

Global Investment
Strategy Team

Cryptocurrencies — Too early or too late?

Key takeaways

- Cryptocurrency users are growing globally and rapidly off a low base.
- Cryptocurrencies appear to be near a hyper-adoption phase, similar to that of the internet during the mid-to-late 1990s.

What it may mean for investors

- We believe that cryptocurrencies are viable investments today, even though they remain in the early stages of their investment evolution. We recommend professionally managed private placements for now, as the investment landscape is still maturing.

“Envy and arrogance are the two opposite sides of the same black crystal.” — Theodore Roosevelt, 1903 Labor Day Speech.

Over the past few months, we have written about cryptocurrencies and the unique technologies that underpin them. Today’s publication is not about the technology, but a common point of confusion regarding the future of cryptocurrencies as investments. That confusion is – some investors think that it is too early to invest, while others think that it may be too late. Our conviction is that cryptocurrencies are viable investments today but that it is still early in the cryptocurrency investment evolution, as we will explain.

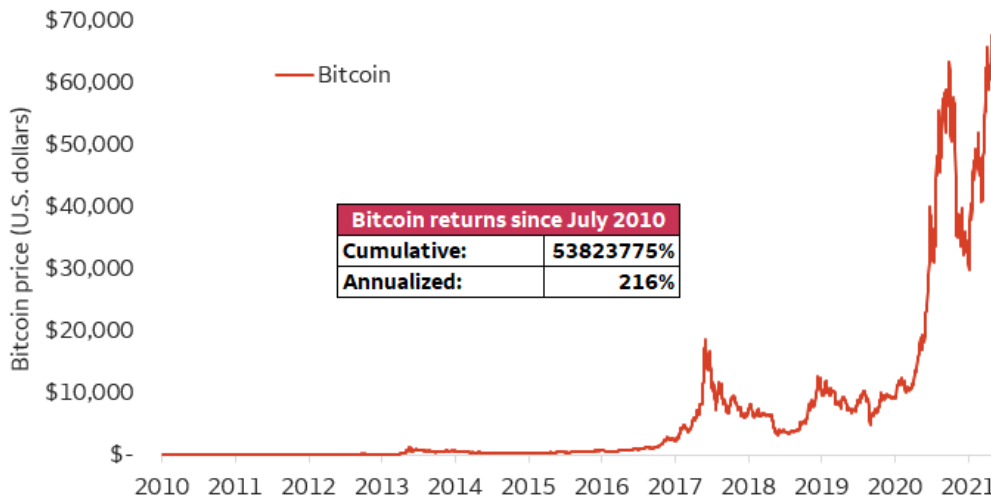
The “too late to invest” argument

Cryptocurrencies, turning in some of the best performances over the past decade (versus other major asset classes) have new investors fearing that they may be too late. Bitcoin’s price, as an example, has compounded at a 216% annual rate since its first recorded transaction in 2010 (Chart 1). By comparison, the total return of the S&P 500 Index over the same period has compounded annually at 16%. Such cryptocurrency gains have led to increased media attention and enviable stories of newfound wealth. A select few individuals, holding since the earliest of days, even became billionaires. Twelve of the 2,755 individuals on the Forbes 2021 World’s Billionaires List emerged from the world of crypto.¹

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¹ Hyatt, John (April 6, 2021). “The Cryptocurrency Tycoons On Forbes’ 2021 Billionaires List”. Forbes.com.

