



Charting our existence as a series of improbable events

The random nature of our universe is the subject of this must-read book, writes **Chris Johns**

Nassim Nicholas Taleb doesn't like economists. In fact, he doesn't much rate orthodox statisticians, bankers, social scientists or historians. Anyone who makes a forecast or tries to explain history is firmly within his sights. For years, Europeans made the confident prediction, based on experience, that all swans are white. Then somebody discovered Australia and spotted a black swan. All forecasts should be seen in similar light.

Many of the ideas explored in *Black Swan* were introduced earlier in his best-selling *Fooled by Randomness*. Both books should be read by everybody. A mixture of high-level mathematics (but no equations) and low anecdote is combined with literary virtuosity to demolish most of our beliefs. At the heart of both books is the idea that the Gaussian bell curve has conned successive generations into thinking that our world is more or less explainable and forecastable.

The bell curve is for those who live in "Mediocristan". While a few things - the height of the human race, for instance - can be accurately described by the graph shaped like a bell, most of the important things that happen to us occur utterly randomly. This is a world of "fat tails" and "fractals", where the distinction between risk (we can measure this) and uncertainty (utterly unmeasurable) is crucial. Taleb is the man, allegedly, who inspired Donald Rumsfeld to make that famous speech about unknown unknowns (Rumsfeld's tragedy, I would guess Taleb might say, is that he could never truly acknowledge just how much he didn't know).

The events that shape our world come out of the blue and can rarely be inferred from past events. While we can guess the likely height of a typical person from looking at the average height of the entire population, making inferences about pretty much anything else, using similar (if more sophisticated) statistical techniques, is doomed to failure. We think we live in Mediocristan but in reality dwell in Extremistan.

If you ever wondered how your boss managed to get his job, it's almost

certainly got everything to do with chance and circumstance. We live in a system that increasingly resembles a winner-takes-all competition, one that likes to describe itself as a meritocracy. Taleb argues convincingly that talent has very little connection with reward. Anyone concerned about our celebrity fetish would surely agree. The world is a very unfair place.

Taleb dips into evolutionary biology, behavioural finance, philosophy and, it seems, just about every book ever written (but not newspapers) to describe a world that is increasingly random. He is careful in the use of the word chaotic, given the use and abuse of "chaos theory" that has taken place in recent years. Chaos is a function of non-linear mathematics and the negative connotations are often inappropriate; many "black swan" events are actually good things, such as the discovery of penicillin.

The examples of black swan events are numerous; the idea that we could never see them coming is a compelling one. The bond market never saw the first World War coming until well after it had started, so why do historians even bother to try to explain the origins of an event via a causal - rather than purely random - narrative? Many Balkan crises didn't lead to world war. Taleb hates narratives almost as much as he despises economists.

Why has evolution hard-wired us for deterministic outcomes, predisposed us to listen to forecasters? Taleb tries to answer these questions, but I remain unconvinced. Maybe our brains simply have absolute limits, beyond which we will never be able to go.

Are there any practical implications for all this? Expect the unexpected is one very obvious conclusion. But how to prepare for this? For investors, Taleb advises putting the vast bulk of our portfolios into ultra-safe assets such as short-dated government bonds. The remaining fraction should be used to buy out-of-the-money call options across a wide range of assets to allow for all sorts of unlikely outcomes that would have huge conse-

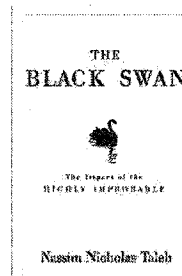
quences. Easier said than done, although Taleb is reputed to have built a successful business around such a strategy.

Why is our world so uncertain, so improbable? Taleb hints that it might be connected to the fundamental uncertainty governing the existence of the universe itself. Some physicists have worked out that the universe can only exist in its current form if a small number of mathematical constants hold with absolute precision. A tiny deviation here or there and we would all be mere dust clouds.

We are the result of a highly improbable sequence of events, starting with the big bang itself. Indeed, our existence is so improbable that those same physicists reckon there is an infinite number of universes, all different, all equally improbable. We just happen to be one unlikely outcome alongside an infinity of randomly occurring universes.

Of course, if all of this is true, there must be at least one universe out there where God exists, George Bush didn't invade Iraq and the bell curve does accurately describe the past and the future. In the world I live in, I will stick to forecasting the stock market in the belief that there is at least one universe where I am good at it.

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Black Swan,
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