

GREYFRIARS April 2021

Gedragfinansies



Wat is die kans?



Gedragfinansies

Historiese perspektief

1. John Stuart Mill - Homo Economicus (1836)
 - “Man is a **rational, self-interested** economic agent”
2. John Maynard Keynes (1883 – 1946)
 - Mense ≠ homo economicus; **mense = irrasioneel**
3. Nobelprys 1978: Herbert Simon - Bounded rationality
 - **Rasionaliteit gebonde** weens kognitiewe-, inligting- en tydsbeperkings
4. Kahneman & Tversky - Prospect Theory (1979)
 - **Bevraagteken klassieke nutsteorie**

Gedragfinansies

Historiese perspektief

5. Nobelprys 2013 – Shiller, Fama & Hansen

- “Mr. Fama’s seminal theory of **rational, efficient markets** inspired the rise of index funds... Mr. Shiller, perhaps his most influential critic, carefully assembled evidence of **irrational, inefficient behavior...**”

6. Nobelprys 2017 - Richard Thaler

- “Nudges” in besluitneming (“Priming”/Suggestie)
- “For some in the profession, the idea that psychological research should even be part of economics has generated hostility for years.” (Shiller, *The Guardian*)

Gedragfinansies

CFA Handboek (Meir Statman)

	Klassieke model	Gedragfinansies
Mense	Rasioneel	“Normaal”
Portefeuljesamestelling	Hoë opbrengs en lae risiko	Ditto maar ook ander oorwegings
Besparing en besteding	Maklik, volgens lewenssiklus-teorie	Moeilik, selfbeheer
Verskille in opbrengs	Toe te skryf aan verskille in risiko	Meer as risiko (sosiale verantwoordelikhied / status)
Markte	Doeltreffend (prys = waarde en moeilik om te klop)	Ondoeltreffend (prys \neq waarde) maar doeltreffend (moeilik om te klop)

Vaders van gedragsfinansies: Kahneman & Tversky



Gedragfinansies

Die Begin

One day in the early 1970's, Amos handed me an essay...I can still recite its first sentence: "The agent of economic theory is rational, selfish, and his tastes do not change."

I was astonished.

My economist colleagues worked in the building next door, but I had not appreciated the profound difference between our intellectual worlds.

To a psychologist, it is self-evident that people are neither fully rational nor completely selfish, and that their tastes are anything but stable.

Our two disciplines seemed to be studying different species, which the behavioural economist Richard Thaler later dubbed ***Econs*** and ***Humans***.

Here was an opportunity for an interesting conversation across the boundaries of the disciplines. I did not anticipate that my career would be defined by that conversation. (TF&S, p.269)

Gedragfinansies

Die Begin

“Prospect Theory: An Analysis of Decision under Risk” Econometrica (1979)

Ook genoem Verlies-Aversie teorie

1. Sekerheid

- Ontvang R 1,000 met 50% sekerheid en R 0 met 50% sekerheid of
- Ontvang R 480 vir seker.

2. Klein waarskynlikhede

Ignoreer klein waarskynlikhede al is gevolge katastrofies – kan lei tot riskante besluite. (Steinhoff?)

3. Beoordeel welvaart in verhouding tot verwysingspunt

Wins vs verlies eerder as absolute vlak van welvaart.

4. Verlies-Aversie

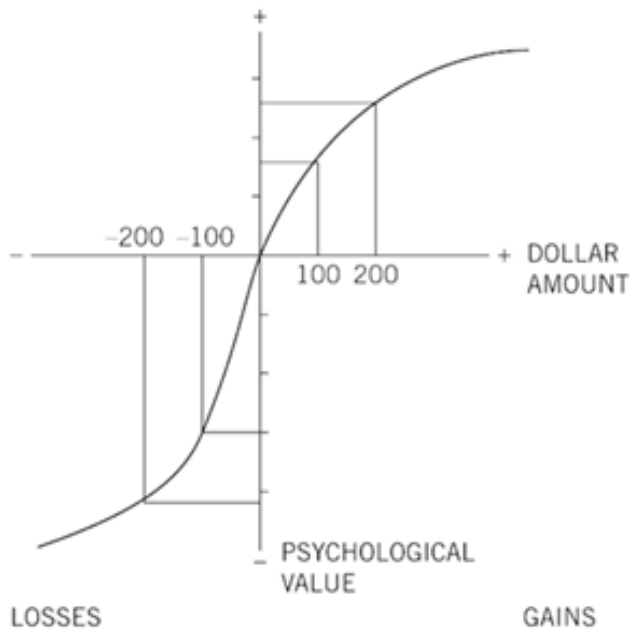
Verliese maak meer saak as winste.

