

Behavioural economics

Some pointers for fund managers



So, what is it?

Behavioural economics is the new and exciting branch of economic theory. It borrows heavily from psychology and sociology to create more realistic and persuasive models of individual choice and decision-making.

Where has it come from?

But more realistic and persuasive than what? Behavioural economics is a reaction to an orthodoxy which dominated economic theory and education virtually throughout the 20th century.

This orthodox or standard approach to understanding individual economic behaviour (or the *neo-classical* approach, to give it its slightly pompous title) held that humanity shows three traits—unbounded rationality, unbounded will-power and unbounded selfishness.

This view of economic behaviour is a simplification of the more nuanced approach of earlier economists. But the standard approach suited the needs of economists of the time. It made no assumptions about choice, the formation of preferences and human motivation other than these three generalities.

Instead, it supported a range of new theoretical frameworks for economic behaviour developed with the help of differential calculus. And it helped to explain events like the Great Depression, the Wall Street Crash and the collapse of the Bretton Woods Agreements.

At the time, the corporate economist was still some way off. It wasn't until the latter half of the 20th century that economists were called upon in numbers to explain and increase the sales of washing powders, cars or mortgage products.

But now, five decades in the making, behavioural economics has gained acceptance for more realistic assumptions of market behaviour by drawing on theory and methods from psychology and sociology without fixating on the schisms in those fields.

And it offers some particular uses in the consumption of financial services, notably in wealth management.

Seven characteristics

The advances in behavioural economics can be summarised in seven observable characteristics which might appear evident and even obvious to most marketers, strategists and sales people.

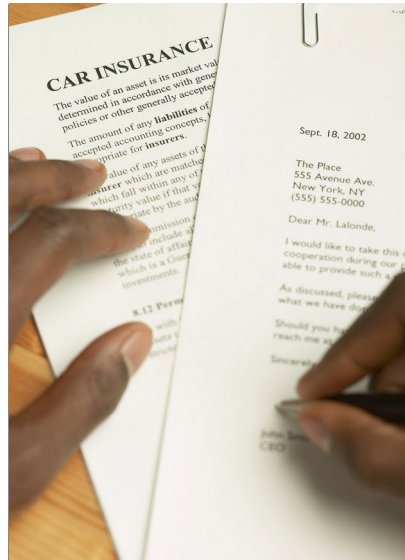
Even so, the acknowledgement of these characteristics has profound implications for the predictive power of micro- and macro-economic theory.

1 People are loss averse.

They care more about preventing a loss than about securing a gain of equivalent amount. When assessing relative gains and losses, they value losses more than gains.

This *prospect* theory means that people tend to take large risks to avoid losses while avoiding smaller risks to make gains. People try to keep something that they consider is 'theirs', conferring it with some extra value.

This asymmetric risk preference in behaviourism creates the *endowment effect*, where



a person's willingness to pay is usually less than their willingness to accept. For example, most people would need to be paid much more to wash someone else's car than they would be willing to pay to have their own car washed.

In standard economic theory people could have a risk preference (be risk-takers or risk-avoiders) but are neutral to gain and loss. That is, they put as much effort into preventing the loss of an amount of mon-

ey as they would put into gaining that amount of money.

Loss aversion explains why people spend much more on insurance than they do playing the lottery. It also has applications in management. Where staff feel that a right to a benefit might be withdrawn, managers should think about the willingness to accept value. But if staff feel only a right to existing conditions, willingness to pay would be the appropriate value for a proposed improvement to conditions.

2 People are influenced by other people.

This is social learning - subconsciously taking in the behaviour of others in learning to behave.

Social proof is observed from others more familiar with surroundings. Social identity is carried forward into new situations, reflecting how 'my group' would behave there. And if there are strong network links between people (and an associated level of

What's in a name?

Economic historians are keen to point out that the classical economists of the 19th century were not oblivious to behavioural aspects of economic life. Mainstream writers like Adam Smith and David Hume made numerous references to psychological underpinnings of human behaviour.

It was their successors, the neo-classical economists from the late 19th century but particularly during the inter-war years, who simplified economic behaviour into the maximisation of pleasure and minimisation of pain. The breakthrough came in Herbert Simon's work in the 1950s. His 'bounded rationality' accepted that people don't always solve problems rationally and may use short cuts to reduce time and effort spent.

