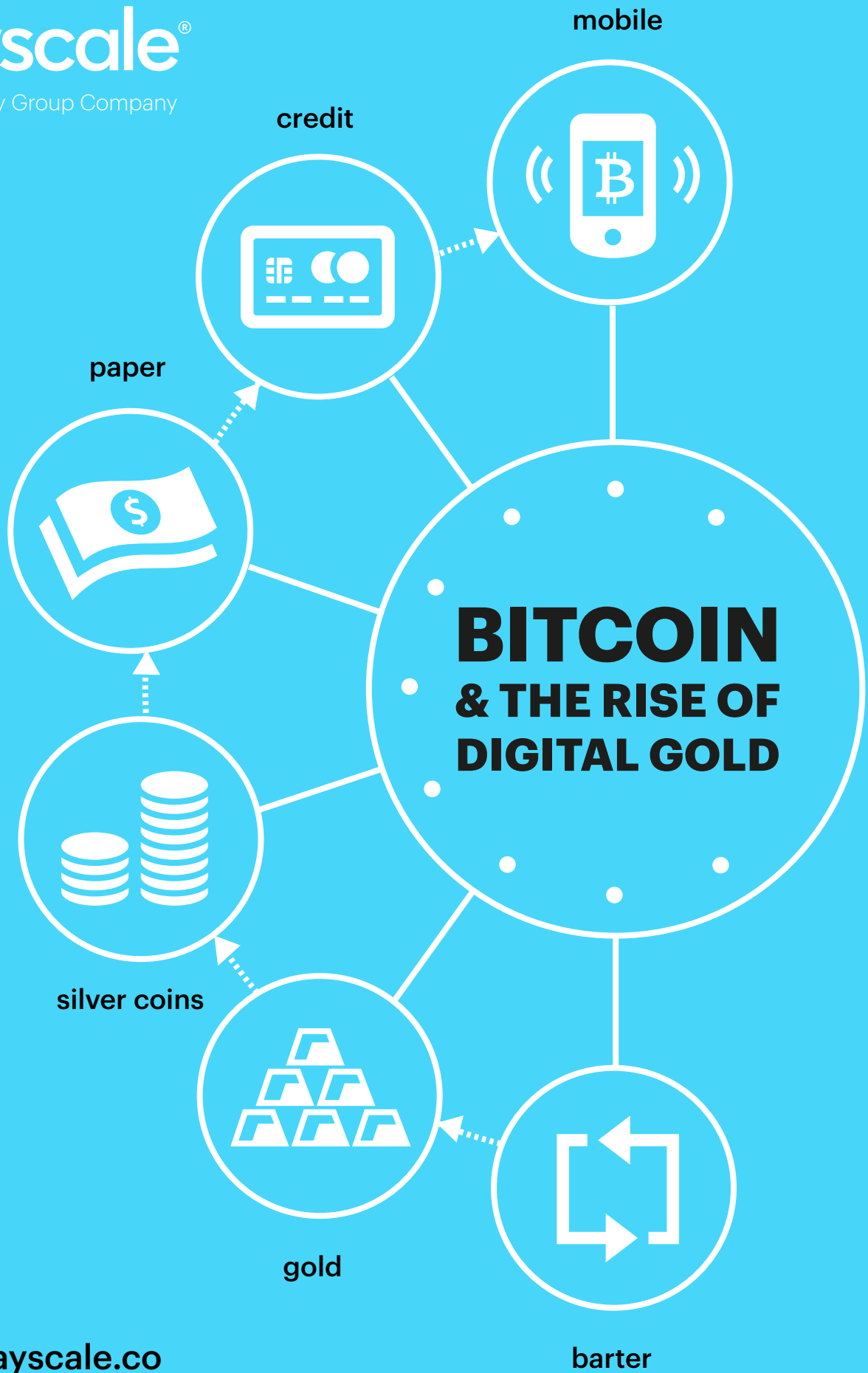


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July 2016

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Bitcoin & the Rise of Digital Gold

Matthew Beck, CFA

Over the last eight years, bitcoin has grown from a small scale experiment into an asset with a \$10+ billion market capitalization and the potential to revolutionize nearly every aspect of our lives. Just as the computer and the internet radically transformed the way people store, process, and share information, bitcoin dramatically enhances the way people store, process, and exchange value.

In the digital era, bitcoin threatens to supplant gold as the ultimate monetary asset. Our research reinforces that a steady allocation to bitcoin, in place of or in addition to gold, could enhance the risk-adjusted returns of traditional investment portfolios. In this paper, we explore:

- I. The origins of money
- II. Why gold was historically good money
- III. Why bitcoin is better money
- IV. How a strategic allocation to bitcoin can improve the efficiency of investor portfolios

I. The Origins of Money

Money is much more than an idea cleverly conceived by ancient philosophers, politicians, or economists. To understand what money truly is, why physical gold has taken the form of money for millennia, and why bitcoin is poised to radically transform our concepts of money in the 21st century, we must analyze its origins in ancient trade and barter economies.

