FRMO Corp.
2020 Shareholder Letter

Dear Fellow Shareholders,

In the past six years, FRMO has changed rather substantially. In light of this, it seems appropriate that this letter review the developments in these past six years rather than merely the past year. These changes commenced with our observation, in the late spring and early summer of 2014, that our closed end bond funds would, in the best case scenario, generate very limited returns in the future, given the low yields and the existing tax rates. At that time, the decision was made to gradually reduce the position.

The intent was simply to gradually increase our cash position and patiently await the appearance of investment opportunities. We certainly did not anticipate ever lower interest rates culminating in the historically low rates of 2020. At the time of this writing, the 10-year U.S. Treasury Note yields 71 basis points.

We also did not anticipate the rise in the U.S. M-2 money supply to $18.259 trillion, at the time of this writing. We surely did not expect the U.S. national debt to exceed well in excess of $26 trillion. It also might be recalled that the purpose of a large portion of our cash balance was eventually to fund the acquisition of an operating business. However, the circumstance of low interest rates and consequentially high valuations, along with the payment of a control premium for the type of business that we might have been inclined to purchase, would have resulted in a valuation of 30x earnings, which would in turn have guaranteed a low return on investment for the ensuing foreseeable future.

Thus, if we were ever to have a share in an operating business, aside from Horizon Kinetics, it was obvious that we would need to build such a business ourselves. The business that was chosen was the emerging field of cryptocurrency.

The cryptocurrency business did not require a huge capital commitment. As a result, in the event of failure, we could exit without much loss of capital. Such a business might be extremely lucrative if serious inflationary pressures were to emerge, given the money creation practices of every nation in the world. It is also a business that is clearly related to money management, yet is a new and presumably non-correlated asset class.

The first mention of the term cryptocurrency occurs in the 2016 shareholder letter. At that time, FRMO made a small investment in Digital Currency Group. That company, it will be recalled, owns Grayscale, which in turn manages the Grayscale Bitcoin Trust (GBTC) as well as other cryptocurrency funds. GBTC itself manages over $4.8 billion of bitcoin assets, so it is likely that our investment in Digital Currency Group is far more valuable than our cost basis, although the investment is still carried at cost.

Shortly before FRMO completed the Digital Currency Group investment, Horizon Kinetics established its own fund to invest in bitcoin. In addition, various of the Horizon Kinetics mutual funds and partnerships invested in GBTC. At the time, these were rather small investments in relation to the various funds. We could not have anticipated that by the end of 2017, this would become a very substantial investment. We also did not anticipate the bitcoin bear market from the end of 2017 to the end of March 2020. In effect, by making a small investment in bitcoin, we had converted our funds into non-correlated assets.

This obviously entails significant consequences for the FRMO financial statements. As an example, the FRMO private partnership investments now hold substantial amounts in bitcoin. According to generally accepted accounting principles, the fund valuations for the FRMO May 31st financial statements are as of March 31, 2020. On that date, GBTC traded at $7.12 per share. As of this writing, the market value is significantly higher. Therefore, from a shareholder point of view, an important figure is the consolidated number of GBTC shares held on a so-called look-through basis—both directly and through various partnership interests—which amounts to 558,155 shares. Obviously, this share count is important in the valuation of FRMO. Stated alternatively, the fund valuations today are significantly different than as of March 31, 2020.

The implications are not limited to FRMO, but also extend to various partnerships and funds that Horizon Kinetics manages, some of which now have very substantial exposure. The investment positions are well above cost basis. In light of these exposures, one might say that these portfolios are not really comparable to existing indexes.

There are ways to be active in cryptocurrency other than simply holding cryptocurrency either in direct form or indirectly via funds. One approach is mining cryptocurrency, which involves the purchase of servers to validate transactions on the blockchain and obtain cryptocurrency as a block reward.

FRMO is also active in this field. As a consequence of mining, FRMO directly owns the following amounts of cryptocurrency:

	# of Coins
Bitcoin	62.84
Ethereum	34.98
Ethereum Classic	661.7
Zcash	2.0
Litecoin	494.0
Bitcoin cash	1.1

These quantities are as of the time of this writing, and they are increasing gradually as mining activity continues. This figure also excludes very small amounts of other cryptocurrencies, such as Bitcoin Gold and XRP held in the investment partnerships and, therefore, owned on a look-through basis.

