Applying behavioural economics at the Financial Conduct Authority

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Part I: Lessons from behavioural economics

Making decision

People have two modes of thought which are intuition and reasoning. Our intuition is the impression and quick judgement that is automatically come to mind. Reasoning different from intuition which is take time and more deliberately controlled.

When making a decision we use both systems while our reasoning just accept our intuition that process earlier. The intuition is efficient in perform complicate thing in a short period time. Sometimes, it is not always right and biases in decision can appear when intuition lead us to wrong ways. We can check whether the intuition lead us to right or wrong way by substituting complex questions with easier question. If the answer of these are only weakly related, intuition is consider to be error.

People mostly trust their intuition without notice that they make mistake with their intuitive even people who familiar with different type of bias for example, professional investors may be mistake in forecast from limited information and their overconfidence.

Biases and consumer behaviour in retail financial markets

The reason why the biases affect in the decisions in retail financial markets are

1. Most consumers find financial products complex.

Consumers lack motivation to spend time and effort in making financial decision because making financial seem to be complexity and hard.

2. Many financial decisions require assessing risk and uncertainty.

Consumers often have bad intuitive on evaluate risk and uncertainty in insurance even to experts.

3. Financial decisions may require making trade-offs between the present and the future.

It is a trade off between current consumption and future consumption or saving and borrowing. People can have a problem in procrastination for over borrow on credit card and have problem after in the future.

4. Many financial decisions are emotional.

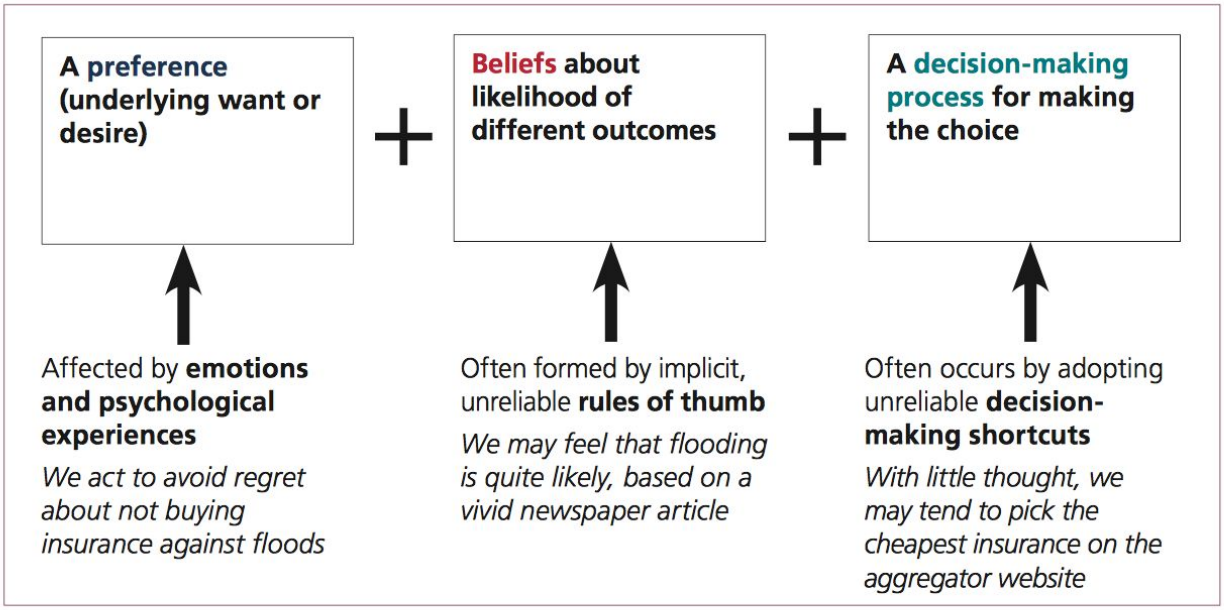
Emotional in human such as fear,stress can drive the decisions rather than analyse the cost and benefit of the choices.

5. It can be difficult to learn about financial products

Some financial decision such as planning pension, taking out mortgage are hard to learning about it since it depends on macroeconomic circumstance which consumers have little chance to know.

Types of Biases

Stefano DellaVigna's list and classification of biases. He categorises biases according to which component of a decision they affect: *preferences, beliefs*, and *decision-making processes*.