Chart 1. Bitcoin price history

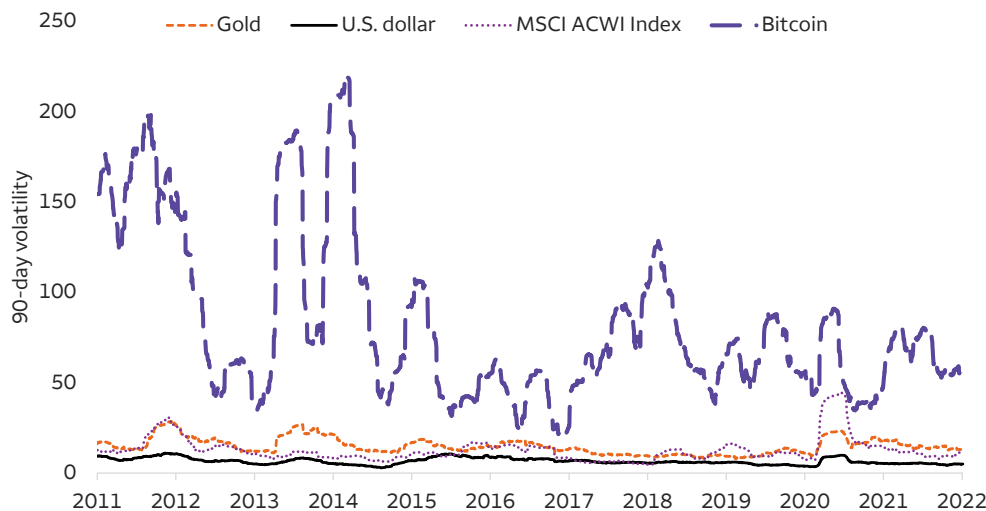


Sources: Bloomberg and Wells Fargo Investment Institute. Daily data: July 19, 2010 – January 6, 2022. **Past performance is no guarantee of future results.**

We understand the “too late to invest” argument but do not subscribe to it. We believe that focusing too much on past performance, especially with cryptocurrencies, can be misleading to new investors. First, performance numbers are skewed because most cryptocurrencies evolved from virtually zero. The earliest years were highly speculative, and it was common to see individual cryptocurrencies launched at prices less than \$1. Using bitcoin as an example again, its first real-world transaction did not occur until May 2010, 16 months after its creation, and it valued 1 bitcoin at roughly \$0.004. Bitcoin did not cross \$1 until February 2011.²

Second, cryptocurrencies are still a relatively young investment space. The vast majority are, in fact, less than five years old.³ Even the oldest cryptocurrencies have much maturing to do. For example, bitcoin is the oldest and arguably one of the least volatile cryptocurrencies, but it is still roughly four times more volatile than gold (Chart 2, dashed orange line) and a basket of global equities (Chart 2, dotted purple line).

Chart 2. 90-day volatility: gold, stocks, Bitcoin, U.S. dollar



Sources: Bloomberg and Wells Fargo Investment Institute. Daily data: January 3, 2011 – January 6, 2022. The 90-day price volatility equals the annualized standard deviation of the relative price change for the 90 most recent trading day’s closing price, expressed as a percentage. **Past performance is not a guarantee of future results.**

² Beigel, Ofir (January 3, 2021). Bitcoin Historical Price & Events. 99bitcoins.com.

³ De Best, Raynor (November 3, 2021). “Number of cryptocurrencies worldwide from 2013 to November 2021”. Statista.com.

Last, cryptocurrencies are a different kind of investment, which has made them hard to understand and invest in. A big part of this stems from the complexity of the technology. Another reason is that cryptocurrencies originate outside the traditional financial system, which has made it hard to attract investment flows and research coverage. In the traditional financial system, companies spend their early development years in the hands of private investors, with the ultimate aim of attracting public investors too. If successful, the company often receives broad research coverage and access to large pools of investors. Cryptocurrencies have not followed this path, as they launch from personal computers with limited management structure, if any.

Why we believe it is early, but not too early

We see cryptocurrencies in the “early, but not too early” investment stage, which is why we have emphasized investor education. The thrust of our view comes from global cryptocurrency adoption rates, which have quickly accelerated from a low base. Cryptocurrencies have been following an adoption pattern similar to other new advanced technologies, such as the internet. For the remainder of this piece, we will discuss how advanced technologies have typically been adopted, and why we believe that cryptocurrencies may be near an adoption inflection point, similar to the internet in the mid-to-late 1990s.