Gedragfinansies

Verlies-Aversie

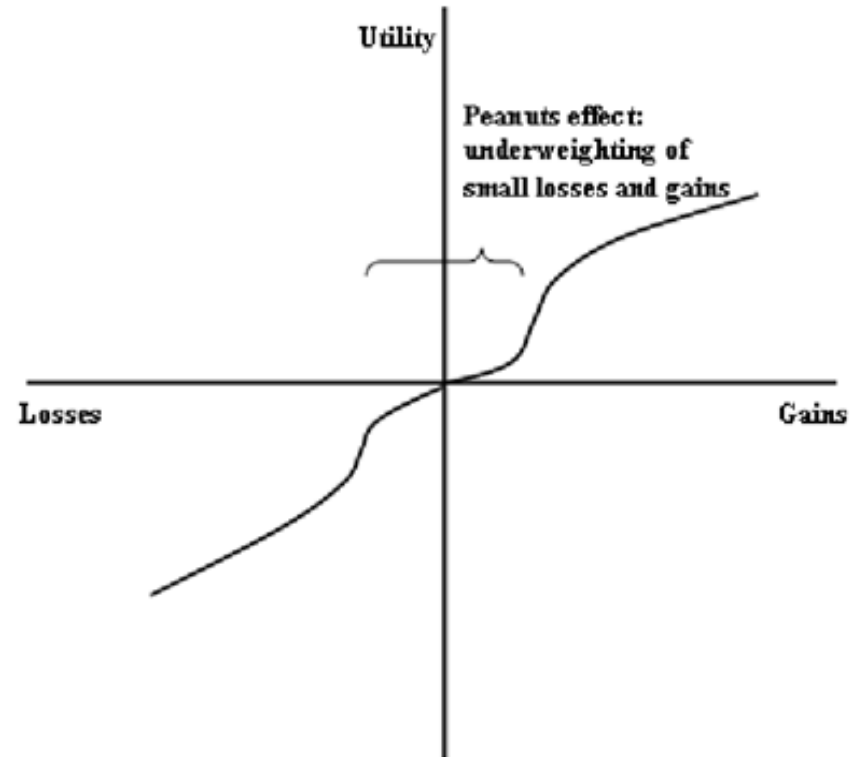
PROSPECT THEORY – VALUE FUNCTION

Tversky & Kahneman

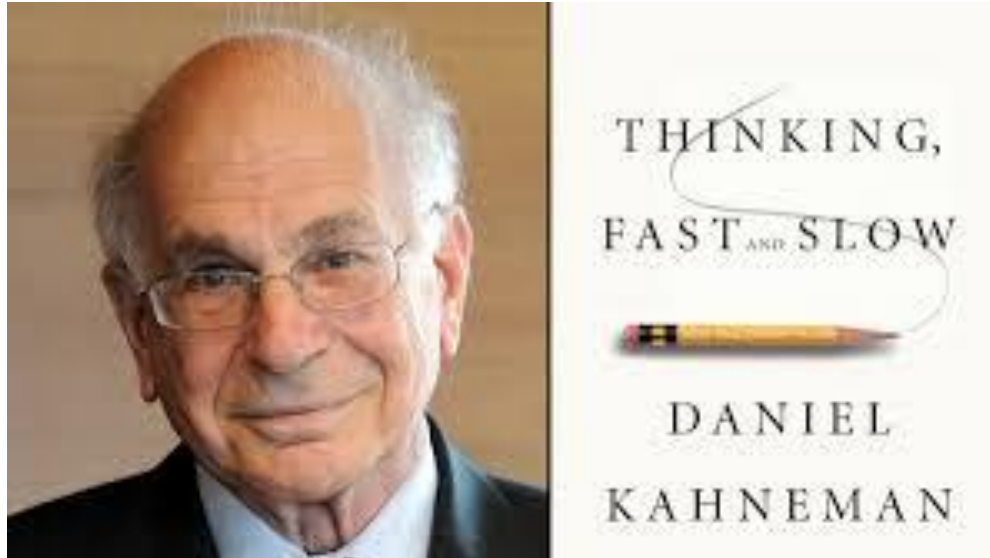


UTILITY FUNCTION

Markowitz



Thinking, Fast & Slow



- *“As Copernicus removed the Earth from the centre of the universe and Darwin knocked humans off their biological perch, Kahneman has shown that we are not the paragons of reason we assume ourselves to be” Economist*

Kognitiewe Modaliteite

- Twee kognitiewe “modaliteite”

2 + 2

17 x 28

“Thinking Fast”	“Thinking Slow”
Outomaties/moeiteloos	Doelbewus/moeite
Nie bewus	Bewus (“Agency”)
Konteks	Abstrak
Sydige response/oordeel	Normatiewe response/oordeel
Korreleer nie met kognitiewe vermoë	Korreleer wel met kognitiewe vermoë

Thinking Fast



Kognitiewe Modaliteite

‘n Kolf en ‘n bal kos saam R 1,10.

Die kolf kos R 1 meer as die bal.

Hoeveel kos die bal?

“Many thousands of university students have answered the bat-and-ball puzzle, and the results are shocking. More than 50% of students at Harvard, MIT, and Princeton gave the intuitive — incorrect — answer.”

“Those who got it wrong didn’t take the trouble to check”

Kognitive Modaliteite

	System 1	System 2
Characteristics	<p>Fast Effortless Unconscious</p> <p>Triggers emotions Associative</p> <p>Looks for causation Looks for patterns</p> <p>Creates stories to explain events</p>	<p>Slow Effortful Conscious</p> <p>Logical Deliberative</p> <p>Can handle abstract concepts</p>
Advantages	<p>Speed of response in a crisis Creativity through associations, so good for expansive thinking</p> <p>Easy completion of routine or repetitive tasks</p>	<p>Allows reflection and consideration of the "bigger picture", options, pros and cons, consequences</p> <p>Can handle logic, maths, statistics Good for reductive thinking</p>
