$\sum_i \Pr(X = x_i) \cdot x_i = $ Expected Value

$F = $ Probability

π_i

i	x_i	F_i	
1	-1	.4	$= (.4 \cdot -1)$
2	10	.5	$= (.5 \cdot 10)$
3	30	.1	$= (.1 \cdot 30)$

$= -.4 + 5 + 3 = 7.6 = E(\pi)$

Continuous Outcomes...

→ Probability density function (PDF)

π_i $E(\pi) = \int_{-\infty}^{\infty} x f(x) dx$

Attitudes towards Risk

- future is a lottery
- Preferences over Lotteries

Certainty Equivalent

- certain outcome viewed as equivalent to the lottery

Risk averse → CE < EV

Diversification

$EAV = \left[\sum_i F_{it} \cdot \pi_{it} \right] / (1+r)^t = \sum_t E(\pi_t) / (1+r)^t$

CE > EV = Risk Loving