RESEARCH INSIGHTS

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Behavioural Economics & Finance
Making Decisions in the "Real" World

Utilising History, past and current events are considered to examine the inner workings of the mind through Psychology, whereby people make decisions and act, subsequently shaping the economic and financial world we live in today.

At a Glance

Finance and Economics, by traditional standards, functions rationally and systematically as a science. People are expected to make financially and economically sound decisions according to such norms. However, that is often not the case.

Rather, when the human element is introduced, decisions made on finance, economics and even life in general are often irrational and inferior. Thereby giving rise to the study of Behavioural Finance and Economics, whereby finance and economics is studied as an art, based on human Psychology and History.

Afterall, History is also made based on man's decisions which is influenced by their underlying cognitive processes. Using events recorded as data in history allows for understanding and introspection into the minds of humans involved from the micro to macro scale, ranging from individuals to organisations such as corporations and government entities, to even the global economy, respectively.

As the saying by British statesman Winston Churchill and variations by Irish statesman Edmund Burke and Spanish philosopher George Santayana, which goes along the lines of:

"Those that fail to learn from history are doomed to repeat it".

- Winston Churchill, British statesman; Edmund Burke, Irish statesman; George Santayana, Spanish philosopher

From that we can understand the importance of reflecting on others past experiences to not repeat them, but the truth is that complacency happens, and history still repeats itself. Why not just leave the human element by taking man out of the equation?

While it is possible when it applies to other issues, when it comes to money matters, the intended purpose of money is only fully realised by humans: the exchange of value in a civilised society in a convenient and frictionless manner.

Finance and Economics are broad topics on their own, finance touching on the applications of money management, such as expenditure, investment, and risk management, whereas economics acts as a social science offering a broad perspective of the trends and behaviour based on economics activities such as monetary and fiscal policies being set as well as supply and demand. Both are hugely intertwined, whereby they influence one another, hence the need to take both into context to obtain a clearer idea of what is transpiring.

Now then, what is the point of studying behavioural finance and economics if it still repeats? Not all hope is lost, for we can see although economics is predictable as a system, in times of crises, such as economic crashes, the cause of the catastrophe is usually one that was unpredictable and previously unidentified. On the other hand, humans are much less predictable compared to the fundamentals of financial and economic theories, but their irrationalities are commonly plagued by the same causes, for they are based on firm cognitive theories of psychology when it comes to making decisions and acting, thereby rendering humans predictably irrational.

By exploring the unexplored and the key driving factor of finance, economics, psychology, history and all the irrationalities experienced unlike normative standards:

man, and his mind

Better insights into the mysteries and intricacies of the mind could be obtained, thereby educating involved parties of such cognitive theories that might result in bad decision making.

Understanding that there are multitudes of psychological theories available, about 305 to count from the website *changingminds.org*, what will be touched on are the foundational concepts and theories of behavioural finance and economics, novel theories, and how it applies to past and current-day events, as well as solutions to avoid mistakes in thought processes and how to make sound financial and economic decisions.

Dual Thought

Speaking of cognitive theories, the mind is often the focus. Humans have come a long way through time in the realm of survival of the fittest, regardless of evolutionary or creationist perspectives, weathering through wilderness and civilisations, coming out on top of the food chain through brains and brawns, especially the intelligence aspect.

Using one of the most intelligent minds to ever live as an example, German physicist and a superior genius amongst geniuses: Einstein, had a supposed Intelligence Quotient (IQ) of 160 - 180. He developed the special and general theories of relativity and won the Nobel Prize in 1921, for Physics for explaining the photoelectric effect. He was that way ahead of time in terms of intelligence that he explained the science behind today's solar energy revolution at the age of 26 which was during 1905, only for the first ever solar cell created that can generate sufficient current to run appliances about 50 years later.

Yet Einstein is notoriously touted as a forgetful individual, constantly demonstrating his poor memory by not remembering his contact number, dates of events and the day itself. There was an incident whereby Einstein misplaced his train ticket, but the conductor allowed him to ride as he recognised Einstein. However, Einstein had to find his ticket as he could not remember which station to alight even then. He had a teacher who referred to his memory being akin to a "sieve".

Now how can a genius like this man be so brilliant and yet that dense? Consensus would think people are one or the other, never both. This contradictory paradox is a phenomenon of the 2 ways of thinking, the Automatic and Reflective systems of thinking.

The Automatic system is subconscious and usually does not require thought. It is the instinctive gut reaction that we usually experience in fight or flight situations, that we are unable to accurately express, yet feel strong, compelling positive or negative emotions towards. It is the part that is regarded as the emotional, "reptilian" side that has not evolved with time, and controls the automatic systems such as heart rate, breathing, body temperature, balance. Parts of the brain included are the brainstem and cerebellum of the reptilian part, as well as the hippocampus, amygdala, and hypothalamus of the limbic system.

