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# Boundedly rational behaviour and its importance in economic analysis

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# Behavioural Economics

Bounded rationality

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# Behavioural Economics

- The complexity of theory regarding economic decision making requires expansion that can be achieved by using both economics and psychology (Black et al. 2003).
- Decision makers are boundedly rational and they tend to fall into the trap of heuristic biases (Simon 1987).
- Behavioural economic study does not abandon fundamental neoclassical economics but further enhances and supplements the insights of neoclassical economics (Rabin 2002).
- Akerlof (cited in Sent 1967) suggested that behavioural economists have succeeded in discovering the 'wild side' of economic behaviour.

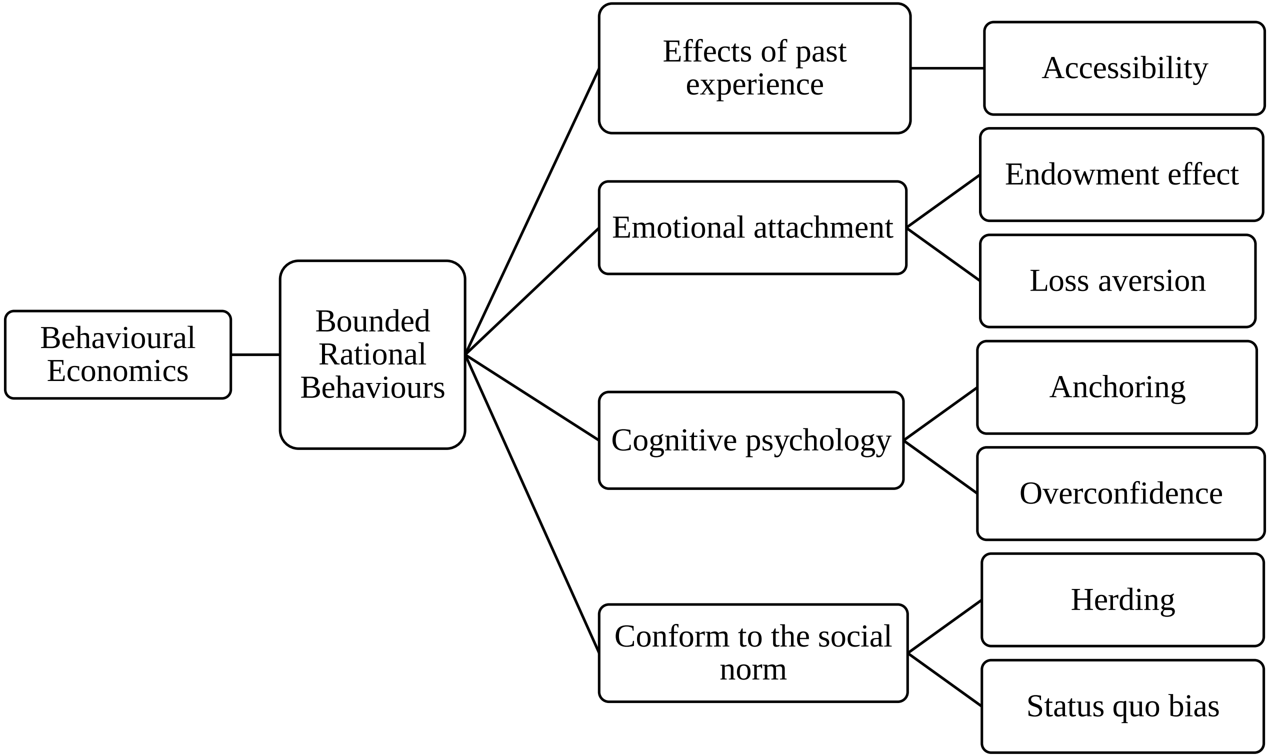
# The Bounded Rational Behaviours

## Introduction

- This session not intended to criticize the shortfalls of neoclassical economic theory, but rather to provide an open discussion on how the behavioural model may complement the study on human economic behaviour.
- We are aimed to explore the importance and implication of these bounded rational behaviours. Subsequently, we shall improve the quality of policy making.

# The Bounded Rational Behaviours

## Real Estate Investment



# The Bounded Rational Behaviours


**Accessibility**

— Accessibility portrays the easiness of an intuitive thought to come into mind (Kahneman 2003c) and is a heuristic bias that recalls information easily (Lizieri 2011).

