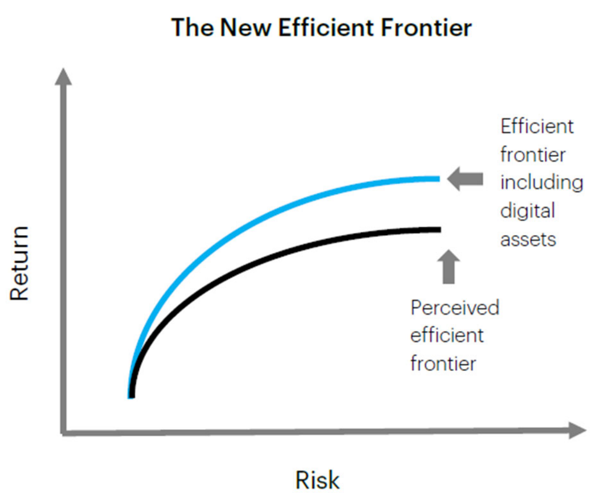
Why Should Digital Assets Be An Asset Class?

"It's not every day, or even every decade, that an entirely new asset class is born. Yet, through a combination of computer science, cryptography, economics, and network theory, digital assets have arrived and are proving that they are an asset class unlike any other.

– Matt Beck, Grayscale Investments

When deciding whether to add a new asset/security to one's portfolio, the optimal risk/return ratio can be found on the efficient frontier…



Digital assets may represent the "missing piece" in asset allocation

- Optimal beta portfolio may lie higher on the efficient frontier than previously thought
- Present a new investment opportunity uncorrelated to other asset classes
- Represent an asset class to which investors are generally under-allocated

Source: "A New Frontier: How Digital Assets are Reshaping Asset Allocation." Matt Beck, June 2018

Why Invest in Cryptocurrencies?

Store of value characteristics:
Similar to real assets such as gold, digital assets like bitcoin exhibit store of value properties and other characteristics of sound money. These include durability, scarcity, divisibility, portability, fungibility, verifiability and recognizability.

Spending characteristics:
Similar to cash, digital currencies like bitcoin can be spent on goods and services, with over 100,000 merchants worldwide accepting them, including PayPal and Microsoft.

Growth characteristics:
As real applications for blockchain technology and digital assets continue to grow, digital assets have the potential to provide wealth preservation and accumulation concurrently.

Low correlation with other markets:
Most cryptocurrencies exhibit a low correlation to traditional assets. In fact, Figure 1 suggests that the average correlation with traditional asset classes and currencies is 0.11. The maximum correlation is 0.44 and the minimum is -0.24.

Therefore, as an asset class, cryptocurrency can potentially provide uncorrelated returns to investors.

Amanda Jogia
CEO
info@primealpha.com
www.primealpha.com
+1 212-960-3316
530 7th Avenue, New York, New York 10018

Figure 1. Multi-Asset Correlation Matrix

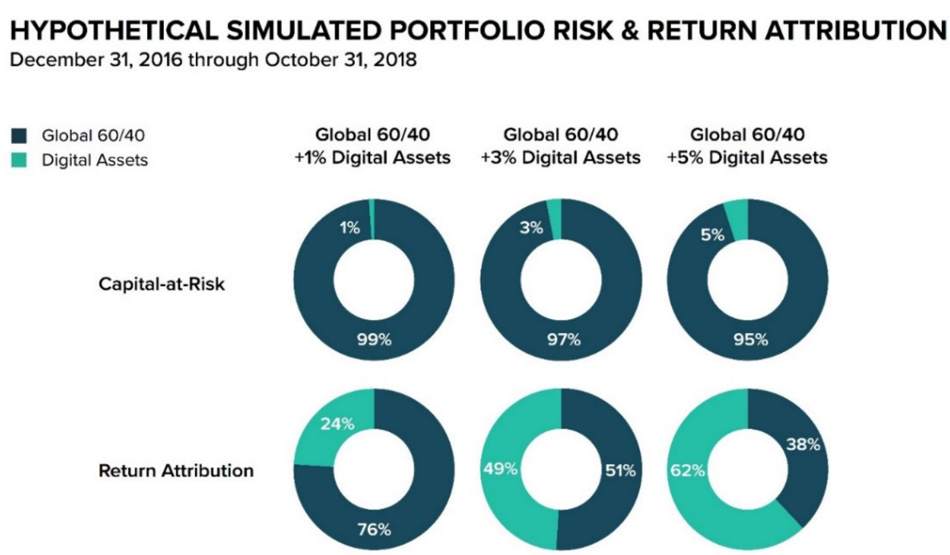
December 31, 2016 through October 31, 2018, Based on rolling one-month returns