Important behavioural biases explanation and the view as mistake

i. Preferences (what we want)

1. Present bias: overvalue the present over the future, person's preferences are 'time inconsistent' and present bias can lead to self-control problems (example of over-borrowing, borrow today too much but don't think about future pay back)
2. Reference dependence and loss aversion: psychologically, consumer are emotional and perceptual asymmetries between loss and gain, consumer underweight gains and overweight losses. Also consumer's choice is unstable and vary depending on which reference point is chosen (example of viewing add-on insurance as cheap when it is sold with something comparatively much higher price)
3. Regret and other emotions: people usually avoid ambiguity and stress, so their choices can be distorted by these emotions. (example of buying an expensive insurance just for a peace of mind)

ii. Beliefs (what we believe are the facts about our situation and options)

4. Overconfidence: overconfident about a probability that good event will happen to your asset and investment or overconfident about your ability and accuracy of your judgement. (example of belief in your own ability to pick winning stock)
5. Over-extrapolation: making decision based on small number of observations (example you may observe just a few years of past stock price trend and use it to predict the today trend)
6. Projection bias: People expect their current tastes and preferences to continue in the future and underestimate the possibility of change.(Example: tying up funds in long-term

contracts without adequately considering the chance of needing money in difficult circumstances before the contract matures; or not realising that you will have dif culty controlling your future credit card spending.

iii. Decision-making (which option gets us closest to what we want, given our beliefs)

7. Mental accounting and narrow bracketing: is when people treat money that allocate in many places as different and this bias because money is fungible, money is one place is the same as money in other places. Narrow bracketing is when people consider the effect from decision in small frame, without take the overview picture of their portfolio that will be effect from that decision.
8. Framing, salience and limited attention: With the limited attention, decision making is performed under the framing and salience information that they get. It make people see only benefit without drawback from products.
9. Decision-making rules of thumb :it is occur when we adopt the rule of thumb. It operate unconsciously, people may choose the familiar or the first option on the list rather than analyse deliberately.
10. Persuasion and social influences : Consumers is likeable to be persuaded by salesperson.

Biases, firm behaviour and competition

Firms play a crucial role in shaping consumer choices through product design, marketing and the sales process. The framing effect provides some of the most important means by which firms can shape consumers' financial decisions when distributing products.

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.

Consumers tend to stick with their existing products and do not switch to better so, monopolies can arise, where intermediaries sell add-on products at monopoly prices because consumers do not shop around for better offers at the point of sale

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.

3. Products may be spuriously differentiated and not serve consumer needs.

Firms may end up offering products that appeal to consumers but do not actually serve their needs well. For example, they might add reward schemes that are superficially attractive but of little value.

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.

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

if at least a small proportion of consumers are sophisticated (i.e. less prone to bias-induced mistakes), 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.

Biases and traditional market failures

Most financial product market exhibit failures in addition to behavioural biases. Markets are rarely perfectly competitive and few markets are regulated.

There are generally to be 4 main categories of market failure:

Market power

Information asymmetry is a key reason why financial market fail. It will happen when a party has a less information than the other party. With bias consumers, information asymmetry can also happen when consumers can access the information but cannot do it.

Behavioural biases can affect how consumers adjust, understand and act on the new information, often making disclosures ineffective. Without the relevant information even a rational consumer can make a poor choices.

Behavioural bias can provide regulatory invention aimed at addressing information asymmetry ineffective when there is lack of information in the market and consumer make poor choices as a result,

And also cause the asymmetry harmful. There is an evidence that lead consumer to make poorer choices by distracting or making them under or over-react to emotionally charged like financial adviser.

Externality are present where consuming or producing a financial product or service has effect to a third party who are not taken into account when that goods is bought or sold. One of the key interaction with behavioural biases is when biases drive consumer towards behaviours that rise to externalities.Cross subsidies are something that similar to externalities but the big difference is that these effect arise through market response which is not directly.

Part II: Applying behavioural economics at the FCA

Identifying and prioritising risk to consumer

FCA cannot observe consumer biases directly but can understanding how they affect consumer decisions and how firms respond can help us develop warning sign to spot market problems with likely behavioural roots.

There are two complementary to approaches to identifying behavioural risks
1. Looking for specific indicator of likely consumer mistakes.
2. Checking mismatch between the product's declared function and consumer's actual use.