Early technology adoption

It often takes many years for consumers to widely adopt new advanced technologies. Chart 3 highlights the adoption paths of select technologies — new for their time — by U.S. households. Rising lines indicate a growing percentage of U.S. households using these technologies. Adoption typically started slowly, hit an inflection point, and then steeply accelerated. It is important to note that in some cases decades passed between the actual inventions and surging adoption rates. As an example, the internet was invented in 1983, yet by 1995, only 14% of Americans (and less than 1% of the world) were using it.⁴ Interestingly, these adoption percentages are similar to what we are seeing today with cryptocurrencies. Thirteen percent of Americans purchased or traded cryptocurrencies in the past 12 months (Chart 3, blue star), according to a recent survey by the University of Chicago. And roughly 3% of the world uses cryptocurrencies, according to Crypto.com (Chart 4).

In the early adoption years, user experiences with new technologies have often been clunky and frustrating as the ecosystem and infrastructure slowly matured. In the case of the internet, many readers may remember the days before the first web browser in 1993,⁵ when accessing the internet required typing at a prompt on a green screen. Talk about clunky.

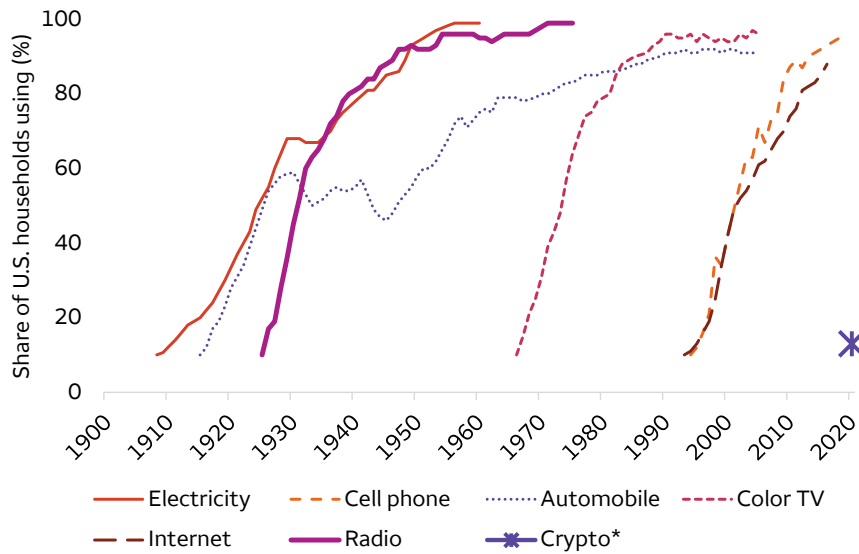
Also common to the early adoption years is that when the first-use cases emerged, consumers still needed time to figure out what the technology is, what it can do, and how it can benefit them. Conversations throughout 2021 revealed to us that many investors and consumers, new to the space, believe that cryptocurrencies remain in this early adoption stage, as they find the technology daunting and use cases unclear.⁶

⁴ Internet growth statistics (March 2021). Internetworldstats.com.

⁵ Murphy, Mike (October 29, 2019). “From dial-up to 5-G: a complete guide to logging on to the internet”. Quartz. Quartz.com.

⁶ The third in our series of educational reports dealt with the many – even surprising – uses for cryptocurrencies today. Please see “Cryptocurrencies and the next digital era”, November 2021.

Chart 3. Technology S curves



Sources: Our World in Data (ourworldindata.org/technology-adoption), National Opinion Research Center (NORC), and Wells Fargo Investment Institute. Yearly data: 1900-2020. * Crypto share figure based on results from survey conducted by NORC June 24-28, 2021 at the University of Chicago.

