Lessons from behavioural economics

Behavioral economics, along with the related sub-field behavioral finance, studies the effects of psychological, social, cognitive, and emotional factors on the economic decisions of individuals and institutions and the consequences for market prices, returns, and resource allocation, although not always that narrowly, but also more generally, of the impact of different kinds of behavior, in different environments of varying experimental values.The behavioural biases are the important issue that are ingrained aspects of human decision-making processes. Many of them have served us well as ways of coping with day-to-day choices. But, they may be unhelpful for achieving success in long-term activities such as investing. Moreover, behavioural biases can cause significant problems that financial markets, left to themselves, will not solve.

Why are there more behavioural problems in financial services?

- Many products are inherently complex for most people.
- Many products involve trade-offs between the present and the future.
- Decisions may require assessing risk and uncertainty.
- Decisions can be emotional.
- Some products permit little learning from past mistakes.

How people make decision

Mostly, people have two modes of thought: intuition and reasoning. Intuition is a process that gives the ability to know something directly without reasoning. For example, if there is a stranger nearby your house, you will know that you need to prepare to protect yourself from the dangerous situation. In contrast, reasoning is much slower thinking and must be deliberately controlled.

Both systems will be used when people are making a decision, but the reasoning often accepts the answer from the intuitive processes which are the

choices that we make in everyday life. However, there are some biases in making decision with our intuitions.
Some people mistakenly believe their intuitions and ignore their biases. For example, some genious people may be blind to other words and think that they always correct.

Types of behavioural bias

There are many behavioural biases and a good classification of biases should help guide toward the underlying causes of a problem and lead to solutions. Besides, there are three categories of biases which are based on preferences, beliefs, and decision-making processes. For preferences, they are affected by emotions and psychological experiences. Beliefs are often formed by implicit, unreliable rules of thumb. Decision-making processes for making a choices which often occur by adopting unreliable decision-making shortcuts.
Therefore, the three components are classification of biases arising from different intuitive processes, however, biases still might be difficult to categorise.

Biases and consumer behaviour in retail financial markets

The central role of biases in retail finance

• Most consumers find financial products complex. Making financial decisions is hard, unpleasant and time-consuming. Financial products have little inherent interest for most people and practical cognitive limitations, e.g. with numeracy and literacy, make many product concepts and descriptions difficult to understand.

• Many financial decisions require assessing risk and uncertainty. People are generally bad (even terrible) intuitive statisticians and are prone to making systematic errors. The influences on assessments of risk and uncertainty in insurance and investment markets may be subtle and opaque even to experts.

• Financial decisions may require making trade-offs between the present and the future. Saving and borrowing decisions, for instance, often give rise to self-control problems and may result in procrastination, e.g. consumers may over-borrow on a credit card and then not pay it back when they originally intended to.

• Many financial decisions are emotional. Emotions such as stress, anxiety, fear of losses and regret can drive decisions rather than the costs and benefits of the choices, e.g. fear might drive the purchase of an expensive insurance policy for a mobile phone that is very unlikely to be needed.

• It can be difficult to learn about financial products. Some financial decisions, such as taking out a mortgage or planning a pension – are made infrequently and with consequences revealed only after a long delay.

Important behavioral biases and effects in retail financial services

The key behavioural biases that affect consumer decisions about financial products can be divided into 3 categories

• Preferences - including Present bias, Reference dependence and loss aversion, Regret and other emotions.

• Beliefs -including Overconfidence, Over-extrapolation, Projection bias.

• Decision making -including Mental accounting and narrow framing, Framing, salience and limited attention, Decision-making rules of thumb Persuasion and social influence

The effects of behavioral biases in retail financial services

• Preferences

Present bias - people can have excessive urges for immediate gratification, overvaluing the present over the future, e.g. over-borrowing, buying a tablet-PC now using a payday loan without thinking much about how you will pay for it.

Reference dependence and loss aversion - consumers may not assess outcomes in their own right, but rather as gains and losses relative to a reference point. So,

consumer choice can be unstable and vary depending on which reference point is chosen, e.g. perceiving add-on insurance as cheap because it is sold together with something that has a comparatively much higher price.
Regret and other emotions - People may act to avoid ambiguity or stress. Their choices can also be distorted by temporary strong emotions, e.g. buying expensive insurance for peace of mind, even though you are very unlikely to need it.

