Cryptocurrency Statistical Arbitrage for SDIRAs

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This post explores my own research and interest in applying modeling and analysis techniques to the real world. I am a Data Scientist and none of this should be considered investment advice, retirement advice, or advice on cryptocurrencies.

Statistical Arbitrage is an investing strategy that is attractive for many reasons. One downside is the exposure to higher taxes and fees. Compared to long-term investments, you need to make more money to offset the increased fees associated with frequent trading. In the USA, you will also be taxed at the short-term capital gains tax rate (up to 37%) instead of the long-term capital gains tax rate (max 20%). I was very excited to try to apply my analytical and programming skills to make money earlier this year using a model I'd program myself (while hopefully learning on the way!), but I couldn't justify taking any money out of long-term investments for the project. Beating a good index fund over the long term is already a difficult task, but after looking at my specific situation, I felt I had no chance of beating one by more than the taxes and fees I'd pay. I put the idea on a shelf and forgot about it.

Last month, a company my husband used to work for went out of business, and we were required to roll over his 401k from that company to a different retirement plan. It was not a very large percentage of our overall retirement money, and he could have simply rolled it into his current job's retirement account, but we decided to explore all our options and along the way, we learned about Self Directed IRAs (SDIRA). The rules for SDIRAs (and IRAs) are different from normal investments. I wasn't very familiar with them, but I learned some of the key differences as I did more research. Gains from IRAs are not taxed immediately when realized, only when they are distributed from the account. This means gains from long-term or short term investing have the same effective tax rate. Suddenly, the Statistical Arbitrage project seemed more realistic.

The last piece of the puzzle was to find an investment area where the average gains from a good trading strategy would overwhelm the fees. Since Statistical Arbitrage strategies typically depend on the ratio of multiple stocks to revert to the mean over time, correlated stocks should be selected. This often means picking multiple companies from the same sector, whose values are highly correlated in the long term, but fluctuate semi-independently in the short term based. Larger and more frequent swings allow for more arbitrage opportunities. Crypto-currency is a highly volatile market that fits the bill perfectly. There are companies that allow you to invest in cryptocurrency by using programmatic APIs to obtain market information and make trades, with no fees beyond the normal exchange fees (One example we are considering is

IraFinancialTrust to manage the SDIRA with Gemini platform for trading. Please do your own research before trusting anyone with your retirement money).

I'm very happy that as I continue my job search, I've finally figured out the perfect project to hopefully make some money in the interim while I keep all my skills up to date: API to get info and make trades, data analysis, modeling, and predictions.

I look forward to making future updates about my progress!