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Episode 12

FINTECH: INVESTOR'S FRIEND OR FOE? PART 2

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Advisors are positioned to be winners in the technological innovation currently revolutionizing the investment industry, asserts Cam Harvey. He also explains his research on gold as an inflation hedge, among other topics. In Part 1, Cam discussed the advantages of blockchain technology.

For more information about the topic of this Conversation, *we refer you to*

Gold, the Golden Constant, COVID-19, "Massive Passives," and Déjà Vu
Claude B. Erb, Campbell R. Harvey, and Tadas E. Viskanta

View in SSRN:
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3667789

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John West, CFA Partner, Executive Office, Research Affiliates

Conversations

John Hi, I'm John West, one of the partners at Research Affiliates. Today, I'm joined by one of my fellow partners at the firm, our senior advisor, as well as a professor at Duke University, Cam Harvey. Cam, welcome.

Cam *Thank you.*

John Considering the rise of technology and robo-advisors, and earlier [in Part 1] you mentioned the ability to buy $0.25 worth of Berkshire Hathaway, so much of the financial advisor community has been built around technologies that are, or may be, becoming obsolete. Will the actual role of the financial advisor become obsolete as we make these technological advancements?

Cam *I think "no." Actually, I believe the opposite is true: the advisor becomes more important. The world is becoming much more complex. It is much easier to misrepresent data, findings, results, so the advisor's role becomes more important. The advisor's full-time job is devoted to looking at investments and making sure the investments they recommend have the highest possible chance of repeatable performance. This delegation of responsibility to the advisor is not going to end any time soon.*

So some may ask why they need an advisor? Why not just use a robo tool? And what I would say to that is, I think the advisors will be using the robo tools. These tools help optimize our portfolios. The key is the inputs. We have known about optimization since Markowitz's 1952 Journal of Finance *paper, for which he won a Nobel Prize. A robo tool just makes it a little easier to practically apply the concept. It is reasonable to accept that the advisor will be using this tool in making recommendations. And let me emphasize that you do not just hit the button of the robo tool and you are done. The quality of the inputs is what is really important. What are the expected returns for these assets? What are the volatilities? What are the correlations? What are the drawdown possibilities?*

A tool is not that useful if the quality of the inputs is really low. So, number one, the advisor adds value through due diligence and by assessing the potential for misinformation. Number two, the advisor adds value by providing quality inputs in terms of expected returns, volatilities, and correlations for the robo tool. This is essential. And, then, number three—also very important and consistent with what I was talking about in terms of blockchain technology [Part 1]—we will have many new types of assets that are not tradeable today, but will become available to investors. It is new territory where advisors can add value.

I will give you an example. Many large pension plans have the luxury of being able to invest in large infrastructure projects, which provide very attractive expected returns. These are very large investments and there is no practical way the retail investor can access them. But with the tokenization of these investments, they will become available. For example, a lot of great startups will at some point issue through an IPO. That market for private equity is not currently available to the retail investor. It is very frustrating, because only those who are well off are able to access these great investments. Tokenization brings more democracy to finance, so not just the giant pension plan or the high-net-worth individual can take advantage of these opportunities. The retail investor has access, but they need help navigating the complexity of these new assets. There is a very important role for financial advisors with all of the technological advances in finance.

John So, in other words, technology is really going to create asset classes that individual investors never had the opportunity to invest in before. And they will need guidance as new assets that aren't well understood by the retail investor are introduced to the market.

Cam *That is correct. The role of the advisor becomes more important, and it is naïve to think the financial advisor will go away because of a robo-advising tool. That is just not the case.*

John So advisors are going to have an increasing role in producing better client outcomes. They actually could be a net winner in all of this technological innovation.

Cam *They will be a winner.*

John What are going to be some of the other winners and losers as this shakes out?

Cam *That's a very long conversation. But let me talk about some of the obvious losers. The lowest-hanging fruit, of course, is the banking system. The banking system really has not changed that much in the last 150 years. The banking system is very challenging for small and medium-sized businesses. The small businesses generate 50% of employment in our economy, and many are financially constrained. They go into the bank for a loan, and often they are either shown the door, because the loan size is so small, or asked to use a credit card with its 24% interest rate.*

In terms of losers, the banks will be the biggest losers. And I think they know it. They will need to pivot to survive. They require a different business model.

In terms of winners, small businesses will be in a very good position. Many of today's financial constraints will vanish. I believe many more people will be connected to markets, indeed, there are 1.7 billion people that are unbanked in the world. Technology allows everyone to have a bank. And what I mean by bank is a vault. The vault is your mobile phone or your laptop or another similar device. The 1.7 billion currently unbanked people will have mobile phones in the next couple of years.

John Yes.

