**Petran 10 - A Crypto Index Fund**

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The rapid evolution of cryptocurrencies has transformed them from speculative assets into integral components of modern investment portfolios. As digital assets gain prominence, the need for structured investment vehicles, such as crypto index funds, become increasingly evident. In this paper we will argue that crypto index funds are basically the best way to invest for 99.9 percent of investors.

**1.Lack of Fundamental Valuation Metrics in Crypto**

Unlike stocks, cryptocurrencies lack standard fundamentals—no earnings, no consistent cash flow, no traditional business metrics that can form the basis of reliable long-term valuation. This makes individual coin-picking especially risky

* A report by S&P Global highlights that cryptocurrencies are highly volatile relative to traditional financial assets, and that traditional valuation comparisons (e.g. relative to earnings or price/book) don’t apply. [S&P Global](https://www.spglobal.com/en/research-insights/featured/special-editorial/understanding-crypto-valuation?utm_source=chatgpt.com)
* They also show that many cryptos correlate with each other, suggesting that much of their behavior is driven by market sentiment, macro trends, and speculative flows rather than business fundamentals. [S&P Global](https://www.spglobal.com/en/research-insights/featured/special-editorial/understanding-crypto-valuation?utm_source=chatgpt.com)

These findings imply that standard tools for stock valuation (e.g. P/E ratios, profit growth forecasts) are largely unusable in the crypto space, because the “assets” don’t behave like companies.

**2.Portfolio Diversification and Risk Reduction**

*Portfolio Performance Analysis: A Case Study of Cryptocurrencies* (Aliu et al., 2020) examined several portfolios of cryptocurrencies (from 2012–2018) and found that as the number of different coins in the portfolio increases average risk (variance) declines. Portfolios with more diversified holdings among large cap cryptos had lower risk compared to those holding just one or a few cryptos. [ResearchGate](https://www.researchgate.net/publication/347082045_Portfolio_performance_analysis_a_case_study_of_cryptocurrencies?utm_source=chatgpt.com)

*Small Portfolio Construction with Cryptocurrencies* (Veliu & Aranitasi, 2024) similarly finds that different risk measures and diversification techniques show improved performance (lower risk, better risk‐adjusted returns) when more assets are included rather than relying on one or very few. [ResearchGate](https://www.researchgate.net/publication/378458532_Small_Portfolio_Construction_with_Cryptocurrencies?utm_source=chatgpt.com)

These studies support the idea that selecting individual coins exposes you to much more idiosyncratic risk (i.e. risk that a particular coin fails) than an index or basket approach.

**3.Comparison of Passive / Index-like Strategies vs Active / Single Coin Bets**

* *Investing with Cryptocurrencies – Evaluating their Potential for Portfolio Allocation Strategies* (Petukhina, Trimborn, Härdle, etc., 2021) analyze how adding cryptocurrencies to diversified portfolios of traditional assets (stocks, bonds, etc.) affects performance. They conclude that cryptocurrencies improve the risk-return profile for many different investor types, but mostly when handled via portfolio strategies (e.g., risk-parity, maximum diversification, mean-variance) rather than by picking individual cryptos. [Taylor & Francis Online](https://www.tandfonline.com/doi/full/10.1080/14697688.2021.1880023?utm_source=chatgpt.com)
* *Simple and Effective Portfolio Construction with Crypto Assets* (Johansson & Boyd, 2024) show that even when crypto assets display heavy tails, skewness, and extreme volatility, a “fixed allocation + risk‐dilution / cash” strategy (which is essentially a passive or quasi‐passive index‐style approach) can robustly integrate these assets into broader portfolios with favorable risk‐adjusted return outcomes. [arXiv](https://arxiv.org/abs/2412.02654?utm_source=chatgpt.com)

These findings indicate that passive or semi-passive index‐style exposure generally outperforms—or at least is more reliable than—trying to pick “winners” among coins, due to the unpredictability, low signal-to-noise ratio, and high failure rate of many smaller coins.