The Reflective system on the other hand, is associated with logical thinking, that promotes self-awareness through consciousness. Considered to be developed over time to adapt and meet the demands of constantly evolving situations, the prefrontal cortex and the cerebral hemispheres are responsible for decision making, learning and imagination.

Automatic thinking	Reflective thinking
Uncontrolled	Controlled
Effortless	Effortful
Associative	Deductive
Fast	Slow
Unconscious	Self-aware
Skilled	Rule following

Source: ResearchGate, *Nudge and the Manipulation of Choice: A Framework for the Responsible Use of The Nudge Approach to Behaviour Change in Public Policy*

With the Automatic system in the background, as a mechanism ingrained by nature, it is constantly assessing the environment and sending signals, with majority of mental resources being in the subconscious field, allowing us to navigate life on autopilot most of the time. The issue is when facing situations that require reflective thinking, or rather thinking logically and appropriately quickly such that it becomes second nature and ingrained into the automatic system.

When this is not achieved, the interplay of automatic and reflective thinking results in heuristics, which are rules of thumb that we go by when we have insufficient time, knowledge and resources when making a judgement, which in turn results in biases and fallacies.

Heuristics

Heuristics are mental shortcuts of processing information when it comes to assessing a situation to make a judgement, in addition to humans not knowing everything and being under the pressure of time limits, uncertainty is bound to follow.

Heuristics mainly occur from the Automatic system of thinking when it is not well trained, or even when the Reflective system is not pressured, might make mistakes in judgement due to attribute substitution, whereby the issue may be more complex beyond the person's knowledge capacity.

Thus, the person substitutes the subject topic to one that is related but at a lower complexity for better comprehension to solve the issue. Resultantly, a systematic error in logical thought is present when making the evaluation. Such substitutions will be elaborated below.

Representativeness Heuristic

Representative Heuristic, just as the term, "representative" suggests, refers to comparing a novel idea to standard ideas akin to stereotypes, to make a judgement based on the degree of similarity between the novel idea and the categorical stereotype. The issue with using such a heuristic is that it assumes based on the most similar terms, causing misperceptions in judgement, especially in cases that are not by probability, but random.

Availability Heuristic

This heuristic is commonly used in situations testing the likelihood of its occurrence by availability. Availability is assessed based on how readily the idea comes to mind. Therefore, making the idea more prominent through frequency and intensity can result in it surfacing easier, causing availability and subsequent assessing the likelihood of a situation happening to be more possible which may not be the case.

Anchoring and Adjustment Heuristic

Making a judgement or answer based on an initial value or idea as a base point. The initial idea is the anchor, while the difference from the initial to the conclusion is the adjustment. The person decides if the adjustment is appropriate based on the anchor, which can be an issue if the anchor is totally unrelated to the subsequent final idea as it might affect the conclusion gathered.

Fallacies in Finance and Economics

Arising because of using heuristics and wrong ideas, fallacies are unfounded claims with no evidence, which are illogical and irrelevant to the issue at hand. Some fallacies experienced in finance and economics will be touched on below.

Fallacy of Supply and Demand

With supply and demand being inversely related, when there is more demand and less supply, prices and consumption increases. Vendors seek to capitalise on this normative law by establishing a buyer-seller relationship, marketing, and the use of a combination of compliance techniques, in addition to the anchoring effect. This will result in the law to be exercised in coherence, where its effect will take place normatively on surface. By doing so, it forms an irrational want in consumers, resulting in high consumption despite the expensive price through an artificial high demand.

Vendors first start by understanding their product and which category it belongs to. Next, by being aware of consumers' psychology and wants, marketing will be employed through quality advertisements with good copywriting to bring product awareness to the consumer market and brand it. The product will also be featured in luxurious marketplaces with an exorbitant price tag. Understanding that value is relative to the context, thereby people rationalise an item's value in their own perspectives.

A great example to illustrate this scenario is to compare the designer handbag, Urban Satchel, from the French luxury and fashion brand Louis Vuitton (LV) to a life jacket sold by the French sporting goods retailer, Decathlon, on a cruise trip. Urban Satchel which mainly functions as a space to store items, is small to mid-sized, and the design resembles a shoulder bag, with a narrower breadth, unlike the design of a satchel bag, as its name states. The life jacket on the other hand, saves lives by drown prevention.

On a fine day, the bag may serve its main function, and other purposes like grabbing attention of on-lookers, with its appearance, for being made literally out of bubble gum wrappers, cigarettes, and recycled bottles. It also acts as a symbol of wealth for it costs $150,000, which is the most expensive bag LV has to offer.

Source: Worthly, 10 Most Expensive Handbags in the World

Source: Decathlon, Adult Foam Life Jacket

The on-lookers' impression of the bag will be up to their individual perception, whether the bag is literally made of garbage, and the owner just wasted their money or, the bag is a symbol of sustainability, uniqueness, and a display of the owner's wealth to be able to afford the hefty sum. Whereas the life jacket hangs at the emergency deck on a fine day, as a precautionary measure, costing only $35.