Indicator of potential consumer mistakes

There are several indicators of potential consumer mistakes in firms' overall strategies or profitability. These indicators can support analysis of firm-specific and subjective issues that cut across several firms.

Early warning by firm

- Rip offs (Uncompetitively high margins) :
  1. Persistent excess profitability.
  2. Price dispersion unrelated to cost.
  3. High penetration rate for high-margin unessential add-ons.
- Suckers (Concentrated profits from a small group of consumers) :
  4. Cross-subsidies between consumer groups or products.
  5. Very different financial sophistication across targeted consumers

Second, product features can also help to identify more risky business models when reviewing firm's product and sell. Product-focused indicators can also help detect financial promotion that are more likely to be misleading for consumers and identify more risky innovative products.

Early warning by Product feature

- Bargains (Innovative products that appear very cheap):
  6. Too good to be true headline prices or return.
  7. Some material charges or exclusions are hidden or under-emphasized.
- Trap (Contract features that often target behavioural biases):
  8. Teaser rates, especially if with automatic renewals.
  9. Cancellation charges or other hurdles.
  10. Default option for some key contract elements.

Consumer market research and active engagement with consumer organizations can uncover useful indicators, like early signs of consumer regret, inconsistency or lack of understanding before the problem become widespread.

- Regret (Reported or potential regret) :

11. Widespread reports of consumer regret not caused by predictable risk.
12. Product purchased rarely little scope to learn.

- Folly (Choices out of line with common sense) :

13. Product inconsistent with other products owned or with stated goals.
14. Product clearly provides poor value for some groups consumers.

- Confusion (Observed or likely confusion) :

15. Consumers unable to describe key product features or prices after purchase.
16. Product complicated for some or all because of structure or number options.

Observing many at once does not, necessarily demonstrate a specific behavioural problem. Some indicators can be explained by non-behavioural factors.

The functional perspective on product risk

A complementary way to look for risk arising from consumer mistake is to take a "functional perspective" on products, and to look for a mismatch between the consumer need the financial product it meant to serve and how consumer actually use it in practice.

The way that FCA can prioritise dealing with behavioural issues

At first stage, this is likely to be prioritisation for further investigation. In later, it may be necessary to prioritise for action. Size of the likely consumer harmful is one natural common basis for prioritising across a diverse range of issue.

Root causes of problems

Investigating causes of behavioural problems can at times be complex because

1. Consumers are making mistakes at all they could be choosing reasonably, and restricting these legitimate choices could make consumers worse off.

2.Choices that are not reasonable could be caused by different biases that require different interventions.

If consumers are biased

In fact it may not be possible to infer true preferences at all. If we cannot determine which of the consumers' choices are correct and which are mistaken, even though the choices are contradictory, then we cannot tell what their true preferences are.

Analysis firm-specific issues

When responding to behavioural 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. At least more detailed analysis and more coordinated remedies are likely to be needed

Analyse market-wide issues

Analysis of potential market-wide problems will often form part of the standard policy development process and as such use the 'Integrated Analysis' approach developed for the FCA.

At the stage of investigating root causes of problems and generating plausible explanations it is important to consider the broad context of the market, including how firms compete, what other market and regulatory failures are present and how biases interact with these factors.

Designing effective intervention

By applying behavioural insight the FCA can design new types of intervention and expand its regulatory. But the solution to behavioural problems are not necessarily always. The others things such behavioural in nature and intervention like imposing stronger product government standards or banning through certain distribution channel may be highly relevant.

Being aware of behavioural reaction will also matter when intervening to address non behavioural problems.Moreover using behaviourally informed remedies may be crucial for such an intervention to be successful and to avoid adverse effect

Four main ways FCA could intervene to protect consumers from biases

1. Provide information: provide specific information in a way that is not likely to exacerbate consumer weakness
2. Change choice environment: adjust how choice are presented to consumers to address biases
3. Control product distribution: Required products to be promoted through particular channels to certain type (example is the usage of Morphine which distributed to the hospital with some of the patient.)
4. Control product: Ban specific product features or product that appear designed or likely to exploit consumer mistake to their detriment

The specific intervention chosen might succeed or failed based on small details.This particularly matters when applying behavioural insight in information and choice environment design.

