Uncertainty in Cash Flows

James Woods

5/19/2016
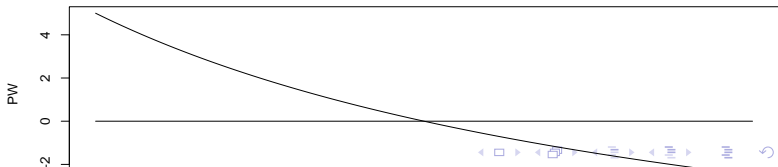
Why Uncertainty?

- We really don't know

You Have Seen Sensitivity Analysis

- Recall the PW diagrams we used in learning IRR?
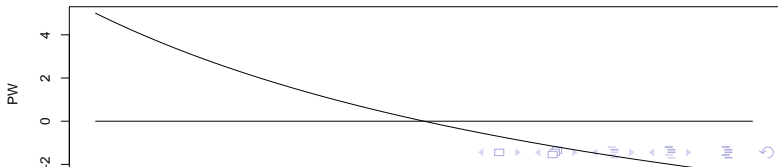- Shows how PW changes with changes in MARR.
  $PW = -10 + \frac{15}{(1+r)}$

Why Uncertainty?

- We really don't know
- Some of our guesses may be critical and senstivity analysis may guide us to spend more time supporting those assumptions.

You Have Seen Sensitivity Analysis

- Recall the PW diagrams we used in learning IRR?
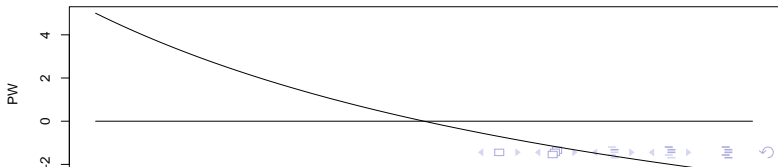- Shows how PW changes with changes in MARR.
  $PW = -10 + \frac{15}{(1+r)}$

Why Uncertainty?

- We really don't know
- Some of our guesses may be critical and senstivity analysis may guide us to spend more time supporting those assumptions.
- Clients may ask for risk assessments

You Have Seen Sensitivity Analysis

- Recall the PW diagrams we used in learning IRR?
- Shows how PW changes with changes in MARR.
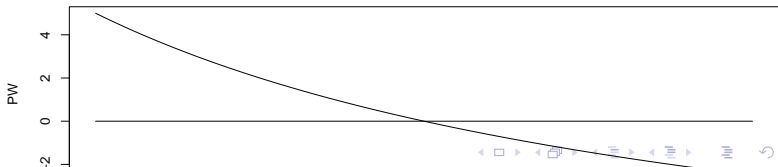 $PW = -10 + \frac{15}{(1+r)}$

Why Uncertainty?

- We really don't know
- Some of our guesses may be critical and senstivity analysis
  may guide us to spend more time supporting those
  assumptions.
- Clients may ask for risk assessments
- Clients may have other assumptions about critical
  parameters

You Have Seen Sensitivity Analysis

- Recall the PW diagrams we used in learning IRR?
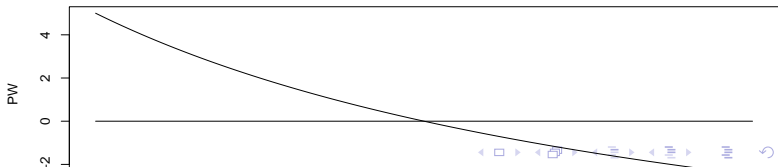- Shows how PW changes with changes in MARR.
  $PW = -10 + \frac{15}{(1+r)}$

Why Uncertainty?

- We really don't know
- Some of our guesses may be critical and senstivity analysis may guide us to spend more time supporting those assumptions.
- Clients may ask for risk assessments
- Clients may have other assumptions about critical parameters

You Have Seen Sensitivity Analysis

- Recall the PW diagrams we used in learning IRR?
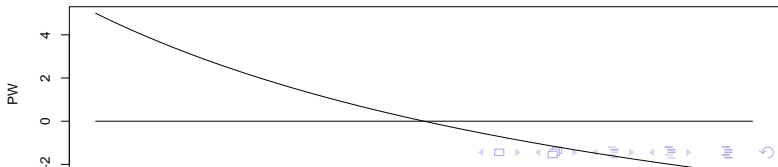- Shows how PW changes with changes in MARR.
  $PW = -10 + \frac{15}{(1+r)}$

Why Uncertainty?

- We really don't know
- Some of our guesses may be critical and senstivity analysis may guide us to spend more time supporting those assumptions.
- Clients may ask for risk assessments
- Clients may have other assumptions about critical parameters

You Have Seen Sensitivity Analysis

- Recall the PW diagrams we used in learning IRR?
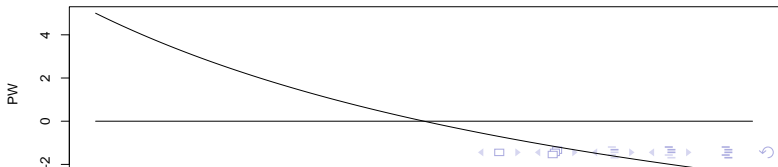- Shows how PW changes with changes in MARR.
  $PW = -10 + \frac{15}{(1+r)}$

Why Uncertainty?

- We really don't know
- Some of our guesses may be critical and senstivity analysis may guide us to spend more time supporting those assumptions.
- Clients may ask for risk assessments
- Clients may have other assumptions about critical parameters

You Have Seen Sensitivity Analysis

- Recall the PW diagrams we used in learning IRR?
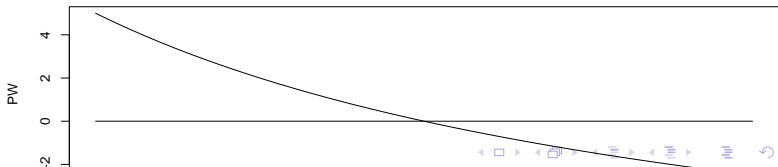- Shows how PW changes with changes in MARR.
  $PW = -10 + \frac{15}{(1+r)}$

Why Uncertainty?

- We really don't know
- Some of our guesses may be critical and senstivity analysis may guide us to spend more time supporting those assumptions.
- Clients may ask for risk assessments
- Clients may have other assumptions about critical parameters

You Have Seen Sensitivity Analysis

- Recall the PW diagrams we used in learning IRR?
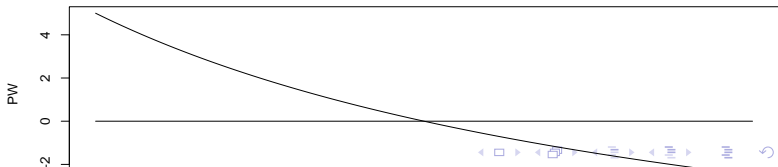- Shows how PW changes with changes in MARR.
  $PW = -10 + \frac{15}{(1+r)}$

Why Uncertainty?

- We really don't know
- Some of our guesses may be critical and senstivity analysis may guide us to spend more time supporting those assumptions.
- Clients may ask for risk assessments
- Clients may have other assumptions about critical parameters

You Have Seen Sensitivity Analysis

- Recall the PW diagrams we used in learning IRR?
- Shows how PW changes with changes in MARR.
  $PW = -10 + \frac{15}{(1+r)}$

Prior Development

Single Person

Multi-Person

Joint Distributions

Multiple Parameter Sensitivity

Spider Graphs

Montecarlo Simulations