"as one man's meat is another man's poison, so one man's rubbish is another man's treasure."

- William & Robert Chamber, Scottish Publishers

However, in an event of a hazard such as a collision or natural calamities, where the cruise is destined to sink and evacuation is imminent, although the market price of a life jacket is a mere $35, it is more valuable in this context because it will save the user's life, without a life to live, there is no bag to possess, nor a purpose for the bag to serve. This demonstrates that value is contextual, and referring to the theory of relativity, value is relative and can be altered based on the argument on variables involved.

Since the value of an item can be arbitrarily decided, according to everyone's opinions. Vendors will in turn pre-emptively decide on the value of the product, in this case marking the monetary value of the bag unreasonably high, rationalising that the bag represents modernity, sustainability, and celebrities like Anna Wintour and Victoria Beckhams have been chasing after it.

This phenomenon is termed arbitrary coherence, whereby the value of the product is valued without any basis, yet still marketed at a price of consensus, at the consumer's expense. Consumers are not aware, but in turn value the products displayed based on the vendors' valuation as the market price sentiment, to subsequently decide what is worth according to the prior expectation marked by the anchor.

In addition, the compliance techniques, "Foot in the Door" (FITD) and "Door in the Face" (DITF) are in play once the anchor is set.

The FITD technique is in play as consumers already expected the price of a better product would cost more, which demands more compliance, but is in line with the principle of consistency, thereby to get a supposedly better product, they must be willing to pay more, justifying a bigger request.

The DITF technique on the other hand, is the scenario of not turning down the second smaller request. In the case of arbitrary coherence and anchoring in the fallacy of supply and demand, if the buyer is unwilling to pay for a product due to high price, he is much willing to pay the smaller price of a similar product which appears to be a smaller request compared to the more expensive anchor.

As long as the law is maintained with both parties playing their part, the product is marketed as high quality and value, but low availability, consumers will be willing to pay the unreasonably high price as they are unaware of these effects they experience. This also highlights the fallacy of supply and demand as it shows that there are other factors involved other than these 2 variables included in the law, the law is not as normative as it seems. Demand can be artificially manufactured if non-existent, through branding and marketing, and price can be arbitrarily decided, regardless of supply.

"In order to make a man or boy covet a thing, it is only necessary to make the thing difficult to attain."

- Mark Twain, American writer & father of American literature

Biases

Biases are a default cognitive process to trigger an action when facing a particular issue or person. While some biases are regarded as positive as they result in positive action without much consideration, biases should still be noted as the cognitive processes are mainly based on representative heuristics of stereotypes, not a correct actual representation of the situation at hand. Purely relying on biases may result in ill judgement and compromising of values.

Overconfidence bias and Excessive Optimism

Referencing a few studies that conducted surveys on feelings of self-optimism, it is alarming to see an overwhelming majority to be excessively and irrationally optimistic in the domain of ego psychology:

● 93% of American drivers rate their driving skill as above average
● 94% of professors think they fair above the average in terms of teaching skill
● Almost every couple expected their marriage to be lasting (Half of these marriages ended up in divorce)

It is statistically impossible to have almost everyone above the average line, then it would not be average in the first place. These people are victims of the "above average" effect, where they think they fare better than others on average.

Again, no one qualifies as overconfident in traditional economics. In traditional economics, the price is always right when it comes to buying and selling, in terms of efficient market theory, thereby trading volume should be zero. Once again, the situation faced at hand is behavioural economics, and is no different when it comes to investing, overconfidence pervades the market, and the numbers tell for themselves in terms of the increase in number of trades.

Barber & Odean (2000) demonstrates the risks of trading frequently by examining 66,000 brokerage accounts from 1991 - 1996.

Market return was roughly 18% annually during this period. Frequent traders average less than 12% annually, trying to profit by timing the market, whereas those that buy, and hold earned around 18% after paying brokerage fees annually.

In terms of gender, women made better investors, with men being more overconfident, resulting in men having a higher trading volume and taking more risks, with a higher turnover rate of 77%, compared to women's 53%. Once again, the lower trading volume, which is women, had higher profits than men.

"The investor's chief problem -- and even his worst enemy - is likely to be himself. "

- Benjamin Graham, American economist

Illusion of Knowledge and Control

When it comes to overconfidence in investing, the overconfidence is in the information obtained, and the action taken. Thereby the source of information must be considered. Information comes in various mediums, verbal to print to digital. It can be from self-research, or from connections that may be hearsay from the public, otherwise industry professionals. Although it sounds simplified, in today's era of information supplemented by information technology, there is a constant influx and overload of information. Is it really wise then, to be overconfident in the acquisition of having loads of information?