Ironically, behavioural economics has little to do with behaviourism. Its roots are drawn from cognitive psychology which emerged in opposition to the behaviourism movement.

But, then, *cognitive economics* would have been a much harder sell.



trust), then behaviour can be influenced by social identity and others' behaviour. Of course, people are also influenced by authority figures, figures of respect, celebrities and people they like.

Standard economic theory does not try to explain people's preferences. Preferences are innate, independently known to the individual and are fixed. These assumptions allow analysis of short term decision-making but cannot allow for evolving preferences, say in response to new technologies. The standard theory also assumes that people carry out full, rational analyses of their available options before deciding what to do.

Behaviourism accepts that this is not what happens. People copy others in their decisions

to save time and effort and to avoid the confusion of choice.

Herd mentality is perhaps most obvious in the buying of clothing and company stocks which can quickly become fashionable and then unfashionable. Some consumer markets rely on influencing behaviour. Social networking and gambling web sites only succeed with a critical mass of users. Visible products like cars and handbags do their own advertising and manufacturers know that managed volumes sales are vital to maintain brand presence.

Product endorsement is also a key influencer. If we're not persuaded by numbers ('*nine out of ten cats.*', '*no one ever got fired for buying IBM.*'), then we might be by celebrities. Endorsement can range from the credible (financiers endorsing savings products) to the curious (cricketers and hair replacement products) to the seemingly implausible

(athletes recommending sugar drinks). The leaps of faith involved can defy standard economic theory to its core.

The latest influencer theories involve system dynamics and agent-based modelling of how behaviours 'feed back' into and redefine social norms. An important conclusion from this work is that markets may never have single state equilibriums toward which they evolve, according to standard theory. Instead markets continually evolve as new market behaviours are observed.

3 People aren't that good at maths.

People often equate price with value or quality, even when the evidence contradicts this.

People tend to over-estimate the likelihood of something scary happening (like a plane crash or child abduction), something favourable happening (like winning the lottery) or something recently



experienced. Equally people often underestimate the frequency of regular events (like being late for work or their consumption of alcohol).

People have trouble with timescales and fail to plan for future events. Preferring short term gratification over longer term rewards, people often under-exercise, neglect career-oriented training and under-provide for old age.

People are influenced by how potential outcomes are framed. If two outcomes are mathematically identical, people would veer toward one presented as a gain as opposed to another presented as a loss.

People often leap at intuitively appealing numbers

People are also influenced by default choices set by authority figures. Companies have long known that more people keep making pension payments which are automated when starting employment than opt in to a purely voluntary scheme.

People often leap at intuitively appealing numbers. Companies use price discounts to attract buyers even though the discounted prices are still substantially above market rates.

Standard economic theory assumes that people always act rationally and logically. With all the relevant information available, they make complex calculations to arrive at optimal choices. None of the biases listed above occur.

Behaviourists are keen to emphasise that people tend to use 'rules of thumb' to decide, even when making life-changing decisions, like changing jobs or making long term purchases like homes, investments and pensions.

They also note that immediate losses pose a stronger incentive than long term rewards. Durable product marketers use this to balance tactical incentives against reliability and service cost features.

4 People have habits.

At work or at home, a lot of our decisions are habit-driven.

Habit-driven activity is outside the bounds of standard economic theory. Rationality and consistency would prevent habits over-riding the selection of optimal choices. People always have perfect self-control.

But habits do inform decision-making. *Confirmation bias* tempts people to ignore information which challenges their pre-conceived notions or experience. *Anchoring bias* leads them to attach too much weight to one or more pieces of information.

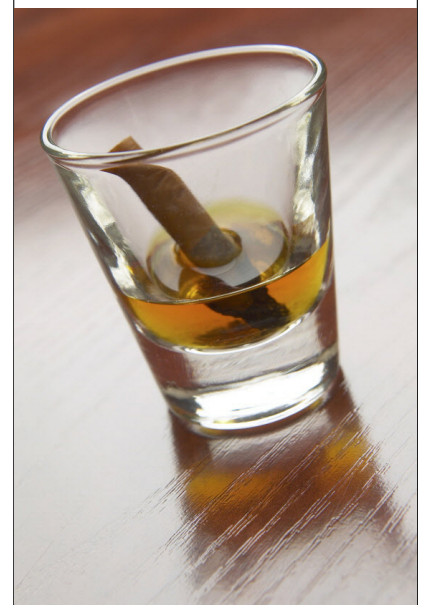
Psychologists have long accepted that habits feed themselves if they are repeated often, if they provide strong rewards or if the rewards quickly follow the habit action.

