AN INVESTMENT FUND TURNED TOWARD THE FUTURE

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“It’s not the strongest of the species that survives, nor the most intelligent that survives. It is the one that is most adaptable to change.”

– *Charles Darwin*

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Acknowledgements

A number of factors including volatility in global markets, increased regulation, high-profile scandals, waning appetites for risk and increasing client-demands for more transparency and detailed reporting have combined into what some might consider a perfect storm for complicating life and day-to-day business for hedge fund managers.

Managing a hedge fund has always been a demanding task at best, fraught with high-levels of stress and uncertainty, and subject to a never-ending need to produce. After all, by definition a hedge fund is expected to out-perform on a risk-adjusted basis.

In addition, the 2008/2009 bubble-burst, the steady increase in the number of hedge funds over the past several decades, and the increased regulatory scrutiny have brought about an escalation in both organizational and operational challenges within this high-pressure world.

Despite these challenges, the benefits of hedge fund management can be significant. The risk/reward environment is certainly alluring, and the overall appeal of the endeavor cannot be argued, assuming, of course, that the fund delivers.

Leaving the definitions and operational details aside, there are various plusses and minuses of both the personal and business nature associated with managing a hedge fund. It is these specific issues that comprise the content of this briefing. As you will see, there are common-threads relating to the individuals involved; industry trends that impact both family and professional life, and structural issues that create unique challenges for the managers themselves, ranging from managing their personal wealth to managing their careers.

Investment Strategy

Mathematical Proof of Correlation

The correlation coefficient is a percentage that represents how interrelated two data sets are. In trading algorithm development, a designer will typically measure the correlation of their algorithms to the S&P 500 to determine how correlated an algorithm is to the broader market performance. Since the goal of most auto trading systems is to outperform this index, it only makes sense to measure the correlation between the trading strategy developed and the S&P.

Here is a commonly accepted definition of what different values imply:

+.70 or higher Very strong positive relationship
+.40 to +.69 Strong positive relationship
+.30 to +.39 Moderate positive relationship
+.20 to +.29 weak positive relationship
+.01 to +.19 No or negligible relationship
-.01 to -.19 No or negligible relationship

A value of 100% would imply that the two data sets are equal. A value of 0% would imply two fully random data sets. A negative value would imply an inverse relationship.

Back-Test 10+ Years

When optimizing our algorithms, we back-test starting from June 2001. Many developers will only go back 4 years (or even less), conveniently avoiding the 2008 crash and market periods prior to that. To further try and “break” the algorithms,

we modified the burst and push-pull so it could trade on the broader index, as well as tested as far back as 1984. This also showed very good results.

Perform Monte Carlo Simulation

Results should undergo a Monte Carlo Simulation. This randomizes the back-tested trades to ensure there are no hidden patterns that exist only due to unique market conditions. It is just another way to try and “crack” or “break” the trading system and evaluate performance with the same trades executed randomly. This is helpful in determining a worst-case potential drawdown.

Blockchain Disruption

Industry Challenge

➤ New Fintech innovations have radically disrupted the way Front-office functions for investment banks.

➤ Yet, despite these technology advancements middle and back office largely remains regimented and clunky.

➤ Firms are here still grappling with complex and inefficient processes which need urgent simplification and modularization.

Opportunity In Change

➤ Untangling of this complexity is getting addressed via a two pronged strategy – simplification using Lean and disruption through technology (such as blockchain).

➤ Focusing on exploiting the potential of these disruptive technologies Financial Services industry has formed multiple consortiums and partnerships.

➤ Consultants and Service providers are gearing up with innovative solutions and where possible is leveraging co-creation as the chosen vehicle.

Transparency & Trust

A clear upgrade from the internet we know today. When two parties transact through the blockchain, both sides can be sure that what took place just took place, and that the record of the transaction will be stored in perpetuity.

And because changing anything in the ledger requires a majority of users agreeing to the change, to hack one block, you would have to hack all the other blocks that refer to it. So, it's theoretically incorruptible.

Implications

Like the Internet itself, blockchain technology started as a niche pursuit of

computer programmers. To be involved, you needed to download some obscure bitcoin program from some dodgy website. But, today, the blockchain is going mainstream, and it's losing its mysteriousness.

In a country like India where there is extreme disparity across the population it will help issues like economic rights and economic inclusion. There are millions of people who do not have access to banks and financial tools. The blockchain can store and transfer value in a frictionless and cheaper way than today's financial networks because it doesn't require a bank that needs to make money on your account.

Remittances

The blockchain could reduce the cost of sending "remittances" from people living in rich countries to relatives who live in poorer ones. Total remittance flows to India last year was $72.2 billion. And yet, they currently come with high transaction costs. For example, to send Rs.100 in cash from the U.S. to India using Western Union incurs Rs.11 in fees.

Abra, which received $12 million in venture capital funding last year, uses the blockchain to enable person-to-person payments without going through a conventional agent network. Instead, it employs its own users as tellers. To send money, you deposit funds into an account, using either a debit card, or by meeting up with another user and handing them cash. The money is converted to bitcoin and transferred to a mobile phone overseas.

The recipient finds another local teller, either a person or a participating business, who converts the digital cash back into local currency. Both tellers set their own rates for helping out, with Abra also taking a small cut. Crucially, using the service requires no technical knowledge of bitcoin or blockchain architectures. Indeed, Abra is a good example of how bitcoin/blockchain is now being made consumer-friendly.

It took Western Union 150 years to get to 500,000 agents worldwide. Abra will have as many tellers in its first six months.

True Sharing Economy

The blockchain could allow sharing goods and services in a less intermediary-centric way, thus enabling cheaper and more frictionless transactions. There would be blockchain cooperatives where assets, like cars, are programmed to be shared, according to "smart contracts" set up on the network. So, for example, you might drive your Tesla to work, then put it into autonomous "sharing" mode. It would then leave the parking lot and make its way onto the road, where it could be hailed by anyone on the blockchain network.

Uber, for example, keeps 20% of the fee you pay when you exit a participating vehicle. You will see intermediaries like these obviated in transactions which will be peer-to-peer.