Firstly, the overloading of information and limited timeframe results in mental paralysis, in relation to the brain's processing ability to absorb information. The investor may not be able to make a calculated decision and may ultimately make the same decision as another investor that has lesser or adequate information.

Confirmatory Bias

Nowadays, information comes in the form of facts and opinions gelled together. Framing effects result in information processed to be narrated to suit one's original idea of the situation, confirming it. Such a tendency is termed confirmatory bias.

Oskamp (1965) conducted a study to see the effects of overconfidence affecting accuracy of judgements. Participants who were psychologists, were told to account for unknown details of Joseph Kidd after being given a brief description of him, a 29-year-old, who is a veteran of World War II, single, white, and required psychological intervention.

A total of 4 stages were designed with stage 1 being the base stage for comparison with subsequent stages, stage 2 and 3 had accounts of Joseph's childhood and high school to college experience, respectively. Lastly, stage 4 accounted for Joseph's time in the military till the time now in this study. Results showed that the accuracy of accounting for unknown details of Joseph with relation to his passions, thought processes and behavioural patterns were around 25%, and average accuracy at the end of stage 3 was 28%. Despite the small increase in accuracy, confidence levels increased from 33% at stage 1 to an average of 53% at the end of stage 4.

In addition, the study monitored how many psychologists were changing their minds as more information of Joseph was given, whereby psychologists changing their minds has reduced from 40% in stage 2 to 25% in stage 4.

This demonstrates the effect of how more information causes the illusion of knowledge, resulting in overconfidence, even though more information may not necessarily provide better accuracy in decision making.

Therefore, the validity for being overconfident is unfounded. The drop in changing of minds also represented the effect of the representative heuristic and anchoring effect taking place, resulting in confirmatory bias in the theory of conservatism.

On the type of information gathered, on top of facts and opinions, how does one distinguish between what is objective information and what is just noise? From a non-efficient market standpoint, noise traders tend to make the bulk, often resulting in prices moving irrationally, instead of fundamental valuations. When that happens, a positive and negative bubble forms in relation to a bullish or bearish movement due to noise trading, respectively.

Instead of the type of information gathered by news, it seems that noise traders are responsible for the price movement by trading according to sentiment. For example, if the fundamental value of a stock falls, noise traders can raise the stock price higher due to bullish sentiments. This can happen the other way round, when the fundamental value of a stock is high, but due to public opinion, the masses are bearish of the stock, pushing the price downwards.

This is because news may provide information, however usually not in a timely manner nor the full picture is provided. Only 35% of news regarding valuations are provided by news covering financial markets, which means 65% are unaccounted for. Moreover, as mentioned that price movements are largely due to noise traders, many substantial price changes happen when news is not published. Hence when financially related news is not published timely, the only information available as news is the market movement itself.

Other than gathering information from news, another source of information which although may be unreliable, rumours, which breed from uncertainty, has its roots everywhere. They may come from word of mouth to newspapers and even websites and blogs. A sense of urgency to react is established, with the need to act faster than others to profit. In an environment of stress due to time constraint and worry if information is accurate, rumours go unverified. This causes noise traders to be susceptible to confirmation bias, dilution heuristic and repetition, whereby the unverified opinions crowd and dilute useful information containing objective facts and when rumours are circulated frequently due to repetition, overtime, it becomes accepted as truth according to the illusory truth effect.

Expert Opinions

Since professionals "supposedly" know best, why not take advice from them or engage their services? It is true that receiving education and majoring in the respective fields of study causes one to be more learned, such as a doctor, a psychologist, a dentist, a lawyer, a financial adviser, and a fund manager. And the truth is professionals tend to feel confident in their fields of expertise and everybody loves the feeling of certainty that comes from people that seem to know what they are doing. People who look like they know are positioned as the authority and are not only more sought after, but also paid more.

However, feeling confident and looking like they know what is going on is different from actual aptitude. In fact, the first thing professional investors and advisors should do, is to self-check on their confidence and over optimism.

Is it based on true understanding and knowledge? Or just a front to advance positioning as a salesperson? Just like normal people, experts are also humans, and equally subjected to behavioural and cognitive biases.

Torngren & Montgomery (2010) conducted a study consisting of 2 experiments and 2 groups, the first containing psychology students and the second, stock market professionals comprising analysts, portfolio managers and investment advisors. The 2 groups were in competition to select the winning stock out of 2 options on a monthly basis, for a year. Details of the stock companies were given, such as the sector and past year's performance to help facilitate the choice.

The group of students had a reasonable confidence level of 59% on average of the 2 studies in their choice, as they had to decide based on the given information alone and finance was not their expertise. They managed to choose the correct stock 49% of the time. As for the other group with stock market professionals, they displayed a confidence level of 65% on average in their ability to pick the right stock but picked the right stock only 40% of the time.