• Beliefs
Overconfidence - often people are overconfident about the likelihood of good events occurring or their own ability, including the accuracy of their judgements, e.g. excessive belief in your own ability to pick winning stocks

Over-extrapolation - people often make predictions on the basis of only a few observations, when these observations are not representative, e.g. using just a few years of past returns as a basis for judging future returns and making investment decisions, without considering the extent to which past returns reflect chance and particular circumstances.

Projection bias - people expect their current tastes and preferences to continue in the future and underestimate the possibility of change, e.g. tying up funds in long-term contracts without adequately considering the chance of needing money in difficult circumstances before the contract mature.

• Decision making

Mental accounting and narrow bracketing - mental accounting describes how people treat money allocated for different purposes differently, rather than treating all money as the same, e.g. people may have different ‘mental accounts’ for saving and borrowing, saving at a low rate while borrowing at a high rate. While Narrow bracketing describes how people often consider the decisions they take in isolation, without integrating these decisions with other decisions that affect their overall wealth and level of risk they take on, e.g. making investment decisions asset-by-asset rather than considering the whole portfolio.

Framing, salience and limited attention - as people have limited attention, framing and salience can determine what information is processed and how that information is processed. Attention is also drawn to particularly salient aspects of a situation, which can then have a marked influence on choice, e.g. overestimating the value of a packaged bank account because it has been presented in a particularly attractive way that highlights benefits and under-emphasises charges

Decision-making rules of thumb - consumers simplify complex decision problems by adopting specific rules of thumb (heuristics), e.g. allocating the pension pot equally across all investment funds available in a pension scheme rather than making a careful allocation decision.

Persuasion and social influences - emotions and norms in social interactions are important: consumers may allow themselves to be persuaded or trust the salesperson because he or she comes across as 'likeable' and therefore trustworthy, e.g. relying on financial advice because the adviser is likeable, without giving thought to the effect of commission or other economic incentives for the adviser on the advice they receive.

Biases, firm behaviour and competition

How firms shape consumer choices

Firms play an important role in shaping consumer choices through their product design, marketing and sales process. However, firms may also play the opposite role which use behavioural insights to help individuals to relate with financial services. Furthermore, firm will make their product design to be more understanding for consumers and use marketing and sell tactics that do not biases. In addition, consumers might interact with the firm through channels that offer a better consumer experience or are cheaper to use.

The framing effect provides some of the most important means by which firms can shape consumers' financial decisions when distributing products. So it is useful when analysing product promotional materials, disclosure and advice.

Biases and competition

One of the key insights of behavioural economics is that firm business models that shape consumer may be sustainable even in a competitive market, here meaning a market lacking conventional 'market power'. Several reviews of the literature on interactions between behavioural biases and competition have been published. These show that traditional competition policies, such as increasing the number of competitors, introducing simple products or simplifying existing products, may be ineffective or even counterproductive as long as other products that exacerbate biases are offered in the markets or the underlying biases are not addressed. Based on current academic research, here we discuss the five main implications of behavioural biases for competition.

1. Behavioural biases may create or strengthen market power in what would otherwise be a competitive market.

Because of biases, consumers tend to stick with their existing products, do not search enough, do not search based on the most critical product characteristics, and do not switch to better offers.

2. Pricing practices may be more complex than necessary and lead to mistakes.

Consumers often make predictable mistakes when encountering complex pricing schemes. These mistakes make them vulnerable to firms deliberately complicating their pricing schemes, for example through drip pricing or teaser rates.

3. Products may be spuriously differentiated and not serve consumer needs. As behavioural biases often affect how consumers value products, firms may end up offering products that appeal to consumers but do not actually serve their needs well.

4. Entry of more firms will not necessarily mitigate practices that trigger biases and may even make them worse.

Entry of more firms into a market will not improve outcomes for consumers if firms still compete on an exploitative basis. Offering low credit card teaser rates but high hidden charges, may mean more firms enter and draw teaser rates down. But this may not prevent detriment due to high hidden charges, as long as consumers keep choosing products in the same way.

5. The presence of sophisticated consumers may not always lead to better outcomes for biased consumers.

It may appear that if at least a small proportion of consumers are sophisticated, then these consumers will discipline firms, causing competition to work better and fewer products that exacerbate biases to be sold to the less sophisticated consumers.

