HORIZON KINETICS

Reflections:

- ***Should we Worry About Cryptocurrencies Being Outlawed?***
- ***Isn't Bitcoin a Bubble?***

Outlawing Cryptocurrencies

Before considering the merits of this point, we should realize that the record of the government denying the population an item the population wants is not one of success. The instance of Prohibition, the 18th Amendment to the U.S. Constitution, readily comes to mind. The Act came into force on January 16, 1920, and it was repealed on December 5, 1933, with the 21st Amendment to the Constitution of the United States. As to the practical difficulty of making cryptocurrency illegal, Prohibition and the Gold Act can serve as examples.

The first problem in enforcement of Prohibition was that alcohol was entirely legal in places such as Canada and Cuba. Thus, the borders and the coastlines required defense against the importation of alcoholic beverages. The effort failed. In the case of cryptocurrency, the phenomenon is worldwide. A server or a device like a smartphone can be placed in another country. It is not even necessary to cross a border.

The number of ways to defy government control of cryptocurrency is astounding. One unsophisticated method is to simply establish a virtual private network (VPN). All data traveling between a given device and the VPN server is securely encrypted. One of the properties of a VPN is that the location of a given device is "geospoofed." As intelligence agencies scan the internet for violators of regulations, the original device incorrectly appears to be located in a different country. It would be very difficult to control the internet unless all nations were to agree upon some policy, like the abolition of cryptocurrency. However, the opposite is happening. As recently as April, Japan made cryptocurrency legal tender, as did Australia in July.

Lax enforcement in only one nation would render the ban irrelevant. For example, from 1933 to January 1, 1975, it was illegal for American citizens to own gold, per the now-infamous Executive Order Number 6102. All gold was to be sold to the Federal Reserve for $20.67 per troy ounce no later than May 1, 1933. Failure to do so was punishable by a fine of up to $10,000 and/or imprisonment for up to 10 years.

The idea was that the law required money to be 40% backed by gold, so that if the Federal Reserve could accumulate more gold, it could increase the money supply, and thereby, help end the Great Depression.

The government later delivered gold to the Federal Reserve for $35 an ounce, which enabled the creation of even more money.[1]

Various exemptions were needed to the original Gold Act, such as for jewelry and even for dentists who made use of gold fillings. The Act also specifically exempted collectors of rare and unusual gold coins, and it authorized people to own up to $100 in any type of gold coin. Thus, in practice, it was easy to evade the gold restriction. A wealthy person could simply purchase rare or unusual gold coins.

The obvious question is to determine the definition of a rare or unusual gold coin. There are tens of thousands of types of gold coins in various collections. It is not really practical for a committee of government officials to make a list of all gold coins ever minted and determine which are rare and unusual and, therefore, can be legally owned.

At some point, the U.S. government declared that rare gold coins are those issued prior to 1947. Yet, the Mexican government was interested in selling gold coins in the United States, so it issued a 50-peso gold commemorative coin with the double date 1821-1947. The year 1821 is the year Mexico achieved independence from Spain. The year 1947 was selected simply to circumvent the U.S. gold holding restriction. The 50-peso piece is a 1.2-ounce gold coin that currently trades on its gold value weight. The nominal value of 50 pesos is $2.82. A 50-peso gold coin now trades for approximately $1,636, which is roughly the gold value.

What if someone purchased a Mexican 50-peso gold coin in 1967? The price of gold then was $35 an ounce, and since a 50-peso piece weighs 1.2 ounces, that coin would have cost $42. At today's value of roughly $1,636, the compound annual rate of return has been 7.60%. It would be difficult to find a fixed income index that was competitive with this return, though not impossible. If one consults the Ibbotson *Stocks, Bonds, Bills, and Inflation Yearbook*, one will find that long term corporate bonds earned more or less the same rate of return during that period of time. Of course, most investors do not purchase long term corporate debt, and most bond indexes had lower rates of return.