The students group pretty much made their choice based on chance and guessing and yet out picked the other group that had a reputation to uphold, hence setting higher expectations, which fuelled their optimism on their judgement. When inquired on the methods to produce their choice, they considered their 'other knowledge' - knowledge that was within their experience and expertise, one that was outside of the study, to be most important in their decision-making process, on top of past performance.

This once again displayed the illusion of knowledge, resulting in unfounded overconfidence. In fact, they did worse than non-professionals. Relating to the previous point, this means that overconfidence does not mean making right choices, it just gives off the feeling of one making sensible decisions. The process performance paradox, which describes the contradictory results of professionals, on how their knowledge and expertise results in their bad performance, and how non-professionals like the students without finance expertise, can further increase their accuracy of making the right choice with additional basic training, supplementing them with just enough knowledge.

Predictions and Forecasts

Additionally, finance professionals, on top of their overconfidence in their expertise, are obsessed with making predictions and projections of the future. Of course, this may be due to a finance perspective of doing things. Finance majors are taught to plan future cash flows based on projections, only to discount it after which, when learning about discounted cash flow. However, it would be wiser to be open minded and consider more perspectives, and if possible, take every perspective into account. Afterall, this is not to determine which discipline is superior, but to make the right choices and ultimately, profit.

Again, assuming from a finance perspective that investment research is conducted, firstly having a market outlook on the economy to predict opportunities for growth, anticipate interest rate movements, gauge the sectors that will be supported by the economy, and lastly the stocks that will thrive in that sector. Notice that the words are all based on projections.

Assuming 80% of accuracy is required in every domain, from a mathematical standpoint, even if the investor succeeds in doing so, there is only a 40.96% chance of getting the forecast right. Do take note of the same results compared to the previous experiment, about 40% making the right choice.

This is of course excluding other factors like sales, taxes, expenses and many more in a typical forecasting model, the more factors, the chance is inversely exponential thereby making it even harder to make a winning prediction.

Ultimately predictions and forecasts are still being made. There is a demand for it, for analysts and fund managers to craft up such reports for their clients as supply, as stated previously, humans enjoy the false sense of security and overconfidence based on having more information, even if the information is useless. They display authority bias towards investment professionals positioned as authority, giving in to their flawed intuition and obeying because it is the authorities and the authorities "know better".

Thing is, they do not, nobody is right all the time. Experts, being well-learned in their fields, are just more effective in allocating mental resources without accumulating cognitive stress when recognising a pattern or idea of expertise. We must not forget the Stanley Milgram experiment, on how far humans can comply, even to betray one's own conscience out of legitimate authority. Not only that, as previously stated, this is the way finance does things - to create projections into the future through financial modelling. If finance were to discard such a way of doing things, finance students would not have much to learn in their syllabus.

Loss Aversion Bias/ Prospect Theory

Humans have an innate desire to chase pleasure but avoid pain. However, in life, rewards usually come with risks. In this case, the desire to avoid pain is stronger for the costs of acquiring pleasure far outweighs the costs of not chasing pleasure. For this bias, the emotion from the pain of losing is felt 2 times more than the pleasure that is obtained.

In terms of finance, the individual may be less willing to invest for fear of capital loss, and more willing to save, without understanding that inflation will cause their value of savings to depreciate. When invested, loss averse people are both risk averse and risk seeking . They tend to seek investments of lower risk even if it gives them a lower return, and when locking in their profits from their investment gains by cashing out their investments, they are risk seeking, for they are unwilling to sell, for fear they may lose out on potential gains, exposing them to greater risk.

Sunk cost fallacy

Another linked theory that is based on loss when invested is the sunk cost fallacy. This fallacy assumes to continue staying in whatever situation one is in, and in the sense of investments, to stay invested. This is in line with the theory of commitment, and since many resources like time, effort and money has been invested, one rationalises that they should stay even if what is invested cannot be regained.

Another theory that causes the investor to be hung up on is the theory of conservatism, whereby perspectives are not easily changed, for power is given to the unregainable resources invested to determine and inform subsequent decisions. When one chooses to bail, feelings of waste and loss aversion arise. As a result, financial decisions made would be lacking proper considerations of the gains of pulling out but fixated on the false narrative of going too far down the road and too late to back out.

Savings, Debt & Expenditure

Up until the 20th century, there was no need to worry about retirement for life expectancy was not long enough for such a term to even exist. With the advancements in healthcare, medicine and improvements in hygiene standards, standards of living increased, naturally longevity followed suit.

When it comes to setting aside money, it seems like a chore to plan for retirement and emergencies, and yet money enters and leaves one's bank account as though it never entered before.

On one hand money's purpose is ultimately a form of value exchange, it is supposed to be spent for one cannot bring it to the grave, it has no use for the afterlife. And yet, money cannot be spent readily as there is no unlimited supply.

Amidst the pandemic, more Singaporeans in their 20s-30s are landing in debt, with overdraft balances and overdraft delinquency rate rising by 23% and 12.8% in the first quarter of 2021, respectively.