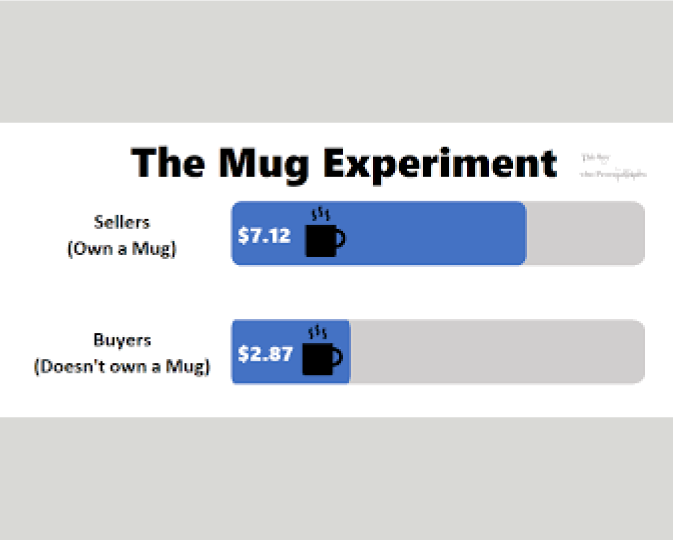
— Accessibility is enhanced when the subject has had a similar experience in the past.

— Purchasing flood insurance (Simon 1987): house owners who have experienced flood damage in the past purchased flood insurance and the purchase is totally independent from the cost and benefit.

— Advertisement increase levels of attention and enable the information to become more accessible in decision making process.

— Kahneman (2003) suggested that the most accessible information may not be the most relevant to a good decision.

# The Bounded Rational Behaviours




**Endowment Effect and Loss Aversion**

— People are reluctant to acknowledge losses, hold on to losers longer than they should (Parachiv & L'Haridon 2008; Strahilevitz & Loewenstein 1998)

— Weigh losses higher than gains (Fromlet 2001; Kahneman, Knetsch & Thaler 1991; Kahneman & Tversky 1979; Levy 1992; Loewenstein, John & Volpp 2012; and Strahilevitz & Loewenstein 1998).

— Such behaviours are attributed to emotional attachment toward the object (Ariely, Huber & Wertenbroch 2005), thus placing higher value on it (Kahneman & Tversky 1984).

— Emotional attachment can be categorised in two ways – as endowment effect and loss aversion.

# The Bounded Rational Behaviours


**Anchoring**

- Diaz (1998) suggested that expert valuers assigned inappropriate weight to asking prices, demonstrating the anchoring effect.
- This can become a bias if the original point was an incorrect anchor and, subsequently, can result in an incorrect decision (Hardin 1999).
- Scott and Lizieri (2011) suggested that valuation judgement on a property is heavily influenced by the most recently-valued property. This is because the previous valuation invokes the anchoring effect for the next property.

# The Bounded Rational Behaviours

**Overconfidence**

- Daniel, Hirshleifer and Subrahmanyam (1998) define an overconfident investor as one who overrates the precision of private signals or assessment, regardless of whether he/she is an institutional investor or individual investor.

- A reasonably high level of confidence is encouraging, especially in the field of investment which deals with uncertainty and risk. However, overconfidence can become a ‘blind spot’ in the decision-making process.

- Investors sometimes overestimate the accuracy of their information (Glaser & Weber 2007) and fail to calibrate their decision with their investment portfolio.

- Overconfidence may induce decision-makers to act insensitively to risk and can lead agents to an even riskier portfolio, as they believe they can beat the odds (Camerer & Lovallo 1999).

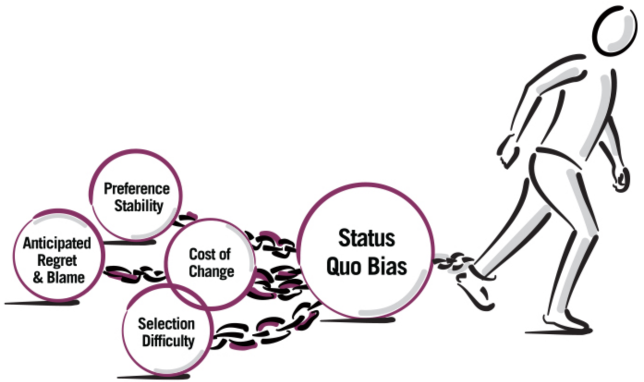
# The Bounded Rational Behaviours


**Herding**

- Herding behaviour represent the behaviour of investors when following the movement of the majority in investment activities. In other words, investors will move in the same direction as others.
- Hirshleifer and Teoh (2001) proposed that all human beings are 'influenced by others in almost every activity, and this includes investment and financial transactions' (p. 1).
- Herding behaviour can be due to conformity pressure on the willingness of people to secure their status in the group (Shiller 2001).
- In a simpler example given by Banerjee (1992), people often make choices based on the choices of people before them, such as during a visit to a restaurant. Sometimes, they will even neglect personal knowledge of the subject by acting in accordance to the decisions made by others.

