

# The Fundamentals Of Behavioural Finance

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# Pete Barker

## Director, Interest Rate Products

# Introduction

## Recap

- This is the second presentation in a series of three providing a step by step introduction to Behavioural Finance influences and applications
- Presentation 1 introduced a selection of behavioural biases and how these can manifest themselves into individual and collective investor actions
- This first step kick starts the process of recognizing behavioural biases in personal actions as well as in others
- Promoting individual performance enhancement and improved market appraisal and assessment.

# Introduction and Background

## Background

- Trader for 20 years on behalf of banks and for past 5 years independently.
- Career has been spent in London, Dubai and Tokyo.
- Predominantly in currencies and emerging markets.
- Left banking sector to trade independently to have access to wider range of products and develop behavioural approach.
- Research is conducted in collaboration with University Business School in the UK.

# Introduction

## REA – Recognition – Education – Application

- Claradan’s systematic approach to Behavioural Finance
- **Recognition** of the behavioural influences that drive collective and individual investor actions through ongoing analysis – ***Covered in Presentation 1.***
- **Education** of the theories and concepts affecting behaviour and market action constantly updated through academic partnerships and research – ***covered in today’s presentation.***
- **Application** of acquired knowledge to financial markets will enable fresh insight and individual performance enhancement – ***covered in presentation 3***

# Introduction

## What , When, Why & How of Behavioural Finance

- The **Education** segment of **REA**
- **What** is Behavioural Finance?
- **When** and how has it been formulated?
- **Why & How** to use behavioural finance in a trading strategy

# What Is Behavioural Finance?

## The History Of Behavioural Finance

- Advances in cognitive psychology research in 1960's & 1970's signal the origin of Behavioural Finance
- Scholars began to blend behavioural economics and traditional psychology with investment and finance theories.
- Early focus on topics such as gambling behaviour and investment decision making.
- The past 25-30 years has seen the formation of Behavioural Finance as an independent field, in the last 10 years has witnessed substantial increases in research and publication.

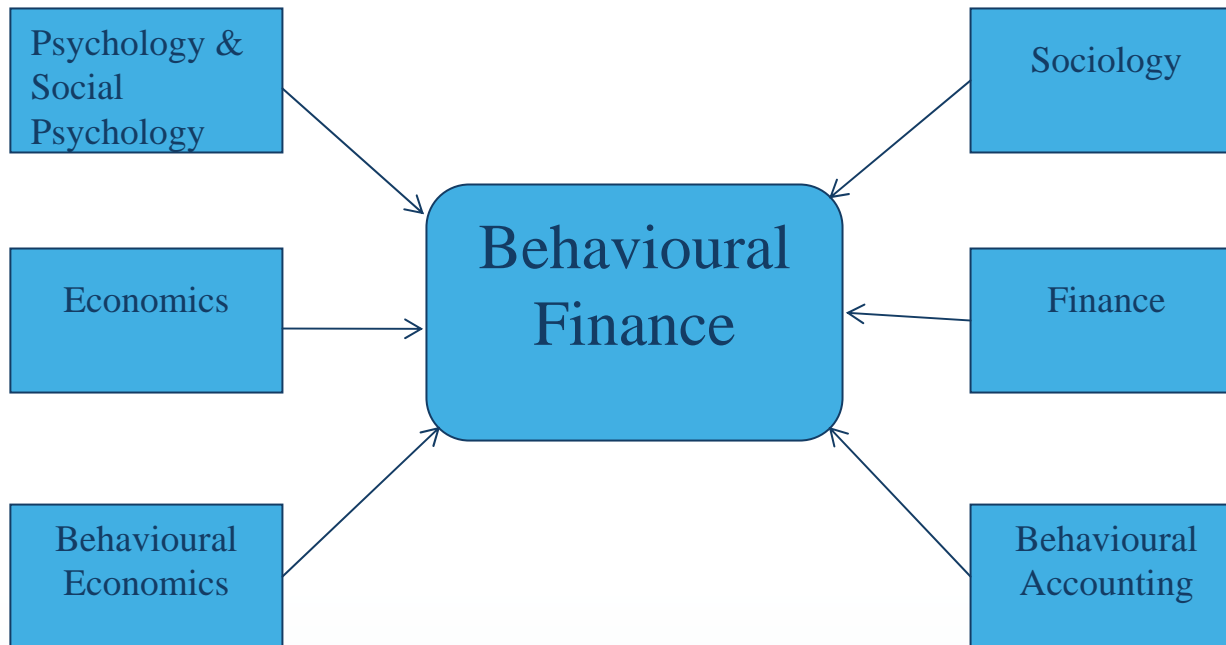
# When and How Did Behavioural Finance Emerge?

