

In recent months digital currencies like Bitcoin have caught the attention of the investment world due to their rapid price appreciation and potentially disruptive technologies. We believe the “blockchain” or “dual ledger” technology has a lot of merit and potential to improve transactional efficiency and security in a number of industries. We can also see the value in the use of Bitcoin (and other crypto currencies) as an alternative to traditional



currencies, particularly in countries or markets where there is little faith in the stability of the currency or where there are significant transactional restrictions in place. Whether those use cases justify the current and potential future price appreciation still remains unclear.

Digital currencies are the virtual representation of an underlying technology called blockchain. The blockchain was originally developed for the use of the first and most well-known digital currency called Bitcoin. Since then, blockchain technology has been expanded and is being developed for use across multiple industries, resulting in the release of hundreds of new digital currencies. Blockchain is a digital ledger of transactions that is distributed across computer networks and can be used to record and facilitate transactions of any kind. Its potential value arises from the fact that the database is not stored at any single location, records are public and verifiable, and it is thought to be generally impenetrable by hackers. Bitcoin was the first digital currency to utilize this technology and was designed to allow secure, fast, and cheap monetary transactions that lived outside the influence of governments, central banks and financial institutions. It is important to note that while the blockchain is thought to be impenetrable, exchanges used to implement digital currency transactions are potentially subject to hacking.

From an investment perspective, we should evaluate crypto-currencies through various lenses, including and primarily as a currency. We do not view traditional currencies (or cryptocurrencies) as an *investment asset class* like stocks or bonds because the currencies themselves should have an expected return approximating zero over time. Unlike a stock, currencies have no ability to generate earnings or pay dividends and any investment gains are based purely on price appreciation relative to another currency, which in most cases is impacted most by economic growth and interest rate policies. Crypto-currencies have some similar properties, but may have more in common with gold, which is an alternative to government issued currency and believed to have a limited supply. Gold also generates no earnings or income, and in large quantities it actually has a negative cash flow due to the costs associated with storing it and keeping it secure. The same is true of digital currencies like Bitcoin. Bitcoin has no intrinsic value, does not generate cash flow or earnings and its value is determined

solely by what another person is willing to pay for it. These characteristics lead us to view Bitcoin as a purely speculative instrument at this stage rather than an investment. From the perspective of using Bitcoin as a currency, it is notable that it is still costly to transact in Bitcoin, the valuation is anything but stable and the number of vendors willing to accept it remains small. We anticipate that all three of these factors will continue to improve, but until they do, it would be difficult to consider Bitcoin a viable medium of exchange.

Tulip bulbs in the 1600's, Beanie Babies in the 1990's, Tech Stocks in 2000, and Leonardo da Vinci art in 2017, are just some of the examples of the extremes of speculation. Having studied the numerous speculative bubbles and eventual bursts, we are cautious about the recent price gains in crypto-currencies themselves, but are closely investigating the implications these new technologies might have for investment portfolios. This is a complex investment topic which requires both investment and technological expertise. As such, we are approaching this subject in a measured and diligent manner, gathering insight from various industry experts and performing our own internal analysis, while attempting to stay away from what we view as uninformed opinions popularized by the media. We are happy to share these initial thoughts in brief, but expect to be able to release a more comprehensive report in the coming weeks.

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