6. Firms' decisions might also be distorted by biases.

Although in this paper we discuss firms as rational agents, it is worth noting that in practice they are run by fallible humans who are also prone to biases.

Understanding the root causes of problems

There is three main reasons that we should investigate the problems of consumer is that, first it is not always clear that consumers are making mistakes at all, second choices that are not reasonable could be caused by different biases that require different interventions and third biases are often not the only sources of

problems in retail financial markets and interact with competition problems. These reason consider the failure of market be the FCA's policy.

To understanding the root causes of behavioral problems this section will focus on consumer biases, the key behavioral implications for analysis of root causes for firm-specific and market-wide problems. Any investigation need to consider that consumers is choosing reasonable or not. If they could this would be hard for us to intervention in consumer choices and they can easily misunderstand also can harm consumers. To help whether consumers are making mistakes depending on consumers making self-contradictory choices, consumers' choices changing in response to variation in irrelevant factors, purchases based on clear misunderstanding of the available facts and consumers choosing a clearly inferior product over an easily available alternative. For example putting spare money into a zero-interest which consumer would earn nothing from it, a consumer might hold a structured product thinking it protects from capital losses but in real can expose to risk.

Even after concluding that consumers are making mistakes because of behavioral biases but if consumers are biased, what do consumer really want? We can see in real world people can easily change their mind just because when marketing literature presented in different way consumer choose a different product from the first, even with no relevant change in the information presented. Since we can's observe the true preferences, so look through the evidence to determine consumer choices by comparing experienced and novice users, as experienced users are less prone to mistakes, passive and active choices and stated and revealed preferences also look for choices contradict very reasonable and rather uncontroversial assumptions about what people value.

Analyzing firm-specific issues, supervisors need enough information to consider the questions of consumer and true preferences need to include creditability of firm, consumer research and data analysis, data to look for more risk triggers. For all these information next step is to find out what consumer choices which consumer biases are being targeted? So the firm need to provide this

evidence. We might also want to consider the full range of options open to the consumer in the market, not just from one product provider, to evaluate whether choice is reasonable. When responding to behavioral risk triggers in a firm it is also necessary to check whether the risky product feature or practice is common to a number of firms or even is market-wide. For the market-wide issue, need to gather the evidence like firm-specific. One key difference from the firm-specific is that exploring the reasonableness of consumers' choices and their true needs in a market-wide analysis of underlying problems can require collecting first-hand data from consumer research or experiments

Randomized Controlled Trials (RCTs) is another direct ways of getting evidence on consumer choices which is the test about how people respond to remedies of the possible causes of problems and what remedies are more likely to work in practice. This can help to understand to root causes of problems more easily than the following ways.

Designing effective intervention

There are four main ways which the FCA could intervene when customers are at risk of harm because of biases;

1) Provide information
2) Change choice environment
3) Control product distribution
4) Control products

The first one is to provide better information. When customers have a hard time to understand or evaluate products, one solution is to provide smarter information. Behaviour insights help to design information differently. It can be applied in practice in several areas at the FCA: *Supervision*, behavior insights tell which information are misleading given to customers. *Policy*, ex. 'midata' initiative is the idea to give new

right to customers. Allow them to gain greater insight. *Enforcement*, Behavioural insights can be used to make the communication.

To change choice environment, using existing consumer rules of thumb can materially affect choices e.g. pick the first product on the list. Make what matters more salient and frame it in the right way, the prominent the numbers are display and in what order can have a large effect when consumers compare options. People also stick with the default if they perceive it as device. By changing the default, one can nudge consumers towards more beneficial choices.

The control of product features and distribution, consumer protection considerations may require the FCA to intervene by restricting or banning certain product distribution channels, product features or even the products themselves. Product intervention could include complete bans for certain types of product that are likely to cause customer detriment. Also, products controls could include inquiring products to certain specific features or options. For examples, the credit card could require that consumers can be able to choose their spending limit, or current account providers that will alert consumers when their account balances go below the certain levels.

If consumers' behavior is predictable, it is easily to make a scope for a regulation to intervene with their predictable mistake. However, one of the key insights from behavioral economics is that consumers do not always act in their own best interest.

