
THE STAHL REPORT COMPENDIUM

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Post-Musings

BITCOIN AND METCALFE'S LAW

Metcalfe's law regards what is called a network effect in which the value of a network is proportional to the square of the number of interconnected users. The number of unique connections is represented by N, and the formula for Metcalfe's law is $N(N-1)/2$.

Two telephones can only make one connection. That is a measure of its value. Those two people can talk to one another. Five telephones, however, can make 10 different connections with only five telephones. As you see in Table 9, the number of phones a little bit more than doubles, but the number of connections goes up tenfold. Twelve phones can make 66 connections. The quantity of phones a little bit more than doubles, but the number of connections goes up 6.6 times. Twenty phones, which is not even doubling the number of phones, make 190 connections, and so on.

Table 9: An Example of Metcalf's Law

<u>Number of Telephones</u>	<u>Number of Possible Connections</u>
2	1
5	10
12	66
20	190
100	4,950
1,000	499,500

If we think of bitcoin as a network, consider that there are now well over 11 million Blockchain wallets, and that accounts for about 50% of all wallets. That is about 22 million bitcoin users, assuming one person per wallet. The base is approaching approximately 50% of the base of number of Canadian dollar users. It is the number of users that determine utility, and it is utility that determines purchasing power. Ultimately, once bitcoin is accepted, its purchasing power should increase dramatically.

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