Trade has always been used to satisfy peoples' basic physiological, safety and security needs. This was never more profound than in ancient Mesopotamia, a region limited in its abundance of natural resources. Over time, proliferation of trade in the region led to the expansion of early economies. As civilizations increased in complexity, so did their barter systems. New layers of complexity challenged legacy trade channels, forcing the evolution towards more sophisticated, monetary systems.

In order to understand the factors that drove this transition, let's look at a conceptual example of a trade system, with and without a common currency.

Figure 1 shows a pure barter market in which there are four participants: A wheat farmer, a livestock producer, a silk trader and a spice trader. In this market, frictions exist due to constraints on market liquidity, access and familiarity. For example, the livestock producer may be willing to trade for wheat; however, the wheat farmer may not have a direct use for livestock. Furthermore, the wheat farmer may have difficulty converting livestock into a useful asset through trade, due to insufficient market knowledge or limited access to trading partners. As a result, the wheat farmer and livestock producer find themselves at an impasse, evidencing friction in the barter system.

Figure 1: Barter Market with Inherent Frictions

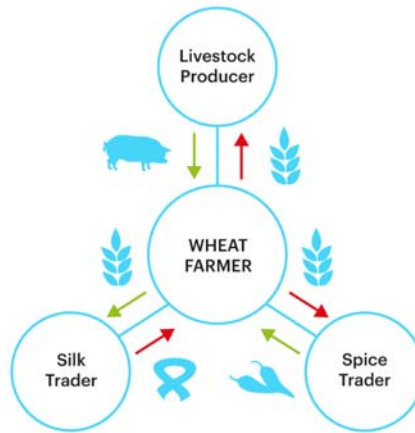


Figure 2 demonstrates how trading with a common currency such as gold, improves upon the barter system. In this example, the wheat farmer is now willing to trade with the livestock producer because he can sell his wheat for gold. The farmer is happy to do so because with a widely accepted currency such as gold, he can redeploy bars or coins as payment to other merchants for assets that he values, now or in the future.

Figure 2: Money Market with Increased Efficiency



These two trading systems exemplify a timeless and universal characteristic of money. *That is, any form of money that gains acceptance has value because it increases market efficiency and promotes economic growth.*

II. The “Perfect” Element

For over 10,000 years, gold has maintained its position as the most widely recognized and successful form of money in the world. Countless nations and currencies have risen and fallen, but gold remains because it possesses the seven properties that make it good money as store of value, medium of exchange, and unit of account:

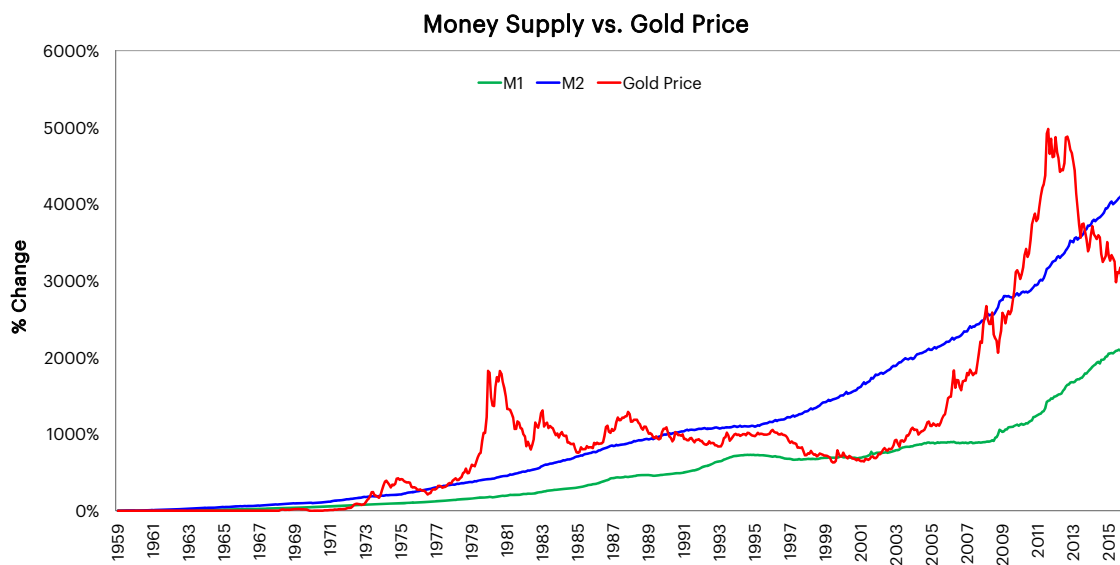
- *Durability*
One of the most important aspects of gold is its unique chemical composition, which lends itself as a physical medium of exchange and store of value. It is not reactive, radioactive, or corrosive, nor is it as difficult to distinguish, smelt, or extract as other elements.
- *Scarcity*
In order for any asset to be a good store of value, it must have a real economic application and be rare or difficult to produce. There is indeed a limited supply of gold in the world. It is estimated that if you were to collect every parcel of gold in the world and melt it down you would be left with one 20-metre cube.¹
- *Divisibility*
Gold can be smelted and broken down into small parcels because of its chemical composition and malleability, making it easy to transact in different amounts.
- *Portability*
Because gold can be broken down into small parcels, you can physically carry gold around with you in the form of bars or coins, or send it around the world in a car, train, boat or plane.
- *Fungibility*
Gold has uniform value per unit because each unit is chemically identical. This means that a gold coin weighing a single troy-ounce will be worth the same amount as another gold coin weighing a troy-ounce.
- *Verifiability*
You can verify that physical gold is real by conducting tests of its chemical composition.
- *Recognizability*
Gold is recognized as an asset by public and private institutions around the world.

