# M1L11. Prospect Principle

## Slide #1Prospect Principle

## Slide #2Human decision-making behavior

The foundation of human decision-making behavior. One of the most important principles in behavioral economics is the Prospect Principle, developed by Daniel Kahneman and Amos Tversky. Daniel received the 2002 Nobel Memorial Prize in Economic Sciences for the work he did in collaboration with Amos Tversky on the behavioral economics six years after Amos’ death.

## Slide #3People are generally risk-averse

They concluded that people are risk-averse with the fear of losing 100 dollars being more intense than the hope of gaining 150 dollars.

## Slide #4Prospect Principle Model

This principle is illustrated in the chart below.

The x-axis represents the outcomes of economic decisions with financial gains on the right and losses on the left. The y-axis represents the subjective perceived value of these outcomes to individuals making decisions.

The Prospect Principle underscores that people undervalue financial gains and fail to appreciate the value of their outcomes once it exceeds a certain threshold. This behavior pattern is frequently observed when individuals encounter risks associated with uncertainty. They often overlook positive outcomes and disproportionately emphasize potential losses.

## Slide #5Diminishing Sensitivity

Another way to interpret the prospect principle is that individuals become less sensitive to incremental changes in gains or losses as they increase. The marginal impact of gains or losses diminishes as they accumulate.

Diminishing sensitivity explains why investors tend to adopt a more conservative approach after experiencing significant financial gains as their initial thrill of achievement diminishes with further gains.

This also clarifies why individuals may persist in gambling even after incurring significant losses. In such cases, gamblers with diminished sense of further losses tend to misjudge their chance of recouping losses. Behavior psychologists have extensively documented the phenomenon of risk aversion.

People are risk averse not due to a lack of self-confidence, but because we view our goals as opportunities to maintain stability.

## Slide #6Assessment: a simple decision (case 1)

In the first scenario of the risk-taking assessments example, a risk-averse individual chooses option B, focusing on supporting the sales of the current product as it provides a higher certainty of meeting the performance target and demonstrates a commitment to maintaining and maximizing the success of the current profitable venture.

Those selecting option A are considered risk takers who chase extraordinary outcomes, willing to risk potential disaster for the promise of enormous success.

## Slide #7Assessment: A simple decision (case 2)

On the other side, the prospect principle highlights a common behavioral tendency observed among individuals facing investment losses. Despite the potential for financial disaster, irrational investors still opt to take riskier decisions, driven by a psychological urge to swiftly recover losses and regain a sense of control over their financial situation.

This impulsive behavior, seen in Scenario 2, often leads individuals to opt for the riskier choice. They gamble on a risky generative AI product to salvage the underperforming current product and strive to beat the annual target despite the high likelihood of financial disaster for the company. The second option offers greatest certainty in meeting the annual financial target, albeit with less ambitious potential.

## Slide #8Risk assessment summary

According to the prospect principle, people are risk averse when making decisions. Humans tend to opt for a safer approach when faced with uncertain choices. Additionally, individuals’ sensitivity to gains or losses diminishes as they increase. The reduced marginal impact of gains explains the conservative behavior of investors after they have achieved significant investment returns.

On the other hand, gamblers tend to continue participating in casino activities with a biased hope to recoup previous losses. However, individuals still differ in terms of risk taking. It is prudent to be aware of your own risk-taking preferences and to try to understand others behaviors so that you can feel wholeheartedly comfortable and confident in making your judgments.

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