Our view: Cryptocurrency adoption today looks similar to the 1990s internet

While the technology behind cryptocurrencies is complex, and use cases can be hard to visualize for those new to the space, data shows that the world is beginning to embrace the technology — and quickly. According to Crypto.com, the number of global cryptocurrency users reached 221 million in June 2021, or just under 3% of the world’s population. Most impressively, it took only four months to double the global cryptocurrency population from 100 million to 200 million.⁷

Cryptocurrency adoption rates look to be following the path of other earlier advanced technologies, particularly the internet. If this trend continues, cryptocurrencies could soon exit the early adoption phase and enter an inflection point of hyper-adoption, similar to other technologies seen in Chart 3. Notice in Chart 3 that there is a point where adoption rates begin to rise and do not look back. For the internet, that point was the mid-to-late 1990s. After a slow start in the early 1990s, internet use surged from 77 million in 1996 to 412 million in 2000. By 2010, worldwide internet use had grown to 1.98 billion, and today it sits at 4.9 billion.⁸

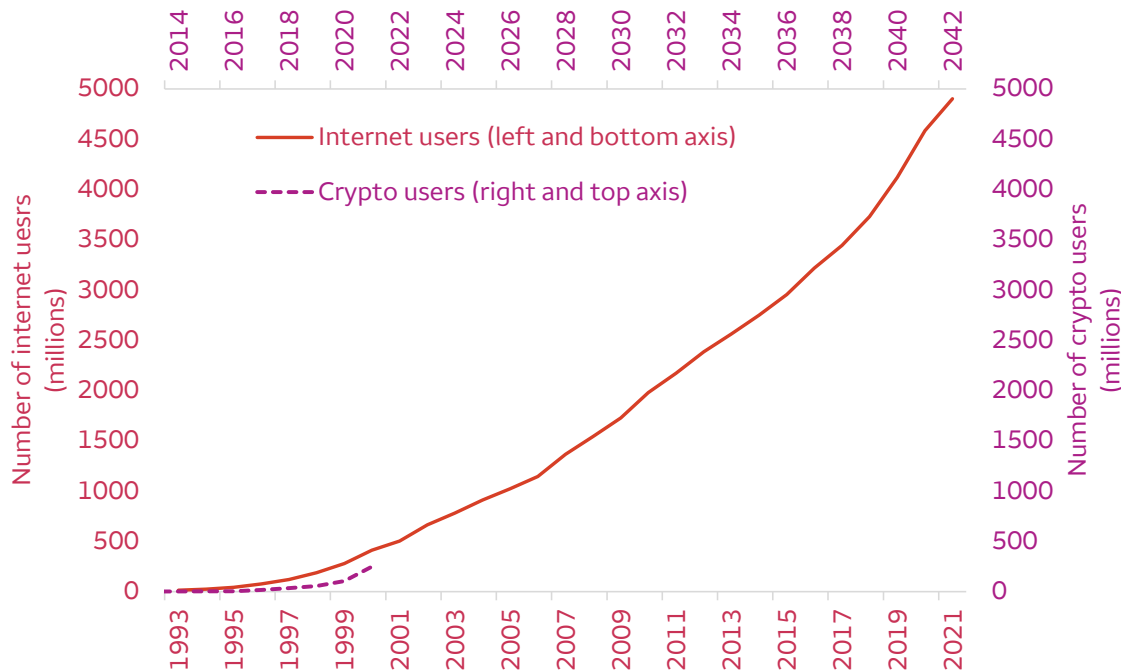
Another important consideration is that internet adoption, once it hit its inflection point in the mid-to-late 1990s, rose at a faster rate than the other advanced technologies seen in Chart 3. We have noticed similar accelerated trends in more recent digital inventions, such as smart phones and WiFi. The reason is that each new digital invention rides the coattails of the digital infrastructure already built. We expect that cryptocurrencies eventually will follow an accelerated adoption path similar to recent digital inventions.

Chart 4 helps visualize why we believe that cryptocurrencies may have reached an adoption inflection point similar to where the internet was in the mid-to-late 1990s. Chart 4 compares global user growth between the internet, starting in 1993 (Chart 4, solid red line), and cryptocurrency users, starting in 2014 (Chart 4, dashed purple line). Based on this comparison alone, it appears that cryptocurrency use today may even be a little ahead of the mid-to-late 1990s internet. Precise numbers aside, there is no doubt that global cryptocurrency adoption is rising, and could soon hit a hyper-inflection point.