¹Source: BBC News, December 2013.

Gold in the 21st Century

In the 21st century, fiat currency has replaced gold as a far more convenient medium of exchange and unit of account. If you don't agree, try purchasing groceries at your local supermarket with gold instead of cash. But to this day, investors still view gold as the ultimate store-of-value hedge against the hubris of governments enacting monetary policies; and for good reason. Throughout history, fiat currencies have been brutalized by hyperinflation, war, and monetary reform, resulting in an average life of roughly 30 years. Policymakers around the world have long demonstrated that they cannot resist printing money when it accommodates them.

Gold's lasting role as the ultimate monetary asset and store of value is rooted in its scarcity. This is further evidenced by the strong relationship between the money supply of "safe haven" currencies like the US dollar and the price of gold. In fact, the financial market for gold has now ballooned to over \$2.6 trillion according to the World Gold Council.²



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History reinforces that of all the elements naturally existing in the world and all forms of man-made money created, gold possesses the optimal composition of "good" money qualities.

That is, until now...

²Source: World Gold Council, December 2013.

³Source: Federal Reserve Economic Data. Data is shown through March 2016. M1 is a measure of the money supply that includes all physical money, such as coins and currency, as well as demand deposits, checking accounts and Negotiable Order of Withdrawal (NOW) accounts. M1 measures the most liquid components of the money supply, as it contains cash and assets that can quickly be converted to currency. M2 is a measure of money supply that includes cash and checking deposits (M1) as well as near money. "Near money" in M2 includes savings deposits, money market mutual funds and other time deposits, which are less liquid and not as suitable as exchange mediums but can be quickly converted into cash or checking deposits.

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III. Gold Good, Bitcoin Better

In 2008, the inventor of bitcoin, Satoshi Nakamoto, published a whitepaper detailing a peer-to-peer electronic transaction network powered by a digital asset known as bitcoin, in which exchange between users could occur without the need for trusted intermediaries. Transactions would be recorded electronically on a public, distributed ledger (known as a blockchain), on which bitcoin serves as the unit of account. In 2009, the system was released as open source code, allowing participants, or “nodes”, on the bitcoin network to contribute to the evolution of the protocol through a democratic process.

While gold has played a central role in economies driven by *physical* exchange, the world we live in today is increasingly *digital*. Digitization has produced new layers of complexity in the channels of global trade that are challenging existing transaction infrastructure, stimulating the next wave in the evolution of money. In the digital era, bitcoin threatens to displace gold as the ultimate monetary asset because:

1. *Bitcoin possesses a superior composition of “good money” qualities as a durable store of value, efficient medium of exchange, and increasingly stable unit of account.*
 - *Durability*
Bitcoin is more durable than gold in that it exists and is retained on a decentralized network. The open-source nature of the bitcoin protocol allows for continuous adaptation and improvement. Open-source networks are, in principle, more secure and reliable since there is no single point of failure and everyone has a shared incentive to make it better; similar to internet protocols like email and http. The resilience of the bitcoin network lends to the durability of the digital currency/commodity that comprises it.
 - *Scarcity*
Like gold, bitcoin is a scarce asset. The overall supply of bitcoin that will ever enter circulation is limited to 21 million. This is an explicit design element of the bitcoin protocol. As of June 30, 2016, there were approximately 15.7 million bitcoin floating in the market. It is estimated that the total 21 million supply of bitcoin will be mined by the year 2140.
 - *Divisibility*
Bitcoin is the most divisible form of payment available in the world. The smallest possible unit, a ‘satoshi,’ represents 0.00000001 of a single bitcoin (or \$0.0000066 based on current bitcoin prices in the \$660 range). All bitcoin are displayed to the eighth decimal place, creating 100 million units within each bitcoin. This facilitates electronic micropayments and microfinancing in ways that other forms of money cannot. Imagine a world in which you can send a small fraction of a bitcoin instead of a “like” on Facebook to crowdfund charities or independent projects with the click of a button.

