HORIZON KINETICS

1st Quarter Commentary

April 2019

It's Your 20th Anniversary, ETFs, Congrats! (Some Tough Love and Real Talk About Indexation)

ETFs attracted $311 billion of cash inflows in 2018. While lower than the $471 billion record in 2017, it exceeds the prior record of $284 billion in 2016[1]. Equity mutual funds had record net outflows in the most recently tabulated year – that's inclusive of inflows into index-based mutual funds, so the withdrawals from actively managed funds were even greater. Those index mutual funds – the mutual fund equivalent of ETFs – have doubled their share of mutual fund assets in the past 10 years and are now over one-quarter of the total. There are year-by-year statistics for the proportion of investment advisers and brokers who recommend investing via ETFs – in the past five years, that proportion is up by roughly 135%. There is no dissension that indexation and ETFs have become the accepted mode of investing, and that with every passing month greater proportions of investors' portfolios are invested in this manner.

Large-company, or at least large-capitalization stocks overwhelmingly represent the largest single allocation among all the various equity sectors, and are exemplified by the S&P 500. International investing might be exemplified by the Vanguard Total International Stock ETF and Mutual Fund (VXUS and VGTSX). If popularity is an imprimatur of exemplification, this fund has $360 billion of assets. To place that number in relation to something familiar, that's roughly 60 Horizon Kinetics. Just in that one fund.

There is a certain price volatility that people accept with stock investing, an accepted tradeoff for the higher expected return. That volatility has been measured, and is based on 92 years of data, starting from 1926[2]. It is expressed as the standard deviation of share price changes, and this figure is 19.8%, meaning that in a given year, stock prices have tended (meaning roughly two-thirds of the time) to vary by as much as 20% points above and below the long-term average return. So if the expected average return is 10%, one should expect a return as high as 30% or a loss as much as -10% in most years[3]. The current standard deviation of the Vanguard S&P 500 ETF (VOO) over the past 3 years is 10.7%; over the last 10 years, it's 12.7%. For the Vanguard Total International Stock ETF, the 3- and 10-year standard deviations are 10.5% and 15.9%[4]. Both are way below the long-term figure, and not much difference between the U.S. and foreign stock indexes –food for thought, but more on that later.

[1] Source: ICI 2018 Factbook, https://www.ici.org/research/stats
[2] Source: Ibbotson Stocks, Bonds, Bills and Inflation 1926-2017.
[3] In any normal distribution with mean μ and standard deviation σ : Approximately 68% of the data fall within one standard deviation of the mean. Approximately 95%of the data fall within two standard deviations of the mean. Approximately 99.7% of the data fall within three standard deviations of the mean.
[4] As of 3/31/2019. Source: Morningstar.

Now that we have some risk history, let's turn to investment results. I have the feeling that, if asked how the stock market or equity ETFs have done over the past 20 years, most people would say close to or in excess of a 10% annual return. That response doesn't emanate from a vacuum, nor is it a pure guess. It is no doubt influenced in part by all the retirement planning literature about long-term returns that form the basis for almost any serious discussion of the topic. Those statistics come from that same seminal study by Ibbotson and Sinquefeld that began with 1926 figures. They show that over the course of nearly a century large-cap stocks returned 10.2% per year. Bear in mind, though, that the study also presumed that all dividends are reinvested in the index – not distributed and spent, as so many investors must – and that no deductions were made for income taxes, commissions, fees, or bid/ask spreads when buying or selling.

The 10% return guess could also be heavily influenced by recent experience, because that is the way memory works. It's too easy to forget that the last 10 years are hardly normal, particularly because they've been so rewarding. This has been the recovery decade. From one of the very worst market declines in U.S. history. It is now the longest such recovery in history. That is certainly not representative of a long-term norm. It is simply one – and very beneficent – side of a market cycle.

By pleasing coincidence, though, the complete market cycle in this instance is just about 20 years and we also now have, for the first time, 20-year results for a whole range of ETFs that have inception dates in and around 1999, since that was when they were emerging into mainstream existence.

12/31/1999-3/31/2019 **(ANNUALIZED)**

	Ticker(s)	Total Return	Volatility
SPDR® S&P 500 ETF	VOO	5.41%	14.53%
VANGUARD S&P 500 ETF	VTI, VFINX	5.43	14.56
VANGUARD TOTAL INT'L STOCK ETF	VXUS, VGTSX	3.31	17.12
SOURCE: MORNINGSTAR			

As surprising and dismaying as it might be, here is the actual return for these two decades from 12/31/99 to 03/31/19: the Vanguard S&P 500 ETF and Index Fund returned only 5.43% annually; and that's not a fluke, since the SPDR S&P 500 ETF (SPY) corroborates it with a return of 5.41%. Point to point, that's 19 ¼ years, but as we publish this letter, we are well into the 20th year; that is the extent of editorial strain with these statistics. I don't think any objections could be too vigorous. The Vanguard Total International Stock ETF returned 3.31% annually[5].

The next question is: had investors in 1999 known that the major domestic and foreign index results for the next two decades would be in the range of 3% to 5%, with price volatility of 10-15%, and that those would be pre-tax numbers, would they have made that investment?

Before the responsive thought, bear in mind the alternatives then at hand: at year-end 1999, one could have purchased a 20-year U.S. Treasury Note for a 6.8% yield to maturity[6]. Or a closed-end municipal bond fund, of high investment grade credit quality, exempt from federal taxes, at a 7.3% distribution yield.

[5] Vanguard S&P 500 ETF Vanguard (VTI) was incepted on 9/7/2010, the Vanguard 500 Index Fund (VFINX) was incepted on 8/31/1976. Total International Stock ETF (VXUS) was incepted on 1/26/2011, the Vanguard Total International Stock Index Fund (VGTSX) was incepted on 4/29/1996.
[6] Source: https://www.treasury.gov/

12/31/1999-3/31/2019	1999 YIELD	REALIZED ROR
20-YEAR TREASURY	6.85%	6.9%
30-YEAR TREASURY	6.55%	7.8%
MUNICIPAL CLOSED END FUND	7.32%	6.5%

For the 20-Year Treasury, the return through 2018 is very close to the original yield to maturity that was purchased, as it must be with 1 year remaining. A 30-year Treasury though, which then offered a 6.5% yield, would today still have a decade remaining until maturity. With a coupon that is more than twice the currently available 10-year yield of 2.6%, it would trade at a price of about 134. If that appreciation is added in, it provided a 7.8% rate of return. Better still, that municipal bond fund returned 6.5%, which was exempt from federal taxes. If you're in the 35% tax bracket, that's as if you purchased a Treasury yielding 10% (because 10%, less 35% in taxes = 6.5%).

And lest one think that some niche-advantaged indexing could have sufficed, such as among the more specialized funds, here are the Platinum Anniversary figures for a variety of such ETFs with 20-year records. Perhaps their most remarkable feature is that whether you tried energy or technology or financials, Hong Kong or Germany, Europe or Emerging Markets, or Growth or Value, the returns were strikingly undifferentiated from one another, pretty much in the 3% to 6% range. This is separate from their inadequacy for the price volatility assumed.

Then there is the purchasing power loss. Measured by the Consumer Price Index, one can deduct 2.17% per year from the returns in this table, so now you're down to roughly 1% to 4% returns. Take away the tax burden, where applicable, and the 2-decade history of a conventionally diversified portfolio of equities was some measure below that.

