

Capital Markets & Investments

Session 20: Funds (3) – Skill vs. Luck: Part 2

Spring 2025
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Recap: Factor Models

$$r_{it} - r_{ft} = \alpha_i^{4F} + \underbrace{\beta_i(r_{mt} - r_{ft})}_{\text{CAPM model benchmark}} + e_{it}$$

CAPM model benchmark

$$r_{it} - r_{ft} = \alpha_i^{4F} + \underbrace{\beta_i(r_{mt} - r_{ft}) + s_iSMB_t + h_iHML_t + u_iUMD_t}_{\text{4-factor (4F) model benchmark}} + e_{it}$$

4-factor (4F) model benchmark

Scenario

- Imagine you are deciding your risky asset allocation.
- Currently, your risky portfolio is 60% S&P500 and 40% value ETF.
- A salesman comes to you and asks you to invest in the fund, which will (allegedly) increase the Sharpe Ratio of your portfolio.
- Unfortunately, we do not have enough history to accurately estimate alpha and beta of these funds.

Option #1:

<https://www.defianceetfs.com/nvox/>



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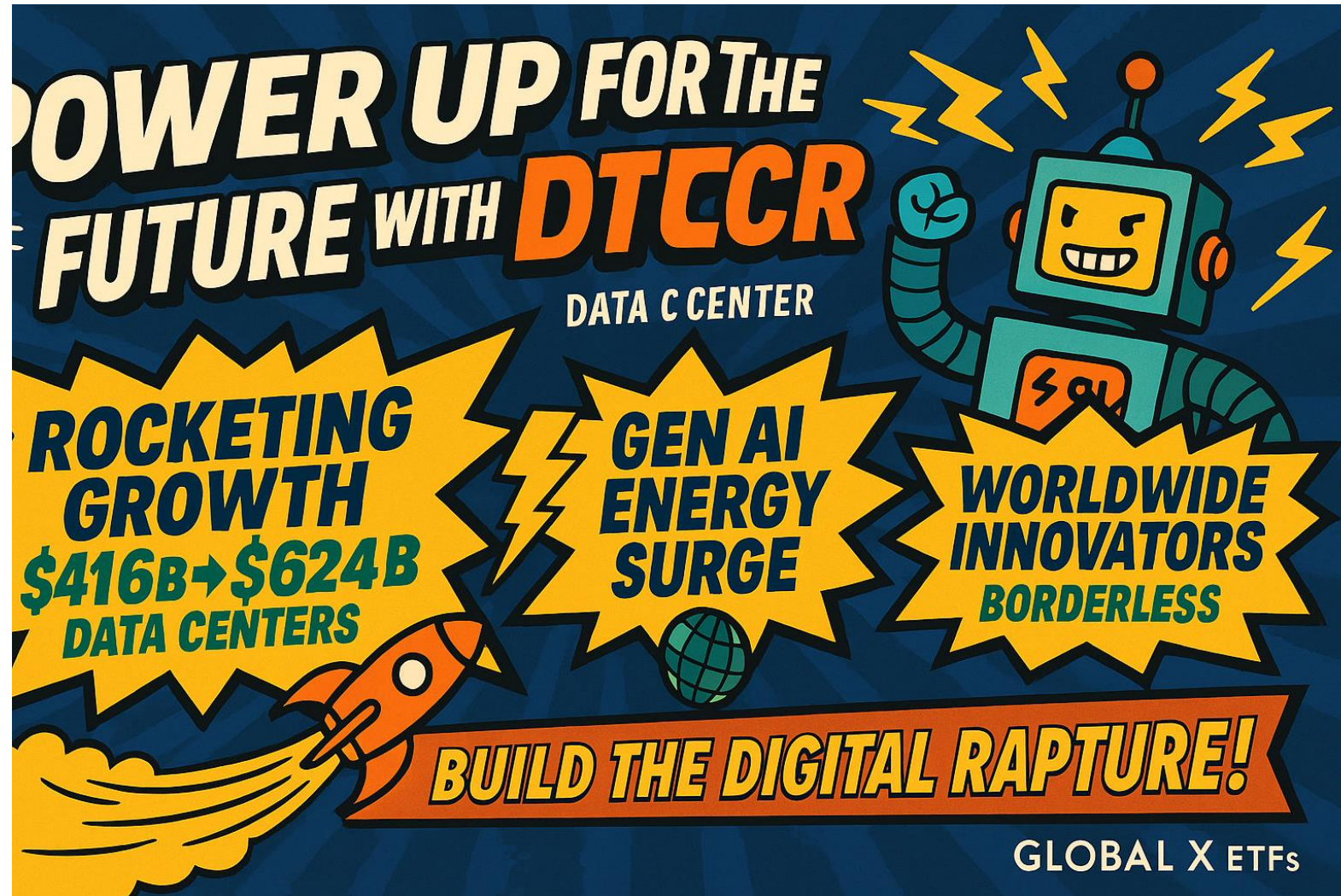
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Option #2:

<https://www.globalxetfs.com/funds/dtcr/>



Option #3:

<https://www.proshares.com/our-etfs/strategic/pawz>