Disadvantages	<p>Jumps to conclusions Unhelpful emotional responses</p> <p>Can make errors that are not detected and corrected, such as wrong assumptions, poor judgements, false causal links</p>	<p>Slow, so requires time</p> <p>Requires effort and energy, which can lead to decision fatigue</p>

Heuristics & Biases (Heuristieke & Sydighede)

- Definities
- Verband
- *“Linda is 31 years old, single, outspoken, and very bright. She majored in philosophy. As a student, she was deeply concerned with issues of discrimination and social justice, and also participated in antinuclear demonstrations.”*
- Which alternative is more probable?
 - Linda is a bank teller.
 - Linda is a bank teller and is active in the feminist movement.

Heuristics & Biases (Heuristieke & Sydighede) “Linda Problem”

- 89% of undergraduates violated logic of probability in favour of plausibility of representativeness.
- Doctoral students in decision science program at Stanford GSB who had taken courses in probability, stats & decision theory – 85% ranked “feminist bank teller” higher than “bank teller.”
- Ons vat die kortpad na “plausibility” (samehangende storie) eerder as die moeiliker roete na waarskynlikheid. Ons vervang ‘n moeilike vraag met ‘n maklike een en antwoord dit.

Heuristics & Biases (Heuristieke & Sydighede) Kritiek

- Gerd Gigerenzer
 - Evolusionêre biologie – heuristieke help ons oorleef in ons oorspronklike omgewing (“...simple heuristics embody ecological rather than logical rationality”).
 - Verdwyn indien probleem geformuleer word itv frekwensie eerder as waarskynlikheid.
- Beide Kahneman en Gigerenzer stem egter saam dat klassieke nutsteorie (“rational agent model”) nie ‘n akkurate beskrywing van besluitneming onder onsekerheid is nie.

