# *Murray's Musings*

## INTEREST RATES, HEDGE FUNDS AND THE RISE OF THE ARTIFICIAL ASSET CLASS

*The Problem(s)*

Ultra-low interest rates have become a problem for hedge funds. Many hedge fund managers have little or no recollection of the short seller rebate. Nevertheless, there was a time when interest rates were 8% on the short end and a short seller could earn perhaps 75% of the interest generated by the proceeds of a short sale while the funds resided in the custody of the prime broker.

In the contemporary world, an easy-to-borrow equity for short sale purposes may be inexpensive to borrow but it is still a negative carry, as one must pay the dividend on these shares. In fact, as rates progress ever lower, such dividends become more valuable and the share prices progress ever higher. Such short sales of liquid shares are frequently generators of not insignificant losses.

Of course, there are smaller capitalization non-dividend paying stocks that do merit short sale. These, however, are generally hard to borrow and quite expensive when they can be borrowed.

A new risk for the short seller is that in a world of low interest rates, companies that become problematic due to excessive leverage are rescued by low interest rates. If the problems are caused by the incompetence of management, another company may borrow the funds necessary to acquire the problematic company, and do so inexpensively. If no company undertakes to act, the shares of the problematic company might still not decline to a proper valuation, given the circumstances, since it is always *possible* that some entity might act. There is always the possibility of acquisition by an activist investor, financed by borrowed capital. Finally, if none of the aforementioned would act, it is not uncommon that a private equity fund would.

Unfortunately, the problems of the hedge fund manager are not limited to equities. The problems are much the same with regard to currencies. Just as there are companies with profligate capital allocation policies, there are nations with profligate financial policies. Nations will borrow too much money, they can import more goods than can be paid for by productive resources of the nation, or social liabilities might weigh upon the nation. In any case, the temptation is very strong for the central bank to issue more money to fund the liabilities. This, of course, destroys the value of the currency. This theme appears frequently in the history of finance. Consequently, hedge funds might undertake to sell short a currency.

Unfortunately, at the current time, most nations create money to fund national liabilities. For instance, the creation of the European Union, the European Central Bank, and the euro were intended to prevent a repetition of the history of the Banca D'Italia funding the chronic deficits of the Republic of Italy with money creation and the endless depreciation of the Italian lire. Now the euro is in danger of resembling the Italian lire.

 

Other nations, such as the United States and Japan, have a similar problem. Which currency will remain stable? Similarly, one could sell short bonds on the theory that interest rates at this low level cannot possibly continue. Nevertheless, as of this writing, the 10-year German government bond yields 1½ basis points. The Japanese 10-year government bond yields 15 basis points. Even the 10-year U.S. Treasury yields only 1.63%.

Selling short bonds at low rates or even negative rates can be dangerous. The iShares International Treasury Bond ETF (IGOV) has only a 43 basis point yield to maturity. Its weighted average time to maturity is 9.75 years. One might well wonder how it is possible that interest rates could decline any further. In fact, this particular fund contains many bonds with negative yields to maturity. Unfortunately, at ultra-low interest rates, bonds possess incredible convexity characteristics. The IGOV ETF has YTD performance through June 9 of 10.86%. That means it is up 10.86%. Imagine: It is up 10.86% with a 43 basis point yield to maturity. That is incredible. Think of that degree of price volatility in the reverse.

The modern hedge fund must contend with another invisible adversary: The exchanges lease colocation space in their computer assemblages to any number of algorithmic traders. This group has the so-called "first look" at market activity. Thus, if there are hedge funds with brilliant ideas in the course of implementation, any trading patterns will be identified within nanoseconds and huge pools of capital will be deployed to trade in front of the investment managers with the brilliant ideas.

Hence, the hedge fund must contend with central banks that manipulate interest rates as well as exchange rates, prime brokers that charge not insignificant sums for securities lending, and exchanges that populate the trading cyberspace with advantageously-informed predatory traders.

If this were not enough, the prime broker is also a banker, in a sense, to hedge funds. In any meaningful market crisis, the prime brokers frequently reduce the margin available to funds. Many hedge fund managers are value investors. During market crises, these investors might discover bargains, but find that the maximum exposure available to them during a crisis is less than otherwise would be available. In a market crisis, the funds might provide some modicum of stabilizing effect, but that is the moment when margin is not easily available.

The great irony is that the governments, the prime brokers, and the exchanges are, in principle, the regulators of the system that is supposed to be fair to all market participants. Yet, if the so-called regulators regulate with regard to securing a certain outcome, however noble their intentions, that system can never be neutral to all participants.

*A Response—A Simultaneously Long and Short Global Hedge*

Consequently, it is only reasonable that some market participants would seek an investment environment free from regulation, which some would say is free from manipulation. Thus, modern computer science has made possible the artificial asset class. Only one example of this is Bitcoin, a cryptocurrency. Bitcoin, at the time of this writing, had a market capitalization of roughly $9 billion. It might be $11 billion now. Such increases can occur within days.