Cam *And they will be able to transact on the internet. What I mean by transact is not just to pay for things, but to actually be paid for things.*

John So, how would you expect cryptocurrencies to do in a recessionary type of environment?

Cam *I have been asked this question before. Many people with a long position in cryptocurrency are trying to "talk their trade." If they have a stablecoin that is linked to the US dollar, well that is just like holding the US dollar. But if they own bitcoin, for example, it is linked to nothing. There is no discounted cash flow. There is no expected profit. We do not know what the risk is. We have extreme dispersion in beliefs as to what bitcoin is worth. Many people believe it is worth zero. Some people believe it is worth $1 million a coin. And, given that uncertainty, there is a lot of volatility.*

The argument about hedging goes the following way. For a stock we can value, we have expected profits we can discount back to the present with a discount rate that reflects the riskiness of the stock. So in bad times we know those expected profits go down, which is negative for the price, and we know the risk goes up, which is also negative for the price. It is easy to understand that these risky assets generally perform poorly in economic downturns and do well in economic upturns.

With a cryptocurrency such as bitcoin or ethereum, there is no valuation like that. We have no idea what the value is. It has no expected profitability. It has some risk, but we do not know how to measure it. The annualized volatility is about 100%, so it is extreme. Many advocate the story that cryptocurrencies must be a hedge asset because their value is not linked to macroeconomic performance whereas a stock's value is linked.

I am negative on that story for multiple reasons. The number one reason is that we do not have a history: this is a relatively new technology. Quality data are only available since 2011. Without a recession in the data set, how can we claim it is a hedge asset? Number two, the market is dominated by speculators rather than by users of the tokens for transactions.

The recent behavior of the equity market validates this idea that cryptos are a risk asset. When the market recently tumbled, so did cryptos. It seems we have learned in the [2020] market downturn that cryptos such as bitcoin are risk assets just like stocks. It is hard to imagine a good hedge asset having 100% annualized volatility—that is, almost by definition, going to be an unreliable hedge asset. When cryptos move with the equity market almost one for one, that is definitely not a hedge asset. Cryptocurrency is very useful for certain things, but not as a hedge in your portfolio.

John

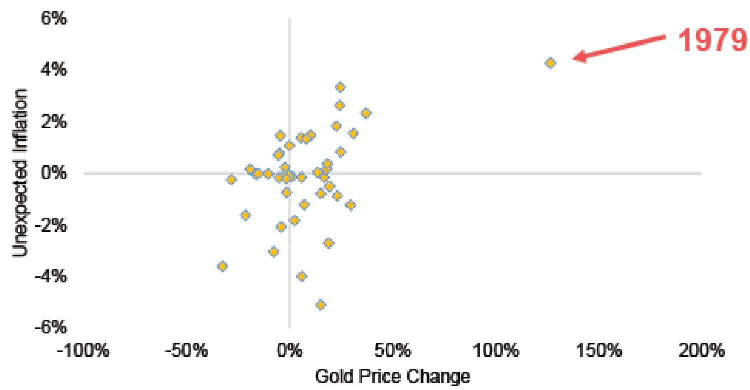
Let's turn our attention to another asset that, like crypto, doesn't have a yield. Some of its proponents say it is a great hedge for inflation. You've done a lot of work in gold. Please talk a little bit about the longer-term implications of what would drive gold prices higher, and its suitability as an asset class.

Cam

The bottom line of my research is that historically gold has been a hedge, especially with respect to inflation. However, the hedge is only viable in the long term. And when I am talking long term, I am not talking 10 years. I am not talking 50 years. I am not even talking 100 years. The viability of the hedge depends on centuries of data.

So why is gold a good hedge over the very long term, but not necessarily over a shorter horizon? Volatility. Gold is a volatile asset. It is as volatile as the S&P 500. With any volatile asset, we run the risk it will not perform as a hedge when we actually need it to. So, for example, people have talked about having gold in their portfolio for unexpected inflation shocks. I have plotted the gold price change against unexpected inflation. [Chart appears on next page.] Ideally, we would like to see a 45-degree line, so if we have an inflation shock, the price of gold will go up to hedge for that. There is essentially no relation except for one year near the beginning of the sample. This more-modern empirical analysis shows gold is an unreliable hedge. [Cam Harvey and his coauthors, Claude Erb and Tadas Vishanta, have a new paper on gold called "Gold, the Golden Constant, COVID-19, 'Massive Passives,' and Déjá Vu."*]*

Gold and Unexpected Inflation, 1975–2019



Source: Bloomberg, US Bureau of Labor Statistics.

John This review of new technologies and perhaps the oldest technology we have, which is exchanging goods and services for gold, has been fascinating. Thanks, Cam.

Cam *Thank you.*

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