## Interdisciplinary Approach

- Behavioural Finance - *Interdisciplinary* field not *Multidiscipline*
- Defined as a field of study where the concepts and theories from different fields are combined. *Multidiscipline* refers to academics and researchers from different fields working together whilst respecting the boundaries of their specific approach
- Why is this important? Respecting interdisciplinary principles promotes a solution driven approach.

# When and How Did Behavioural Finance Emerge?

## Diagram of Contributory Disciplines



# What Is Behavioural Finance?

## Key Practitioners

- Herbert Simon – Bounded Rationality
- Daniel Kahneman & Amos Tversky – Representativeness/Prospect Theory
- Richard Thaler – Endowment Effect/Mental Accounting

# What Is Behavioural Finance?

## Cornerstone Theories

- Bounded Rationality
- Representativeness
- Prospect Theory

# What Is Behavioural Finance?

## Bounded Rationality – Key Points

- Original challenge to Expected Utility Theory surfaced in 1950's
- Decision makers limited by their own values, skills and habits.
- Assumes limitations of rational thinking by humans
- When assessing probability, investors satisfy their financial needs or goals and do not maximise the opportunity.

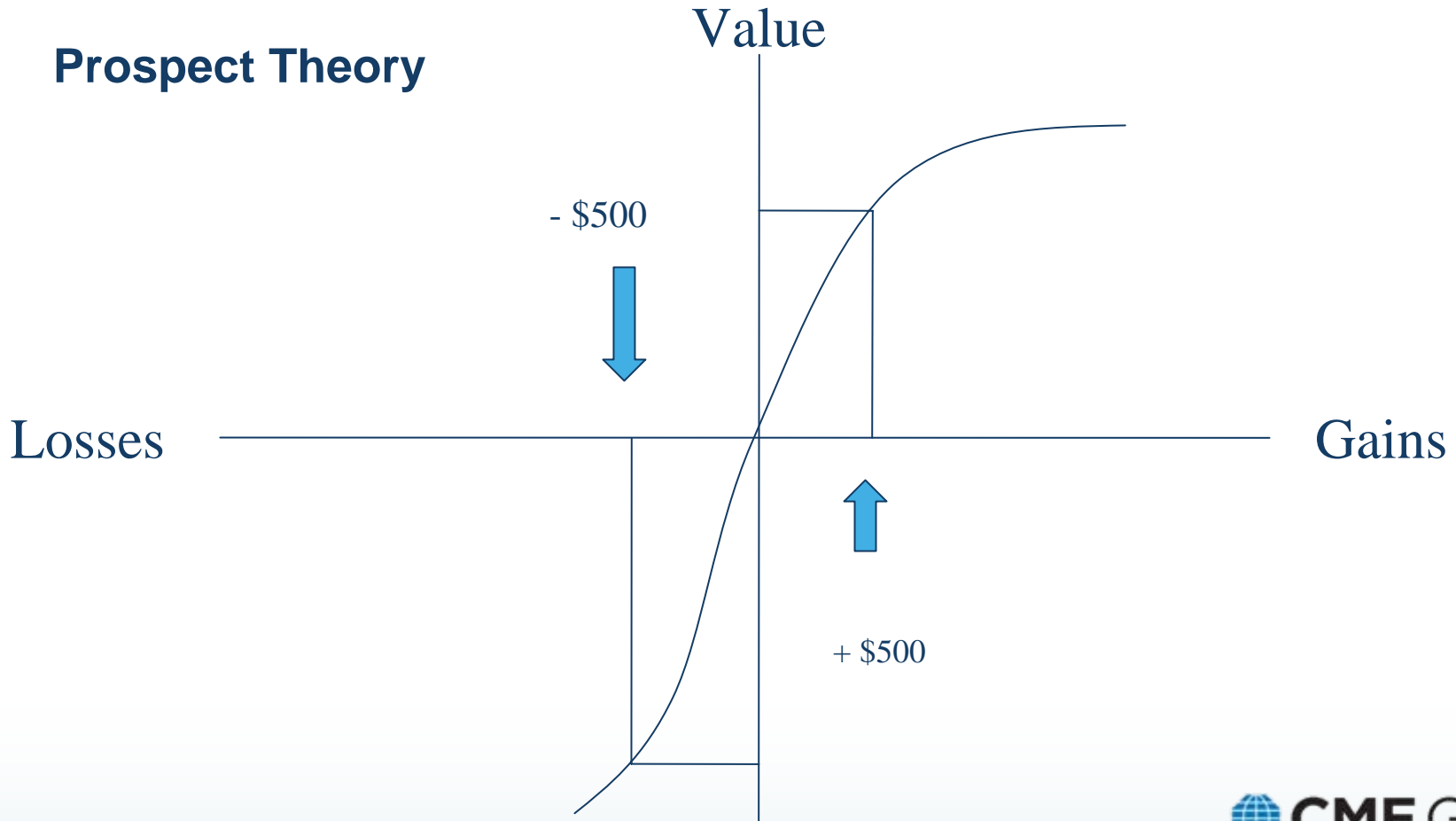
# What Is Behavioural Finance?