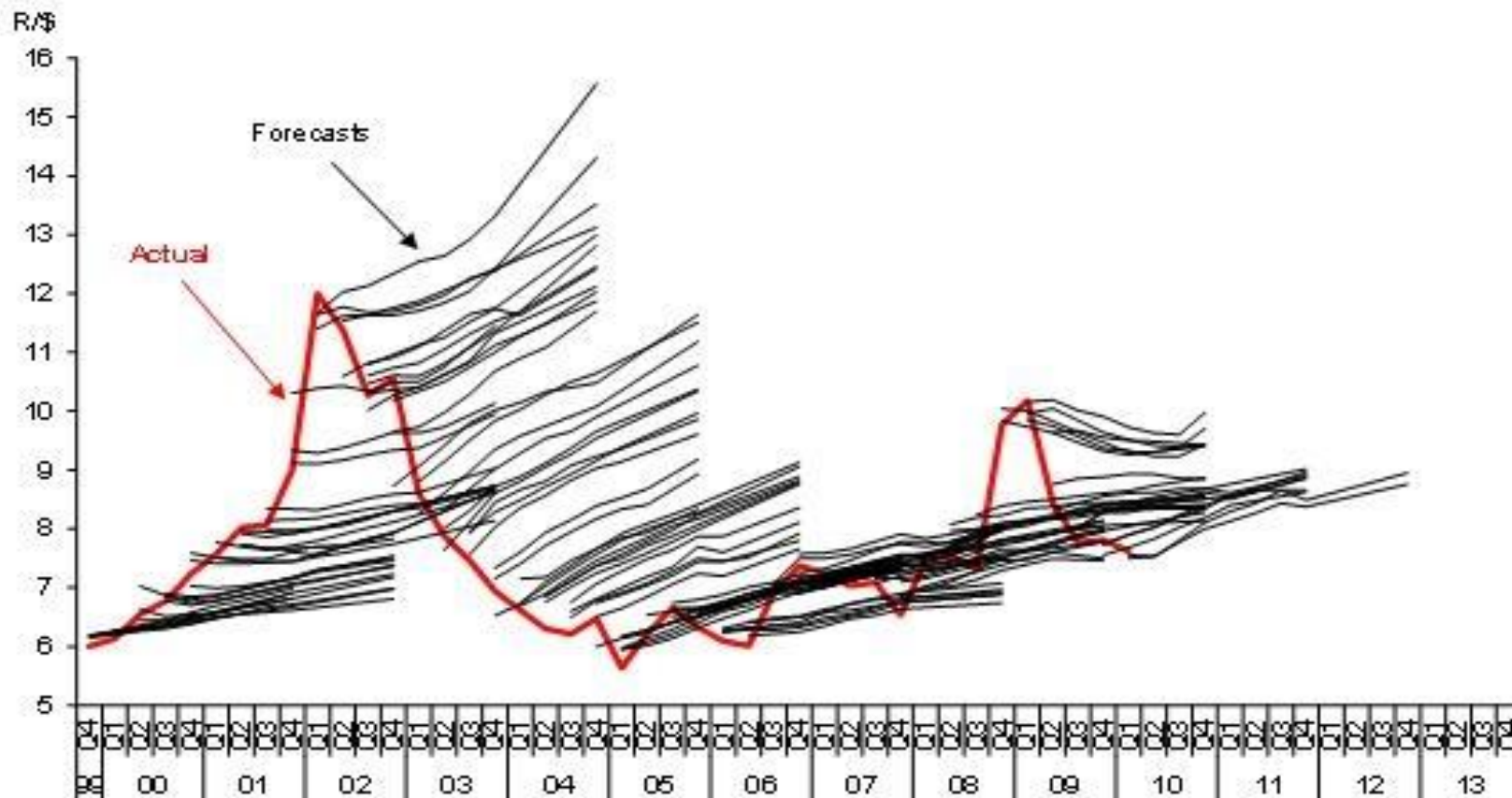
Almal se gunsteling



Regressie na die gemiddelde

Rand/\$ voorspelling : Reuters Econometer Konsensus

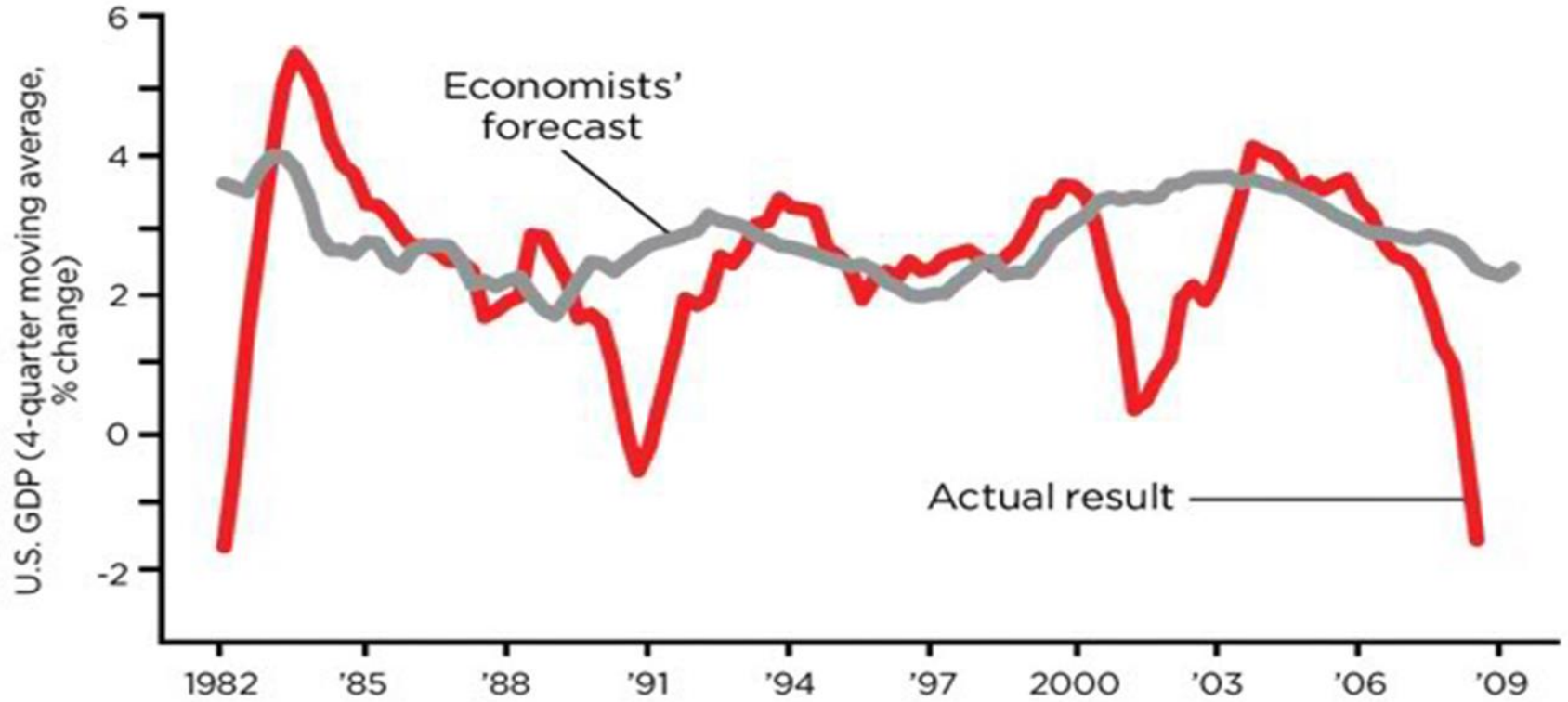
Bron : The Effective Investor (Franco Buseti, 2009)



Regressie na die gemiddelde

- *“A classic example... is the talking heads on....CNN explaining fluently ...why (the market) moved up or down. Given that the market is an aggregation of millions of decisions and money flows, in the absence of an overwhelming event, this commentary is based on no evidence whatsoever and is therefore pure speculation at best and quackery at worst.” (Buseti: The Effective Investor)*
- *“Intuitive predictions need to be corrected because they are not regressive and therefore are biased.”(Kahneman)*
- *“A business commentator who correctly announces that “the business did better this year because it had done poorly last year” is likely to have a short tenure on air.” (Kahneman)*