New York tax drivers provided a landmark research example of sub-optimal behaviour.

The drivers paid a fixed fee to rent a cab for twelve hours and could keep all their revenues. Their decision was how many hours to work.

Standard economics suggests that, as profit-maximisers, they would have worked longer hours on good days when demand was high and fewer hours on slack days.

But the research showed that many drivers set themselves a daily revenue target. This meant that they quit early on busy days and worked longer on bad days.



To break a habit, psychologists recommend first unfreezing the subconscious action, raising it to a conscious level (where alternative behaviours can be considered) and adopting new behaviours which can become frozen as the new habit.

Some sectors rely on habit. The UK energy sector regulator concedes that deregulation and increased competition have not reduced prices as much as anticipated because customers do not change supplier in response to price changes.

The UK's retail banking and insurance sectors rely on product complexity and customer inertia to prevent costly customer defection. And the public finances rely on sales taxes levied on products which people have trouble giving up - tobacco, alcohol and car use.

5 People have expectations about themselves.

They like to feel that their actions accord with their expectations or their values and attitudes.

Commitment is important. If people openly commit to some value or belief, they are probably more likely to remain consistent with that value or belief. And a written commitment has more effect than a verbal one.

Standard economic theory would take self-expectation and commitment as contribu-



tors to preferences, which are taken as '*given*' for analytical purposes.

Cognitive dissonance theory has it that people feel discomfort when their actions do not accord with their attitudes and values. The negative emotions associated with this discord (guilt, shame, disappointment) are powerful tools in shaping behaviours.

Moreover, people are prone to the *affect heuristic* when emotionally involved. They tend to play down risks and costs and overstate benefits in their decisions. In the workplace this often happens in issues involving staff, brands and work practices.

Charities and voluntary groups will recognise the behaviourists' recommendation to seek public and group commitment, to actively involve individuals, to avoid coercion and to look for cost-effective ways of securing commitment.

6 People are altruistic.

People frequently donate money, products or services without expectation of payment. Social entertaining, charitable contributions, volunteering and blood donation are activities which most would feel sullied by financial transaction.

Because it contends that people are unboundedly selfish, standard economic theory has great difficulty with altruism. Financial costs and benefits would always lead decision-making rather than non-monetary values.

Behaviourists distinguish between intrinsic motivations (for their own inherent reward) and extrinsic motivations (for external, possibly financial, reason), but these motivations can crowd each other out. Indeed, financial rewards for altruistic behaviours have been shown to be discouraging. For example, blood donation vol-

umes often fall when payments are offered.

7 People like to feel involved.

Feelings of helplessness and lack of control lead people to believe that they cannot change their situation.

Behaviourists have long acknowledged that surplus information and choice can lead to exasperation. But providing opportunities for exploration and understanding can lead to stronger consumer motiva-

offers and the relative abundance of reliable data to test these predictions. This is particularly true for the fund management industry.

Loss aversion encourages investors to hang on to underperforming assets, rather than 'declaring' the loss to themselves (the *disposition effect*).

Studies have shown that fund managers are more likely to sell stocks that have increased in value than ones that have lost value, even though the tax laws in the UK and the US encourage the opposite behaviour.

Fund managers can be influenced by success stories. We are all attracted to tales of elegant financial engineering or brave market positions reaping super profits for their instigators. These fund heroes can quickly attain near-mythic celebrity status, conferred with



Being faced with too much information can lead to feelings of helplessness. A surplus of choice can have the same effect, and reduce consumption levels. For example, since the directory enquiry market was opened up to competition in the UK, use of the service has fallen.

Even worse, an eventual choice can often lead to feelings of regret and dissatisfaction.

Standard economic theory assumes that every choice is perfectly rational, based on all available information. More information may add to the quality of the decision but never subtract from it.

tions and more confident decision-making.