The crucial point arising from the market failure analysis (MFA) is that the option selected must correct the relevant market failures, the intervention must be designed to offset the effects of the failures identified. The role of Cost benefits analysis (CBA) is to inform a decision on which of the options available is likely to secure the best balance of costs and benefits. The FCA can use the four complementary approaches to estimate the impacts of policies 1) descriptive analysis 2) measuring financial gains and losses 3) subjective well-being analysis 4) behavioural welfare analysis. These approach can provide a realistic picture of the

impacts of policies. As people can respond to policy in unpredictable ways; so it will be vital to use a good evidence on consumer behavior

The following is an example of some of the anomalies for which it directly violate modern financial and economic theories, which assume rational and logical behavior found in the financial world.

Over use credit card.

Overusing of credit card is the good example for the bad behavior bias which influence to negative financing decision.

This behavior reflects the bad bias of people which is
1. Buy now, pay later : When you don't pay cash at that moment in time, "The mind is almost saying 'I'm getting it for free,' leading to spending more.
2. The value of now vs. later :Human being typically prefer the immediate reward.
3.Hot states and big debt : Consumers are driven by emotion, not thought.

The remedies.
1 Make a good plan control yourself to saving for future
* For example invest in bond or pension fund
2 Change the choice environment
* The more credit card, The more chance for use it
3 Looking carefully in information
* Receiving the right information such as real cost of use credit card it might make you aware more and deal with you bias better.

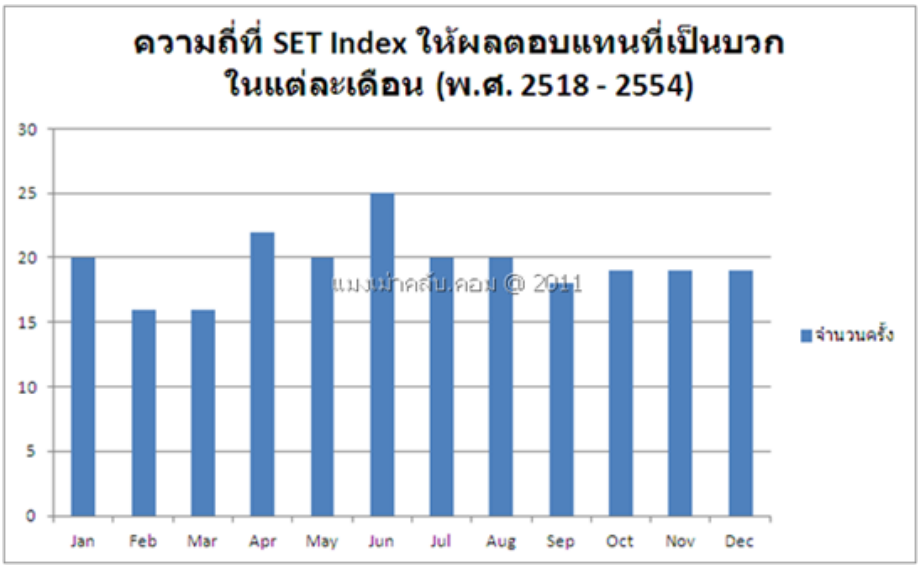
The January effect

January effect is the example of behavioral finance which is applied from behavioral economics. Investors have the belief that the stocks would generate higher profit return than the other month. At the end of the year, many stock are adjusted and those may have sold in December and buy back in January. However, duration of the January effect is quite ambiguous because some said the duration of January effect is one week or one month.

Is it true that we can easily get high profit return on January? - This is the statistic of the monthly return of SET Index since 1/1/2518 – 1/1/2554 (totally 36 years

