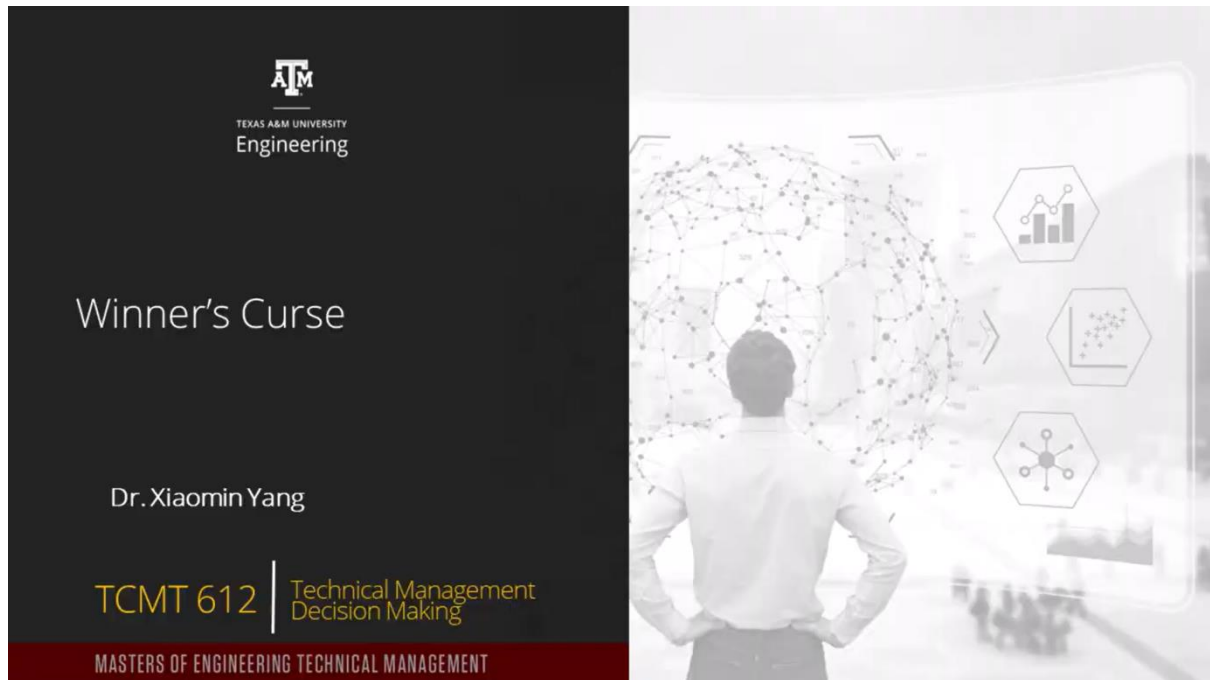


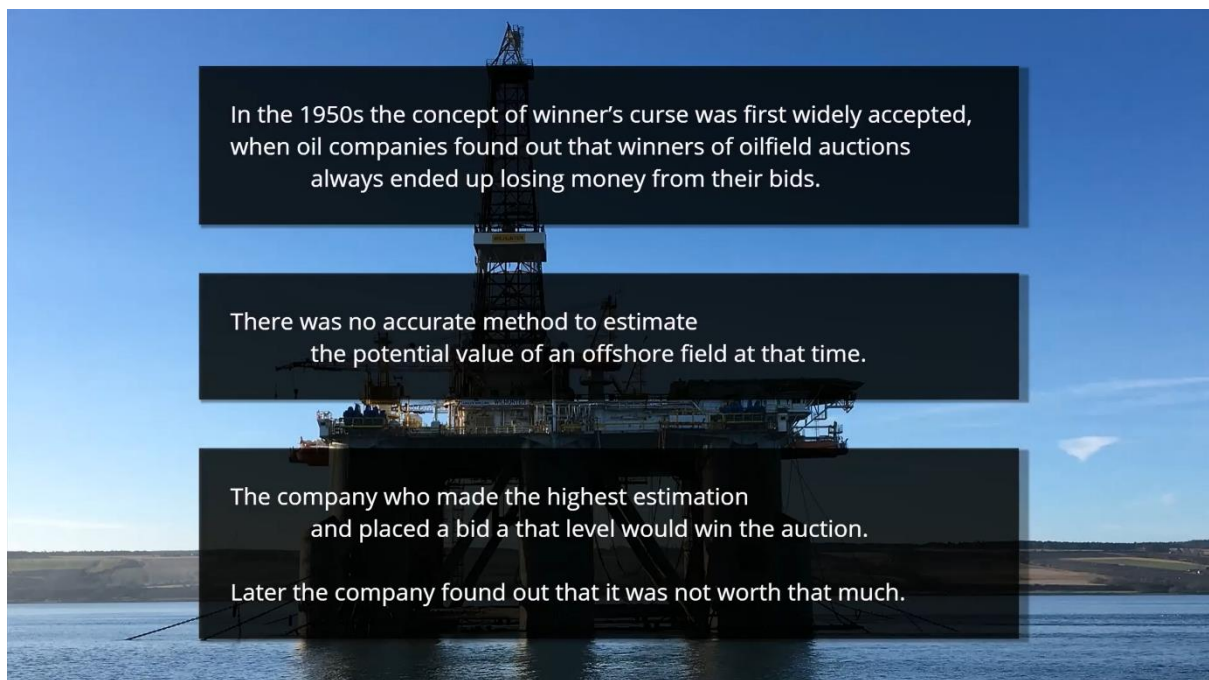
M3L3. Winner's Curse

Slide #1



In this topic, we will discuss two examples of the winner's curse, which is a type of excessive competition.

Slide #2



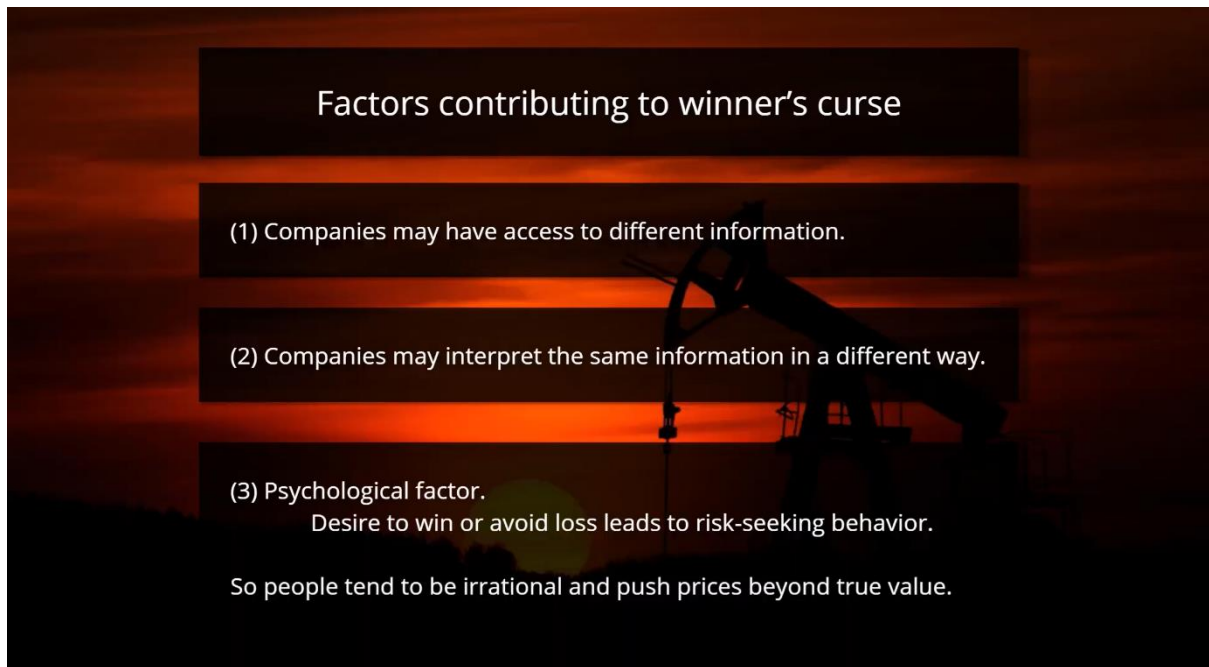
In the 1950s, the concept of winner's curse was first widely accepted in the oil industry when oil companies found out winners of oil field auctions always ended up losing money from their bids.

There was no accurate method to estimate the potential value of an offshore oil field at that time. So as the intrinsic value of an oil field is not clear cut, oil companies might guess its value to be anywhere within a range, say between 50 million dollars to 100 million dollars.