Moreover, a participatory approach makes people happier. Enlisting individuals as active partners (instead of just providing information) has had considerable success in the not-for profit sector and network retailing. This could explain the success of comparison web sites like confused.com and uswitch.com, and the resurgence of social retailing.

Behaviourism for fund managers

Behavioural economics lends itself to the finance industry most easily because of the neatly defined predictions it



almost extra-terrestrial endowments to outperform the market.

Fund managers are highly influenced by their peers, like everyone else. Changing market circumstances and the impact of other followers doing exactly the same thing might not figure in their planning. Social proofing or social identity might come into play.

In their rush to understand and share in the proceeds from these fund heroes' techniques, followers can be influenced by the success story itself.

The success of the story can even obscure the value of more rational approaches. It can create a resistance to evidence that it may not be possible to recreate the story's success (confirmation bias). This resistance can spread across a fund management company and even across companies.

The financial crisis provides too many examples of fund managers suffering confirmation bias and ignoring the bigger picture and following competitors into investing in already over-priced securities. Anchoring bias might have prevented them from looking past recent asset price increases.

The retirement savings shortfall across the industrialised world highlights cognitive and self-control issues. Traditional



life-cycle models are defined by long term consumption patterns that reflect incomes levels.

Traditional exponential discounting in saving behaviour holds that people are equally patient at short and long term horizons. Hyperbolic discounting proposed by behaviourists suggests that people show more patience with longer term horizons than with shorter ones.

This explains procrastination. People get distracted by something in the short run providing more immediate reward. In the UK the vast majority of people do not take advantage of tax-free savings schemes. Nor do they fully exploit the tax benefits of the pension laws.

In the US, the 401(k) plan is taken up much more frequently when companies include new recruits automatically (allowing them to opt out) instead of inviting them to opt in.

And then there is the efficient markets hypothesis.. On the 'correct' prices assumption, closed-end mutual funds offer a measure of securities' intrinsic (or net asset) values. Even so, they can trade at substantial discounts or premia.

Behaviourists suggest that security values should deviate from NAV for one or more of the seven behavioural characteristics listed above. Closed-end fund trading values have been shown to correlate with trends in small company share values and periods of intense IPO activity.

EMH also assumes unpredictability. Security price shock movements could not be predicted by public information.

Behaviourist research in the 1980s suggested that individuals over-react to new information. Their conclusion was that over-performing stocks will be over-priced and that under-performing stocks will be under-priced.

NYSE data confirmed that 'winners' over the previous five



years went on to under-perform the market over the subsequent five years, while past 'losers' tended to subsequently over-perform. By some measures, a portfolio of 'losers' was less risky than a portfolio of 'winners', supporting the behaviourists' prediction.

Behaviourists in the 1990s and 2000s also spotted breaks in the unpredictability assumption. This time the pattern was that past stock values kept their momentum. Equities that had risen quickly for six months would continue to appreciate ahead of the market.

Furthermore, news announcements about a company - from earnings changes to share repurchases - would see an immediate share price jump, followed by an upward drift for a year or even longer.

It seems that EMH will be source of contention between traditional economists and behaviourists for some time to come.

A note of caution

Behavioural economics has recently been attacked for not offering an explanation of how people make decisions.

Critics point out that behavioural economics does look at the decisions people make but not at how they arrive at those decisions.

The neo-classical economists offered the 'as if' defence in the 1950s. They accepted that individuals do not solve complex, optimisation in real time. It's too difficult. But they behave as if they do. They make these rational decisions using experience and cognitive short cuts.

The behavioural critics note that behaviourists have highlighted areas where the decisions people make cannot be explained by standard economic theory. It is in these areas that the 'as if' defence no longer applies.

But, contend the critics, behaviourists have simply tweaked standard economic theory until its predictions suit observed decision-making. By not offering an explanation of how those decisions are arrived at, behaviourists are themselves, in effect, invoking the 'as if' clause.

Prospect theory is often advanced as the example. Standard theory holds that when it comes to risk we consider all possible outcomes, their individual chances and their benefits to us.

Behavioural economics says that we are more sensitive to losses than to gains because this is what research uncovers. But the same incomprehensible decision calculations are involved. Actually, they are even harder, because the degree of risk aversion has to be worked into the process.

The behaviourists have yet to reply to this broadside. ©



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