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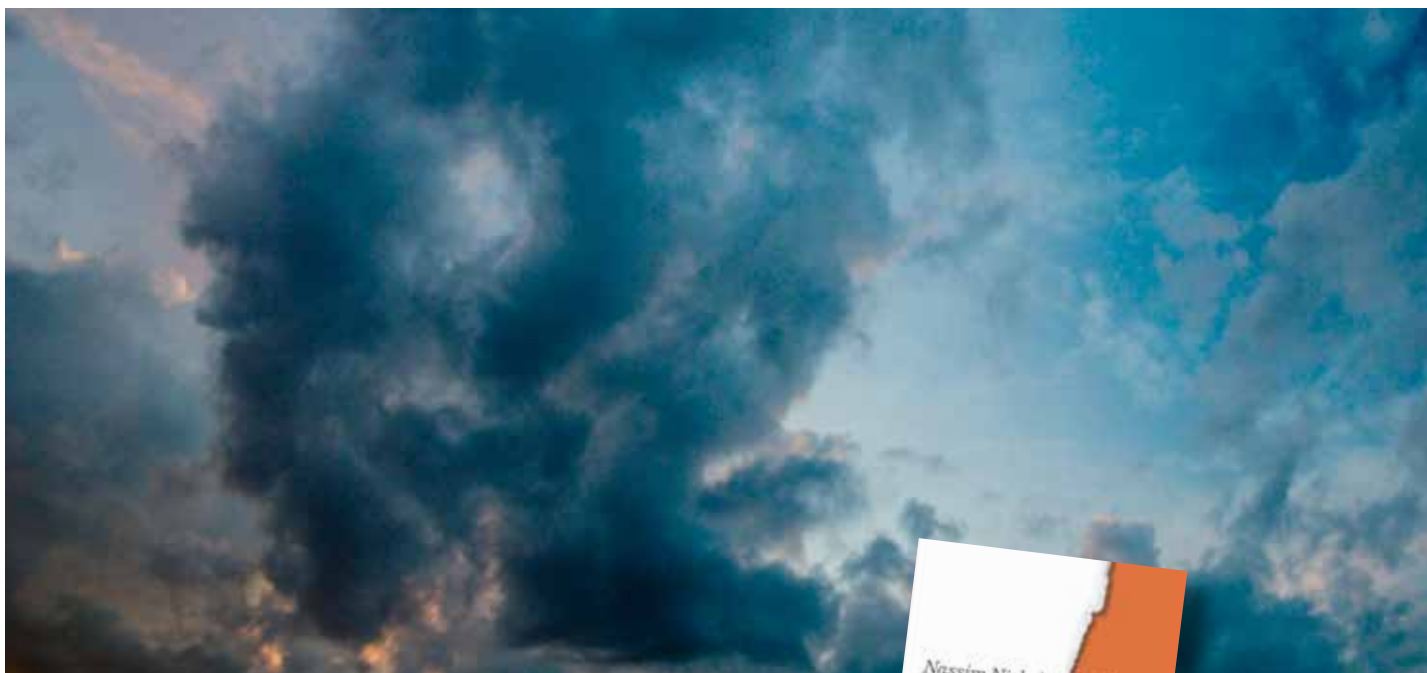
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BOOK REVIEW by Professor Michael Regan

Antifragile – Things That Gain Disorder

NASSIM N. TALEB 2012, ALLEN LANE, LONDON.

Antifragile is a recent work by Nassim Taleb that explore uncertainty and the role that it plays in decision-making today. A New York based academic, Taleb offers an alternative explanation about the way in which individuals, governments and corporations should plan for the unexpected. Taleb does not draw on the technical distinction between risk and uncertainty identified by John Maynard Keynes and Frank Knight in the 1930s but instead examines how human systems deal with the unplanned and unexpected. Essentially, it is concerned with uncertainty. Taleb's earlier work includes the best sellers *Fooled by Randomness* and *The Black Swan* and the present work builds on the proposition that the way we plan for uncertainty at the present time is misguided and a waste of resources. We should start to learn the lessons of the natural world, adapt our systems for flexibility to better deal with the uncertainties of our operating environment. We cannot avoid uncertainty yet we continue to increase

the complexity and vulnerability of our systems to deal with interventions about which we know very little and cannot predict.

Taleb's hypothesis is that natural systems have learnt to adapt and preserve their fragility in a complex and changing environment. Trees survive storms by preserving their fragility and embracing structures that enable them to bend before strong winds. Natural systems develop layers of redundancy as a way of managing for the unexpected. Human systems on the other hand have evolved differently. We build robust assets and systems of greater complexity over time and survive on reduced operational tolerances. It leaves systems vulnerable to minor unexpected events. A plant operator severs a communications cable, a bank closes down for several hours and takes with it a significant part of the nation's e-commerce. The public transport systems of cities such as New



York, London or Sydney operate at 98% efficiency in peak times. This serves us well most of the time but it takes only minor events such as a power failure or train breakdown to bring a rail or road system to a halt with knock-on effects to other elements of the system and eventually the event affects the entire transport system. Most commuters arrive home late. Taleb argues that there are ways of approaching this problem that do not involve over-building the system to deal with a one in three year event.

Antifragile also examines the benefits of preserving the fragility of human systems. For example, he points to agriculture and how food shortages are avoided in many countries because of the inefficiency of protected industries culture of high state subsidies and tariff protection, retail price support mechanisms and unintentional redundancies. These inefficiencies led to greater stability for the supply chain and avoids the adverse consequences of uncertainty.

Taleb's view is that building bigger and stronger systems to reduce fragility and meet the worst case scenario is counter-productive. Human systems are given additional capacity and strength in anticipation of an adverse outcome or in response to information about the possibility of a hazard. Human systems are

simply inefficient, unnecessarily costly and simply don't provide the solutions we expect. His solution is to reduce the complexity in our systems, wind back the enormous resources we apply to anticipating the unexpected, and adopt the lessons of the natural world. Taleb's work builds on the pioneering research of Benoit Mandelbrot, the architect of fractal geometry or the order and symmetry that he identified within the disorder and randomness of all phenomena. There is clear application of this theoretical work to the operation of capital markets, game theory and the prevailing view that market movements are, in the final analysis, a random walk. Mandelbrot and Taleb adopt the natural world as the template for how human systems should be reconfigured and developed. Preserve the fragility of our systems, stop wasting time anticipating the unexpected and learn to adapt to the environment in which we operate.

There are gems every few pages in this book and it is strongly recommended for those looking for better solutions for managing uncertainty.