Annualized Return: 12/31/1999 to 3/31/2019

Some Countries	
iShares MSCI Germany ETF	2.63%
iShares MSCI Hong Kong ETF	6.16
iShares MSCI Japan ETF	0.30
iShares MSCI Mexico Capped ETF	6.55
iShares MSCI United Kingdom ETF	2.26
SPDR® Dow Jones Industrial Average ETF	6.70
Some Regions	
Vanguard FTSE Emerging Markets ETF	6.46
Vanguard FTSE Europe ETF	3.33
Vanguard FTSE Pacific ETF	2.38
Some Industries	
Technology Select Sector SPDR® ETF	2.87
Consumer Staples Select Sector SPDR® ETF	7.15
Energy Select Sector SPDR® ETF	6.83
Financial Select Sector SPDR® ETF	3.53
Materials Select Sector SPDR® ETF	6.47
Some Styles	
Invesco QQQ Trust	4.21
Vanguard Growth ETF	4.95
Vanguard Value ETF	6.34

Source: Morningstar, Company reports

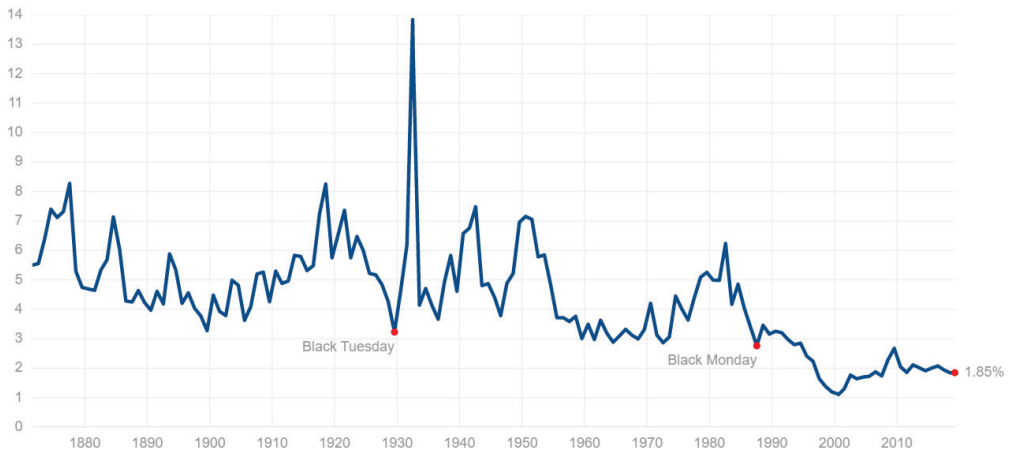
If That Was the Platinum Anniversary, What About Diamond or Ruby?

To review the basics, we're standing on some upland or promontory of the recovery side of a 2-decade full market cycle, a recovery from a historically deep decline and about the longest on record. We wish to assess what the next 10 or 20 years will offer in terms of expected return and price risk. The S&P 500 trades at 20.8x trailing earnings and at almost 3x book value and yields only 2.1%. It's very difficult to responsibly suggest to someone with investment savings

that when that capital is needed at some point in the future, stocks should be relied upon to still be trading at those valuations. Why?

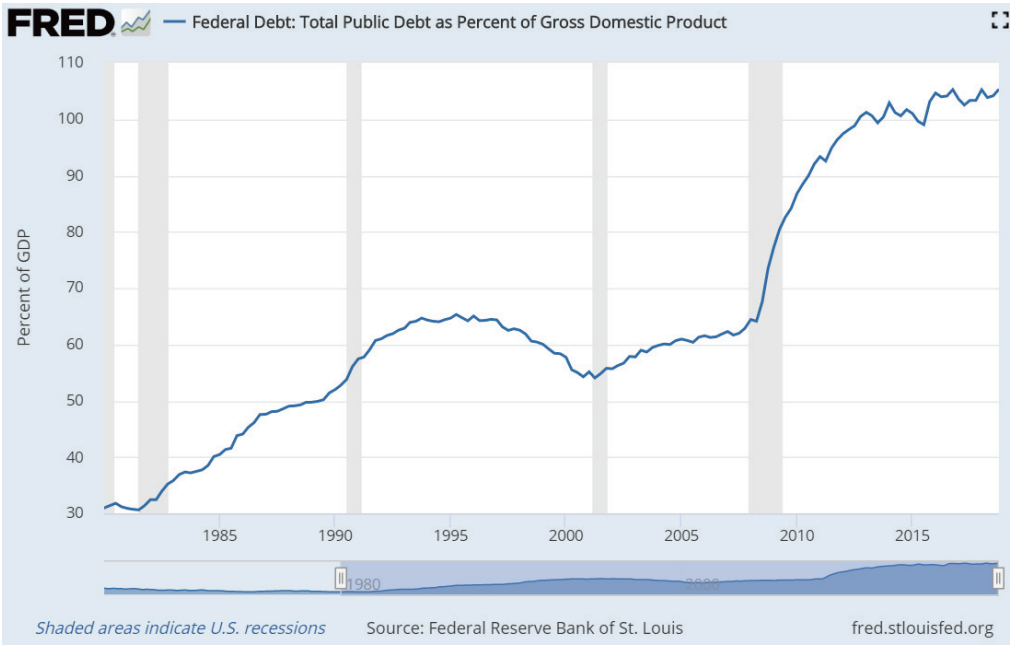
Because in the 148 years since 1871, the average P/E ratio of the U.S. stock market is 15.7x. Over the past 10 years, since 2009, it's been 24.9x. We really do live in a period of extreme valuations, and ultimately the price of any one business or collection of businesses must be supported by a sufficiency of earnings or net asset value that someone else is willing to pay for – *particularly at the moment when you need it*. A price of 24.9x a company's earnings is equivalent, in the inverse form of 1 ÷ 24.9, to a 4.0% earnings yield. You can get more than that in a tax-free bond fund. Over time, investors very clearly do not accept such a paltry level of financial return for the price risk entailed. They ultimately are persuaded by one event or another to require a higher earnings yield (which is a lower P/E). If today's 10-year anomaly is removed, the average P/E ratio for the 138 years from 1871 through 2008, is 15.0x.

The long-term average dividend yield for U.S. stocks is 4.36%; that's for 148 years. For the last 10 years, it's been 2.01%. Excluding this past decade, the average was 4.53%. Is 138 years the anomaly, or is the past 10 years the anomaly?



https://www.multpl.com/s-p-500-dividend-yield

If you wanted to base your *valuation* expectations on the long-run experience, not a bull-market experience, then what future *return* should be anticipated? Let's start again with historical experience. Over the 71 years since 1947, when the Federal Reserve began maintaining this data, the rate of corporate profit growth in the U.S. has been 6.54%. That starting date roughly coincided with the end of World War II. That unleashed of a generation of pent-up consumer demand, world-changing technological advances and stupendous war-time investment in American factories and productive capacity, all of which paved the way for the great American corporate expansion. That 71-year figure was boosted somewhat by the 36 years from July 1982 through 2018, when corporate profits grew at a 6.82% rate. Summer of 1982 marked the beginning of the secular bull market when the Federal Reserve and central banks worldwide began to lower interest rates from the teens toward this market's near zero levels. Adding the stock market's 2.1% dividend yield to that historical 6.5% rate of corporate profit growth, and a roughly 8.5% rate of return would be expected.