⁷ Wang, Kevin (July 2021). “Measuring Global Crypto Users”. Crypto.com

⁸ Internet growth statistics (March 2021). Internetworldstats.com.

Chart 4. Internet usage history versus crypto users



Sources: International Telecommunication Union, Our World in Data, Crypto.com, Statista, Bloomberg, and Wells Fargo Investment Institute.

Another support for cryptocurrency adoption to accelerate is recent regulatory progress. As we have discussed in early publications, cryptocurrencies have matured to the point where legal and oversight frameworks are being drawn to solidify cryptocurrencies as investable assets.⁹ Lack of a regulatory structure is an important roadblock to be removed, as it was cited as the number one reason in a 2020 Bloomberg survey why high net worth investors were unwilling to invest in cryptocurrencies.¹⁰

What to Do Now

Be patient. There is no need to rush, as most of the opportunity lies before us, not behind us. The graphic on the following page highlights that the entire market capitalization of cryptocurrencies is still less than that of the technology company Apple Inc.

Be prudent. Adoption rates are rising, but investment options are a bit behind and still maturing. As a refresher, there are generally three ways to gain exposure today¹¹; 1) buying cryptocurrencies directly from an exchange, 2) mutual funds, exchange-traded funds (ETFs) and grantor trusts, and 3) private placements. Option 1, buying directly from an exchange, we do not advise. The technology is complex, and the speculative investment risks are high. Option 2 is not advised either, as current U.S. mutual funds and ETF options are backed by futures, not the digital assets themselves, and grantor trusts are often dogged by high fees and volatile net asset values. We are hopeful that regulators may soon approve mutual funds and ETFs backed by the digital assets themselves – maybe as soon as 2022. Until that day comes, though, we prefer that qualified investors turn to Option 3, professional management through a private placement.

⁹ For more on the rapidly developing market and regulatory infrastructure, please see our report, “The investment rationale for cryptocurrencies”, May 2021.

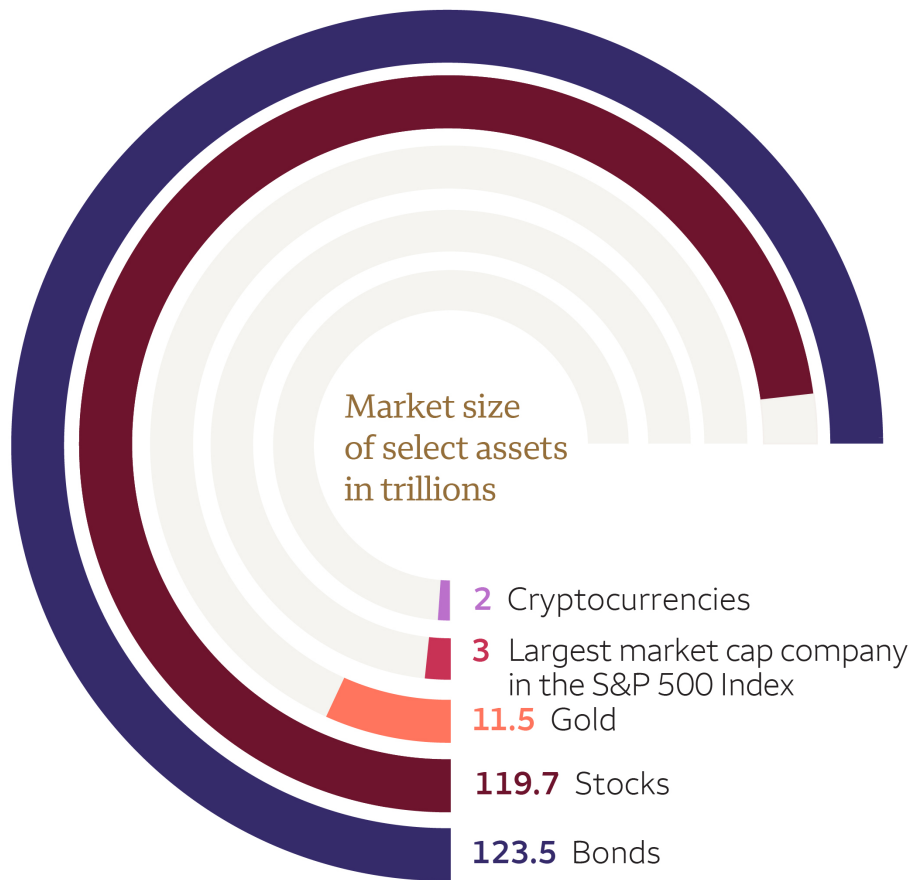
¹⁰ Source: Bloomberg Research Survey of High Net Worth Investor Attitudes Toward Crypto Investing, October 2020.

