CRYPTOCURRENCIES | BARRON’S TAKE

Bitcoin Looks Undervalued, According to This Reputable Pricing Model

By Mark Hulbert  Updated June 22, 2022 10:44 am ET / Original June 22, 2022 2:00 am ET

Bitcoin BTCUSD+2.55% is now undervalued, according to the only reputable valuation model of which I am aware.

That represents a huge shift in the message of this model, which I first wrote about for Barron’s in December 2020. In contrast to Bitcoin’s price at that time of nearly $20,000, the model suggested this cryptocurrency’s fair value was much lower—around $12,000. That inclined many enthusiasts to dismiss the model.

Even more were inclined to do so in the weeks almost immediately subsequent to that column. By February 2020, Bitcoin was trading for more than $60,000. This past November, it hit what so far is its all-time high above $68,000, before plummeting to below $20,000 this past weekend.

Meanwhile, the model’s estimate of the cryptocurrency’s fair value has been gradually rising. It currently estimates that Bitcoin’s fair value is around $24,500, 15% higher than where it was trading Tuesday afternoon.

This valuation model to which I am referring is based on Metcalfe’s Law, a formalization of what’s known as a network effect—which exists when the value of a network grows along with the number of users. The Metcalfe’s Law version of the network effect holds that this value is proportional to the square of the number of users.

Claude Erb, a former commodities portfolio manager at TCW Group, is the analyst who has specifically applied Metcalfe’s Law to Bitcoin. He assumes that every Bitcoin that has been mined so far represents one user in the network. The accompanying chart plots Bitcoin’s actual price since 2016 alongside the estimate of Erb’s model. (Erb’s
Assessing the Model

Impressive as the Metcalfe’s Law model has been in identifying periods in which Bitcoin has been under- and overvalued, Erb would be the first to say that it isn’t perfect. For a Barron’s column this past January about the model, Erb said that he proposes it in the same spirit as those statisticians who like to say that “all models are wrong, but some are useful.” He said that his is “a way to anchor a conversation” about Bitcoin that is sufficiently “intriguing” to warrant our serious consideration.

The model has only become more intriguing in the six months since then and has earned the right to be given even more serious consideration.

Skeptics may still question how the model could have been so wrong in the early months of 2021. At the point when the model’s projection deviated the furthest from Bitcoin’s actual price, the price-to-fair-value ratio was 3.5-to-1. That seems exceptionally high to many, leading them to wonder if such a large deviation is a prima facie case against the model.

It isn’t. Assets of all types deviate wildly from fair value, however determined, and Bitcoin and the Metcalfe’s Law-based model are hardly alone. Just consider the stock market’s price/earnings ratio, which is perhaps the most widely used valuation model in the investment arena. If we assume that the market’s fair value is based on the historical average P/E ratio, the S&P 500 SPX + 0.37% has at times traded for more than seven times its fair value. Why should the Metcalfe’s Law-based model of Bitcoin’s valuation be discarded for a price-to-fair-value ratio that is less than half as high?

The table below presents some comparative statistics on the extent to which various assets have deviated from their fair values. In addition to the S&P 500 and Bitcoin, the table includes gold. The fair-value model I used for it is based on research conducted by Erb and Duke University finance professor Campbell Harvey, which bases gold’s fair value on the historical average ratio of bullion’s price to the consumer price index.
Highs and Lows

Highest and lowest historical ratios of price to fair value for three asset classes.

<table>
<thead>
<tr>
<th>Basis of Fair Value Model</th>
<th>Highest Price-to-Fair-Value Ratio</th>
<th>Lc</th>
</tr>
</thead>
<tbody>
<tr>
<td>S&amp;P 500 Since 1871</td>
<td>7.6</td>
<td>0</td>
</tr>
<tr>
<td>Gold Since 1974</td>
<td>2.3</td>
<td>0</td>
</tr>
<tr>
<td>Bitcoin Since 2015 Metcalfe’s Law</td>
<td>4.75</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: Hulbert Ratings

Overshooting

As is suggested by the wide ranges shown in the table, assets often overshoot when correcting over- or undervaluations, sometimes swinging to the opposite extreme. For Bitcoin that means there’s no assurance that now that its price has fallen back to around fair value, its decline will come to an end. In an email this past week, Erb pointed out that in “earlier selloffs the price of Bitcoin relative to the Metcalfe price got to about an 80% discount, or about $6,000 using the current Metcalfe price.”

Clearly, the Metcalfe’s Law-based model of Bitcoin’s valuation isn’t a short-term trading indicator. Still, Bitcoin investors may take some solace in knowing that, at least according to this one valuation model with a creditable track record, the cryptocurrency is no longer overvalued.

Mark Hulbert is a regular contributor to Barron’s. His Hulbert Ratings tracks investment newsletters that pay a flat fee to be audited. He can be reached at mark@hulbertratings.com.

Write to editors@barrons.com