XRP, itself, is one of the more intriguing currencies, as it is explicitly deflationary. There is a modest cost for transacting in XRP, which is not actually paid to any intermediary. The fee, which is a very small fraction of a unit of XRP and which is used to protect the network, is simply destroyed. Therefore, the number of XRP units is constantly decreasing. If the transaction velocity of XRP were to rise greatly, the number of currency units would decline greatly, thereby creating a substantial return even if the coin itself did not experience an increase in market capitalization. It would, however, experience an increase in value per unit.

Unlike other cryptocurrencies, XRP is not mined, and its validation system is closed to outsiders, which differs from the cryptocurrencies that are mined. The mined cryptocurrencies are open systems that welcome new participants. Nevertheless, XRP, at least theoretically, does have significant return potential.

Recently, FRMO purchased newly issued shares of Winland Holdings Corporation in exchange for newly purchased cryptocurrency mining equipment. FRMO now owns 1,142,428 shares of Winland, or 26.15% of the company. This establishes a cryptocurrency mining business within Winland and, as a result, Winland should accumulate cryptocurrency. This is not the first exposure of Winland to cryptocurrency. It managed to purchase Mt. Gox trade claims during the bitcoin bear market. It will be recalled that Mt. Gox, once the world's largest bitcoin exchange, is a bankrupt entity. The trade claims are claims to restore to creditors bitcoin that is now held with a Japanese bankruptcy trustee. The value of Winland's Mt. Gox trade claims is currently about $600,000, on a conservative basis.

FRMO also owns a collection of buildings that house a business that repairs mining equipment and does some hosting of mining equipment. FRMO is also a small investor in that business.

In any case, one can clearly see that the FRMO cryptocurrency businesses have become substantial. In an investment management sense, these assets can become quite valuable. If fiat currency continues to be debased, investors must have a counterweight to the consequent decline in the purchasing power of bonds that effectively pay almost no interest. In theory, cryptocurrency could be worth many orders of magnitude more than is currently the case. For example, if bitcoin were simply worth the current value of the U.S. M-2 money supply, it would appreciate over 83 times. This would have a profound impact upon the value of the FRMO cryptocurrency investments as well as a profound positive impact upon the value of Horizon Kinetics. Naturally, one must remember that cryptocurrency, as an asset class, is far from an accepted position. Failure is still possible, which is why the FRMO investment has been modest upon a cost basis. The principle is to be able to survive abject failure in this area.

Some might be inclined to argue that securities exchanges are beneficiaries of inflation, because transactional velocity tends to increase during such periods. Since the cost structure of an exchange is low relative to revenue, it is readily conceivable that the typical exchange might benefit from inflation. (The typical business has a much higher cost structure, not least of which is employees, which exposes the business to rising operating costs.) However, securing a potential inflation hedge was not our intention when we made our exchange investments.

Our working hypothesis was that many of the smaller exchanges had licenses that were extremely valuable, even without large transactional volumes. This theory is proving to be true. Earlier in the fiscal year, we sold our interest in the Bermuda Stock Exchange for stock in Miami International Holdings, Inc., parent of the MIAX Exchange Group (collectively "MIAX"). Subsequently, on August 14, 2020, MIAX and the Minneapolis Grain Exchange (MGEX") announced merger plans. The deal is for a combination of cash and stock, and it is FRMO's intention to take stock in MIAX, which would make FRMO a large owner of MIAX shares. MIAX is growing rapidly and, in our view, possesses outstanding technology. As a consequence, FRMO shareholders will see a substantial tax-free increase in the value of its interest in South LaSalle Partners, LP, which is the vehicle in which we hold the MGEX memberships. The value on our May 31, 2020 financial statement was $6,102,273.

It should also be observed that we hold $4,322,905 worth of MIAX stock as a result of the Bermuda Stock Exchange transaction, so that subsequent to closure MIAX will represent almost the entirety of our exchange investments. If MIAX continues to grow, it will obviously have a significant impact upon the asset value of FRMO.

All of the exchanges in the world are developing new products that are very different from the traditional stock and bond indexes. MIAX is no exception in this regard, and the combination of the MGEX futures exchange with the existing MIAX faculties should accelerate this process.

