

Sunk Costs & Marginal Analysis

Look forward, not back.

8/25/2012

Jim Charkins

Definition

Sunk-costs are costs that cannot be recovered once they have been incurred.

Or

“We’ve come this far; there’s no turning back.”

Rational or irrational?

“I can’t stop now, otherwise what I’ve invested so far will be lost.”

This is true, of course, but irrelevant to whether one should continue to invest in the project.

The real question is ...

should they be ignored?

Prospect Theory

- States that people are inherently loss averse
- People weigh losses twice as much as heavily as gains
 - a loss of \$1 is twice as painful as a gain of \$1 .
 - the combination of a non-neutral reference point and loss aversion is what leads to irrational behavior

Examples

The Concorde Fallacy



LBJ in Vietnam

58,000 Americans died



President Bush staying the course in Iraq
--- “A current withdrawal would dishonor
the memory of those who have made the
ultimate sacrifice for the sake of liberty.”



What about the F-22
at \$300 million a pop?



NBA Draft



Because higher draft picks cost the team more money, both their greater playing time and career longevity are examples of high sunk costs.



Subway

You waited for the subway and extra 20 minutes instead of just walking because you have already waited for 20 minutes.



Las Vegas





Poker



- you bet on your hand as it exists at the moment (and its potential for the future).
- many people will stay in because they're "pot committed" --- they figure they've already risked so much to be in the game that it can't hurt to bet a little more.

DMV - “Do I stay or do I go?”



Stock Market

- hold on tight to bought shares as the market slumps in the desperate hope that the shares will rise in price again.



Trivial Examples of

Wasted Money?



There is a nasty storm and you have bought tickets to the basketball game which is an hour away. Should you stay home and watch it on TV?



Repair the toilet after trying to fix it or buy a new one?



Ordered too much food at the restaurant; Should you eat the pile of pasta?





more food examples of sunk costs



- Many people are taught from a young age to “think of all the starving babies in Africa” and are told to clean their plates.
- You’re at a nice restaurant, enjoying a meal you can’t take home. So you say, “I’ve paid for the food, and by God I’m going to eat it!”
- You eat a Snickers bar halfway and realize:
 1. I wasn't hungry.
 2. I wasn't enjoying the candy.
 - A logical person would stop eating the Snickers bar.



Pie

How many times have you eaten that last slice of pie even though you were really incredibly full because you already heated up the whole thing and you didn't want to throw it away?



Just because the city spent a lot on the sign doesn't mean they shouldn't spend more to spell the words correctly. The amount they already spent is irrelevant. What matters is what the benefit of spelling the sign correctly will be.



The Bottom line ...

- When making a choice between two options, only consider what's going to happen in the future, not which investments you've made in the past.
- Live life on the edge, or margin. You'll be happier, and wealthier, for it.

Some Caveats

- Use marginal, not average.
- Since marginal analysis attempts to measure the future, it is uncertain.
- The principle is clear, the measurement is not.
- When measuring social benefits and costs, the distribution of the benefits and cost must be considered.

SUNK COSTS vs. MARGINAL COST

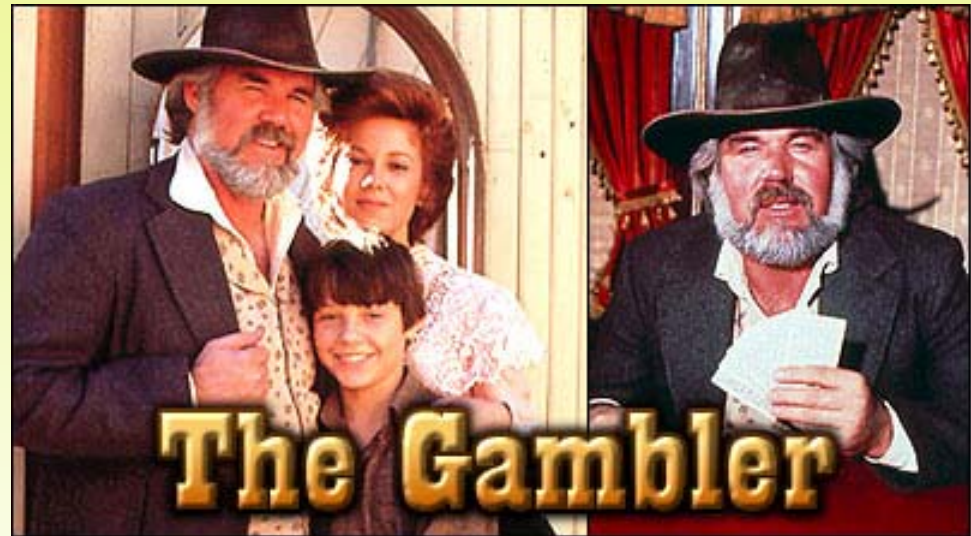


- SUNK COSTS
(backward looking
– irrelevant)



- MARGINAL COSTS
- (the consequences of choices lie in the future - only relevant costs)

Sunk Cost



- You got to know when to hold 'em
- Know when to fold 'em
- Know when to walk away
- And know when to run

Whiteout!



- What is the marginal benefit of your being there for the next three days?
- What is the marginal benefit of the best alternative?
- What should you do?

No Surf!

- What is the marginal benefit of staying for the next six hours?
- What is the marginal benefit of the best alternative?
- What should you do?



A terrible movie

- ✘ What is the marginal benefit of staying there for the next two hours?
- ✘ What is the marginal benefit of the best alternative?
- ✘ What should you do?



A horrible marriage?

- ☹️ What is the marginal benefit of staying with the bum for the next fifty years?
- ☹️ What is the marginal benefit of the best alternative?
- ☹️ What should you do?



Use marginal analysis to explain why you don't want to join the "Clean Plate Club."

Was there any mention of “sunk costs” in any of these decisions?

- Skiing
- Surfing
- Watching a movie
- Marriage

SUNK COSTS

- You have no control over sunk costs so they are not part of the decision-making process



SUNK COSTS vs. MARGINAL COST



•The past is gone; you can do nothing about it. The present is now. The future is determined by your decisions now. Consider those things that you **can control**, not those that you can't.

• SUNK COSTS
(backward looking
– irrelevant)



•MARGINAL COSTS

•(the consequences of choices lie in the future - only relevant costs)

**History is Irrelevant
in terms of costs.**

**Sunk costs
should have no impact
on your decisions.**

Marginal Analysis is Forward Looking; Sunk Costs are Irrelevant.

- I paid for this ticket, I'm going to sit here whether I enjoy it or not.
- I have to fix the transmission; I just bought \$500 worth of tires.
- I have to stay with my husband; I've put 23 years into this marriage.
- I paid for this dessert; I have to eat it all.
- Even though this school is built on top of a contaminated site, we have to continue construction; we've already put \$2 million into it!