Let's set aside, just for exploratory purposes, how very difficult it is to realistically imagine a result as high as that in light of the near-record debt levels on corporate balance sheets, in light of today's record low interest rates that can hardly be expected to go any lower but might well be higher in a decade or two, and despite historically low corporate tax rates that could likewise be higher but probably not lower.

So setting those negative considerations aside, even if corporate earnings and dividends could cumulate at an 8.5% rate, what is the result if the valuation placed on stocks in 10 years is a more average P/E ratio of 15x, and not 21? Then the realized rate of return would be reduced to 5.2%. If this occurs in 20 years, the return would be 6.8%. *That's if everything goes pretty darn well*. If corporate profit growth does not slow from its decades of government policy-boosted assistance, the capacity to continue which the government cannot maintain, and if valuations are at average levels and not lower. Seriously, can you really imagine that the stock market will continuously trade at 21x earnings for 10 or 20 years? Really?

If inflation remains at only 2%, then the expected real returns are down to the 3% to 5% range before the impact of taxes. If inflation is higher due to a greater rate of currency debasement, which goes hand in hand down the march of time with excessive government debt levels, then the real return will be lower still.

Show Me Some Examples – Sometimes It's Just as Important to Talk About What You Don't Own

To some ears, that's just a bunch of numbers. There's an abstract quality to it: if this, then that, a record this, and a near-impossible that. So, stretching the anniversary metaphor, let's marry these statistics with some relatable and well-known examples of a few sectors in the S&P 500 that strongly influence its results. These mini case studies are representative of a much larger collection of stocks that simply represent risk with little realistic probability of long-term reward – one-way stocks. This is the kind of company-by-company assessment that cannot be practiced within an index-based portfolio approach – even though it strongly suggests how those indexes will do.

The Blue Chip "Wide Moat" Businesses

An investing concept that has been exceedingly popular in the past two decades is wide moat investing. It is based on the belief that some businesses have such well-established franchises and high barriers to competitive entry that they have become perpetually high return-on-equity businesses with little risk. Experientially, it appeared to be demonstrably true, since one could observe certain publicly traded stocks that rarely declined and provided a steady upward progression of profits as well as dividends and share price. Kellogg Co. (K) was an example of such a company.

Kellogg Advertising and R&D Expenses, 2010 to 2018

Year	Advertising ($ bill.)	R&D ($ mil.)	Year	Advertising ($ bill.)	R&D ($ mill.)
2010	$1.130	$187	2015	$0.898	$193
2011	1.138	192	2016	0.736	182
2012	1.120	206	2017	0.732	148
2013	1.131	199	2018	0.752	154
2014	1.094	199			

Source: Company filings

In 2010, Kellogg produced $12.397 billion of revenue; in 2018, $13.547 billion of revenue. In 2010 it had $2.04 billion of operating profit, and in 2018, $1.71 billion. A standstill. Why did the wide moat franchise fail to grow?

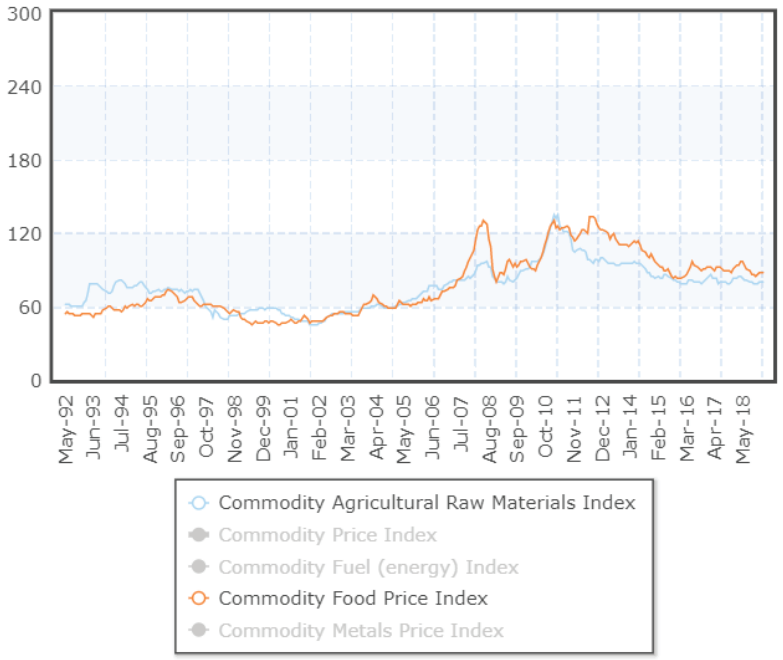
One reason is product saturation. There is simply a limit to the quantity of any product that might be desired by the public. It is extraordinarily difficult for a management or a security analyst to know when this limit will be reached.

The company may also have contributed to its own problems. One might think of a wide moat business in a manner similar to a Class A real estate property: it only remains Class A as long as the owners are prepared to continually invest in maintenance. In a consumer products company, the equivalent of maintenance expense is really advertising and research and development expenditures. R&D is necessary because the product must continually be improved in order to stimulate increased consumer demand. Unfortunately, Kellogg reduced the advertising and R&D over time.

Advertising expenditures declined by 33.4% from 2010 to 2018, and R&D declined by 17.6%. However, these are nominal figures, as are most economic and financial market statistics. If a 3% inflation rate was the experience during those eight years – as for salaries and rents and advertising time and the other inputs for those activities – then the reduction in real terms is 69.0% in advertising expenditure and 49.0% in R&D.

In 2010, gross profit was 43.1% of net sales, while in 2018, it was only 34.9%, which is a decline of over 19% points. The company's operating profit contracted from 16.4% of net sales in 2010, to 12.6%. The decline in net profit is entirely the consequence of a decline in gross profit.

Essentially, Kellogg's customers will not abide too high a profit margin. Is this due to the pressure put on Kellogg by retailers, or is it due to customer buying patterns? It is impossible to know without much more data, but we do know that many of the food companies are experiencing declining profit margins.



As a generalization, Kellogg's profit margins are very high for a U.S. firm, by historical standards. If raw materials costs were to ever increase, as for example grains and sugar, it would be difficult to pass this cost on to the consumer. Like so much else in the past 10 years or so, the price behavior we know is not what history knows.

https://www.indexmundi.com/commodities/

Agricultural commodity prices experienced a major bear market and they remain depressed. Imagine what an enormous benefit that has been to food and drink manufacturer gross margins. Imagine the impact of a restoration of prior price levels. Kellogg is a wide moat business with little upside, yet with not inconsiderable downside once it is realized that it is no longer a growing business.

A generalized profit margin contraction is a risk for an index buyer. Unfortunately, indexes do not quantify the probability or possible magnitude of that risk for the constituents of the index – it's not how indexes are managed. Therefore, an important risk factor is not addressed. In which case, for asset allocation purposes, it is not possible to measure *forward* looking risk and reward – which is the only type that counts.

PepsiCo Inc., with a $169.5 billion market capitalization, is a global wide moat company that deals in soft drinks and snacks. It is, of course, true, as for Coca-Cola, that the displacement of such an enterprise by a new competitor would be extraordinarily difficult. However, the company can't be protected from the tastes and desires of customers. The consumption desire or capacity of the people of this planet for soft drinks and snacks is not infinite. Moreover, the ability of the company to extract operating profit from this base of sales also has its limits. This is easily visualized in the accompanying table, which provides essentially the same multi-year revenue and profit progression as Kellogg -- none.

