

Nassim Nicholas Taleb, **Ten principles for a Black Swan-proof world**

Published: April 7 2009 20:02 | Last updated: April 7 2009 20:02

<http://www.fooledbyrandomness.com/tenprinciples.pdf>

1. What is fragile should break early while it is still small. Nothing should ever become too big to fail. Evolution in economic life helps those with the maximum amount of hidden risks – and hence the most fragile – become the biggest.
2. No socialisation of losses and privatisation of gains. Whatever may need to be bailed out should be nationalised; whatever does not need a bail-out should be free, small and risk-bearing. We have managed to combine the worst of capitalism and socialism. In France in the 1980s, the socialists took over the banks. In the US in the 2000s, the banks took over the government. This is surreal.
3. People who were driving a school bus blindfolded (and crashed it) should never be given a new bus. The economics establishment (universities, regulators, central bankers, government officials, various organisations staffed with economists) lost its legitimacy with the failure of the system. It is irresponsible and foolish to put our trust in the ability of such experts to get us out of this mess. Instead, find the smart people whose hands are clean.
4. Do not let someone making an “incentive” bonus manage a nuclear plant – or your financial risks. Odds are he would cut every corner on safety to show “profits” while claiming to be “conservative”. Bonuses do not accommodate the hidden risks of blow-ups. It is the asymmetry of the bonus system that got us here. No incentives without disincentives: capitalism is about rewards and punishments, not just rewards.
5. Counter-balance complexity with simplicity. Complexity from globalisation and highly networked economic life needs to be countered by simplicity in financial products. The complex economy is already a form of leverage: the leverage of efficiency. Such systems survive thanks to slack and redundancy; adding debt produces wild and dangerous gyrations and leaves no room for error. Capitalism cannot avoid fads and bubbles: equity bubbles (as in 2000) have proved to be mild; debt bubbles are vicious.
6. Do not give children sticks of dynamite, even if they come with a warning. Complex derivatives need to be banned because nobody understands them and few are rational enough to know it. Citizens must be protected from themselves, from bankers selling them “hedging” products, and from gullible regulators who listen to economic theorists.
7. Only Ponzi schemes should depend on confidence. Governments should never need to “restore confidence”. Cascading rumours are a product of complex systems. Governments

cannot stop the rumours. Simply, we need to be in a position to shrug off rumours, be robust in the face of them.

8. Do not give an addict more drugs if he has withdrawal pains. Using leverage to cure the problems of too much leverage is not homeopathy, it is denial. The debt crisis is not a temporary problem, it is a structural one. We need rehab.

9. Citizens should not depend on financial assets or fallible “expert” advice for their retirement. Economic life should be definancialised. We should learn not to use markets as storehouses of value: they do not harbour the certainties that normal citizens require. Citizens should experience anxiety about their own businesses (which they control), not their investments (which they do not control).

10. Make an omelette with the broken eggs. Finally, this crisis cannot be fixed with makeshift repairs, no more than a boat with a rotten hull can be fixed with ad-hoc patches. We need to rebuild the hull with new (stronger) materials; we will have to remake the system before it does so itself. Let us move voluntarily into Capitalism 2.0 by helping what needs to be broken break on its own, converting debt into equity, marginalising the economics and business school establishments, shutting down the “Nobel” in economics, banning leveraged buyouts, putting bankers where they belong, clawing back the bonuses of those who got us here, and teaching people to navigate a world with fewer certainties. Then we will see an economic life closer to our biological environment: smaller companies, richer ecology, no leverage. A world in which entrepreneurs, not bankers, take the risks and companies are born and die every day without making the news. In other words, a place more resistant to black swans.