## Prospect Theory – Key Points

- Kahneman & Tversky (1979)
- Assumes investors are more concerned with losses than gains and consequently assign more significance to avoiding loss than to achieving gains.
- Challenges Expected Utility Theory by replacing 'Utility' with 'Value', decision makers are concerned with gains and losses not net utility (net wealth)
- For investors the pain of loss is *greater* than the pleasure experienced by a gain.

# What Is Behavioural Finance?

## Prospect Theory



# What Is Behavioural Finance?

## Classic Example of Prospect Theory

### Problem 1

**Alternative A:** A 1 in 1000 chance of winning \$5000

**Alternative B:** A sure gain of \$5

# What Is Behavioural Finance?

## Classic Example of Prospect Theory

### Problem 2

**Alternative C:** A 1 in 1000 chance of losing \$5000

**Alternative D:** A sure loss of \$5

# What Is Behavioural Finance?

## Representativeness – Key Points

- Kahneman & Tversky theory of how we judge probabilities (1974)
- “by the degree to which A resembles B.”
- They called this the **Representativeness Heuristic**
- Representativeness is an umbrella theory that many biases and behavioural influences have since been derived

# Applications of Behavioural Finance

## Classic Example Representativeness

### Law of Small Numbers – The Hot Hand

- Study that looked at the perception of a “hot hand” in basketball.
- Perception being that a “streak shooter” or player “on a roll” had a greater chance of success *after* one or more successful shots.
- In truth, there is no statistical evidence to support this
- This study by Gilovich, Vallone and Tversky caused much controversy when published in 1985.

# What Is Behavioural Finance?

## Behavioural Finance Catalogue

Durability Bias	Loss Aversion	Regret Theory	Fear
Anchoring	Dissonance	Conjunction	Illusions of control
Hindsight Bias	Endowment	Contagion	Herd Behaviour
Mental Accounting	Groupthink	Prospect Theory	Law of Small Numbers
Affect	Reinforced Habits	Familiarity Bias	Adaptive Attitudes
Attribution	Assimilation	Availability Bias	Base Rate
Certainty Affect	Framing	Persuasion	Sunk Cost
Representativeness		Bounded Rationality	
Communal Reinforcement			

# Why Use Behavioural Finance?

## Benefits of a Behavioural Approach

- Educational process has dual benefit of individual development and the ability to recognise collective behaviour in markets.
- It can contribute to a reduction in individual stress by promoting a separation of emotion from the point of decision making. Enabling a detached and therefore rational assessment of strategy and performance both individually and in others.
- Biases are experienced differently by individuals so it is vital to gain an appreciation of the principles of decision making, to be able to monitor for them influencing your own actions.
- Financial decision making is particularly vulnerable to being influenced by behavioural biases as we are subject to a high degree of often contradictory information that can challenge our beliefs or position. Therefore it is vital to arm ourselves with the tools that enable the detection of them.

# Summary & Closing

## Summary

- Behavioural Finance has owes its roots to advances in cognitive psychology in 1950' and 60's.
- Interdisciplinary foundations were set when scholars began to blend behavioural economics theories and traditional psychology with investment and finance theories.
- Behavioural Finance is a relatively new field of study having experienced substantially more focus in the past decade.
- Cornerstone theories of Bounded rationality, Prospect Theory and Representativeness provide a base of knowledge for further learning.
- Behavioural Finance Catalogue provides a small sample of contemporary theories.

# Summary & Closing

## Closing

- Today we have dealt with the cognitive side of Behavioural Finance.
- Important starting point as this deals with the organisation of information that is input.
- Emotion deals with how one 'feels' about this information once it has been received. This is a huge field of study in its own right.
- Advances in portable sensor technologies offer exciting opportunities for the future.

# What Next?

- The next and last in the series of three presentations will be an up to the minute behavioural assessment of the current market state.
- What contributed to the market reaching this point
- What are the implications for markets for the remainder of 2008
- This will make up the **Application** segment of our REA approach
- More information can be found at [www.claradan.co.uk](http://www.claradan.co.uk)

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