PepsiCo (PEP)

Year	Revenue ($ bill.)	Operating Profit ($ bill.)
2014	$66.683	$9.755
2015	63.056	8.274
2016	62.799	9.804
2017	63.525	10.276
2018	64.661	10.110

The investment analyst community does not accept that the recent past is prologue. The consensus earnings forecast is that the company can grow profit on an annual basis by about 8% to 9%. No degree of empirical evidence seems able to contradict this view. As a consequence, the shares trade at about 22x estimated 2019 profits.

If one accepts the premise that the profits might at least remain at this level, one could perhaps justify the current valuation in terms of the extremely low level of interest rates. Yet, even if the analysts are correct in their forecast, the situation is still not as stable as the estimates might suggest.

PepsiCo earned $7.45 billion this year, excluding tax *income* for non-repeatable reasons. From this sum, the company intends to pay about $5 billion in dividends and to purchase about $2 billion of stock. This leaves about $450 million of residual income. From this sum, capital expenditures should be about $3.3 billion, though partially offset by non-cash depreciation expense of $2.4 billion. This leaves, overall, about a $450 million deficiency. The deficiency can be addressed by reducing capital spending. Or, the company could borrow it, as the funding shortfall is fairly minor in the context of the PepsiCo balance sheet.

Whichever decision PepsiCo makes, though, it is self-evident from a capital allocation standpoint that the business is planned to be in stasis: there are no plans, in the capital expending sense, to expand the business. These, then, are the possibilities:

a. everything remains in stasis;
b. the margins decline, because sooner or later the workforce will require more compensation than in the past—just because of inflationary pressures, if nothing else;
c. the valuation multiple placed on the shares declines; and
d. maybe be the most likely, margins decline and the valuation multiple contracts simultaneously.

PepsiCo is simply another example of an assumption of risk with little realistic possibility of long-term reward. It is a one-way stock that happens to pay a modest dividend.

Information Technology/Social Media/Media

Assuming that the consensus earnings estimate by research analysts who follow **Amazon** proves to be accurate, then in order to profit from holding Amazon until the year 2022, the shares must trade at a P/E ratio greater than 21.45x in that year. To clarify, if the estimate of $82.26 per share is actually achieved in 2022, and if the shares trade at 21.45x that number, then it would be the same price as today.

Amazon Consensus Earnings Estimates

Year	Price Per Share	P/E
2019	$26.93	65.53x
2022	$82.26	21.45x

The only way Amazon is going to appreciate, accepting the earnings estimate, would be if the valuation multiple were greater than 21.45x . Of course, the estimate itself assumes that Amazon's profit will slightly more than triple in 36 months.

No one forecasts that the *revenue* will triple. Sales expanded at a 29.6% annual rate over the course of the past 36 months, inclusive of the Whole Foods acquisition. That was a double. Most analysts seem to project a 20% revenue growth rate. If accurate, Amazon's 2018 sales of $232.887 billion will rise to $402.42 billion

in 2022. Incorporating that information, then from a purely arithmetical perspective, the only way that Amazon could triple its reported profit would be to expand its profit margins. This is another way of saying that Amazon will increase prices, because it is already a very efficient company in terms of operations.

In any case, Amazon has about 500 million fully diluted shares. If it were to actually earn $82.26 per share in 2022, that would be $41.13 billion of net income, assuming, as this calculation does, that no additional shares are issued to its employees over the course of the next three years. That is probably a bad assumption; the current share count is 5% higher than three years ago.

Nevertheless, by this reasoning, Amazon will produce a net profit margin of 10.22% as opposed to the current margin of 4.34%. Even if the company manages to do all this, the share price would not advance unless the shares trade, in 2022, at a P/E ratio above 21.45x.

If, instead, the P/E ratio is 25x, and Amazon achieves all of this margin expansion and all this profit growth, the return to shareholders would be 5.23% per annum. Again, this makes the unlikely assumption that the company issues no more shares. It does seem like a great deal of risk for a rather unexciting rate of return.

Netflix poses a similar challenge. It earned $2.68 per share in 2018. The shares trade at 134.7x this figure. It should also be added that Netflix produces negative cash flow despite formally reporting profitability.

The analyst consensus is that Netflix will earn $9.31 in 2021, which would require profit to more than triple. One way to triple profits would be to triple subscribers. In the past four years, Netflix has increased subscribers from 54.476 million to 139.259 million. That's an annual growth rate of 26.5%. At this rate, Netflix would have 281.537 million subscribers at the end of 2021. If one were to accept that the incremental subscribers enjoy the *existing* content enjoyed by the *existing* subscribers, there would be a self-evident economy of scale: there would be more subscriber revenue without more subscriber cost, and Netflix might actually achieve its earnings objective.

However, the historical experience has been that attracting marginal or new subscribers requires massive spending on original content. This is evident in the accompanying table. In reading the table, you must be aware that the balance sheet value of the company's content is amortized constantly, so the stated figure is actually going down unless at least that amount of new content assets are added. In 2014, the content assets were about $4.9 billion. In 2018, it was over $20 billion. During those four years, subscribers increased slightly more than 2.5x, whereas the content assets, even net of amortization, quadrupled; actual spending increases had to be far greater than that. In the meanwhile, all of the major entertainment companies are building Netflix-like platforms to challenge Netflix with new and original content. In effect, the earnings estimate presumes that the Netflix original content will be more appealing to the worldwide subscriber base than the original content of the other platforms.

Netflix Subscribers & Content Assets

Year	Netflix Subscribers (millions)	Content Assets (Net of Amortization) *($ in billions)*
2014	54.476	$4.939
2015	70.839	7.218
2016	89.090	11.000
2017	110.644	14.682
2018	139.259	20.112

However, if we were to simply presume that Netflix does in fact earn $9.31 per share, exactly as predicted by the analysts, then the shares, if still at their current price, would trade at a P/E ratio of 38.8x in 2021. If the company earns that amount and if one wishes to make a 10% rate of return between now and 2021, the stock would need to trade for $480.50. This would be a P/E ratio of 51.6x. The Netflix shares seem to require a great deal of risk merely to earn 10% before taxes. That's not to say it *won't* happen, but why take that level of risk in order to try for a 10% return?

The Banking Sector – How a Low-Valuation Business Can Be Overvalued

You wouldn't know this unless you are a subscriber to certain of our research publications, but we recently advised investors who hedge their stock market risk by selling short the market itself, such as with the S&P 500, to instead short a banking sector ETF. Over extended periods, bank stock returns are unusually low. They are not always low. They are very high while recovering from a periodic banking crisis – crises that seem to recur with remarkable regularity[7], while during banking crises, they are not low but, more accurately, of unusually large negative magnitudes. Other than that, the returns are not very high. That makes them good market hedge instruments.

A glimpse into the longer-term return pattern of banks may be seen in the results of the SPDR S&P 500 Bank ETF (KBE) or the Financial Select Sector SPDR Fund (XLF). Since its inception over 13 years ago, KBE has returned 0.8%, annualized, although the past three years it was 13.1%.

KBE Performance (Periods Ending 3/31/2019)

	Annualized Rate of Return
1 Year	(11.08)%
3 Years	13.12%
5 Years	5.95%
Since Inception 11/8/2005	0.84%

The value trap is that the typical bank has a low valuation. This ETF trades at 11.1x reported earnings and only 1.3x book value. It pays a dividend yield of 2%. The typical bank analyst believes that if a bank can maintain a consistent ROE of at least 10%, which is considered to be conservative, and reinvest 80% of its profits, then it should be able to expand its earnings by 8% per year. Add in the 2% dividend yield, and a 10% annual return should be expected. That is the rate of return analysis.