This has to do with the idea of gratification, procrastination, and a case of financial myopia. As humans that are unable to foretell the future, usually what comes to mind are what can be seen and felt at present, and as mentioned about the marketing and advertising being rampant in addition to the use of technology, everyone is filled with temptations to spend their money now. Not only that but having low impulse control and giving into temptations excessively results in overspending on credit, landing many in debt, eventually spiralling out of control.

It is not entirely irrational however, for the reason of such short-sightedness. Instant gratification seems to be the better choice as the future is uncertain, in relation to loss aversion, whereby the reward is not guaranteed. Moreover, any loss from devaluation of money cannot be felt as strongly at present. To deal with this problem, start slow, allocate a comfortable portion, and develop a habit first when it comes to savings, to increase allocation for savings as income increases, this prevents compromise of lifestyle and budget, nor does it trigger loss aversion in terms of income. This addresses the problem of willpower and shifting momentum.

Modern day problems require modern day solutions. Accountability applications track spending and ensure the goal to not overspend is met. Goal setters make a pledge with the app and a friend to be accountable to, with an amount that would be painful to lose.

Utilising operant conditioning, there is negative punishment whereby the pledged amount will be deducted and negative reinforcement for the individual will do his best to avoid losing money. Overspending and incurring debt is framed as detrimental to one's immediate and future, and loss aversion is reframed to help save instead of spending. Focusing on the present and immediate future kills uncertainty and provides a clear goal to work towards.

Rise of Meme Stocks

During the Coronavirus Disease 2019 (COVID-19) pandemic, most people were confined in their homes due to imposed lockdowns. There were a few phenomena observed, namely the rise and evolution of social trading and meme stocks. Although Social trading platforms like eToro have been around since 2007, it has undergone a transformation to go online and establish itself as a platform for socialising and viewing others' portfolios in an environment of transparency. Social traders have a better performance when with a clear geographical focus compared to the benchmark. Also, best performing social traders reflect better investment management as signal providers.

Trading discussions on ideas are conducted on online forums such as WallStreetBets, a subforum of Reddit as the new norms. Opposing traditional investing, meme stocks is a novel phenomenon of retail investors banding together through transparency and public sentiment to drive up the price of stocks that are promoted and hyped, beginning with GameStop (GME) via the online broker platform, Robinhood.

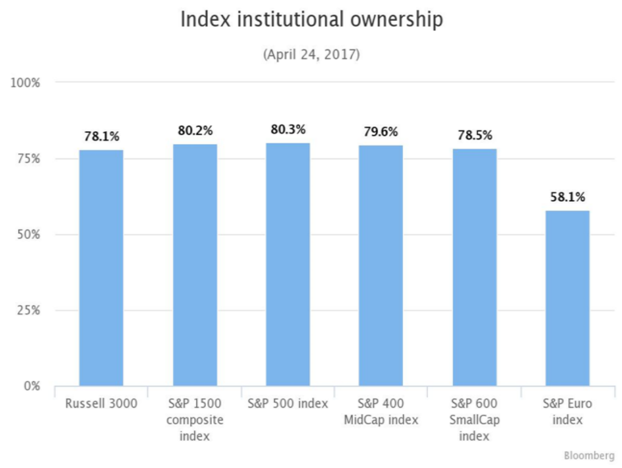
Narratives like "retail versus institutional investors", "Day Traders versus Short Sellers" and "David versus Goliath" were generated, as the public outsmarted the experts, causing hedge funds intensified losses of billions of dollars through risk of infinite loss by shorting.

Power of the "Masses" Drives the Market

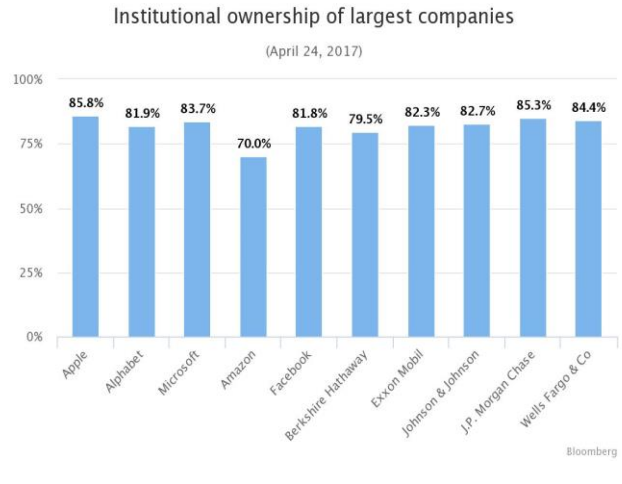
As the saying," The power of the masses, drives the market", shows the supposed influence of the larger number of traders and the trading volume capable of producing. Such displays are a symbolism of the herd mentality, which is to conform to the majority in a group. However, following blindly like a sheep according to herd instinct is unwise, because in group psychology, the groupthink effect is present.