In any case, in 1967, the U.S. government tried to prevent ownership of gold by its citizenry, but the Mexican government facilitated that citizenry's ability to circumvent the law. This one example illustrates that in order to prohibit cryptocurrency, it would be necessary for all of the nations of the world to collaborate. This in itself is not easy.

Since cryptocurrency is also digital, it would be necessary for each nation to establish a technical working group with the latest internet monitoring equipment so that violators of the anti-cryptocurrency law could

[1] Incidentally, this was done in practice by the Exchange Stabilization Fund division of the U.S. Treasury. This division still exists. The original authorizing law, 31 U.S. Code § 5117, was amended in 1970 to allow the U.S. Treasury to use the money in the Exchange Stabilization Fund to deal in gold, foreign exchange, and other instruments of credit and securities. According to its monthly financial statement, it holds both euro- and Japanese yen–denominated securities of some type, the nature of which is not disclosed.

be identified and properly sanctioned. All of the nations would need to agree on the technical standards, since it would be possible to avoid enforcement if any nations were deficient.

Also, all of the working groups must be collectively more technically adept than the people trying to violate the law. There are certainly millions of people—quite probably tens of millions—who are highly skilled users of computers. The governments would need to consistently outperform at an advanced level virtually everyone with sophisticated knowledge of computers. Moreover, the technical working groups would need to maintain absolutely strict secrecy. If even one member of one technical working group of one nation were to reveal the monitoring techniques used by governments for enforcement, it would be possible to circumvent the regulations. Surely the enforcement of these regulations would be a difficult task.

Viewed in this light, it can be readily seen that cryptocurrency is not merely a technological innovation; it is a sociological phenomenon. Historically, most people in the world were illiterate. Prior to World War II, most people in the U.S. did not even graduate from high school. Government officials, on average, were much more knowledgeable than the average citizen. That disproportionality has been erased by the ready, near universal digital access to information of virtually every sort.

Why would people, if they had a choice, willingly keep their wealth in the form of a fiat currency that governments openly debase and which is not secure? Governments cannot even stop the large-scale theft of millions of credit card numbers and related personal identification information. Ultimately, cryptocurrency is merely an algorithm. There is no central point of failure. There is no board of directors or management that can be arrested. At the moment, cryptocurrencies represent a massive change from the way currencies worked in the past. People have access to more knowledge and technology than the government has, and that's the big change.

At the time of this writing, there are 903[2] cryptocurrencies, which means that there are 903 different algorithms. To say that the government will ban cryptocurrency is to say that all the governments of the world will make 903 algorithms illegal. The government (or, rather, all governments) would subsequently have to monitor the entire internet and identify any algorithms that it might find objectionable, and proscribe these as well.

In other words, this undertaking would require that small, elite bands of lower-level government officials from 190 nations achieve and maintain technological superiority over 7.5 billion people, and that no one nation determines to use that circumstance to its particular advantage, as did Mexico with its double-dated 50-peso gold commemorative coin. These 190 groups would have to work in harmony with each other, such that not a single person would reveal the government's secrets to the world at large. Control

[2] As of November 9, 2017. Source: coinmarketcap.com

of the world financial system would have to remain with a small number of regulators and central bankers, ably assisted by various academic types, as has been the case for over 100 years.

If one does not accept this proposition, then one might see the potential of cryptocurrency to greatly disrupt the financial and sociological status quo of the world. If a bank or brokerage firm cannot securely hold customer funds and confidential data, it simply will not retain the trust and loyalty of its customers. The cryptocurrency blockchain is much more secure than the centralized financial system, with its single points of failure. Thus, why buy an index like the S&P 500, with a 14% weight in financials? If that business sector works, its return is perhaps 5%. If it does not work, it is easy to imagine that the financial segment will affect the entire index and business environment for many years.