Voorspellings vs Werklik

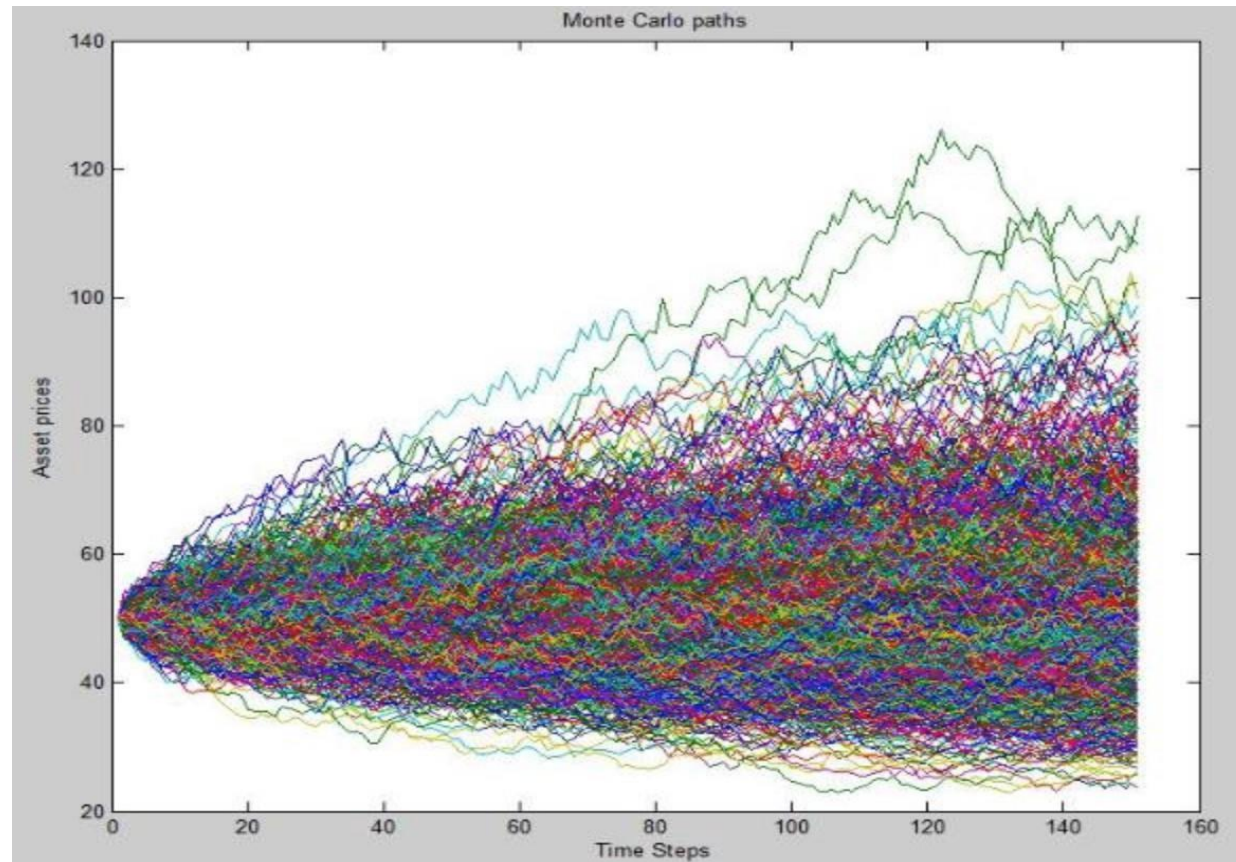


SOURCE: SG GLOBAL STRATEGY RESEARCH

“Anchoring” (Verankering)