- *Portability*

Bitcoin exists in the 'cloud', making it much more portable than gold or fiat currency. In the mobile era, connectivity via a mobile device or the internet is all that is required to deal in bitcoin. It is estimated that there will be 28 billion connected devices in 5 years' time.⁴ That is nearly 4x the global population. Practically every person in the world will be able to send and receive bitcoin from a mobile device, as easily as a text message.

- *Fungibility*

One unit of bitcoin represents the same exact value as another unit of equal size.

- *Verifiability*

Bitcoins are unique cryptographic tokens that are directly verifiable on the bitcoin blockchain, in real-time, from anywhere in the world. The blockchain is an electronic, globally distributed transaction ledger that is powered by the computers of bitcoin miners. Miners computationally verify transactions in order to earn economic rewards in the form of bitcoin, supporting the speed and viability of the network.

- *Recognizability*

According to Bitlegal.io, a provider of information on the legal status of bitcoin in different countries, nearly 85% of the 74 countries in their index recognize and permit use of bitcoin. In the US, bitcoin is recognized as a commodity by the CFTC and as property by the IRS. Other governments and regulatory bodies around the world have their own legal classifications for bitcoin.⁵

2. *Bitcoin is increasing market efficiency in ways that gold and other forms of money cannot via its high speed, global transaction network and blockchain.*

Bitcoin can be sent:

- In any amount (0.00000001 or 1 million bitcoin)
- From anywhere in the world
- To anywhere in the world
- As seamlessly as sending a text message or an email
- Instantly
- Securely
- For free
- With transparent and verifiable transactions that are permanently retained on the blockchain

⁴ Source: Ericsson Mobility Report: June 2016.

⁵ Source: bitlegal.io, June 2016.

Below we assess bitcoin and gold along a variety of market efficiency dimensions to see how they stack up:

| | Bitcoin | Gold |
|--|---------|------|
| Low cost storage, transferability, and shipping | ✓ | ✓ |
| Divisibility permits micro transactions | ✓ | NO |
| Not easily susceptible to identity theft or counterfeiting | ✓ | NO |
| Decentralized | ✓ | ✓ |
| Borderless | ✓ | ✓ |
| Fast value transfer | ✓ | NO |
| Easily verifiable/low potential for chargebacks or fraud | ✓ | ✓ |
| Limited supply | ✓ | ✓ |
| No government freezes or confiscations; limited controls | ✓ | NO |
| Good for buying a latte | ✓ | NO |

Bitcoin shows clear advantages over gold in terms of storage cost, divisibility, transfer speed, and acceptance in commercial transactions. Today, over 100,000 merchants worldwide accept bitcoin including Uber, Overstock.com, Expedia, PayPal, Dell, Microsoft and the Sacramento Kings to name a few.

Many believe that the bitcoin blockchain will enable a vastly cheaper and more secure way to transfer assets (i.e. securities settlement, real estate, media, and more) between independent counterparties. Assets can be embedded directly in the blockchain by “tagging” them with a fraction of bitcoin, eliminating the need for central clearing authorities to certify ownership since every transaction on the blockchain has a permanent public record. Taking this concept a step further, some have estimated that the market for financial blockchain applications could ultimately measure in trillions of U.S. dollars⁶ as bitcoin technology revolutionizes the \$700 trillion global derivatives market.⁷

Others think bitcoin will enable financial inclusion for the estimated 2 billion working-age adults without access to basic financial services⁸; services that are essential to satisfy basic physiological, safety, and security needs in the 21st century. This staggering figure represents more than half of the total adult population in the world. Bitcoin and its network driven services can facilitate financial inclusion through:

- Fast, secure, and affordable cross-border payments.
- Transparent, secure, and affordable title transfers.
- Accessible and affordable financing for microenterprises and small business projects.
- Cash flow management for basic living, educational and medical expenses.
- Affordable and secure wealth storage.

⁶ Why financial firms are investigating bitcoin tech, CNBC, June 2015.

⁷ Bitcoin technology offers clarity for derivatives, The Times UK, February 2015.

⁸ Source: Consultative Group to Assist the Poor (CGAP), June 2016.

Goldman Sachs recently released a report describing how blockchain technology is transitioning from a theoretical concept to a practical solution to real-world problems. In the report, they highlight a number of blockchain applications across the lodging, utility, title insurance, banking, and anti-money laundering industries. They estimate that approximately \$22B – \$37 billion will flow into newly created markets or be redistributed across existing markets over the next few years.⁹

Regardless of which market segments you think will be impacted most, it is clear that bitcoin offers tremendous potential across almost every sector as an efficient and practical store of value, medium of exchange, and unit of account in our interconnected, global economy.

IV. The Power of Diversification

As bitcoin promotes economic growth in new and innovative ways, it represents a unique investment opportunity for those seeking to build more efficient portfolios.

Investors today are facing some of the most challenging financial conditions in history. Slow global growth, secularly high debt burdens, deteriorating effectiveness of monetary policies, and low-yielding assets are all contributing to a savings crisis that threatens the economic welfare of institutions and individuals around the world.