It is interesting to observe that the securities exchange industry recognizes the limitations as well as the dangers of the current indexation movement. The professional investment management industry is moving in the opposite direction, towards further indexation.

The problem with conventional indexation is that, ultimately, every index will eventually undiversify. This is simply the arithmetical consequence of the fact that the best index investments, in terms of performance, must ultimately become the biggest investments. Moreover, since the sum of the parts must equal the whole, other index investments that at index inception were diversifying assets, are necessarily minimized in weighting. For example, the energy weighting of the S&P 500 index has never been so small; it is now only 2.56%. This could be a problem if there were a meaningful increase in energy prices.

The original, animating idea of the index was to offer diversified exposure to the breadth of the economy and stock market. That was intended to—and, indeed, has historically—provided a degree of resilience to various shocks. If a bubble in a certain sector collapsed, whether biotech or financials, some other sector or sectors might well be in ascendance and offset the decline. But even if it were to double, a 2.56% energy sector weight—which historically was more likely to be in the 10% range—could not offset much in the way of a shock in the major market sectors. Part of the paradox of indexation today is that energy is actually a major part of the economy, yet it can't be of much impact within the index.

Theoretically, an index of exchanges would provide far more diversification than a traditional stock index. This is because the exchanges offer exposure to currently underweighted asset classes like commodities. Yet far more importantly, the payoff from the asset classes comes in an entirely different form. For instance, in the traditional bond asset class, the investor cannot escape central bank action in lowering interest rates and, thereby, creating negative real rates of return as well as the greatest bond convexity—which is to say price risk—in history.

In contrast, a securities exchange and, by extension, the exchange shareholder, earns profit by the trading of bonds and bond futures, as well as options. It is not subject to the systemic risk of the bondholder, because the central bank action does not impact the exchange profits. Indeed, one might argue that today's historically low interest rates require more hedging and risk management, in the form of bond futures and options, so that trading activity becomes elevated. Via an exchange interest, one can earn a reasonable return from the bond asset class without actually owning bonds.

Of course, the problem with creating an index of exchanges is that there might not be a sufficient number of publicly traded exchanges to allow the index to qualify as a broad-based index. In addition, the amount of money that can be raised for any index is limited by the least liquid member of that index. In the case of exchanges, the smallest of them cannot provide much liquidity with their shares, so it is not likely that under current circumstances there will be an index of exchanges.

Nevertheless, we are still seeking ways to invest in exchanges. In the past year, between Horizon Kinetics and FRMO, we participated in four exchange acquisitions. These are the Oslo Børs acquisition by Euronext, the Bolsas y Mercados Españoles acquisition by SIX Group of Switzerland, the Bermuda Stock Exchange by MIAX, and the MGEX by MIAX. Generally, acquisitions result in the creation of new exchanges to fulfill a role not served by the large exchanges. Alternatively, sometimes a consolidation of exchanges occurs because an exchange desires or is compelled to divest some exchange asset.

In any case, existing indexes offer very little protection against inflation. Those sectors not served by traditional indexes will probably be served by new products created by exchanges.

The FRMO inflation-related project is HK Hard Assets. The first commentary on HK Hard Assets in an FRMO shareholder letter occurred in 2016. At the time, FRMO had 5.08% position in HK Hard Assets. As of May 31, 2020, FRMO held a 19.23% interest. The progression of ownership has been as follows:

2017	11.80%
2018	12.92%
2019	15.49%
2020	19.23%

The largest position in HK Hard Assets, though not the only position, is Texas Pacific Land Trust (TPL). This does represent a concentration for FRMO. On a look-through basis that takes into consideration other FRMO fund investments that own TPL, the total ownership at the time of this writing is 50,137 shares.

A hard asset is a very unusual and valuable type of investment for a potentially inflationary world. It possesses the unique faculty that the cash flow is generated from the asset itself, with no requirement to reinvest cash flow in the asset. An example would be a royalty. The management of a company that owns or purchases such a royalty might quite reasonably, or quite properly, choose to reinvest cash flow, either to enhance the asset or perhaps to purchase more such assets. However, this is not a requirement of the nature of the investment. The royalty itself does not require employees, per se, or property and equipment, nor even office space other than to house however few administrative personnel might be required.