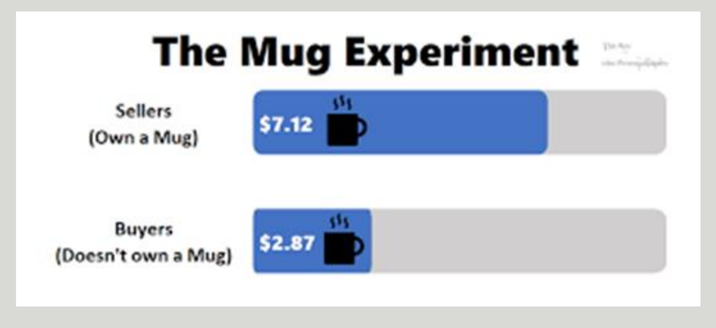
# The Bounded Rational Behaviours

**Status Quo Bias**

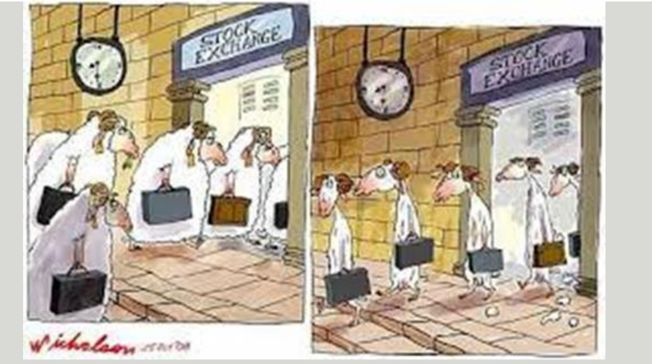


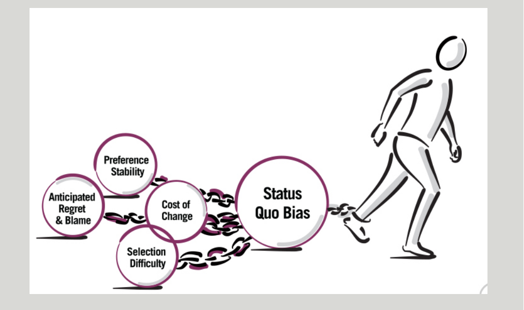

- A study conducted by Knetsch and Sinden, cited in Tversky & Kahneman (1991), sought to understand the behaviours of students towards retaining or trading a gift (a decorated mug) that they received during the experiment. The result showed that 90% of participants chose to retain the gift, rather than trade it for a large bar of Swiss chocolate.
- Samuelson and Zeckhauser (1988) argued that decision makers will remain disproportionately with the status quo to avoid indecisive situations (see also Tetlock 1992; Camerer 1998).
- Moreover, people tend to choose the option that is socially acceptable, to avoid "unnecessary" cognitive work.
- In layman's terms, to do nothing can be the best strategy under uncertain circumstances which involved new options even if the existing plan no longer the optimal choice.

# The Bounded Rational Behaviours






Top: Accessibility; Endowment effect and Loss aversion; Anchoring;
Bottom: Overconfidence; Herding; Status quo bias

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# Behavioural Economics

Implications

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# Implications of Behavioural Economics

- Loewenstein, John and Volpp (2012) suggested that people who failed to do exercise is due to the inertia to get to a gym. The same inertia problem occurs in saving. In view of that, by combining a visit to a gym and saving with lottery may help to overcome the inertia to go to gym and to save respectively.

- Behavioural economics contributed in designing an effective prescriptive saving program which Thaler and Benartzi (2004) called Save More Tomorrow™ (SMarT program). The SMarT program helps people to commit to their retirement savings by allocating a portion of their salary for the best of tomorrow.

# Propositions in Real Estate Investment

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|---|---|
| Proposition 1: [Accessibility] | The individual investors are likely to be affected by their own experience in making an investment decision. |
| Proposition 2: [Endowment Effect and Loss Aversion] | Investors who sell the property have intention to earn revenue. There is no evidence of endowment effect or loss aversion in the real estate investment decision-making process. |
| Proposition 3: [Herding] | Individual investors conform to the herding behaviour when they make an investment decision. |
| Proposition 4: [Status Quo Bias] | Individual investors are conforming to the social norms and are reluctant to make changes in investment decision. |
| Proposition 5: [Overconfidence] | Overconfidence behaviour may be present in the investment decision-making process. |
| Proposition 6: [Anchoring] | Individual investors use an anchor price to adjust the value of a property. |

# The way forward…

- We are looking forward to have government policies that can improve the choice architecture by leveraging on the bounded rational behaviours.
- Transformation of economy (Sustainable Development Goals, SDGs)
  - Sustainable economic growth (fiscal sustainability, incentives for investment)
  - Inequality
  - Environmental issues
  - Industrialized economy
- Economics education that embrace the importance of choice architecture and starting to emphasize on behavioural economics.

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