

# Capital Budgeting: Biases

(Welch, Chapter 13-5)

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# More Biases

# Overconfidence

Are you overconfident?

(Note that this can also affect proper volatility estimates in real options.)

# 90% Confidence Interval

Give a 90% confidence interval for the age of your instructor.

- ▶ Nine out of ten times, your range should contain the correct answer.
- ▶ This is not a question about your best guess, but about your uncertainty.
  - ▶ Regardless of whether you have no clue, or whether you know the answer very precisely, you should be able to reach 90%.
  - ▶ If you do not know the answer, you should just expand your confidence range.

# Wrong 90% CI

A confidence interval of 0-100 years is too big.

- ▶ You know that I am not below 10 years of age or over 80 years of age.
- ▶ So, 0-100 years is a 100% confidence interval.

# Wrong 90% CI

- ▶ (50 years, 2 months, 1 day) to (50 years, 2 months, 2 days) would be too narrow.
  - ▶ Almost surely, you would miss.
- ▶ Are you going to be overconfident?
- ▶ I have warned you!

# Trivia I

1. When was LvBeethoven baptized?
2. When did Andy Warhol (or Muhammed) die?
3. How far can swarms of desert locusts migrate?
4. How many member states does the UN have?
5. What is the operating empty weight of a 747-8?

## Trivia II

6. What was Michael Jordan's highest number of points in one regular season basketball game?
7. In what year was UCLA founded?
8. What was Anderson's full-time MBA class of 2017 acceptance rate?
9. How many people lived in Los Angeles County in 2010, according to the U.S. census?
10. MSFT NI for the Q ending June 30, 2015.

# Relativism

Are you more likely to drive 2 hours to save 50% (special sale!) on 20 LED bulbs costing \$5 each, or to reduce the price of your brand-new Model S from \$74,000 to \$73,900?

# Compartmentalization

You bought a ticket to the UCLA basketball game for \$80. As you want to hand it over, you realize that you forgot to bring it. The Box Office is still selling tickets like your own for the same price. Will you buy another ticket?

# Budgeting

As you walk back to your car, you see that you got a parking ticket. Actually, your car was parked right, and you could prove it in court. But, you parked incorrectly the entire last week, and got no parking ticket, so you “saved” 5 tickets that you really deserved.

Does this change your inclination of going to court?

# NPV Conclusion

See the NPV checklist at the end of the chapter.

NPV is as much a way of thinking about all sorts of business problems as it is a formula.

The inputs seem deceptively simple, but are *anything but*.

# Theory or Practice?

## **Theory is easy, real-world practice is hard.**

- ▶ Students often think it is the theory that is hard and the practice that is easy.
- ▶ It is surely the opposite!
- ▶ Models are simplifications of problems.
- ▶ *EXCEPT* if you just shut your brain off because the problem is so difficult that you think you cannot possibly successfully analyze it.