Nudges which is the thing that can trigger behaviour which going well with policy goals that can be providing information and changing the choice environment. But the overall success rate is not clear. Most of it depends on how well designed individual nudges are to exploit behavioural biases.

The other option is to educate consumers about their biases,and to equip them with the necessary skills to make good choices with better information

Intervention design

Use existing consumer rule of thumb,make what matters more salient and frame it in the right way and defaults matter which is to inattentive consumer are likely to stick with default. so far defaults have been proved to be the most effective option. Default could be made to work in favour of consumer when we believe that the needs of most consumers would be better met by a simpler and lower cost version of a product.

Control product features and distribution

We will need to make sure that control on products or distribution are not impeding positive innovation and competition between financial services firm that benefit the consumers.Product intervention measures could include complete ban for certain types of product that are disproportionately to cause consumer detriment. However these intervention might reduce welfare of those people who could benefit from the product.

Bias	Examples		
	Assessed Problem	**Soft paternalistic option**	**Hard paternalistic option**
Present-bias	People under-save for retirement and regret it later	Automatically enrol people in a default pension system, which allows them to opt out	Prescribe mandatory pension saving
Over-confidence	People buy mortgages that could become unaffordable (e.g. if base rates rise)	Require that point-of-sale information be framed to help consumers pay better attention to risks	Ban or restrict the sale of higher risk, potentially-unaffordable mortgages (e.g. loan greater than 4x salary or interest only loan)
Framing	Product marketing obfuscates the risk of a larger or more risky mortgage		
Susceptibility to persuasion	People buy inferior investment products because of persuasive sales techniques	Mandate a cooling-off period, allowing the consumer to change their mind. Or a period to wait before they can purchase the product	Ban particular sales techniques or ban specific products

One of the key insight from behavioural economic is that consumer do not always act in their own best interest. If consumer mistake are predictable, there is scope for regulator to intervene which mean to benefit the consumer by affecting their choices or otherwise protecting consumer from their own mistake.

There are soft and hard paternalistic measures encourage consumer to choose option that are mostly to be beneficial for them and make mistake less likely. Choosing between hard and soft options is not straightforward we should looking for overall impact on welfare or whether paternalistic intervention will reduce consumer incentives to learn about product leading to worse outcome. Overall we must be aware that by affecting people's choice paternalistic option can have negative consequence if a regulator cannot assess well what is in people's best interest.

Improving intervention

To improving intervention through assessing their impact we will use the effective interventions is role of integrated analysis in particular the market failure and cost benefit analysis.

Market failure analysis is that the option selected must correct the relevant market failure,including after firrm have reacted to implementation of the option.

The role of Cost benefit analysis is to inform a decision on which of the options available is likely to secure the best balance of costs and benefits.

Two real-life examples of behavioral biases that could

negatively influence our financial decisions

1. The investors get stuck to the position of holding the unprofitability stock because of **Status quo bias.** Status quo bias is occur when the investor tend to default same judgement or accept the decision that has been made in current situation.

Suggest remedy : they should match their level of risk tolerance with asset allocation by diverse collection of mutual fund. Rebalancing portfolio is another way to solve it which help us to ensure that the risk tolerance match with the asset allocation throughout the life of portfolio. It can be providing alternative anchor and reference point to gives the consumer have a better choice. In order to do this, investor may need help form professional advisor and usually come with the cost.

2. The another example is the inadequacy retirement planning problem. There are two main types of retirement plan, one is that employer automatically deduct part of employee's salary and transfer to retirement plan. Another one is that employees receive full amount of salary and they have to manage their own retirement plan, so they need to spend some of their salary to the plan. But because of **LOSS AVERSE BIAS**, employee that has to practically pay part of their salary to the plan will feel more loss of the income than another type. They may end up put to little money into the retirement account or even none and at the age of retirement, they will face the money shortage problem.

Suggest remedy : we suggest to solve this problem by forcing every workplace to have the automatic transfer retirement planning which it will deduct the money from the salary into the retirement account automatically. Which will not make feel that they lost their money from the salary so they will not get the sense of losing spending the money. The solution is adapted from the idea of health insurance premium. So after we using this remedies the employee won't be faced with the inadequacy retirement problem. Moreover, Informal advice from friends, family members, and public media outlets can shape investors' financial decisions, leading them to make potentially suboptimal choices.

"The investor's chief problem – even his worst enemy – is likely to be himself." Benjamin Graham

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