The Bubble Question

There will always be misleading economic announcements. In our lifetimes, the bulk of the misleading announcements have come from governments. For instance, in Brazil during the last half-century, they have had the cruzero, the cruzado, the new cruzero, the new cruzado, and the real. I don’t think anyone would say that the Brazilian government was doing anything other than misleading its people. We have hedonic adjustments in our own country with regard to the stated inflation rate, and many people dispute them. Ultimately, though, just as with the series of Brazilian currencies, the market will set the price. The currency that will win will be the currency that is most honest. That’s the characteristic one must monitor.

In our lifetime, we only know fiat currency on which the government applies laws. In the broad sweep of history, people had money long before they had governments, long before they had central banks, and long before they had PhD economists telling them what the currency is worth. If you consult the Bible, Abraham bought the Cave of the Patriarchs for 400 shekels of silver, to bury his wife Sarah. There were no central banks, no government, no PhD economists, and no analysts to tell us what a shekel was worth in terms of silver. The market established the value. That’s called the wisdom of crowds.

As of November 9, 2017, there are slightly more than 22 million addresses holding bitcoin, the distribution of which is below. More than half of the addresses hold less than 0.001 bitcoin, in our opinion representing a 'taste-test' balance conflicting with the idea that bitcoin is in a bubble. According to the estimates by Credit Suisse[3], there are 13.6 million millionaires in the US and 33 million worldwide. If we think of bitcoin as a network, it is the number of users that determine utility, and it is utility that determines purchasing power. Ultimately, if bitcoin is broadly accepted, its purchasing power should increase dramatically.

Bitcoin distribution

Balance	# of Addresses	% of Addresses	# of Coins	Market Value $USD	% of Coins
0 - 0.001	12,760,347	57.8%	2,302 BTC	16,537,106 USD	0.01%
0.001 - 0.01	4,036,885	18.28%	16,157 BTC	116,052,376 USD	0.1%
0.01 - 0.1	3,195,880	14.48%	100,013 BTC	718,375,068 USD	0.6%
0.1 - 1	1,421,591	6.44%	461,157 BTC	3,312,411,604 USD	2.77%
1-10	512,173	2.32%	1,391,899 BTC	9,997,767,533 USD	8.35%
10 - 100	133,594	0.61%	4,408,717 BTC	31,667,052,852 USD	26.45%
100 - 1,000	16,260	0.07%	3,776,782 BTC	27,127,971,713 USD	22.66%
1,000 - 10,000	1,605	0.01%	3,452,855 BTC	24,801,261,815 USD	20.71%
10,000 - 100,000	113	0%	2,792,875 BTC	20,060,738,668 USD	16.75%
100,000 - 1,000,000	2	0%	267,031 BTC	1,918,039,347 USD	1.6%
Total	**22,078,450**	**100%**	**16,669,788 BTC**	**119,736,208,082 USD**	**100%**