Yet, over the long term, banks do not do any such thing. There are structural limitations. First, in order to sustain an 8% growth rate, a bank must be able to increase its loan book by 8% every year. But in an economy that might on average grow at 2% – which includes the supply of borrowers or borrowing capacity – that rate cannot be sustained.

[7] Just in the past 30 years, the world has experienced the U.S. savings and loan crisis over the 10 years ended 1995, the 1988-1992 Norwegian banking crisis, the Finnish banking crisis shortly thereafter, the Peruvian banking crisis of 1992, the Venezuelan banking crisis of 1994, the Long-Term Capital Management crisis of 1998, the Russian banking crisis, the Ecuador banking crisis of 1999, the 2002 Uruguay banking crisis, the 2003 Myanmar banking crisis, the global banking crisis of 2008-2009, as well as subsequent banking crises in Iceland, Ireland, Spain, Ukraine, Greece, and again in Venezuela. Some would question the capital adequacy of various Italian, Portuguese, German, and even French banks. One could also point to the Cyprus banking crisis.

A second limitation is that with $1 trillion and $2 trillion balance sheets, the large banks are essentially compelled to more or less confine their activities to the most liquid parts of the lending market. Their scale leaves no scope for employing 'niche' lending strategies or pockets of opportunity in lending that might differentiate their returns or diversify their risk; they tend to have quite similar portfolios. As a result, if a misallocation of capital is found in one bank, it will be found in others. This covariance – or togetherness – risk is magnified by the fact that the large banks tend to do business with one another as counterparties.

There's a third limitation. When banks periodically exhaust the supply of creditworthy borrowers, one solution their managements devise is to increasingly lend to less creditworthy borrowers. However, the typical bank is at least 10x leveraged. If they have $100,000 in capital, they've lent out more than $1,000,000. So even if only 5% of their borrowers are not creditworthy, that's half their capital. That can destroy a bank balance sheet, placing that bank, and not infrequently the entire banking system, in jeopardy. That is why bank stocks perform so poorly in any credit contraction – episodes of which, as already mentioned, appear with great regularity. It is also why they generally trade at low valuations.

There's another aspect of risk in bank investing. It is probably well accepted that the typical bank portfolio is virtually opaque and inscrutable when viewed from the outside. It is arguable that it is highly opaque and inscrutable even viewed from the inside. That is a function of how a human being is to understand a balance sheet of this size. For instance, one might study the loan book's exposure to industry sectors or by country, or lending by state or by risk scores, which is to say by the aggregate statistical properties of the assets. But one would never obtain a granular concept of the assets held on the balance sheet.

The loan book is the creation of literally thousands of loan officers. Can thousands of human beings consistently follow an investment strategy in unison? And even if they were all, to a person, doing so to the best of their abilities, there are different interpretations of the investment policy guidelines. Can senior management amass sufficient data to properly monitor the activities of the loan officer? Ultimately, the data will be, and must be, obtained from those very same loan officers being monitored.

Take a bank with a $1.5 trillion investment portfolio. If the average loan or other asset were as large as $1 million, this would be 1,500,000 positions. Even if the average asset size were $10 million, that would still be 150,000 positions. In the world of active equity management, no one would believe that any management, even with the assistance of hundreds of analysts, could possibly monitor 150,000 positions. And speaking of active, there is a certain turnover rate within such a portfolio, some investments or loans being sold or maturing, and new ones being made. All the time. Divide that rate of turnover to a per-week or per-month number of new individual exposures, and one sees the impossibility.

Hence, it may well be the case that banks with multi-trillion dollar balance sheets are simply too big to be properly managed. If that is so, then it is simply a matter of time until a serious systemic error occurs. Systemic, because when problems do arise, they will occur virtually simultaneously in all banks of scale due to the commonality of their portfolios and interrelationships, and the combined problem places the system itself in danger. Their high leverage ratios may place such banks in existential peril.

If the companies in any other industry sector decided to maintain 10x or greater debt leverage, it is doubtful that they could ever raise capital on that basis. The banking sector is unique inasmuch as it maintains leverage ratios that would be considered outlandish – irresponsibly dangerous – in any other business.

An Introduction to Upheaval Investing (or, conversely, Indexation's Kryptonite Events)

With all of that under our collective belt, our minds should be primed to discuss the concept of upheaval investing. First, though, it is no more than sensible to acknowledge that asset diversification is ordinarily a very good idea, and that a properly constructed index is an excellent means of achieving diversification. But it is not always a good idea. It is likewise no more than sensible to understand that diversification necessarily places one's exposures into and across the systemic risks of all the significant asset classes. Over the course of world history, whenever one of the many political upheavals occurred, diversification simply meant that one was certain to suffer the consequences of those disruptions.

The term "diversification" has come to be understood – or hijacked, depending on your attitude – as having many holdings across many asset classes and sectors. That is not its true meaning or purpose. It's purpose is to reduce overall risk by having some holdings that are subject to different risks or opportunities than others. It could well be an instruction for very few holdings, but which are very independent of everything else.

In American historical financial consciousness, the years 1907, 1929-1932, 1973-1974, and 2008-2009 are recalled as times of severe crises. If you think of the new millennium, Hungarian historical consciousness recalls a period of growth and dynamism as the country headed into the new century. Tangible signs of economic progress at the time included renewal of the Garden District in Budapest, with an eclectic mixture of new villas on tree-lined boulevards built by the rising middle class, and renovations of older dilapidated mansions. Civic infrastructure projects included a modern subway and ice-skating rink in City Park. The Budapest Stock Exchange was expanding rapidly and, in keeping with the trend toward international stock investing, the prices of Budapest-listed stocks were also published in Vienna, Frankfurt, London and Paris. Budapest Exchange-listed bond prices were published in London, Paris, Amsterdam and Berlin.

You know we're speaking about the year 1900, not the year 2000, right? By the beginning of World War I, almost 500 securities traded on the Budapest exchange, up from 310 at the turn of the century. Amidst all that dynamism, investors who were not wise enough to sell all of their securities would have suffered a complete loss of capital over the next 50 years. The Budapest exchange closed in August 1914 for the duration of World War I. In fact, all the world equity markets were forced to close. When it was possible to sell, investments were worth only a fraction of their original value. It is near impossible to discover any individual who predicted this set of circumstances[8].

[8] A Warsaw banker named Ivan Bloch actually predicted a serious conflict years before World War I, in a then famous book, and made a presentation to that effect to Britain's military leadership. However, he concluded that a modern war would be very brief, since it would be so disruptive to international commerce. Of course, commerce was disrupted for many years.

The Budapest Exchange reopened after World War I, but closed again in 1931, partly as a result of the collapse of Europe's major banks. When it reopened in 1932, there was trading in only 18 equities. Then, aside from government restrictions during World War II, in 1948 the Hungarian government nationalized most private firms. Shortly thereafter, since there was no longer the need of a securities exchange, the government dissolved it and seized its assets. It did reopen again, but that was in June 1990. Hungary today is an emerging market; in 1900 it was a developed market. How can an academician claim that future returns from securities markets are predictable? Yet it is the belief that markets display predictable return patterns over multi-year time periods that is the foundation for modern indexed diversification practices.

