Consider this

Exploring cryptocurrency in five different books

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The first lines of ***Number Go Up* by Zeke Faux** almost made me aspirate my coffee.

"I'm not going to lie," Sam Bankman-Fried told me.

This was a lie.

Faux is a Bloomberg investigative reporter, and in *Number Go Up*, published in September 2023, he attempts to understand the frenzy surrounding cryptocurrencies and related constructs from this acronym-rich ecosystem, such as NFTs. His immersion in this world eventually leads him to Sam Bankman-Fried (SBF), the youthful entrepreneur whose cryptocurrency exchange, FTX, was subject to media hype, celebrity endorsements, and eyewatering valuations. FTX's moment in the sun was all too brief: in November 2021, a surge in customer withdrawals was prompted by a critical article explaining the degree to which FTX, and its affiliated hedge fund Alameda Research, were intertwined. This run on the exchange revealed that billions of dollars of funds was unaccounted for, and a bankruptcy filing swiftly followed. *Number Go Up* is wildly entertaining. Jaw-dropping in parts, the book takes its name from a meme that expresses the belief of a crypto executive that Faux quotes in his book: "Number go up technology is a very powerful piece of technology. It's the price. As the price goes higher, more people become aware of it, and buy in anticipation of the price continuing to climb." (I was going to include an explanation in this book review of why M&G doesn't place any of our clients' funds in cryptocurrencies, but I think this quote will suffice.)

***Going Infinite* by Michael Lewis** covers some of the same ground as *Number Go Up*, but provides a more intimate portrait of SBF. Having spent six months shadowing SBF with full access to his inner circle, however, Lewis seems to have been taken in by his subject and casts the massive fraud at the heart of the FTX bankruptcy mostly as youthful bumbling. I enjoyed *Going Infinite*, and Lewis provides characteristically clear explanations of the maze of technologies and unfamiliar concepts at the heart of the cryptocurrency ecosystem. But I'd suggest you read it after *Number Go Up*, or with some pre-existing knowledge of the FTX bankruptcy and SBF trial, rather than allowing it to be your first exposure to the subject. This is lest you come away with the view that SBF and his colleagues are a just a bunch of careless but well-intentioned twenty-somethings, rather than fraudsters on a colossal scale.

SBF and several of his closest associates are Effective Altruists (EAs), a philosophy whose adherents attempt to use rationality and evidence-based approaches to maximise the amount of impact – or "good" – in all that they do. This might involve seeking the most highly remunerated career possible, with the intention of donating one's earnings to charity, or choosing a career – such as medicine or vaccine research - based on how much positive impact it could have in the world. Lewis's book, in particular, delves into the ramifications of the EA approach in some detail. I was particularly fascinated by the way in which the application of EA, with its focus on probabilistic estimates of expected value and on doing the greatest good – often for some abstract, unseen group of people – led to an amoral lack of concern for the individual, and to the inability of SBF and his cohort to understand the devastating impact of their fraud and incompetence on very real people who had sunk their life savings into FTX.

How did we get here? Help is at hand.

Attack of the 50 Foot Blockchain **(David Gerard) and** ***Popping the Crypto Bubble*** **(Stephen Diehl, Jay Akalin and Darren Tseng)** are opinionated, sometimes caustic accounts of the early (pre-2017 from Gerard) and later (from Diehl) history of Bitcoin and blockchain technology. Both authors critically examine the purported use cases of cryptocurrency -- Diehl is interested in cryptocurrency's relationship to the political zeitgeist, while Gerard takes a psychological approach. Both authors contend that the story of cryptocurrency is not so much about the development of a technology as it is about how people relate to technology and how it reflects and shapes their aspirations for themselves and for society.

For a more impartial and measured take on Bitcoin's history, ***Digital Gold*** **by Nathaniel Popper** recounts the stories of the early pioneers of the technology in considerable detail. Popper does well at tracing the evolution of Bitcoin from an idea to a gradually evolving rallying point for a scrappy group of idealists and technologists. It is deeply ironic that, in an attempt to escape the financial institutions and government regulation that define regular banking, this group created an entirely parallel set of institutions that mirror the functions of the mainstream financial system, but without any regulations or safeguards on customer funds. Popper's account is incomplete without a review of recent events encompassing the failure of exchanges such as FTX and Binance, which can be found in *Number Go Up* and – for some earlier disasters - *Popping the Crypto Bubble*.

Bitcoin uses blockchain technology to create a distributed (i.e. not held in one central place, the way a bank holds a record of all its clients' bank accounts) record of all transactions using Bitcoin. You'll learn more about this when you pick up one of the books I've just talked about! But blockchain itself is not new – it was first proposed in the 1980s, and use cases are being proposed and tested on an ongoing basis, spurred on by increases in computing power that have made its adoption more feasible. One of blockchain's biggest disadvantages for financial transactions is that it is very slow, but a recent example of a promising application is a proposal by the World Economic Forum[1] for its use in voluntary carbon markets, where speed doesn't matter as much as in real-time financial transaction processing. For carbon emissions offset schemes, which until now have ranged from problematic to worthless[2], using a blockchain for record keeping could ensure that the same carbon credits are not sold to multiple purchasers, and to link the credits to the offsets they represent (e.g. to a specific area of forest).

Bonus read: **Neal Stephenson's** ***Cryptonomicon*** is a magisterial piece of speculative fiction generously laced with nerds, history, adventure and cryptography. Its centrepiece is a fictitious digital currency backed by gold.

[1] https://www.weforum.org/publications/blockchain-for-scaling-climate-action/

[2] https://www.theguardian.com/environment/2023/sep/19/do-carbon-credit-reduce-emissions-greenhouse-gases