Year	Jan%	Feb%	Mar%	Apr%	May%	Jun%	Jul%	Aug%	Sep%	Oct%	Nov%	Dec%	Yr. Profit%
1975				0	-10.02	1.84	6.96	0.38	-6.39	-1.09	-2.23	-5.61	-15.93
1976	-1.81	-2	-4.12	4.04	-3.2	-0.63	0.97	1.96	-0.34	0.54	0.72	2.52	-1.64
1977	5.88	2.74	8.59	3.64	2.87	8.95	12.63	17.43	-0.09	28.47	-5.28	-0.48	119.59
1978	10.7	0.52	-6.65	-3.3	3.03	1.11	-2.76	5.1	6.57	17.36	-1.26	7.48	41.94
1979	-6.95	-4.33	-4.94	-19.35	4.46	-4.43	-0.28	-2.39	-0.93	-6.41	-3.8	-2	-42.03
1980	-8.41	0.78	0.25	-6.24	-4.26	2.98	-0.94	-4.94	-1.24	0.14	7.43	-2.51	-16.55
1981	1.77	0.13	-2.16	-2.16	-3.81	-3.91	-0.71	-6.21	0.42	-0.08	3.15	-1.6	-14.48
1982	0.14	-0.57	-3	1.85	0.9	0.74	1.45	14.73	1.73	0.99	-5.22	2.2	15.83
1983	1.86	-0.61	5.04	4.52	0.56	1.33	6.06	-2.45	-1.86	-2.42	-1.65	-1.35	8.88
1984	-0.52	-1.77	-1	2.03	-0.82	1.14	-0.68	0.49	0	2.22	5.43	-0.65	5.82
1985	-1.86	-0.13	4.04	4.16	2.57	0.11	1.86	-4.66	-2.63	-0.43	-2.74	-5.04	-5.16
1986	3	-1.8	-4.84	-0.31	-0.31	1.86	6.08	7.38	8.41	13.16	1.46	11.12	53.54
1987	1.31	-0.54	9.67	9.27	7.55	11.45	4.69	12.49	21.25	-29.98	-3.14	-1.89	37.52
1988	11.88	17.58	3.75	6.43	2.66	6.54	0.95	-4.48	1.85	-5.82	-6.18	-1.56	35.72
1989	12.14	0.48	1.17	13.46	10.46	9.71	2.96	9.26	1.11	0.8	10.77	14.21	127.34
1990	-2.9	-4.69	4.65	0.52	17.17	5.71	5.24	-22.67	-25.64	1.22	-16.18	12.6	-30.29
1991	7.44	16.81	12.56	1.19	-7.74	-5.32	-4.77	-3.16	-4.94	-4.76	5.05	6	16.07
1992	7.32	2.54	5.09	-7.51	-9.48	9.09	-0.94	0.28	13.46	11.02	-7.99	3.26	25.59
1993	9.07	-3.78	-7.72	-2.3	-2.32	6.27	5.78	3.77	0.86	29.8	3.89	28.47	88.36
1994	-11.25	-8.07	-9.68	2.15	7.12	-6.16	8.13	10.75	-2.57	2.9	-10.88	-0.17	-19.18
1995	-10.47	5.81	-5.57	-0.66	15.19	0.18	-0.84	-4.93	-1.57	-1.81	-5.83	7.04	-5.83
1996	10.11	-6.27	-2.43	0.22	1.49	-4.94	-14.68	3.6	-0.3	-17.17	1.72	-10.19	-35.07
1997	-5.23	-7.67	-3.04	-6.26	-14.35	-6.91	26.24	-24.55	8.42	-17.87	-11.57	-5.76	-55.18
1998	32.88	6.7	-13.12	-10.23	-21	-17.89	-0.23	-19.57	18.31	30.52	9.52	-1.93	-4.53
1999	2.02	-6.08	3.25	30.49	-1.25	15.03	-12.45	-3.62	-11.53	1.56	6.72	14.17	35.44
2000	-0.9	-21.62	6.95	-2.48	-17.19	0.74	-12.59	8.14	-9.92	-1.97	2.24	-3.14	-44.14
2001	23.62	-2.27	-10.23	2.98	3.16	4	-7.71	12.72	-17.44	-0.7	10.01	0.41	12.88
2002	12.17	9.09	0.58	-0.68	9.84	-4.62	-3.36	-3.95	-8.13	7.41	2.4	-2.31	17.32
2003	3.8	-2.35	0.89	2.77	7.79	14.36	4.83	11.07	7.68	10.44	1.03	19.52	116.6
2004	-9.49	2.49	-9.63	0.13	-1.1	0.87	-1.54	-1.9	3.21	-2.56	4.55	1.73	-13.48
2005	5.06	5.65	-8.1	-3.32	1.32	1.19	0.03	3.28	3.64	-5.62	-2.18	6.89	6.83
2006	6.85	-2.44	-1.45	4.78	-7.66	-4.41	1.97	-0.09	-0.69	5.3	2.3	-8.01	-4.75
2007	-3.8	3.53	-0.51	3.78	5.47	5.34	10.68	-5.41	3.97	7.31	-6.71	1.38	26.22
2008	-8.61	7.85	-3.4	1.89	0.14	-7.8	-12.01	1.2	-12.84	-30.18	-3.53	11.97	-47.56
2009	-2.73	-1.41	0	13.95	13.98	6.61	4.44	4.69	9.77	-4.44	0.56	6.6	-63.25
2010	-5.17	3.56	9.23	-3.11	-1.71	6.25	7.34	6.7	6.8	0.94	2.1	2.93	-40.85