ASSET	Bitcoin	Ethereum	XRP	Bitcoin Cash	Litecoin	Ethereum Classic	Zcash	Zen
	BTC	ETH	XRP	BCH	LTC	ETC	ZEC	ZEN
S&P 500 Index	0.22	0.18	0.11	0.13	0.12	0.13	0.14	0.13
Nasdaq Composite	0.14	0.15	0.14	0.16	0.09	0.15	0.08	0.08
MSCI World Index	0.24	0.29	0.23	0.16	0.18	0.21	0.22	0.19
MSCI EAFE Index	0.24	0.44	0.38	0.18	0.24	0.32	0.31	0.26
MSCI Emerging Markets Index	0.16	0.34	0.32	0.20	0.15	0.18	0.20	0.20
Bloomberg Commodity Index	(0.11)	(0.16)	0.10	0.21	(0.14)	(0.24)	(0.13)	0.21
Barclays Capital Bond Index	0.19	0.30	0.20	0.09	0.20	0.31	0.21	0.04
COMEX Gold Index	0.02	0.18	0.15	0.13	0.01	0.01	0.09	0.20
DJCME Spot FX Index	0.02	0.23	0.21	(0.01)	0.13	0.21	0.12	(0.12)
Swiss Franc (CHF)	(0.09)	0.20	0.15	(0.13)	0.06	0.22	0.14	(0.23)
Canadian Dollar (CAD)	(0.12)	0.02	0.05	0.06	(0.04)	(0.04)	0.07	(0.08)
British Pound (GBP)	(0.10)	(0.03)	0.20	(0.06)	0.22	0.07	(0.12)	(0.17)
Euro (EUR)	0.13	0.30	0.26	0.05	0.17	0.31	0.18	(0.05)
Japanese Yen (JPY)	(0.04)	0.12	(0.05)	(0.02)	(0.04)	0.05	0.03	(0.08)
Chinese Renminbi (RMB)	0.08	0.22	0.16	0.10	0.14	0.08	0.14	0.09
Russian Ruble (RUB)	0.08	0.21	0.23	(0.04)	0.15	0.06	0.10	0.02
Argentine Peso (ARS)	0.26	0.20	0.04	0.19	0.20	0.19	0.14	0.31
Thai Baht (THB)	0.08	0.19	0.08	0.06	0.08	0.10	0.11	0.01
Singapore Dollar (SGD)	0.12	0.31	0.21	0.14	0.14	0.17	0.17	0.00
Brazilian Real (BRL)	(0.05)	(0.06)	(0.01)	(0.02)	(0.02)	(0.12)	(0.14)	(0.10)

Source: Grayscale, Bloomberg, Coinmarketcap.com. Based on one-month rolling returns from December 31,2016 through October 31,2018

Hypothetical Simulated Portfolio Risk & Return[1]

While digital assets may not be appropriate for all investors based on their investment mandate or risk profile, opportunistic investors may benefit by adding a 50 - 300 basis point digital asset allocation to their portfolio. A hypothetical simulated portfolio's risk-return attribution after adding a digital asset allocation is illustrated.



Direct investments in cryptocurrency:

Buying digital currency directly may be suitable for investors with significant technological expertise and knowledge of the cryptocurrency landscape, who can determine how to buy, transfer and safeguard assets. However, for most traditional investors, the logistical complications associated with sourcing digital assets and finding and vetting service providers proves to be too challenging to be a safe or economically viable option.

