## OPERATIONS AND CONTROLS

## MATTER OVER MIND

DON'T LET MENTAL SHORTCUTS AND COGNITIVE BIASES UNDULY INFLUENCE YOUR DECISION MAKING. MARK INGRAM AND ANTTI-VILLE SUNI EXPLAIN WHY



In 1867, British philosopher John Mills proposed that "the malady of commercial crisis is not, in essence, a matter of the purse, but of the mind". He thought the lessons learned in a crisis become forgotten with time, as optimism and 'irrational exuberance' grew. So was born behavioural finance.

Behavioural finance is concerned with 'heuristics' and 'cognitive biases'. A heuristic is a mental shortcut that simplifies the processing of information in decision making. Heuristics are often helpful in day-to-day life, but they can lead investors and corporate managers severely astray, particularly when dealing with unusual events. A behavioural deviation from independently verifiable facts is called a cognitive bias, and it can often result from our use of a heuristic. Some common

heuristics and cognitive biases are shown in the table, right.

Behavioural finance has experienced mixed fortunes. For many years, the efficient market hypothesis (EMH) appeared to render behavioural finance obsolete. The EMH states that arbitrage - rational investors buying undervalued assets and selling overvalued assets - should penalise irrational behaviour. But arbitrage opportunities are often limited and/or risky. Even where perfect substitutes exist, price divergences can occur over long periods, which is perhaps why trading on the fundamentals is far from being the dominant trading strategy that theory says it should be. Bubbles breaking in one asset class usually impact unrelated asset classes through investor asset allocation changes,

HEURISTIC OR BIAS	
Ambiguity aversion	We seek to avoid ambiguity
Anchoring	Initial information influences or impairs our judgement
Availability heuristic	We search our memories for similarities from past experiences, or familiarity, when processing new data
Confirmation bias	We ignore information that challenges our prevailing views, and overemphasise information that validates our views
Framing	We place one type of information within one context, and another type of information within another equivalent context, which leads to different interpretations (for example, loss aversion; different combinations of problems, solutions and rationales for action)
Herding and groupthink	Individuals in groups may be reluctant to challenge the conventional wisdom of the group, even when presented with contradicting data
New era frames	Often <i>new eras</i> involve the dismissal of lessons learned from past economic crises with the notion that <i>this time</i> <i>is different</i> due to some single factor
Overconfidence	We think we are right much more frequently than we actually are. This has been found to be more prevalent among males than females
Over-optimism	We tend to exaggerate our own abilities
Self-attribution bias	We attribute good outcomes to our own skills, and bad outcomes to bad luck
Representativeness	We group customers, investments or projects into categories, and assume the behaviours of group members are identical

thereby distorting the valuations of unrelated asset classes.

Within companies, there may be simultaneously multiple managerial cognitive biases at play. Nearly 10 years after the 1998 Daimler-Chrysler merger, Daimler CEO Dieter Zetsche admitted: "It's fair to say that we overestimated the potential of passing leading-edge technology from Mercedes-Benz to Chrysler. Unlike premiumbrand customers. American volume-brand customers are far too price-sensitive to absorb its cost." How could we interpret this statement?

Zetsche 'frames' synergies in terms of a 'leading-edge technology transfer', thereby implying that a technology transfer, when 'leading-edge', is automatically a significant synergy. He employs a representativeness heuristic by assuming Mercedes-Benz and Chrysler customer segments have identical preferences for leading-edge technology. Moreover, the 'we' in the above statement helps one to imagine the 'groupthink' that took place in the Daimler boardroom at the time. Did anyone dare challenge Zetsche's 'synergistic' assumptions? Zetsche has also admitted it was "personally very difficult for him to sell the Chrysler unit". This is a classic example of 'loss aversion' bias. We hate to lose more than we like to gain, and it can be difficult to cut our losses in time.

In a 2010 paper, academics Jasmin Gider and Dirk Hackbarth suggest that managers are 'optimistically biased' and prone to overestimate cash flows from future investments. This leads them to believe their company's shares are undervalued, and so they are reluctant to issue fresh equity. New equity offerings are mostly interpreted as the management – which has access to privileged information – viewing the shares as overvalued, so we should expect share prices to fall after an equity issue announcement. But investors also appear to be overly optimistic about the corporate managers adjust for their biases. The more such models are based on large samples or longer periods (which include a number of economic cycles), the less there will be room for heuristics and biases. Models that have been repeatedly tested, with extensive 'feedback loops', should help 'calibrate' the

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earnings ability of companies they invest in for up to five years after issues of seasoned equity or convertible debt.

In another study, in 2013, Olivier Dessaint and Adrien Matray found a recent hurricane had an effect on average corporate cash holdings, although, objectively, the real risks remained unchanged. They concluded that the availability heuristic influences corporate managers' risk perception, which leads them to hoard more cash. The availability heuristic means that people who have experienced rare events will think them more likely to recur than those who have not. John Mills was right: our memories fade, both at the individual and collective level. Extrapolating, it is highly likely we underestimate the likelihood of events that none of us have ever experienced - such as global warming or accidental nuclear war.

Discounted cash flow models that incorporate multiple scenarios and a range of discount rates can help user's judgement. According to psychologists (and, I would suggest, most cash managers), such feedback is a prerequisite for learning from past mistakes.

Mathematical models should not be idolised, however. Economists admit that rigid structural models of exchange rates that incorporate changes in monetary policy barely explain tomorrow's exchange rate any better than a prediction that it will be the same as today. But before you smirk at the economists' 'incompetence', consider that there is no evidence that experience, personal country knowledge or intuition are any better. The best approach is to use both in ways that do not violate the sensibilities of each approach. It is always better to use multiple heuristics than just one.

Perhaps the biggest corporate threat is groupthink. The obvious example is Enron, where the corporate culture was conformist at every level. Cultures that reward those who do not challenge conventional wisdom, that celebrate 'strong leadership' at the expense of diversity, or where a 'new era frame' is present, are unlikely to lead to optimal solutions.

A successful company is likely to be one that cultivates, and listens to, differing perceptions, particularly when considering new ideas and markets. One way to achieve this is to invite outside experts to attend meetings. Another is to encourage individuals to respond to issues and ideas as individuals – before meeting as a group to consider those opinions.

Having multiple heuristic models appears to be the best way of avoiding 'falling for' a single cognitive bias, a combination of cognitive biases or groupthink. People who see the world through a different lens than you are likely to have experiences and ideas that you would never have yourself – insights that can prove extremely valuable. It is therefore well worthwhile to pay attention to people with whom you may often disagree. Perhaps this is the real wisdom of Chinese military general Sun Tzu's expression: "Keep your friends close, but keep your enemies closer." 🗘

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