The graph shows the frequently return of SET Index since (30 April 2518 – 1 January 2554)

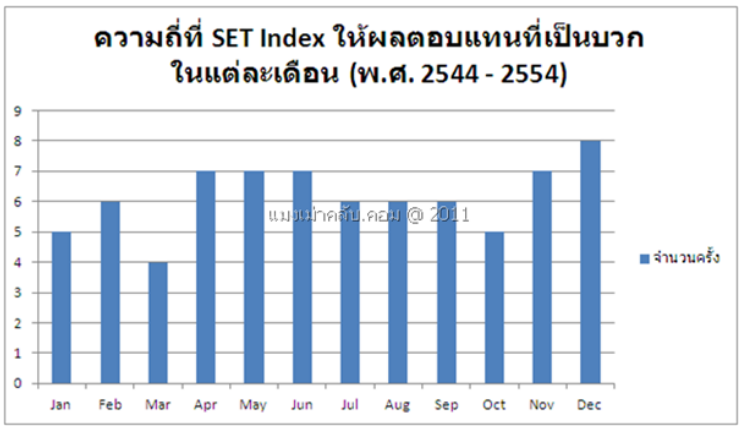


According to the graph shown, SET Index generated positive return about 20 times in 35 years (54.14 percent) represent reliability that is not different from the probability in tossing coin. Hence, Investors are deceived from the market. Almost of them just believe what they only want to believe that is kind of behavioral economics.

Supporting the result, we would like to focus SET index for 10 years. This is monthly return in SET Index since 1/1/2544 – 1/1/2554 (totally 10 years).

Year	Jan%	Feb%	Mar%	Apr%	May%	Jun%	Jul%	Aug%	Sep%	Oct%	Nov%	Dec%	Yearly%
2001	22.33	-2.27	-10.23	2.98	3.16	4	-7.71	12.72	-17.44	-0.7	10.01	0.41	11.7
2002	12.17	9.09	0.58	-0.68	9.84	-4.62	-3.36	-3.95	-8.13	7.41	2.4	-2.31	17.32
2003	3.8	-2.35	0.89	2.77	7.79	14.36	4.83	11.07	7.68	10.44	1.03	19.52	116.6
2004	-9.49	2.49	-9.63	0.13	-1.1	0.87	-1.54	-1.9	3.21	-2.56	4.55	1.73	-13.48
2005	5.06	5.65	-8.1	-3.32	1.32	1.19	0.03	3.28	3.64	-5.62	-2.18	6.89	6.83
2006	6.85	-2.44	-1.45	4.78	-7.66	-4.41	1.97	-0.09	-0.69	5.3	2.3	-8.01	-4.75
2007	-3.8	3.53	-0.51	3.78	5.47	5.34	10.68	-5.41	3.97	7.31	-6.71	1.38	26.22
2008	-8.61	7.85	-3.4	1.89	0.14	-7.8	-12.01	1.2	-12.84	-30.18	-3.53	11.97	-47.56
2009	-2.73	-1.41	0	13.95	13.98	6.61	4.44	4.69	9.77	-4.44	0.56	6.6	63.25
2010	-5.17	3.56	9.23	-3.11	-1.71	6.25	7.34	6.7	6.8	0.94	2.1	2.93	40.85

The graph show the frequently return of SET Index since (1 January 2544 – 1 January 2554)



According to the result, SET Index generated positive return about 5 times in 10 years (50 percent) which is less than the previous result. Hence, we can conclude that investors probably get low profit return on January.

The remedies of this effect are having more knowledge, the more familiar you are with the stock market the better you can navigate around its pitfalls and maximize your profits also stay out of the stock market until you get a little practice and do not overconfidence.