The company who made the highest estimation and placed a bid at that level would win the auction.

Later, the company found that it was not worth that much.

Slide #3



Factors contributing to winner's curse

- (1) Companies may have access to different information.
- (2) Companies may interpret the same information in a different way.
- (3) Psychological factor.
Desire to win or avoid loss leads to risk-seeking behavior.

So people tend to be irrational and push prices beyond true value.

Some factors contribute to the winner's curse.

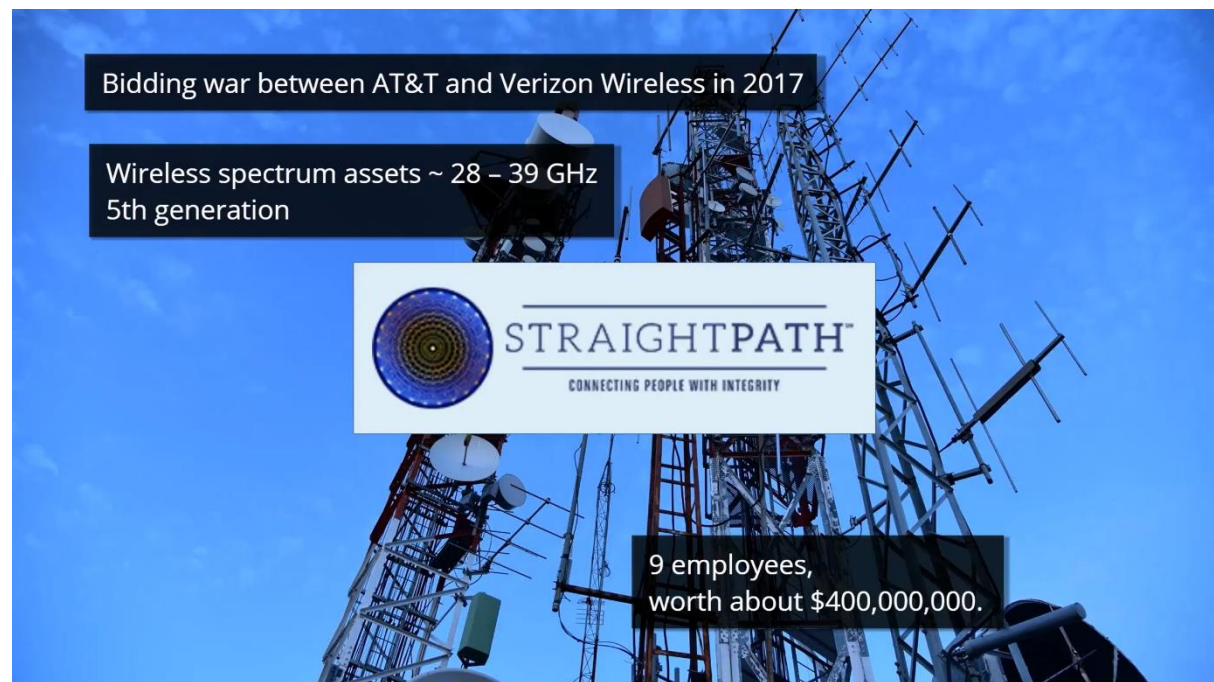
Companies may have access to different information and also companies may interpret the same information in a different way.

The third factor is a psychological factor. Companies may make different decisions based on their beliefs and based on how they look at the problem.

The desire to win or avoid certain loss leads to risk seeking behavior in a competitive bidding process.

So, people tend to be irrational and push prices beyond the true value of the asset involved.


Slide #4



One recent example is the intense bidding war between AT&T and Verizon Wireless in 2017 over the acquisition of a company called Straight Path Communications.

Straight Path Communications is an entity spun out from IDT Corporation in 2013, primarily to hold wireless spectrum assets in the 28 through 39 gigahertz bands, which are the spectrum for fifth generation communication. Straight Path Communications, which had just nine employees in October 2016 was worth about \$400 million because of the wireless spectrum it held.

Slide #5



4G communication competition heated up in 2016.

Verizon Wireless lost over 300,000
AT&T lost 256,000

Strategically position themselves to compete on next generation, 5G
by acquiring high frequency wireless spectrum assets.

As the 4G wireless communication competition heated up in 2016, Verizon Wireless and AT&T suffered significant loss from a wireless subscriber perspective.