¹¹ For more on investment options, please see our report, “Investing in Bitcoin”, October 2021.

Be careful. Some investors have expressed frustration with such limited investment options. We empathize and would prefer to have more high quality options to offer. This is, unfortunately, not the investment product state we see today. For those unwilling to wait for better investment products, and feel compelled to try Option 1, we say be careful and keep the 1990s in perspective.

Early-stage investing is often fraught with violent boom and bust cycles, as many a dot-com company and investor can attest from 20 years ago. More than 16,000 cryptocurrencies exist today¹², and if history is any guide, many will fail (or at least fail to scale). Cryptocurrencies already succumbed to one shakeout event in 2017, when more than 1,700, about 40% of all cryptocurrencies at the time, went bust¹³. We believe odds are high that cryptocurrencies will see future shakeout events.

Lastly, picking long-term technology winners is no walk in the park. Investors must routinely evaluate the current winners and losers against the ever-rising set of yet-to-be-created companies. We will use 1996-1997 as an example again. The most visited web sites of that time, no matter their line of business, did not stay relevant much beyond the year 2000. Anyone want to guess the most trafficked website in 1996? Hint: "You've Got Mail." An interesting twist to the story, though, is that the largest company in the S&P 500 (by market capitalization) today was a beaten-down hardware company that was on the brink of bankruptcy in 1997.



Sources: Bloomberg, SIFMA, Bank of International Settlements, Coinmarketcap.com, Prices by Warren and Pearson, U.S. Geological Survey, Metal Focus Data, and Wells Fargo Investment Institute. Crypto, stock market, and largest market company in the S&P 500 Index size as of January 11, 2022. Bond market size as of December 31, 2020. Gold market size calculated by multiplying estimated amount of troy ounces of gold ever mined as of December 31, 2020 data by the price of gold as of January 11, 2022.

¹² CoinMarketcap.com.

¹³ Coinopsy.com.

Summary

For today's investor trying to figure out if we are early or late to cryptocurrency investing, looking at technology investing in the mid-to-late 1990s seems reasonable. At that time, the internet hit a hyper-adoption phase and never looked back. Cryptocurrencies appear to be at a similar stage today. Cryptocurrency investment options today, however, are still maturing and we advise patience. For now, we suggest the consideration of only professionally managed private placements. We do not recommend any of the other current investment options, such as mutual funds, ETFs, grantor trusts, and individual cryptocurrency speculation. We are hopeful that greater regulatory clarity in 2022 brings higher quality investment options.

Risk Considerations

Each asset class has its own risk and return characteristics. The level of risk associated with a particular investment or asset class generally correlates with the level of return the investment or asset class might achieve.

Virtual or cryptocurrency is not a physical currency, nor is it legal tender. Bitcoin and other cryptocurrencies are a very speculative investment and involves a high degree of risk. Investors must have the financial ability, sophistication/experience and willingness to bear the risks of an investment, and a potential total loss of their investment. An investor could lose all or a substantial portion of his/her investment. Cryptocurrency has limited operating history or performance. Fees and expenses associated with a cryptocurrency investment may be substantial. Cryptocurrencies are sometimes exchanged for U.S. dollars or other currencies around the world, but they are not backed or supported by any government or central bank. Their value is completely derived by market forces of supply and demand, and they are more volatile than traditional fiat currencies.

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