With the hopes of maintaining harmony, a group tends to conform to a decision without critically analysing the situation. Of course, such instances of institutional investors losing and retail traders profiting triumphing, as most retail investors are sheep-like and merely following the herd, without doing due diligence or proper strategies, they become emotional and anxious, often resulting in undesirable losses.

And from the perspective of wordplay, when it comes to masses that produce power to drive the market, what defines masses? Is it merely the larger number of retail investors compared to institutional ones? Rather the larger number can only be utilised recently only because of a common ground such as social media and social trading platforms for the public to come together, otherwise previously, retail investors have always been decentralised and divided, unable to unleash the power of masses in terms of quantity. Rather, I would like to propose another idea, that the masses refer to the flow of investments. Even though institutional investors are fewer in number, they account for 70% of the total trading volume, and increased their Assets Under Management (AUM) to an amount of US$111.2 trillion globally in 2020.



Source: Pensions & Investments, 80& of Market Cap held by Institutions



Source: Pensions & Investments, 80& of Market Cap held by Institutions

Dominance of Institutions

The tides have turned as institutional investors own 80% of equity market cap, playing an important role in the investment culture, whereby the gap between staff and boss is narrowed, for workers indirectly own the company in terms of pension contributions, work insurance and distributed shares. Examples of such institutions is BlackRock, which AUM recently passed $10 trillion.

As investments are largely capital dependent, the retail investor has all odds stacked against them, as institutional investors have a better investment flow, such that they can take on more leverage and risks, exponentially increasing profits. Furthermore, although the use of hedging may reduce risk at the expense of gains, but ultimately still profit, whereas the average retail investor may profit small, but lose big.

Stock Market Manipulation

Lastly, the point that is frowned upon, but admitted by American TV personality and ex-fund manager, Jim Cramer on video interview: stock market manipulation. As mentioned earlier regarding the stock market cap, not only that ownership mostly belongs to institutions, also it is relatively small and less liquid compared to other markets like Foreign Exchange (FX), allowing for monopoly and control with relatively low risks compared to trying to control the FX market. Moreover, institutions' purpose in the stock market is to profit, and where there are winners, there are also losers.

Their involvement in the FX markets, however, is to hedge against currency and interest rate risk, as well as to speculate events and diversify portfolios. Hence, making institutions try to profit from the stock markets no matter what, such as finding loopholes to prevent legal action when manipulating the stock market. Strategies such as shorting and distorting, pumping and dumping and fomenting to create volatility through uncertainty and division of sentiment, were employed according to Cramer's revelation on his time as an institutional fund manager.

The degree of choice is further lowered, when institutional investors must fulfil a quota to uphold its reputation, causing them to overcommit in their trades to maximise profits, especially if they have been making a loss previously. This exposes them to huge risks which might result in even larger losses. Thereby the feeling of no choice, but to do whatever it takes to profit, even if it means making unlawful decisions.

He quoted examples like manipulation of the Apple (AAPL) stock, through instigation to generate a sentiment that something is happening, by creating a story about telecommunication services, Verizon and AT&T disliking the iPhone. Such narratives are further backed up with credibility when the media craves for juicy news about Apple, but Apple does not provide statements nor clarifications, thereby the media just publishes such rumours instead of real information. Cramer would make the rumours congruent by crafting a situation of large amounts of puts being bought.

This is to create a version of truth that is advantageous to hedge fund managers, because if the market functions where news is delivered timely, and truths are nothing but the objective facts, there would be no money to be made, only exchanges. With news that seem credible, actions on the ground that seem congruent, it is no wonder the clueless retail investors would fall prey to the manipulation, losing in the exchange.

Although Laurel Fitzpatrick, Ropes & Gray's lawyer, stated that most hedge funds are not conducting such practices, nor has the US Securities and Exchange Commission (SEC) taken any action, either due to unclear regulations or incriminating evidence.

This does not deny the fact that institutions have the power and capability to engage in such activities, on top of the odds being already highly stacked in their favour. The SEC should take regulations seriously, in light of the cause of the 2008 Financial Crisis, which economics professor at the University of Cambridge, Martin Daunton puts it perfectly,

"Excessive financial liberalisation from the late 20th century, accompanied by a reduction in regulation, was underpinned by confidence that markets are efficient".

Unfair Treatment

Though Jim Cramer alluded to his involvement in market manipulation, the issue would be confirming his statement and his trading records. Overall, there was no action taken against him. Regarding the GameStop saga, differing opinions ensue as legal expert in securities law, Gabriel Rauterberg, found it hard to prove it was direct manipulation, whereas some highlighted instigation in the WallStreetBets forum to hike the GameStop's price and put pressure on the hedge funds.