Investing in a digital asset management fund:

Investing in a digital asset management fund may be the safest and easiest way to make investments in digital assets. Such an investment eliminates the challenges associated with buying, storing, and safekeeping these assets, offering seamless exposure.

Investment considerations

- The process of purchasing cryptocurrencies is still complicated compared to buying traditional equities. If one wants to buy and trade cryptocurrencies directly, one needs to find a registered exchange which offers the particular digital asset, and complete an extensive verification process.
    - Getting diversified digital asset exposure by buying multiple cryptocurrencies may require trading on multiple exchanges simultaneously. Investing through a diversified fund can mitigate the hassle of trading and managing accounts across multiple exchanges.
- Digital assets are bearer assets. Holding a digital asset directly involves the cost of safeguarding the asset, and custodial solutions can be expensive, and difficult to manage from the technological perspective. Having a reliable fund manager with domain expertise cuts down these costs, and removes the burden of self-custodying these assets, which have no recourse if access is lost.
- Digital assets are considered relatively high risk investments, and should be evaluated as an appropriately sized component of a diversified portfolio.

Special Thanks to our Contributor:

Rayhaneh Sharif-Askary
Director, Sales & Business Development
Grayscale Investments, LLC

P: +1 212.668.6687
E: Ray@grayscale.co
W: grayscale.co

GRAYSCALE

Established in 2013 by Digital Currency Group, Grayscale is a leader in digital currency investing. Grayscale provides secure access and diversified exposure to the digital currency asset class.

Grayscale Investments offers nine private placement products, which allow institutions and accredited investors to access individual digital currencies through the form of a security (Bitcoin, Bitcoin Cash, Ethereum, Ethereum Classic, XRP, Litecoin, Zcash, Zen). Grayscale also offers a diversified index fund, Digital Large Cap Fund, which provides exposure to the top digital assets based on a rules-based portfolio management process, which is reevaluated quarterly.

(1) HYPOTHETICAL SIMULATED PERFORMANCE RESULTS HAVE CERTAIN INHERENT LIMITATIONS. There is no guarantee that the market conditions during the past period will be present in the future. Rather, it is most likely that the future market conditions will differ significantly from those of this past period, which could have a materially adverse impact on future returns. Unlike an actual performance record, simulated results do not represent actual trading or the costs of managing the portfolio. Also, since the trades have not actually been executed, the results may have under or over compensated for the impact, if any, of certain market factors, such as lack of liquidity. Simulated trading programs in general are also subject to the fact that they are designed with the benefit of hindsight. NO REPRESENTATION IS BEING MADE THAT ANY ACCOUNT WILL OR IS LIKELY TO ACHIEVE PROFITS OR LOSSES SIMILAR TO THOSE SHOWN. PAST PERFORMANCE IS NOT INDICATIVE OF FUTURE RESULTS. We selected the timeframe for our analysis because we believe it broadly constitutes the most complete historical dataset for the digital assets that we have chosen to analyze. For the sake of consistency and for comparison purposes, we will use this timeframe throughout the paper.

Source: Bloomberg, CoinMarketCap.com. Performance is shown from December 31, 2016 through October 31, 2018. "Global 60/40" consists of a 60% allocation to the iShares MSCI ACWI and a 40% allocation to the Vanguard Total International Bond ETF. Return attribution is based on the excess returns of the hypothetical simulated portfolios including digital assets as compared to the "Global 60/40." "Digital Assets" consists of an equal-weighted mix of Bitcoin (BTC),Bitcoin Cash (BCH), Ethereum (ETH), Ethereum Classic (ETC), Litecoin (LTC), XRP (XRP), Zcash (ZEC), and Zen (ZEN). THE GLOBAL 60/40 + 1%/3%/5% DIGITAL ASSETS RESULTS ARE HYPOTHETICAL AND ARE NOT BASED ON ACTUAL RETURNS OR HISTORICAL PERFORMANCE. DIGITAL ASSETS HAVE HISTORICALLY EXPERIENCED SIGNFICANT INTRADAY AND LONG-TERM PRICE SWINGS AND PAST PERFORMANCE IS NOT NECESSARILY INDICATIVE OF FUTURE RESULTS. Component asset weights are held constant over the period.