

# Basic Risk Assessment with FAIR

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#### Risk

The probable frequency and probable magnitude of future loss

#### The Purpose of Risk Modeling

The purpose of any risk analysis is to provide the decision-maker with the best possible information about loss probabilities. Consequently, it's crucial that decision-makers accept the risk analysis methodology being used, and that the information resulting from the analysis is in a form that's useful to them.

#### **Limitations of Risk Analysis**

Risk analysis is never perfect. The fact is, all risk analysis models are approximations of reality because reality is far too complex to ever model exactly. Nonetheless, by decomposing a complex subject into clearer, more readily analyzed components, we can understand and make reasoned judgments about the subject.

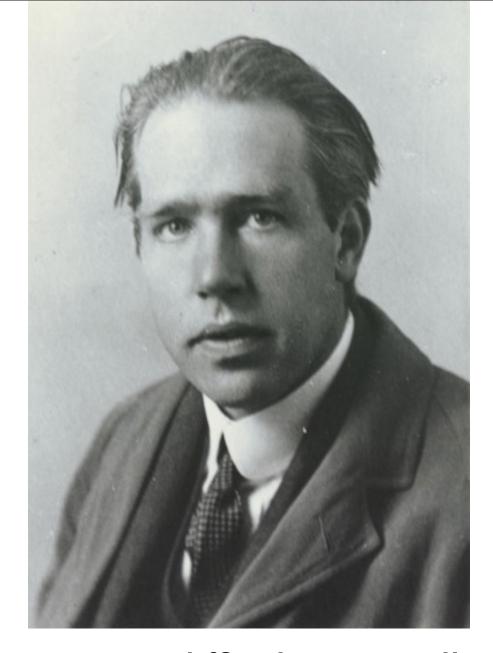
#### **Probabilities versus Possibilities**

- Possibility is a binary condition either something is possible, or it's not 100% or 0%.
- Probability reflects the continuum between absolute certainty and impossibility.

## Risk is always a probability issue

### Russian roulette with a standard six-cylinder revolver versus a semi-automatic

The possibilities are equal with either handgun – i.e., it's 100% possible in both cases that the player would suffer a "negative outcome." The probabilities, however, are significantly different. In the first case, assuming the revolver is loaded with a single bullet, the probability of a negative outcome is about 17%. In the second case, assuming a single bullet is loaded and chambered in the semiautomatic, the probability of a negative outcome is about 100% (it might, of course, misfire).



"Prediction is very difficult, especially about the future."

Nobel Laureate and nuclear physicist, Niels Bohr

#### Accuracy ------- Precision





Error-Prone & Doubtful



Repeatable & Reproducible

Images: Wikipedia

Jim Novo :: The Drilling Down Project :: www.JimNovo.com





#### Questions?

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