Choosing the Best Alternative

1) List the possible actions
2) Calculate the $E[NPV]$ of each
3) Choose action with greatest $E[NPV]$

$E[NPV]$ for the problem
$= E[NPV$ of best action $]$

Example
Choice of 2 Gambles

- bet $1 on red at roulette
- bet $1 on a roll of 2 at craps

Calculating $E[NPV]$ of each action

Bet $1 on red

- win $1
  - $0.68
  - $1.00
- lose
  - $0.32
  - $-1

$E[NPV] = $-0.05$

Bet $1 on 2 at craps

- win $30
  - $0.14
  - $30
- lose
  - $0.86
  - $-1

$E[NPV] = $-0.14$

$E[choice of gamble] B$
$= $-0.05$

$E [bet$1 on red ]$
$= $-0.05$

$E[NPV$ of craps gamble$] = $-0.14$

Best action = roulette gamble.