Given this characteristic, one can easily see that in an inflationary environment an increase in revenue is tantamount to a disproportionate increase in cash flow. Defined thusly, one should also easily see that there are not very many hard assets of any type available for purchase. If one is fortunate enough to own such an asset, it should probably be retained for the long term. This is our intention.

Of course, the value of such an asset will fluctuate with the fluctuation of the prices of the commodities extracted from such an asset. In the case of TPL, there will obviously be the fluctuations in oil and natural gas prices.

Shareholders should recall that our fund investments are valued as of March 31, 2020 for fiscal year-end statements dated May 31st. On March 31, 2020, TPL closed at $380.01 per share. As of this writing, the shares are trading for $600 each. This creates a great deal of quarterly variability for our financial statements. It is also magnified by a coefficient of 5 times, since FRMO owns about 1/5 of HK Hard Assets: we are required to first consolidate the non-controlling interests in that entity—the other 4/5ths—in stating our net income, before eliminating the non-controlling interests in reporting "Comprehensive income attributable to the Company." The volatility that this entails must be balanced against the value to us of such hard assets in the event of inflation.

The hard asset produces maximum cash flow during periods of inflation. This is also a time when the value of many other types of investment is diminished by inflation. It would be good to be a buyer of such assets during inflationary times; yet, that is only possible with an independent source of cash flow.

If inflation never arises, the hard assets will still produce cash flow and FRMO should earn an acceptable rate of return. Also, viewed from the perspective of the money management business, a hard asset business would be impossible to assemble at reasonable prices during an inflationary period.

Our active money management business, Horizon Kinetics, like virtually every other active money management business, lives in the shadow of the indexation movement, which has become the dominant asset management strategy. There are many who believe that indexation should be the only asset management strategy.

The empirical data in support of this view is actually rather compelling. The active money managers, as a group, continue to underperform the S&P 500 index. Moreover, the index has been producing a higher return with a lower degree of price variability, and that combination, which is taken as the risk-adjusted return, is a basic qualification and benchmarking metric within the asset allocation and indexation ecosystem. Given this reality, it should be no surprise that indexation continues to attract assets away from active managers.

This may well be the fact pattern; however, this is not an explanation. The question is whether or not the index returns and variability are attributable to inherent index properties, or whether or not the returns are attributable to factors that might be of long duration but are nevertheless transitory.

For instance, the index returns of the recent era are inconceivable without the rise of the giant technology firms that now exhibit market capitalizations in the trillions of dollars. In addition, as a consequence of these market capitalizations, the index returns and low variability cannot persist unless the rapid stock price appreciation of these giant companies continues. In other words, if there is a regression-to-the-mean attribute to the giant technology firms, this would entail a period of low index returns simply because the largest component of the index will determine the returns.

One might also add that if the returns of the technology giants were to continue, the index itself would become increasingly less diversified. Obviously, if the largest index component continues to outperform the balance of the index, the largest component necessarily becomes an even larger component. This creates the already absurd situation in which investments are made in an index to achieve instantaneous diversification, yet the index simultaneously becomes, because of those incremental investments, increasingly concentrated.

This is not a circumstance that can continue in the long term. Of course, this circumstance might continue in the short term. At some subjective point, though, the index will become too concentrated to serve the purpose of a diversified index, and the process will reverse. At Horizon Kinetics, therefore, business continues much as usual. Products continue to be launched that should provide a diversification offset to the traditional index.

New products will include hard assets, a vehicle to invest in active money managers, and perhaps another to undertake some specialized investment opportunities in exchanges. As the stock indexes become ever more concentrated, more types of investments are effectively abandoned, creating an ever expanding universe of contrarian opportunities.

As this letter is being written, according to the National Debt Clock, the total accumulated debt in the U.S. of the federal and local governments, corporations, and individuals is approaching $81 trillion. That burden is now expanding at about 13% per annum. Also according to the National Debt Clock, the aggregate interest expense to service this growing debt now equals $13.855 trillion, or19.76% of U.S. GDP. The implication drawn from conventional indexation is that this situation is not problematic. Our investment posture is designed to prepare for a problematic situation. However, even if this view proves to be incorrect, FRMO now has the financial resources to continue to develop in new ways.

In any event, we remain very grateful for the support of our shareholders, and we will continue to strive to be worthy of that support.

Murray Stahl	Steven Bregman
Chairman and CEO	President and CFO