HOW DO WE MAKE CHOICES? PREFERENCES

WHAT WILL YOU LEARN?

- How do we think about choices?
- How do we describe preferences?
- What is a utility function?

PREFERENCES

- We need preferences to describe choices.
- Preferences tell us how individuals evaluate the trade-offs among difference choices.

UTILITY FUNCTION

- Utility is an index that describes preferences.
- Utility = how you feel.
- A utility function is a systematic way of assigning an index to rank choices.

EXAMPLE:
UTILITY AS A FUNCTION OF WEALTH

- For example, we can define an investor's utility as a function of wealth, *U(W)*.

EXAMPLE:
UTILITY AS A FUNCTION OF WEALTH

RISK AVERSION

WHAT WILL YOU LEARN?

- What is risk aversion?
- How risk averse are you?

RISK AVERSION

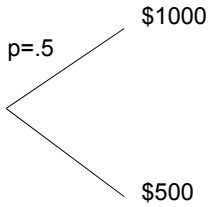
- The degree of risk aversion measures just how much an investor prefers the sure outcome to an uncertain outcome.
- The opposite of risk aversion is risk tolerance.

RISK AVERSION

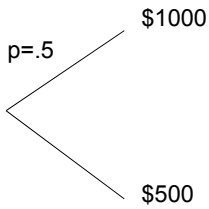
RISK AVERSION

- A very risk averse individual has a very steep utility function – or high marginal utility.
- A very risk tolerant individual has a very flat utility function – or low marginal utility.

WHAT'S YOUR RISK AVERSION?



WHAT'S YOUR RISK AVERSION?



Risk Aversion Coefficient	Amount you would pay
0	750
0.5	729
1	707
2	667
3	632
4	606
5	586
10	540
15	525
20	519
50	507

RISK AVERSION

- Most individuals have risk aversions between 1 and 10. It is very rare to have risk aversions greater than 10.
- Large body of experimental and survey evidence.
- There are variety of ways to measure risk aversion.
  - Questionnaires employed by financial planners

SUMMARY

- Risk aversion is a key concept in utility functions.
- Most individuals are risk averse – they prefer the sure outcome to the risky one.
- The degree of the concavity of the utility function captures the degree of the risk aversion.