Global bond yields are at their lowest levels in recorded history, led by \$11.7 trillion in negative rate sovereign debt outstanding.¹⁰ At the same time, the Shiller P/E on the S&P 500 has reached heights only seen prior to the Great Depression, the Dot-Com Bubble, and the Great Recession. Brexit portends the disintegration of the European Union and China is delicately working to rebalance its economy from one driven by credit-fueled investment to consumption. In this low-return environment with significant downside risk, it will be difficult for many investors to achieve their target returns.

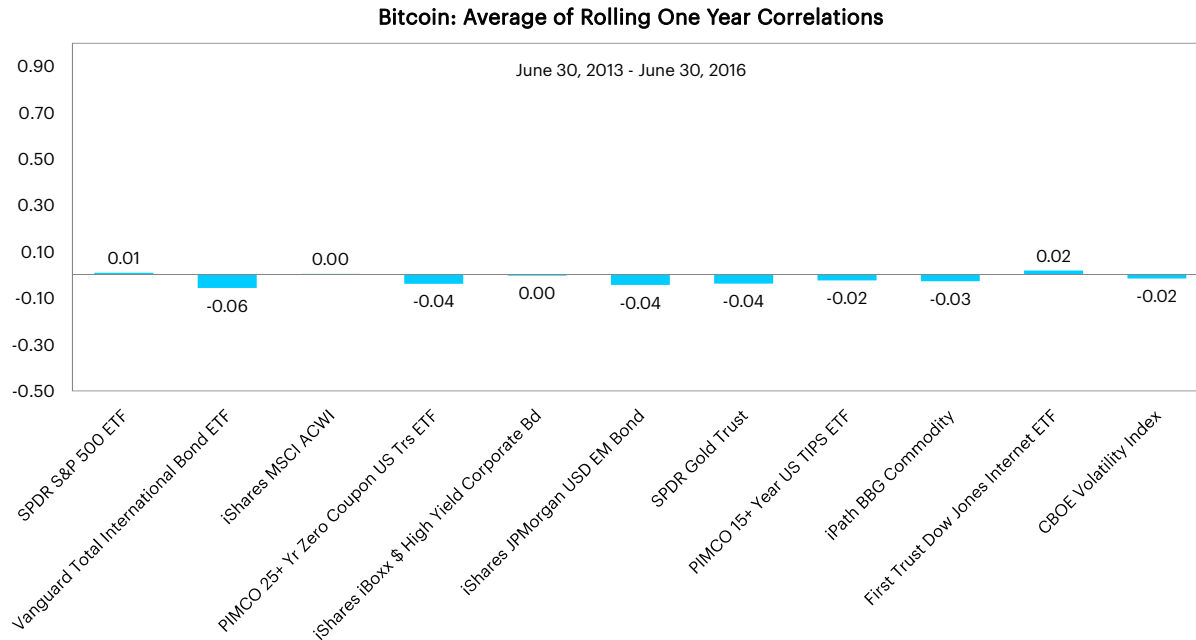
There are two options available to them. They can either:

- 1) Increase exposure to risky assets already held in their portfolios in hopes of generating higher returns. However, this will mean holding more concentrated, less diversified portfolios, with higher risk of ruin.
- 2) Identify uncorrelated assets with positive expected returns, and use them to build more balanced portfolios.

⁹ Source: Goldman Sachs, Profiles in Innovation: Blockchain, Putting Theory into Practice, May 24, 2016.

¹⁰ Source: Fitch Ratings, June 27, 2016.

As a distinct, uncorrelated asset, bitcoin provides investors with the potential to overcome economic headwinds and achieve their investment goals. Over the last three years, bitcoin has had an average cross-sectional correlation of zero with the major asset classes and investment themes below.



