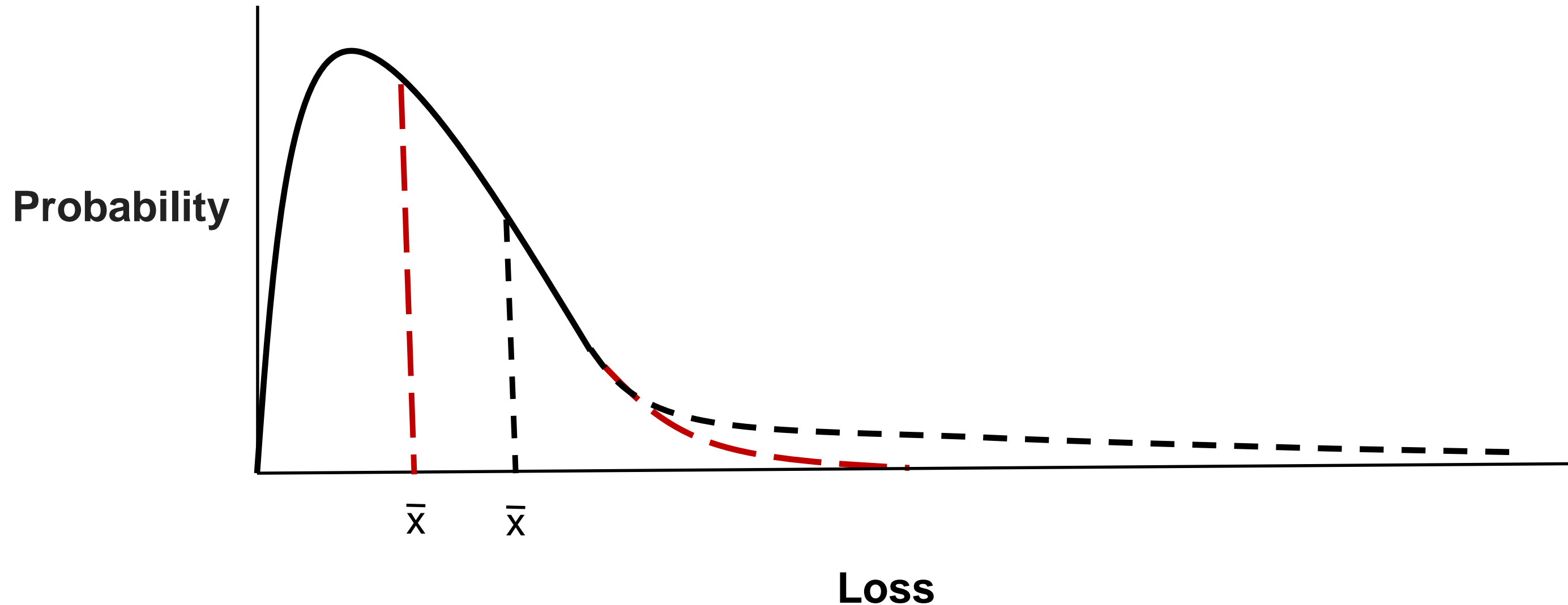
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ILLUSTRATING DISASTER RISK – WHAT IS THE AVERAGE?

Average cannot be found from decades of loss data alone



WORLD: ...
SPORTS: Orioles' Ripken signs \$32...

Sun-Sentinel

Path of terror

Andrew wreaks havoc in S. Florida

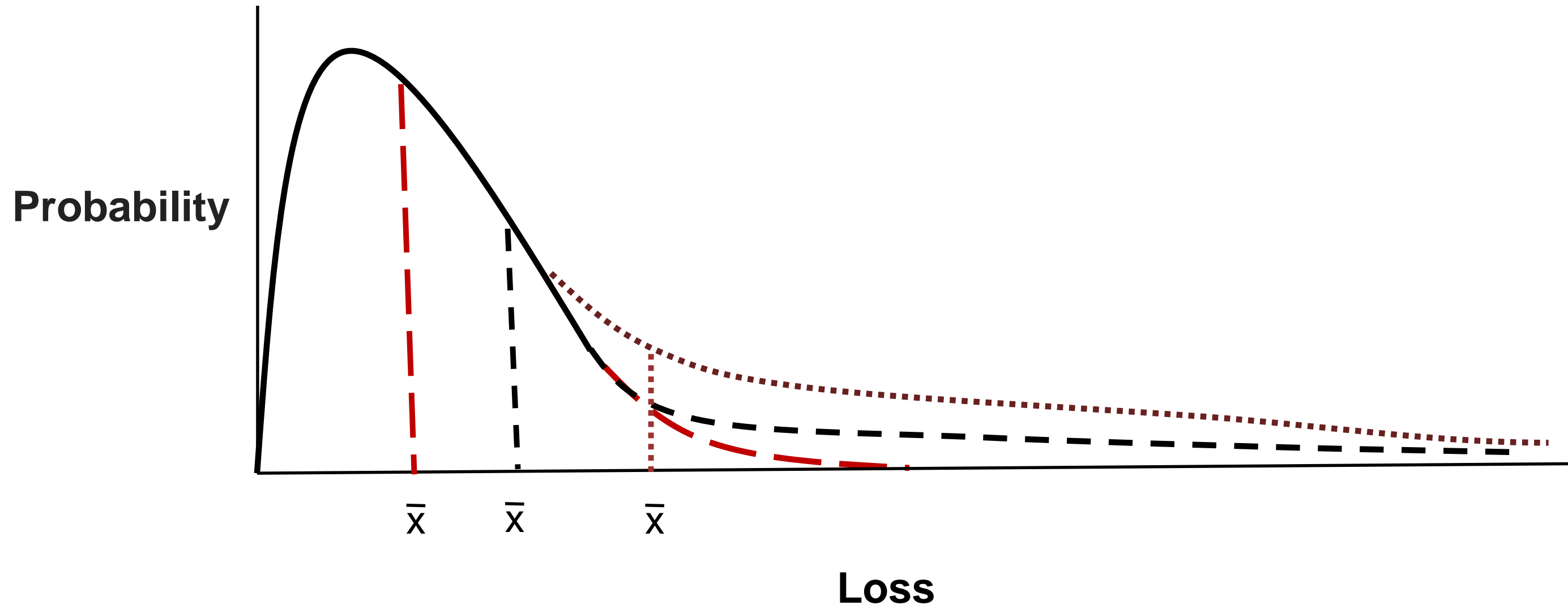


15 die; cost
in billions

Dade residents stunned
as storm shatters lives

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TERMINOLOGY IN THE RISK MODELLING INDUSTRY

- **Average Annual Loss**
- **Loss at Key Return Period**
- **Return period / probability**
- **Scenario Loss**
- OEP curve
- AEP curve
- Accumulation
- Clustering
- Vulnerability functions
- Secondary uncertainty and correlation
- Building Exposure
- Human Exposure
- Business Interruption
- Risk hot spots

WHAT LEARNINGS CAN BE USED?

From private sector risk modellers to countries measuring disaster risk

- How to quantify risk – including through the use of risk models
- What data needs to be collected – and how data should be processed
- How to measure disaster risk before the disaster
- How to collect and process data from actual events to improve the understanding of risk
- How to perform a risk audit on the national procedures

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