Verizon reported a loss of over 300,000 wireless subscribers in the fourth quarter of 2016 and AT&T lost 256,000.

Both companies wanted to strategically position themselves to compete on the next generation service, 5G wireless communication, in the future by acquiring high frequency wireless spectrum assets.

Slide #6

AT&T started a war with
pre-emptive approach.

It offered \$1.6 billion to take over
Straight Path Communications
in April, 2017.

Price > 3x of its book value.

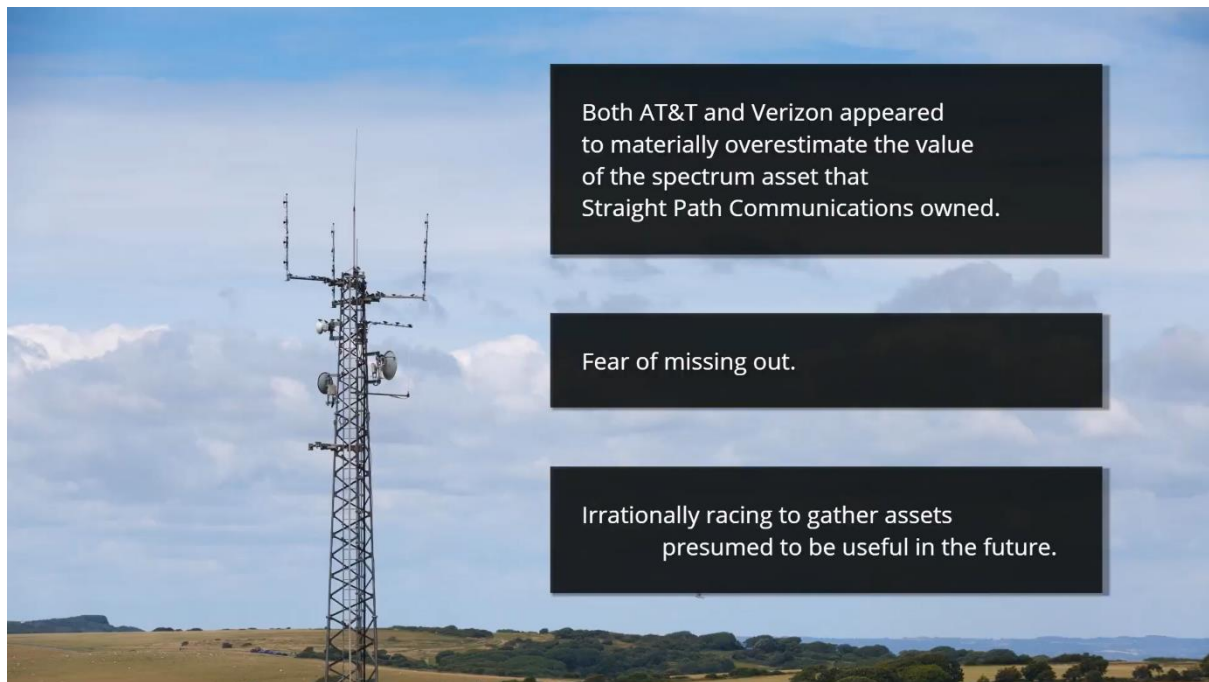
A month later, Verizon joined the war
offered \$3.1 billion or \$184 / share,
2x of what AT&T offered,
and won the bidding war.



AT&T started a war with a preemptive approach. It offered 1.6 billion dollars to take over straight path communications. In April, 2017, the price was more than three times of straight Path communications book value.

At that time, a month later, Verizon joined the war and offered \$3.1 billion or \$184 per share, which was twice of what 80 and t offered and won the bidding war.

Slide #7



The rapid escalation of the bidding war between AT&T and Verizon surprised many investors in the communication industry. Both AT&T and Verizon appeared to materially overestimate the value of the Spectrum asset that Straight Path Communications owned. In particular, Verizon's response to AT&T's bid seemed a bit aimless as it seemed to have had a fear of missing out on these licenses after AT&T's initial bid, the telecommunication industry was unclear on what the 5G network would look like in the end.

Both companies appear to be irrationally racing to gather assets presumed to be useful in the future. It is still too early to tell whether Verizon will earn a reasonable return from its 3.1 billion dollar investment in the asset. But one fact is obvious, AT&T and other carriers did not believe that straight path communication spectrum was worth Verizon paid.