However, regardless of reasons, actions were taken on retail investors, limiting hedge fund losses, and putting a stop to trades on GameStop stocks. But rarely is action ever taken against institutions. Senator of Ohio, Sherrod Brown sums it up nicely,

"People on Wall Street only care about the rules when they're the ones getting hurt. American workers have known for years the Wall Street System is broken - they've been paying the price," and "It's time for the SEC and Congress to make the economy work for everyone, not just Wall Street".

When it comes to investing in the stock market, if retail investors cannot win against them, why not work with them, making it a win-win situation even if the win is smaller, but is still better than a loss.

With regards to opinions on meme stocks, 2 phrases describe it best: ***"With volatility comes opportunity"*** and ***"one man's trash is another man's treasure".*** What traditional investors may regard as risky, a bubble and basically not really in favour of, somebody else may be appreciative of. Same goes to phenomena like cryptocurrencies. They are here to stay, we should keep up with times and stay relevant, whether we embrace them or not.

Conclusions

Through the study of behavioural economics and finance a common trend is identified, and that is the rose-tinted view of life humans tend to have. The theory of overconfidence bias and excessive optimism may be absent from a traditional economics perspective, but just as behavioural economics and finance is studied, it brings the point to consider all perspectives with an open mind. This is to marry theory and reality together, for what use is theory, if it cannot be applied? Man are not completely rational, neither are the markets fully efficient as traditional economics describes, many acts done are not mainly only for one purpose. The Urban Satchel bag is not just bought to carry items, but in other means it acts for aesthetic purposes, highlights individuality, sustainability, modernity and reflects buying capacity to afford the bag. Food is not just eaten to curb hunger and survive, but also for the tasteful pleasure that arise in the taste buds, such that overeating often happens, causing obesity which may be detriment to health, yet it often happens. This, is behavioural economics, and behavioural finance in action.

Writer's Opinions

Human Condition

The common man walking earth now, are homo sapiens, not the homo economicus that is commonly depicted in economics textbooks. As such, sayings like "To err is human" is very characteristic of homo sapiens. Of course, in this case, the errors do not refer to one of intentional malice, but unintentional failures, being deceived and the making of mistakes out of self-weakness.

To acknowledge mistakes is one, one still must acknowledge self-weakness and to strive to make as few mistakes as possible. For when it comes to living a satisfactory life, one of the main concerns is to make right decisions while avoiding bad ones, those that are illogical, irrelevant, and irrational.

The key issue then is the blind spots, biases, misunderstanding and hindered judgement that arise from the illusion and lack of self-awareness which arise from excessive self-exaltation. Therefore, phrases like,

"Pride is the Devil", "Pride is the Deadliest Sin" and "Pride is the Downfall of Man"

were produced. Surely, they had religious connotations behind them, but it also points out the human condition, where pride and ego pervade the whole of humanity, in varying degrees.

Through this piece written, may readers be aware of this condition they are in, for that is the first step to becoming less wrong, for it is impossible to be perfect or right all the time. As this is a piece on finance and economics, some opinions related to these topics will be given. When it comes to making decisions on a whim due to unfounded information, sometimes is best to slow down to avoid committing biases.

As mentioned earlier, information may not be processed properly due to time and pressure, causing the use of mental shortcuts to decide. If rules of thumb must be used, then the rule of thumb to respond and not react, seems appropriate in this circumstance.

Sometimes it is better to take a step back and not act at all, so that the next time, better actions can be taken. If one decides to act now, and makes a mistake, there would be no reflection as a feedback loop to change the action. Every time a hasty decision is required, the same mentality and action is taken by default. It is true that people learn from failure, but time is needed to reflect and process the failure by the mistake to grow.

When it comes to risk management on investments, it is important to understand one's personality and attitudes to risk. Do up a proper accounting of dependants, assets, liabilities, and cash flow.

Determine objectives such as the desired financial goals, strategies, horizon, expected and intended legacies and ensure they are congruent. When investing, practice logic, and not become an emotional investor. Do not chase trends or exhibit the shiny object syndrome.

Stay focused and remain firm on fundamentals and strategies and not on fluff and rumours. But also, be flexible and open minded to consider various options and perspectives. To determine the validity of information provided, one can reframe their innate loss averseness to motivate them instead of being in denial. to not want to make losses, thereby having to be correct in their decisions.

And that is to avoid confirmation bias and try as hard to disprove one's theory and decision. The more one is unable to disprove one's idea, the stronger the validity of the idea and instead of trying to be right, try not to be wrong. On seeking expert opinions, be counter-intuitive and search for the humble professionals, for real professionals who know their stuff are aware of the threat of being overconfident, which helps in impression formation, but not in exactly delivering results.

By looking at the actual abilities and not the feeling of certainty based on fluff, one is convinced rationally and not emotionally and can be sure to not be swayed to buy their products or engage their services.

Through this advice, may you walk life's journey making the right financial decisions.

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