

HOW WE MORPHED THE SCIENCE OF PROBABILITY

BASED ON *FOOLED BY RANDOMNESS*, BY NASSIM
TALEB

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BIASES AGAINST RANDOMNESS

- Attribution Bias:
 - Crediting success to talent, failure as rare event.
 - (Meehl, 1954)
- Hindsight Bias
 - Past always looks deterministic.
 - (Fischhoff, 2007)
- Survivorship Bias
 - Cannot distinguish between winners(survivors) and total participants.
 - (Sullivan, 1999)

OTHER “MISCONCEPTIONS”

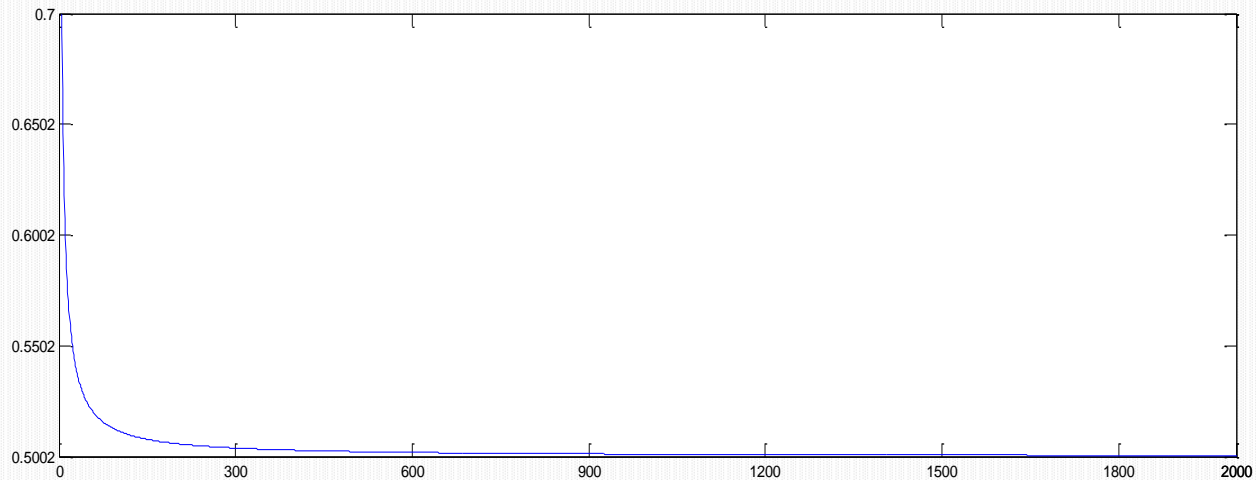
- Rare events :do not occur frequently, but create large payoff.
- Large sample sizes? (Tversky and Kahneman 1971)

TALEB'S SOLUTION

- Probability is a mathematical construct.
- Take asymmetry and subjectivity into account.
- Assign *noise* around objective value to give a subjectivity and maintain probability as a science.
- See (Beer, The Intelligent Organization Conference 1990).

FURTHER EXAMPLES

- Probability of success at different scales
 - Return expected :15%, volatility: 10%(per annum)
 - Probability of success annually? Quarterly? Monthly? Hourly?



FURTHER EXAMPLES(CONTD.)

- Calculated using cumulative of Normal distribution, $f(x) = \frac{1}{\sqrt{2\pi\sigma^2}} e^{-\frac{(x-\mu)^2}{2\sigma^2}}$
- Smaller intervals observation is variability of portfolio, so better to wait longer time to study actual effect with no noise.
- But negative returns not offset by equal positive returns.

CONCLUSION AND LEARNING FROM TALEB'S BOOK

- Introduction of probability as subjective entity.
- Parallel this with future prediction exercises.
- See my paper!

THANK YOU!

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