The experience of the Budapest Stock Exchange is not unique. Similar crises enveloped the Warsaw Stock Exchange over the course of generations. Nor was the experience unique to Europe. Variants of this story can be told for once vibrant, quasi-global exchanges like Chile's Santiago Stock Exchange, which was founded in 1893 with over 300 traded companies.

One difference between the 1940 to 1949 period and the modern era is the mobility of capital. During the 1940's the cumulative real return on Italian bonds—after the impact of inflation—was negative 96.04%[9]. An Italian bond investor experienced an almost total loss as a result of relentless government money debasement. And because of strict capital controls, that investor's capital was trapped within the Italian borders. Today, information moves at the speed of light. A modern index investor can move capital transnationally and is globally diversified. The flipside of that faculty is exposure to every conceivable broad-based political calamity.

The Failure of Risk Diversification in International Investing During Periods of Crisis

If the potential course of events could have been foreseen in 1939, investing some meaningful portion of assets outside of standard investment parameters would have been reasonable. The problem was that even if someone could have evaded capital controls that prevented the free transfer of funds, the range of investment choices was very limited. As an example, had an Italian citizen successfully emigrated to the U.S. with capital intact and decided to invest a large portion of that capital in gold, it could not have been done. It was illegal at the time for Americans to hold gold.

What if a preternaturally prescient investor prior to 1914 had surmised the future course of history? Viewed from the perspective of the currency or bond asset classes, there would not have been a suitable investment for at least 30 years that embraced all of the European currencies and fixed income classes—with the possible exception of the Swiss franc. One would have been well advised to avoid the European equity markets as well.

What if that investor, having correctly assessed in 1910 that the European asset classes were dangerous, decided to invest in U.S. equities? Although there was no S&P 500 Index, there was a Dow Jones Industrial

[9] Dimson, Elroy, et al. *Triumph of the Optimists.* Princeton University Press, 2008.

Index. To give this investor the continuing advantage of superior insight, presume that the Dow Jones was not purchased until the beginning of 1911, since in 1910 it declined by 17.9%, exclusive of dividends. The reason for excluding dividends is to try to replicate the psychology of the flight capital investor who was surely interested in asset value stability. Indeed, the logic of policies such as the gold standard was to provide asset value stability as well as stability of purchasing power. One might say that was the 19th century version of volatility control.

The next decade of investment experience of this supremely astute investor who moved European investments to the Dow Jones Industrial Index at year end 1910 would be as follows, exclusive of dividends.

The cumulative decline was 11.44%, or an annual -1.21%. This would have been positive inclusive of dividends, yet it is difficult to imagine that the flight capital investor would have found this to be a satisfactory outcome. The object of the exercise was to escape from the European crisis, yet the U.S. was clearly impacted by it, with individual-year losses in excess of 20% and 30%. This is for a country that *won* the war.

The Dow Jones Industrial Index Returns, Exclusive of Dividends	
1911	0.40%
1912	7.60%
1913	(10.30)%
1914	(30.70)%
1915	81.70%
1916	(4.20)%
1917	(21.70)%
1918	10.50%
1919	30.50%
1920	(32.90)%
Source: S&P Global	

With a broader perspective of historical results such as this, one obtains some sense of crisis or upheaval investing. In times of crisis, most investments are negatively impacted; as a consequence, the range of possible investments is greatly narrowed. *Hence, it is precisely in a diversified portfolio that one cannot remain safe.*

In fact, the practice of volatility control in some types of crises is positively dangerous. Suppose that our hypothetical Europe flight capital investor had, upon arrival in the U.S. at the end of 1910, purchased short term U.S. government securities with no meaningful price volatility. This investor was sufficiently prescient to not only have known that the First World War would occur, but also that the U.S. would join the Allied Powers and that they would be victorious. This would simply cement the conviction in the credit safety and price stability of U.S. Treasury Bills. Yet, according to the U.S. Bureau of Labor Statistics, the cumulative U.S. consumer price inflation for the 10-year period subsequent to 1910 was 110.5%. The consequence of practicing the modern conception of volatility control would have been a most serious erosion of purchasing power. Incidentally, the cumulative U.K. inflation for the same period was 163.5%, according to the U.K. Office for National Statistics.

One might believe, in light of the inflationary environment during that crisis period, that the obvious recourse would have been to invest in gold. But no. During that entire time span, the price of gold in U.S. dollars was fixed by the central bank at $20.67 an ounce. Now, it is a fact that in certain war-ravaged countries the black market price of gold was much higher. In that case, the investor wishing to reap the benefit of holding gold throughout the crisis period, which might have been quite considerable, would have had to journey, with the gold, to the war-ravaged country and transact with suitable individuals. Thus, the cost of transacting included the acceptance of considerable personal risk. Unless one was of the adventurous sort, the hypothetical flight capital investor of 1910 would not have found a solution in gold.

Case Studies in Upheaval Investing
(Or, Concentration as Diversification Against *Systemic Risk,* versus *Indexation Into & Across Systemic Risk)*

Unfortunately, people who manage to extricate their wealth during the course of political upheaval do not generally write autobiographies about how they were able to move their assets to a safer location in an undiversified fashion; however, there are examples of individuals who managed this feat. They are fascinating, they capture the imagination, and they are deeply instructive. But even one of them is too lengthy for this afternoon, so they will be found in the appendix at the end of this presentation.

The first example is a century old, and the second is unfolding this very year. The first is the story of an Armenian merchant and engineer born in the Ottoman Empire in 1869, who eventually became one of the founding shareholders of Royal Dutch Shell. He then managed to successively transfer his extraordinarily substantial investments – and himself – to safer jurisdictions or into safer structures. He did this prior to World War I, prior to World War II and more than once during that war. An intriguing feature of his remarkable ability to be so fluid with his assets is that they were – including his national-museum-scale art collection – the very definition of non-liquid assets.

The second example, written in his own words, is from an economist in a country that today is a classic example of a formerly advanced nation now in the throes of complete monetary collapse, experiencing the same hyperinflation as in the much studied case of the Weimar Republic in 1921-1923. In this country today, the official paper currency is worth more if fashioned by the desperately creative into toys or trinkets for sale on the street than to use to try to buy bread. The fascinating aspect of this person's rescue asset is that it is the very definition today – at least in the U.S. – of the most extreme, irresponsibly risky tradeable investment that exists. Most of the largest investment firms will not permit it to be held in client accounts. Although we at Horizon Kinetics do so wherever we can.

Some Updates on Portfolio Holdings

Texas Pacific Land Trust, a major – sometimes the major – holding in a number of our strategies, is now the subject of a proxy contest between the two trustees who control its activities and an investment group. A shareholder voting period will end with the Special Meeting that is scheduled to be held on May 22, 2019. The trustees have put forth a candidate to replace the late Maurice Meyer III, who retired in February due to ill health. The investment group has proposed a different person to be the third trustee. Both assert that their candidate would best serve the interests of the Trust.

Central to the proxy contest is that the Trust is as unique in its governance structure as it is in its asset inheritance. The assets are probably unmatched in the scope of their royalty interests, surface acreage and water rights in the oil and gas rich Permian basin of west Texas. The Permian Basin is unmatched in the U.S. for the extent of its reserves, now second in the world only to Saudi Arabia. It is no exaggeration to say that the Permian Basin has enhanced the global geo-political economic position of the U.S.

As to governance, there is probably no other SEC-registered, publicly traded company with trustees or directors who are tenured for life. One can see why it is especially strongly felt by both parties that the choice of this third trustee is most important.