- $1 \times 2 \times 3 \times 4 \times 5 \times 6 \times 7 \times 8$
- $8 \times 7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1$
- 512 (mediaan)
- 2,250 (mediaan)
- Werklike antwoord: 40,320
- Taleb: Voorspellings mislei want dit dien as ankers
- Antifragility – aanvaar onvoorspelbaarheid as deel van realiteit
- Meer haalbaar – Diversifikasie

“Verstaan” die verlede, voorspel die toekoms



Hindsight Bias (Agternakennis)

- *“The idea that the future is unpredictable is undermined every day by the ease with which the past is explained.” (Kahneman)*
- Fischhoff & Beyth
 - Koppel waarskynlikhede aan 15 moontlike gebeure agv Pres Nixon se besoek aan China en Rusland in 1972, bv:
 - Sal Mao Zedong instem om Nixon te ontmoet?
 - Sal die VSA en Rusland enige betekenisvolle ooreenkoms bereik?
 - Indien akkuraat voorspel is waarskynlikhede in retrospek oorskat
 - Indien nie gebeur is waarskynlikhede in retrospek as laer onthou

Samesweringsteorieë



Affect Heuristic

Influence of Vaccine-critical Websites on perceived Vaccination risks
Erfurt University (2010)

- Wat dink ek hiervan? (moeilik) → Hoe voel ek hieroor? (makliker)
- *“Judgements and decisions are guided directly by feelings of liking and disliking, with little deliberation or reasoning.”* (TF&S, p.12)
- Inligting tov inenting aangebied via
 - Vakkundige artikels
 - Persoonlike stories
- Deelnemers gevra om hul opinies mbt
 - Risiko en erns van siekte
 - Voorneme om entstof te ontvang
- Kritiese veranderlike – Aantal persoonlike stories eerder as feitelike data
- *“The emotional tail wags the rational dog”*

Availability Cascade

(Cas Sunstein)

- Volgorde van gebeure:
 - Begin met relatief onbenullige storie
 - Deel van publiek reageer (gewoonlik emosioneel)
 - Groter media aandag
 - Groter deel van publiek raak betrokke
 - “Availability entrepreneurs”
 - Wetenskaplike argumente word afgeskiet, individue gedemoniseer
 - “Ons/hulle” narratief ontstaan

Availability Cascade

(“Alar scare”, 1989)

- Chemiese middel om groei van appels te help reguleer
- Media: inname van groot hoeveelhede → lei tot tumore in rotte en muis.
- “...whether it was safer to pour apple juice down the drain or to take it to a toxic waste dump.”
- Lesse:
 - Onvermoë om klein risikos akkuraat te takseer. Ignoreer óf heeltemal of oorreageer (geen nuanses).
 - *“Democracy is inevitably messy, in part because the availability and affect heuristics that guide citizens’ beliefs and attitudes are invariably biased.”(Kahneman)*

Gedragfinansies – wat hou die toekoms in?

- Behavioural Economics & Decision science (Nagraadse kwalifikasie)
 - Ekonomie
 - Sielkunde
 - “Game Theory”
 - “Neuroscience”
- Toepassingsvelde
 - Verbruikersgedrag
 - Politiek en openbare beleid
 - Sport
 - Ekonomie
 - Gesondheid

Slotopmerking

“It has never been my point to say that there is something wrong with people; we are all just human beings – homo sapiens.” (Thaler)

“I often cringe when my work with Amos is credited with demonstrating that human choices are irrational, when in fact our research only showed that Humans are not well described by the rational agent model.” (Kahneman)

Slotopmerking

“The best we can do is to compromise: learn to recognise situations in which mistakes are likely and try harder to avoid significant mistakes when the stakes are high.”

(Kahneman)

Slotopmerking

“So if the entire country became security analysts, memorized Benjamin Graham’s Intelligent Investor and regularly attended Warren Buffett’s annual shareholder meetings, most people would, nevertheless, find themselves irresistibly drawn to hot public offerings, momentum strategies and investment fads. People would still find it tempting to day-trade and perform technical analysis of stock charts. A country of security analysts would still overreact. In short, even the best-trained investors would make the same mistakes that investors have been making forever, and for the same immutable reason – that they cannot help it.”

Seth Klarman quoted in J. Montier : “The little book of behavioral investing” (2010)