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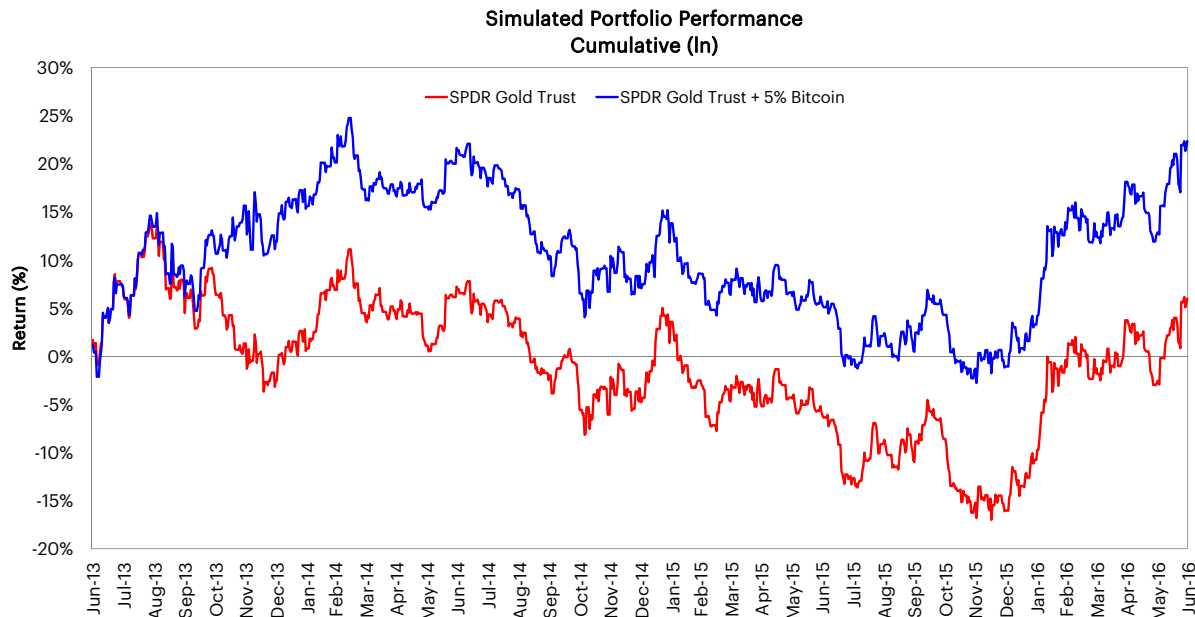
To gain a deeper understanding of the diversification benefits that bitcoin can offer, we ran a series of portfolio simulations and analyzed the impact that different sized allocations could have on the performance and risk profile of traditional investments.

In the first example, we looked at how the SPDR Gold Trust might have performed versus a portfolio comprised of a 95% allocation to the SPDR Gold Trust and a 5% allocation to bitcoin. We think this is an interesting comparison because:

- 1) Bitcoin shares common properties with gold (durability, scarcity, fungibility, divisibility, portability, verifiability, and recognizability) that fundamentally support its role as a safe haven asset and inflation hedge in extreme economic environments.
- 2) While both bitcoin and gold may be considered safe haven assets, each has unique characteristics that are diversifying. For example, bitcoin might perform well in growth cycles as companies invest in innovative ventures and new technologies, whereas gold may not perform well during such periods.
- 3) It can provide insight as to whether a combined investment in bitcoin and gold might deliver better risk-adjusted returns than a standalone investment in gold.

¹¹ Data is shown from June 30, 2013 through June 30, 2016. Correlations are calculated based on the daily values of the Bloomberg Bitcoin Price Index (USD). PAST RESULTS ARE NOT INDICATIVE OF FUTURE PERFORMANCE.

| Simulated Portfolio Performance June 30, 2013 through June 30, 2016 | | |
|--|-----------------|------------------------------|
| Portfolio | SPDR Gold Trust | SPDR Gold Trust + 5% Bitcoin |
| Cumulative Total Return | 6.2% | 25.1% |
| Annualized Total Return | 2.0% | 7.5% |
| Annualized Std Dev | 16.3% | 15.9% |
| Sharpe Ratio | 0.12 | 0.47 |
| Change in Annualized Return | -- | 5.4% |
| Change in Annualized Risk | -- | -0.4% |



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As the chart above shows, the blended portfolio (blue) produced an annualized return that was over 5% higher than that of a pure gold portfolio (red), with lower volatility. While many investors already know that maintaining a steady allocation to gold can provide diversification benefits, shifting a portion of their gold investment into bitcoin could improve portfolio performance even more, while also reducing risk.

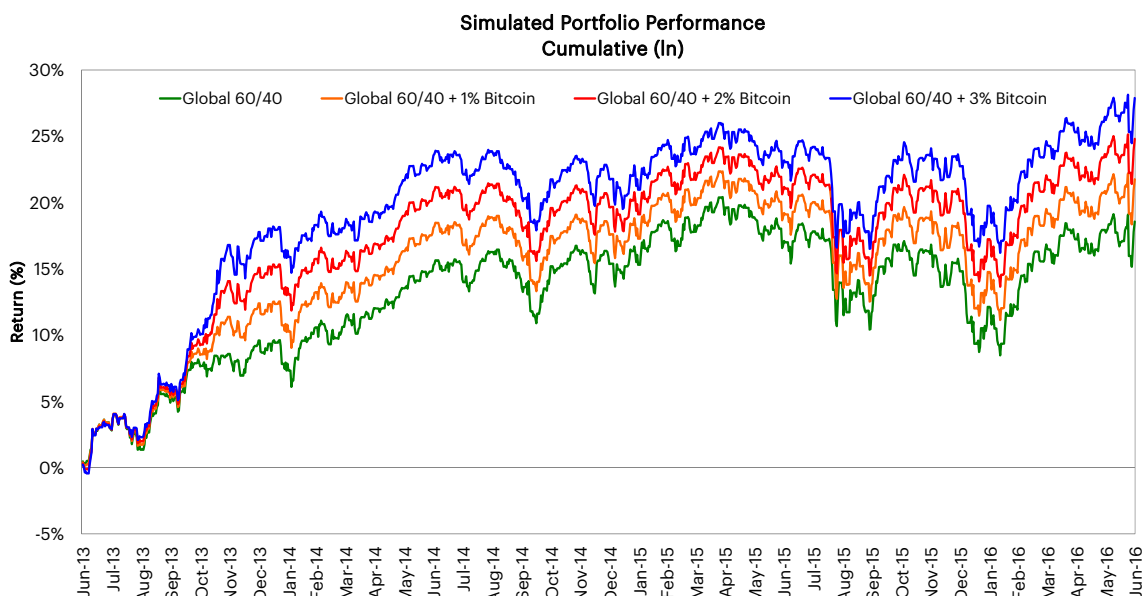
For this reason alone, we could see a portion of the assets that are currently invested in gold move into bitcoin. If bitcoin were to capture just 5% of the \$2.6 trillion financial market for gold over the next 10 years, that would give bitcoin a market capitalization of approximately \$130 billion and a price of more than \$6,800 per coin. That translates into an average annualized return of over 25% based on current prices in the \$660 range.¹³ Moreover, if bitcoin were to completely displace gold as a safe haven asset in investment portfolios, the price of bitcoin could reach upwards of \$100,000 per coin.