In almost all such cases, the contesting parties are referred to as an *outside* investor group, and I have here chosen to exclude that term. This is because this particular group holds over 25% of the shares, is TPL's largest shareholder group by far, and has held the shares for many, many years. In this sense, they might be said to embody the ideal of a long-term equity stake holder, which is, in its essence, the counterpoint to an outsider. The trustees, in contrast, hold a negligible amount of shares.

These and many other informative facts are available as SEC filings made by both parties in recent days, and some of these have also been disseminated as news releases on financial news websites. An important fact that must be disclosed is that Horizon Kinetics is a member of the investor group. For obvious reasons, there is little in the way of suasive language, or language that regulators might interpret as being of a promotional nature, that I should be or am permitted to say in this forum other than what has already been disseminated. Borrowing from those public sources, the following statements from each party might do justice to elements of each of their core messages, though each have much more to say:

From the Trustees:

> TPL's Trustees and management have led the Trust through a period of expansive growth…..shareholders are benefitting from unparalleled returns.
>
> As your current Trustees, we are proud of what we have delivered – including total shareholder returns of 733% since January 1, 2014. By comparison, the S&P 500 returned 74% during the same timeframe, while WTI crude oil prices decreased by 36%

A response from the investor group:

> We...hope that the two incumbent Trustees stop taking unqualified credit for the returns experienced by TPL investors the past few years. For that, we believe proper credit is due to the numerous exploration and production companies that have spent over $10 billion since 2013 drilling on TPL's treasured royalties and land.... ***Being dealt a Royal Flush does not make one a good poker player.***

Beyond these few excerpts, there is much more information now readily available through both parties' filings and announcements in this ongoing debate.

Oaktree Capital Group, perhaps the preeminent distressed debt investor, is held in some strategies in part because it is during periods of debt and credit sector upset when Oaktree can be the most productive with its capital, which is rather the opposite experience of most companies. That can be an interesting diversifier to hold in a portfolio. As well, for the 12 months through the end of February, Oaktree paid out dividends equal to 7.0% of its February-end share price. The prior review of historical bond and stock returns should add to the recognition of the import of that level of income within an equity security, since in addition to the yield, the shares and the distributions could always rise substantially during a period that is productive for Oaktree's business.

The past seven years since Oaktree came public in April 2012 have been a poor environment for it, since ever lower interest rates and ever higher equity valuations have permitted all manner of excessively indebted companies –say, Netflix, as an example – to stay afloat without the balance sheet restructuring that might have been unavoidable under more normal circumstances. In part for this reason, Oaktree's share price at the end of February was pretty much the same as it was at the time of the IPO, and the return to shareholders who held it the entire period came from the dividends. It is perhaps instructive that its share price performance nevertheless exceeded that of ExxonMobil during this period.

The reason for the repeated reference to February month-end, when the shares were $42.37, is that on March 13th, the company announced that it agreed to be acquired by Brookfield Asset Management, one of the largest alternative-asset managers and which is also a holding in some of our portfolios. The price is $49 per share and the transaction should be concluded later this year.

Appendix I

Unfortunately, wealthy people who manage to extricate their wealth during the course of political upheaval do not generally write autobiographies about how they were able to move their wealth to a safer location in an undiversified fashion; however, there are examples of individuals who managed this feat. One is the story of Calouste Gulbenkian, who was an Armenian merchant and engineer, born in the Ottoman Empire in 1869 and educated in France and at King's College London. He became one of the founding shareholders of Royal Dutch Shell by obtaining the Ottoman oil concession for that company in the territory then known as Mesopotamia, now known as Iraq.

At one point, Gulbenkian owned the entire oil concession of the territory that would become modern day Iraq. Prior to the First World War, he swapped the concession interest for a 5% interest in Turkish Petroleum that eventually became interests in such firms as Total, Royal Dutch Shell, British Petroleum, and Exxon. In 1938 (note the timing), these interests were moved to a Panamanian company known as Participations and Interests or simply Partex Oil and Gas (Holdings) Corporation. The company still exists and is owned by the Calouste Gulbenkian Foundation in Lisbon.

Much of Gulbenkian's wealth was invested in his art collection, which was one of the largest and perhaps the largest ever amassed by a single individual. According to the museum that now houses most of the collection in Lisbon, it numbered more than 6,400 pieces, at its peak. It was housed for many years in a four-story, three-level-basement house on the Avenue d'Iéna in Paris. In 1936 (once again, note the timing), pieces from the collection were lent to museums in other countries. The first portion was sent to the National Gallery in London as well as to the British Museum.

Shortly before the outbreak of the Second World War, Gulbenkian acquired diplomatic immunity as the economic advisor to the Persian diplomatic legation in Paris—yet another example of exquisite timing. Prior to the German occupation of Vichy in 1942, this diplomatic immunity enabled him to leave France unmolested and move to Lisbon, where he resided for the rest of his life. Gulbenkian died in 1955.

If there were a course in crisis or upheaval investing—and there should be—the life of Gulbenkian would serve as a preeminent case study. In any event, some people are clearly paying attention to this subject. The most comprehensive biography of Calouste Gulbenkian is entitled Mr. Five Percent: The Biography of Calouste Gulbenkian. It is available on Amazon in used condition for $443.85. The American author William Saroyan included a chapter about Gulbenkian in his 1969 book about interesting people, entitled Letters from 74 Rue de Taitbout or Don't Go But If You Must Say Hello to Everybody.

One also encounters Gulbenkian in The Prize by Daniel Yergin, a book about the creation of the modern petroleum industry. In this book, Gulbenkian rises to the status of John D. Rockefeller. Unlike Rockefeller, Gulbenkian had to work very hard to protect and retain his wealth. Rockefeller had to contend with antitrust litigation and legislation as well as the more pedestrian vagaries of inflation and depression. Rockefeller was far more impacted than Gulbenkian by deflation during the course of his lifetime.

Gulbenkian had to contend with periods of inflation and deflation as well as with multiple wars and revolutions. One of Gulbenkian's more interesting deals was the purchase of paintings placed for sale by the Soviet government from the State Hermitage Museum in the then city of Leningrad. Gulbenkian actually managed to pay for the paintings with oil. This occurred in the time period of 1930 to 1931 when the Soviet government needed hard currency as well as various commodities.

Gulbenkian was also a book collector. Ultimately, he endowed the library of the Armenian Patriarchate of Jerusalem, which is still supported by the Gulbenkian Foundation. The library has what must be the largest collection in the world of Armenian books, periodicals, and newspapers.

Books are a very intriguing asset class with regard to upheaval or crisis investing. Very few people understand the value of rare books. Moreover, rare books have the property of hiding in plain sight, so to speak. A rare book held on shelves containing pedestrian books is not likely to be noticed by anyone. Government, tax, and even customs officials routinely ignore books unless they are in a large shipment. Even in such instances, many officials presume by the size of the shipment that it contains nothing other than paper destined for recycling.

Unlike gold, books are not durable collectibles. In reality, many are routinely damaged or lost by people who have no idea of their value. Great sums of money can be invested in a handful of books. Books can be loaned to libraries for safekeeping and insured by those libraries. Viewed as an asset class, reasonably extensive literature exists on book collecting. An early work published in 1893, entitled The Great Book Collectors, by Charles and Mary Elton, is now considered to be a classic in the field.

The supply of original editions is generally in decline. Most hard commodities such as gold, silver or palladium are increasing in supply. In fact, even in the case of diamonds, in which each stone is in principle unique, the supply of the commodity itself in uncut format is increasing.