Addresses richer than

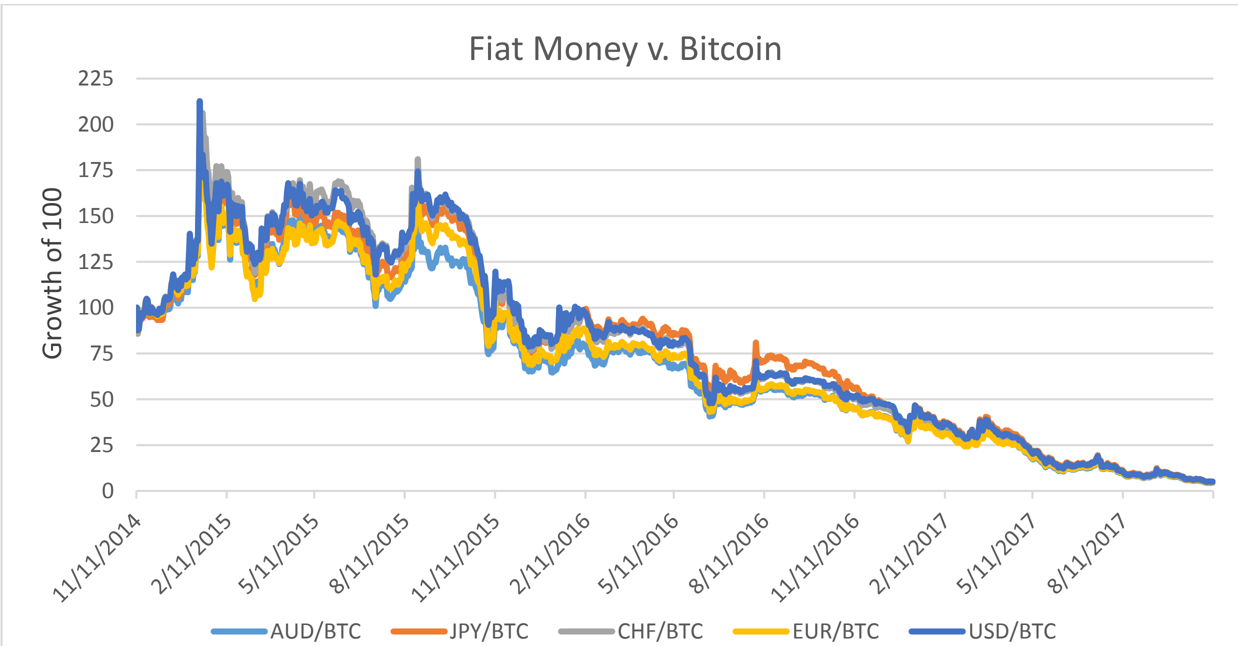
1 USD	100 USD	1,000 USD	10,000 USD	100,000 USD	1,000,000 USD	10,000,000 USD
14,078,897	4,290,965	1,763,547	481,715	120,899	10,888	1,066

As of November 9, 2017. Source: https://bitinfocharts.com/

Chart Explanation: The chart above depicts the range of bitcoin holdings against the number of bitcoin wallet addresses and percentage of bitcoin wallet addresses, along with the number of bitcoins in all such wallet addresses within the specified range.

[3] Credit Suisse Global Wealth Databook 2016 (http://publications.credit-suisse.com/tasks/render/file/index.cfm?fileid=AD6F2B43-B17B-345E-E20A1A254A3E24A5)

A frequently posed question is whether bitcoin is a bubble. Perhaps a better question would be, *"If there's a bubble, is it in Bitcoin or in Fiat Money?"* The chart below represents the performance of bitcoin relative to various fiat currencies, presented upside down. If you are really worried about systemic risk, the only way you can control it is to buy something outside the system, and cryptocurrency is a development that is outside the system.



Source: Bloomberg, www.coingecko.com

Chart Explanation: The chart above shows the amount of bitcoin that 100 units of each respective fiat currency is equal to, over the relevant period.

Disclosures:

Past performance is not indicative of future results. This information should not be used as a general guide to investing or as a source of any specific investment recommendations. This is not an offer to sell or a solicitation to invest. Opinions and estimates offered constitute the judgment of Horizon Kinetics LLC ("Horizon Kinetics") and are subject to change without notice, as are statements of financial market trends, which are based on current market conditions.

Under no circumstances does the information contained within represent a recommendation to buy, hold or sell any security, and it should not be assumed that the securities transactions or holdings discussed were or will prove to be profitable.

Subsidiaries of Horizon Kinetics manage separate accounts and pooled products that may hold certain of the instruments mentioned herein. For more information on Horizon Kinetics, you may visit our website as www.horizonkinetics.com. No part of the research analysts' compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed by the research analysts in the research report.

All material presented is compiled from sources believed to be reliable, but no guarantee is given as to its accuracy. No part of this material may be: (a) copied, photocopied, or duplicated in any form, by any means; or (b) redistributed without Horizon Kinetics' prior written consent.