 

In principle, the world certainly has enough currencies. Yet if governments that issue currencies permit them to lose purchasing power continually, so the debtors of the world (which include the issuers of the currencies) can continue to borrow and spend as they see fit, people quite rightly will lose confidence in the currency.

Bitcoin, by contrast, offers a fixed number of units, which ultimately will be 21 million.

A purchase of Bitcoin, however small, is nothing other than a short sale of the currencies of the world. It should be obvious that if it were to gain the confidence of a meaningful number of investors, it would not trade at a market capitalization of $9 billion.

If it were worth $10 trillion, this would be equivalent only to the current value of government debt with a negative yield (which is one-sixth or one-seventh of all government debt in the world as calculated by economists). This is a nominal, or trading-price, negative yield. The quantity of global government debt with a real negative yield, which takes account of the inflation rate in those nations, is much greater. If Bitcoin were simply to be equal—via market demand—to the value of all government bonds with negative yields, the increase in value would be 1,111.11 times. This might even be an underestimate since the quantity of bonds with negative yields is constantly increasing.

If a portfolio having a 1% position experiences a 1,111.11 times appreciation in that position, the portfolio increases by .01 multiplied by 1,111.11, or 11.11 times. If this occurs over a five-year time period and if the price of every other position remains unchanged, this would be equivalent to a 64.68% annualized rate of return. But that's hardly impressive enough: if all the other investments were to become worthless during this hypothetical time period and no dividends or interest were collected on any position, this portfolio's rate of return would decline to 61.86%. Talk about a hedge!

Of course, the worst that could happen to Bitcoin would be a 100% loss, which would be a 100 basis point—or 1% point—loss to the portfolio. It should be obvious why a very small number of investors believe that Bitcoin is both a new asset class and a particularly effective hedge. It is a long position that is, in effect, a short position on world currencies.

Bitcoin is not the only cryptocurrency. There are aspirants to the status of digital currencies that have no fixed limit upon eventual issuance. An example of such is Ethereum. There are also alternative cryptocurrencies that might be termed social currencies, such as SolarCoin. It is given free to verified owners of solar power producing assets. It is essentially a rewards program that gives one SolarCoin, or SLR, for each megawatt hour of solar power produced. It has been calculated that 1 megawatt hour saves the creation of 1,500 pounds of $CO_2$.

The reward, granted by the SolarCoin Foundation, has a trading value of 1 SLR to 17.56 cents. Its price, interestingly, is ordinarily quoted in Bitcoin. On January 1, 2016, it was trading at 0.00003739 Bitcoin. On June 11, 2016, it was quoted trading at .00030116 Bitcoin, an eightfold increase in Bitcoin terms. It now trades at about 33,817 SLR per day. The market capitalization of the instrument is now $6 million. The SolarCoin Foundation would like to issue $4 billion worth of SolarCoin.

 

The essential point is that the worldwide spread of computer technology means that Blockchain as a technology—the transparent ledger of historical transactions underlying Bitcoin—and the basic idea of a commonly agreed upon store of value is very difficult to stop. Iceland has made Bitcoin illegal. Unknown computer experts, however, created an alternative to Bitcoin named Auroracoin. In March 2014, 50% of the Auroracoin was distributed to all 330,000 people in Iceland using the registry of the Iceland National ID system. This translated to 31.8 Auroracoins per person.

The creators unilaterally declared that each Auroracoin had the value of $12.11 per coin. It was announced that more coins were to be issued and further issuance did take place. Of course, the market paid no attention to the "established" value of $12.11 per coin. The initial trading value was low. It was quickly established that the trading value of Auroracoin was .001 Bitcoin. This was a time of Bitcoin weakness, and only about 24% of the Auroracoins issued were claimed by Icelanders. The issuers destroyed the unclaimed balance.

Auroracoin now trades at 0.004413 Bitcoin. Thus, it appreciated by more than 4x in Bitcoin terms since 2014, and Bitcoin itself has appreciated. The Icelandic government considered banning Auroracoin, but decided the only way to enforce such laws would be to become a police state. It will be recalled that Iceland has only 330,000 citizens.

Thus, new asset classes are being created. At least some people have come to the conclusion that if governments are determined to depreciate money as a store of value, they need not participate. Negative interest rates and excessive currency creation are instigating a reaction.

The Icelandic krona has lost about 5% of its value in relation to the U.S. dollar year to date. If the Icelandic government cannot control the money of 330,000 Icelanders, one-third of whom live in Reykjavik, it will be much more difficult for the world's governments to control the planet's 7.125 billion people. There might soon be many alternatives to the traditional asset classes.

Note: All the cryptocurrency exchange rates that are cited here are courtesy of coinmarketcap.com