To gain an idea of the returns available in this asset class, consider To Kill a Mockingbird by Harper Lee, published in 1960. One can examine the dust jacket of a first edition to see that the selling price of the hardcover book was $3.95. A first edition was recently auctioned for $27,000. This is a compound annual rate of return of 16.14%. The book eventually became a best seller. Millions of book club editions were printed in 1960 and offered for sale at $3.95. On eBay, the book club edition—a "not rare" book—sells for $65. This is a compound annual rate of return of 4.86%. In 1962, within two years of publication, book club editions could probably have been purchased at a flea market or backyard sale for 5¢ or 10¢ each due to the abundant supply. If one were to assume that these second-hand books were purchased in 1962 for 10¢ and sold on eBay for $65 in 2019, the compound annual rate of return would be 12.03%, exclusive of the fees charged by eBay.

The salient point is that investing a portfolio for a potential crisis or upheaval is an act of non-diversification into an asset in which valuation is not dependent upon a normally functioning economy. Perhaps this is why the late Karl Lagerfeld owned over 300,000 books. In fact, Lagerfeld acquired so many books that he

eventually opened his own bookstore called 7L in Paris. It is located at 7 Rue de Lille in the septième arrondissement.

Hence, stock markets might crash, currencies might be debased, and gold might be controlled by central banks and deemed illegal to own and transport. Even art has not infrequently been confiscated by governments. One need only tour the Louvre Museum in Paris or the Hermitage Museum in St. Petersburg to see copious evidence of the seizure of private art collections by Napoleon Bonaparte or the Bolsheviks. As a generalization, one could state that books require too much research to interest governments and ordinary criminals. Perhaps a study of book collecting is a reasonable point of departure for a study of upheaval investing.

Appendix II

This appendix was simply to have been an article from the New York Times. Unfortunately, reprint arrangements could not be concluded in time for this review, and as we respect intellectual property, we will simply point interested readers in the right direction. This web link might or might not make the article available, depending on one's subscription relationship with the newspaper:
https://www.nytimes.com/2019/02/23/opinion/sunday/venezuela-bitcoin-inflation-cryptocurrencies.html

And, to pique that interest, this is the title and author:

Bitcoin Has Saved My Family

"Borderless money" is more than a buzzword when you live in a collapsing economy and a collapsing dictatorship.

By Carlos Hernández
Mr. Hernández is a Venezuelan economist.
Feb. 23, 2019

What Mr. Hernandez describes is something of a year in the life of a professional-class family – he an economist and his brother an attorney – in a developed economy undergoing hyper-inflation at the hands of extreme monetary debasement.

Before the situation devolved into an acute crisis, what such people would ordinarily do with their weak-currency paycheck is to immediately convert it into a stronger currency like the U.S. dollar. One would hold those dollars as cash and, when rent was due, convert them back to bolivars. But Mr. Hernandez lives in an upheaval economy where prices are rising by 25% per week. Mr. Hernandez's brother, a practicing attorney, found that his daily expenses merely to travel to work began to exceed his earnings, since his clients were becoming impoverished, thereby impoverishing him as well. Naturally, as a country heads toward that extreme, people begin to move their money to safer jurisdictions. Naturally, as the people begin to move their money, so does the government begin to impose currency controls, so the U.S. dollar trick doesn't work anymore.

Necessity being the mother of invention, Mr. Hernandez turned to bitcoin. Not as a bet or a wager, but simply as a stronger currency in which he could hold the value of his paycheck in order to buy food and pay rent. Interestingly, while he finds bitcoin liquid enough for his purposes – though he does need to spend some minutes looking, on a cryptocurrency exchange, for a buyer who shares his bank so as to facilitate the wire transfer – it is the bolivar that is insufficiently liquid. That is because the government monitors any bank transactions in bolivar that exceed $50. You might have some explaining to do to unfreeze your account.

There is much more in this article that is quite an education for those who've not had to contemplate such circumstances, and I highly recommend it. Lacking that article for these pages, here is another bit of history about past efforts by governments to maintain currency stability and purchasing power.

From the end of the Napoleonic Wars in 1815 to the beginning of the First World War in 1914, capital was generally free to roam the globe. This period was also essentially free of the crises that required capital to flee home countries. Interestingly, there were multinational currencies similar to the euro. One example was the gold French franc, established in 1865, and coined by the Latin Monetary Union (LMU). That was an agreement between France, Belgium, Italy, and Switzerland that fixed the French franc, or the LMU franc, at 0.290322 grams of gold and set a silver to gold conversion ratio of 15.5 to 1.

Those French gold francs were accepted as a means of payment in all four countries. Over the next dozen years other nations joined, Greece and Venezuela among them. By 1877, under this system, a Peruvian member of the system could journey to the Grand Duchy of Finland – which was part of the Russian Empire – and pay for goods and services in French gold francs. Ultimately, though, as various countries, such as Greece, came under financial strain, they would periodically debase the amount of gold in their national coins so that they were no longer equivalent in value to LMU coins. As a consequence, Greece was expelled from the LMU in 1908. It was readmitted in 1910 when it promised to refrain from debasement.

So, you see why they say history repeats itself—because it really does; the cycles of monetary debasement and their impact upon nations' wellbeing abounds over the course of time and can hardly be avoided in a review of the historical record. In any event, the LMU became unworkable upon the advent of the First World War, since so many nations needed to dramatically debase their currencies – print money, as the refrain goes – in order to fund their military efforts. It still existed as a legal fiction until 1927, when it was formally abolished.

IMPORTANT RISK DISCLOSURES:

The charts in this material are for illustrative purposes only and are not indicative of what will occur in the future. In general, they are intended to show how investors view performance over differing time periods.

Past performance is not indicative of future results. The information contained herein is subject to explanation during a presentation.

Note that indices are unmanaged and the figures shown herein do not reflect any investment management fee or transaction costs. Investors cannot directly invest in an index. References to market or composite indices or other measures of relative market performance (a "Benchmark") over a specific period are provided for your information only. Reference to a Benchmark may not reflect the manner in which a portfolio is constructed in relation to expected or achieved returns, portfolio guidelines, correlation, concentrations, volatility or tracking error targets, all of which are subject to change over time.

This material references cryptocurrencies, including bitcoin. Horizon Kinetics' subsidiaries manage products that seek to provide exposure to bitcoin and other cryptocurrencies. The value of bitcoins is determined by the supply of and demand for bitcoins in the global market for the trading of bitcoins, which consists of transactions on electronic bitcoin exchanges ("Bitcoin Exchanges"). Pricing on Bitcoin Exchanges and other venues can be volatile and can adversely affect the value of the bitcoin. Currently, there is relatively small use of bitcoins in the retail and commercial marketplace in comparison to the relatively large use of bitcoins by speculators, thus contributing to price volatility that could adversely affect a portfolio's direct or indirect investments in bitcoin. Bitcoin transactions are irrevocable, and stolen or incorrectly transferred bitcoins may be irretrievable. As a result, any incorrectly executed bitcoin transactions could adversely affect the value of a portfolio's direct or indirect investment in bitcoin. Only investors who can appreciate the risks associated with an investment should invest in cryptocurrencies or products that offer cryptocurrency exposure. As with all investments, investors should consult with their investment, legal and tax professionals before investing, as you may lose money.

The S&P 500 Index ("SPX") is a broad based index widely considered as a proxy for overall market performance. It is the property of Standard & Poor's ®.

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