¹²Performance is shown from June 30, 2013 through June 30, 2016. Performance of bitcoin is based on the daily values of the Bloomberg Bitcoin Price Index (USD). WHERE SHOWN, HYPOTHETICAL OR SIMULATED PERFORMANCE RESULTS HAVE CERTAIN INHERENT LIMITATIONS. 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 RESULTS ARE NOT INDICATIVE OF FUTURE PERFORMANCE.

¹³ Based on an estimated supply of 19 million bitcoin in 2026.

In the second example, we looked at the incremental effects of adding different sized allocations of bitcoin (1% to 3%) to a Global 60/40 portfolio.

| Simulated Portfolio Performance June 30, 2013 through June 30, 2016 | | | | |
|--|--------------|---------------------------|---------------------------|---------------------------|
| Portfolio | Global 60/40 | Global 60/40 + 1% Bitcoin | Global 60/40 + 2% Bitcoin | Global 60/40 + 3% Bitcoin |
| Cumulative Total Return | 20.4% | 24.3% | 28.1% | 32.2% |
| Annualized Total Return | 6.4% | 7.3% | 8.3% | 9.4% |
| Annualized Std Dev | 8.4% | 8.2% | 8.3% | 8.5% |
| Sharpe Ratio | 0.76 | 0.88 | 1.00 | 1.11 |
| Change in Annualized Return | -- | 0.9% | 1.9% | 3.0% |
| Change in Annualized Risk | -- | -0.2% | -0.1% | 0.0% |
| Ratio Improvement | -- | 16% | 32% | 46% |



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Our analysis revealed that even small allocations to bitcoin can significantly enhance the returns of traditional portfolios like the Global 60/40, without any material impact on portfolio risk.

- Allocating 1% bitcoin to the Global 60/40 increased annual returns by 90 bps, reduced volatility by 20 bps, and improved the return-to-risk ratio by 16%.
- Allocating 2% bitcoin to the Global 60/40 increased annual returns by 190 bps, reduced volatility by 10 bps, and improved the return-to-risk ratio by 32%.
- Allocating 3% bitcoin to the Global 60/40 increased annual returns by 300 bps and improved the return-to-risk ratio by 46%, without increasing volatility.

¹⁴Performance is shown from June 30, 2013 through June 30, 2016. Global 60/40 consists of a 60% allocation to the iShares MSCI ACWI and a 40% allocation to the Vanguard Total International Bond ETF. Performance of bitcoin is based on the daily values of the Bloomberg Bitcoin Price Index (USD). WHERE SHOWN, HYPOTHETICAL OR SIMULATED PERFORMANCE RESULTS HAVE CERTAIN INHERENT LIMITATIONS. 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 RESULTS ARE NOT INDICATIVE OF FUTURE PERFORMANCE.

Because bitcoin offers return-enhancing, risk-reducing potential to both safe haven allocations and traditional investment portfolios, we believe it could soon become an important part of the strategic asset allocations of institutional and individual investors. We are excited to deliver more insights on the evolution of these dynamics over time, as investors appreciate the benefits that bitcoin and digital currency can offer to their portfolio construction process.

Conclusion

Despite numerous claims that “bitcoin is dead” the network continues to grow and thrive. Increased investment in bitcoin and blockchain startups, formation of digital currency sub-industries, and meaningful activity on the bitcoin network all suggest that adoption has reached the point of critical mass and that bitcoin is here to stay. In this rapidly evolving landscape, our entire financial system is poised to evolve from one that relies on a handful of large centralized institutions, to one that instead relies on billions of peers within a globally distributed network. We’ve witnessed this evolution before – when entire industries such as media, software and communications were transformed and invigorated by the proliferation of the internet. We are experiencing a similar revolution in financial services, where digital currency could replace our antiquated, costly, and time-consuming systems and gives rise to an entirely new structure that facilitates payments, streamlines accounting processes, and enforces contracts with ease and scalability. For these fundamental reasons, we believe bitcoin can gain widespread adoption and solidify its role as a new and improved digital gold.