**4.Empirical Examples: Small Allocations Yield Big Gains**

* In *Optimal Crypto Allocation for Portfolios* (VanEck, 2024), researchers studied adding small allocations of Bitcoin and Ethereum (up to 6% combined) to a traditional 60/40 stocks/bonds portfolio. The best risk-adjusted return came from a 3% BTC + 3% ETH allocation, which significantly improved the Sharpe ratio compared to the pure 60/40 baseline, with only modest increases in drawdown. [ETF & UCITS Fund Manager | VanEck+1](https://www.vaneck.com/de/en/blog/digital-assets/matthew-sigel-optimal-crypto-allocation-for-portfolios/?utm_source=chatgpt.com)
* Other sources (Grayscale, etc.) also support that allocations around 5% to crypto in a balanced portfolio tend to maximize risk‐adjusted returns for many investors. [Grayscale Research](https://research.grayscale.com/reports/the-role-of-crypto-in-a-portfolio?utm_source=chatgpt.com)

**5.The Case Against Picking Individual Coins**

While there are fewer studies that explicitly test “coin picking vs index” in a rigorous way, the cumulative evidence leans strongly against relying on individual coin selection:

* Many cryptos are highly correlated; most of the variance in portfolios of cryptos comes from market‐wide or sector‐wide factors rather than project‐specific fundamentals. This means that picking “good projects” often ends up behaving similarly to broad market exposure, but with added idiosyncratic risk. E.g. studies like *Investing with Cryptocurrencies…* find non‐redundancy of crypto assets when added to portfolios—but only when using broad exposure, not selective picking. [Taylor & Francis Online](https://www.tandfonline.com/doi/full/10.1080/14697688.2021.1880023?utm_source=chatgpt.com)
* Research such as *Portfolio Performance Analysis* shows that many portfolios of individual cryptos have high variance, and many single coins fail or perform poorly. The more coins you include, the lower the average risk and variance at least in the top 10 to 50 .[ResearchGate](https://www.researchgate.net/publication/347082045_Portfolio_performance_analysis_a_case_study_of_cryptocurrencies?utm_source=chatgpt.com)

So, trying to beat the market by selecting individual coins is akin to trying to predict which lottery ticket will win might probably fail.

**6. Is there any good way to predict crypto prices for an average investor?**

Someone would probably point out the on-chain data as example of fundamentals in crypto. But unlike traditional stocks, where fundamental data such as earnings, price-to-earnings ratios, and debt levels remain relatively stable until the next financial reporting period, on-chain data is dynamic and constantly evolving. Metrics like transaction volumes, wallet activity, staking flows, and network usage can change every second, reflecting real-time network behavior.

This rapid pace presents a unique challenge: keeping up with on-chain metrics is extremely difficult for the average investor, especially those without advanced financial or quantitative training. Even sophisticated investors must rely on complex data aggregation and analytics to interpret trends accurately.

Further complicating matters, applying statistical models or machine learning techniques to forecast crypto prices requires a high level of expertise. Many academic studies have shown that predictive models incorporating on-chain data or technical indicators can achieve improved forecasting accuracy, but these models are computationally intensive, constantly require updated inputs, and are sensitive to market shifts ([Demosthenous & Georgiou](https://arxiv.org/html/2506.21246?utm_source=chatgpt.com)).

For 99.9% of investors, attempting to implement these strategies is impractical. The combination of constantly changing on-chain data and the complexity of statistical modeling makes active prediction extremely challenging.

Consequently, the most practical and evidence-based approach for the vast majority of investors is to adopt a crypto index fund strategy. By investing in an index fund, investors gain broad market exposure, diversify risk across multiple assets, and participate in the cryptocurrency market’s upside without needing to predict short-term price movements or master advanced quantitative techniques.

**Conclusion**

Putting this all together:

* Cryptocurrencies *do not* provide the kinds of reliable inherent metrics (earnings, revenues, dividends) that enable dependable long‐term prediction, unlike stocks.
* The methods that could utilize for price predictment such as on chain data or statistical arbitrage is too hard for most people.
* Empirical research shows that portfolios with diversified exposure to cryptos (via index-like or fixed-basket strategies) achieve better risk‐adjusted returns, lower variance, and better tail‐risk behavior, compared to single‐coin bets.
* A small allocation (1–5%) to broad crypto exposure often yields substantial gains relative to the incremental risk added.
* Therefore, if one is going to invest in crypto at all, a crypto index is not just safer—but it’s the most defensible and evidence‐based way to do it.