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Thoughts on Investing in Extreme Volatility

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In the midst of periods of extreme volatility as we have recently experienced, investors may want to remember some fundamental investment axioms:

- The performance of actual investor portfolios is generally not well represented by equity indices.
- A well-defined long-term investment program can help withstand short-term volatility.
- Historically, markets recover after periods of volatility.
- Effective diversification is the single most important portfolio management principle for managing unforecastable risk.

The Performance of Actual Investor Portfolios is Not Well Represented by Major Equity Indices

While headlines in times of market volatility tend to focus on major indices like the S&P 500 and the Dow, it's important to remember that your clients are typically invested in diversified portfolios representing multiple asset classes. A useful focus may be to consider the New Frontier index that best reflects a client's systematic risk level for meeting long-term invest objectives.

The graph on the following page tracks the performance of three New Frontier indices: conservative <u>NFGII</u> (20/80 stock/bond; white), balanced systematic risk <u>NFGBI</u> (60/40; yellow), and optimized global risk <u>NFGEI</u> (all equity; green). The S&P 500 (purple) and the DJIA (red) are also displayed. The period is February 24, 2020 to market close on March 9, 2020.

The data show that New Frontier multi-asset diversified optimized indices that include many asset classes relative to targeted systematic risk levels provided valuable managed risk performance during this high volatility period. Globally diversified systematic risk-targeted indices outperformed highly publicized domestic indices.





Performance of New Frontier Indices Compared to S&P 500 (GSPC) and DJIA: Market Open 2/24/20 - Close 3/9/20

Source: Bloomberg

Zooming Out Over Longer Periods

Of course, short term performance does not tell a very reliable story. For long-term investors with retirement and legacy objectives, a longer period can provide a valuable perspective on volatile periods. The graph below of the history of the S&P 500 provides welcome context. A recent article in the New York Times provides some additional insight on the current market downturn.



S&P 500 Over the Last 40 Years (1980-2020)

Source: Bloomberg



Historically, Markets Tend to Recover After Periods of Volatility

It is often tempting to "go to cash" when volatility hits and try to avoid further loss of capital. But once volatility spikes, <u>it's often too late</u>. We provide below a simple empirical examination of market return and risk following a volatility spike. The data shows that, historically, future returns average higher than usual, but are still quite risky. This means that exiting the market has resulted in lost returns on average, but also there is no "free lunch."

When the VIX is:	0-20	20-25	25-30	30+
Average 5-day return	0.14%	0.09%	0.28%	0.47%
Standard Deviation (Annualized)	10.91%	17.48%	19.88%	33.43%
Average 1-month return	0.63%	0.32%	1.08%	1.82%
Standard Deviation (Annualized)	10.75%	17.31%	18.76%	26.95%
Average 3-month return	1.94%	0.89%	3.11%	5.85%
Standard Deviation (Annualized)	11.08%	17.86%	16.50%	22.36%
Number of observations	4372	1411	655	580

S&P 500 Returns Following Observed Values of the CBOE VIX: January 1990 - February 2020

Sources: CBOE and S&P

A Note of Reassurance

Our Global Multi-Asset ETF portfolios are designed to provide enhanced robust diversification and risk management across many market environments. New Frontier's investment process uses multi-patented optimization methods to engineer robust solutions over thousands of market scenarios. Our innovations in asset management technology include continuous monitoring and management to maintain optimal exposure to long-term systematic risk objectives.

Volatility and uncertainty are unavoidable facts of financial markets, and the financial impact of the coronavirus has been a sharp reminder of that. Effective diversification remains the single most important portfolio investment principle for mitigating and managing unforecastable risk.



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