Appendix: Performance through June 2016

| Performance | 1 Month | QTD | YTD | Trailing 1-Year | Trailing 3-Year (Annualized) |
|--|---------|-------|--------|-----------------|------------------------------|
| Bloomberg Bitcoin Price Index (USD) | 27.5% | 59.6% | 54.0% | 154.9% | 90.0% |
| SPDR S&P 500 ETF | 0.3% | 2.5% | 3.8% | 4.0% | 11.5% |
| Vanguard Total International Bond ETF | 1.9% | 2.4% | 5.9% | 8.0% | 5.7% |
| iShares MSCI ACWI | 0.0% | 1.6% | 2.1% | -2.9% | 6.4% |
| PIMCO 25+ Yr Zero Coupon US Trs ETF | 10.1% | 9.6% | 24.6% | 31.4% | 16.1% |
| iShares iBoxx \$ High Yield Corporate Bd | 1.8% | 5.1% | 7.7% | 1.0% | 3.3% |
| iShares JPMorgan USD EM Bond | 4.2% | 5.6% | 11.0% | 10.0% | 6.5% |
| SPDR Gold Trust | 9.0% | 7.5% | 24.7% | 12.5% | 2.0% |
| PIMCO 15+ Year US TIPS ETF | 5.4% | 4.2% | 14.2% | 10.9% | 5.7% |
| iPath BBG Commodity | 5.3% | 15.0% | 15.2% | -14.9% | -12.2% |
| First Trust Dow Jones Internet ETF | -1.4% | 5.6% | -3.3% | 7.3% | 16.7% |
| CBOE Volatility Index | 10.1% | 12.0% | -14.2% | -14.3% | -2.5% |

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¹⁵ Performance is shown from June 30, 2013 through June 30, 2016. PAST RESULTS ARE NOT INDICATIVE OF FUTURE PERFORMANCE.

Investors should be aware that Grayscale Investments, LLC is the sponsor of the Bitcoin Investment Trust, the first publicly-quoted securities solely invest in, and deriving value from, the price of bitcoin (symbol: GBTC). Grayscale's Bitcoin Investment Trust is a private, unregistered investment vehicle and not subject to the same regulatory requirements as exchange traded funds or mutual funds, including the requirement to provide certain periodic and standardized pricing and valuation information to investors. There are substantial risks in investing in Grayscale's Bitcoin Investment Trust, including but not limited to:

PRICE VOLATILITY

Bitcoin has historically experienced significant intraday and long-term price swings.

MARKET ADOPTION

It is possible that bitcoin will never be broadly adopted by either the retail or commercial marketplace, in which case, bitcoin may lose most, if not all, of its value.

GOVERNMENT REGULATION

The regulatory framework of bitcoin remains unclear and application of existing regulations and/or future restrictions by federal and state authorities may have a significant impact on the value of bitcoin.

SECURITY

While the BIT has implemented powerful security measures for the safe storage of bitcoins, there have been significant incidents of bitcoin theft and bitcoin remains a potential target for hackers. Bitcoins that are lost or stolen cannot be replaced, as transactions are irrevocable.

TAX TREATMENT

On March 25, 2014 the Internal Revenue Service (IRS) released tax guidance applicable to digital and virtual currency stating "Under currently applicable law, virtual currency is not treated as currency that could generate foreign currency gain or loss for U.S. federal tax purposes...For federal tax purposes, virtual currency is treated as property. General tax principles applicable to property transactions apply to transactions using virtual currency." However, this can potentially change in the future.

Investors must have the financial ability, sophistication/experience and willingness to bear the risks of an investment. For a complete list of all risk factors, please refer to the Bitcoin Investment Trust Private Placement Memorandum.

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The trusted authority on digital currency investing, Grayscale provides unparalleled market insight and investment exposure to the developing digital currency asset class. Grayscale's cornerstone product, the Bitcoin Investment Trust, provides titled, auditable bitcoin exposure through a traditional security structure. The Bitcoin Investment Trust's shares are the first publicly-quoted securities solely invested in, and deriving value from, the price of bitcoin (symbol: GBTC).

More information regarding Grayscale can be found at www.grayscale.co. Grayscale and the Bitcoin Investment Trust can be followed at [@GrayscaleInvest](https://twitter.com/GrayscaleInvest) and [@BitcoinTrust](https://twitter.com/BitcoinTrust), respectively. Alternatively, please contact Michael Sonnenshein, Head of Sales & Business Development at michael@grayscale.co or (212) 668-3911.