Madison INVESTMENTS

U.S. EQUITY INVESTOR LETTER

June 30, 2022

To our investors and partners,

After hitting an all-time peak on the first trading day of 2022, it's been all downhill for the S&P 500 index since. In fact, the 19.96% drop through the end of June is the worst first half of a calendar year for the index in over 50 years. Our equity strategies have generally remained true to form during this downturn, with both our flagship Large Cap and Mid Cap strategies losing less than their respective benchmarks in the year-to-date period, though that may be little consolation.

INFLATION AND PROFITABILITY IN THE NEW ECONOMY

As I write this letter, the latest Consumer Price Index (CPI) data has been released, confirming the trend of the last few months – inflation is running at the highest levels since the early 1980s. There are many things to worry about in the economic environment, but inflation is probably top of mind for most, and appropriately so. Once briskly rising prices are etched into the mindset of the populace and they adjust their behavior to accept them, it becomes a self-perpetuating spiral and is very difficult to rein back in. And keeping inflation reined in is a very desirable goal. There seems to be a debate in public forums whether inflation is worse for the lower income demographic or the higher income demographic. This is an argument so silly that only economists would think it worthy of debate. To think that someone who has to go from shopping at Whole Foods to shopping at Kroger is worse off than someone who has to go from shopping at Aldi to skipping two meals a day, just because some measurable statistic seems to tell you so…well, that's the kind of thinking that gives the field of economics a bad name.

The macroeconomic history of the United States since World War II can effectively be split up into three phases, delineated by the prevailing inflationary trend. The first period encompasses the years from 1944 to 1964, characterized by low inflation, economic stability, and solid real growth. Inflation was well under control, often hovering in the very low single-digits. The second period lasted from 1964 to 1982, and is generally known as the Great Inflation. After the calm of the early 1960s when the Consumer Price Index averaged around 1%, inflation began rising in 1965, peaking at 15% in 1980, returning to single-digits permanently in 1982. That year marks the beginning of the third period, which is characterized by an extended period of declining inflation rates, and which perhaps we can call the Great Disinflation. It's possible that we are now witnessing the end of this third period, although we won't know for sure until some years from now. But at 40 years in length, this period has lasted much longer than anyone thought possible, especially given the array of inflationary monetary and fiscal policies that have been implemented.

From a stock market investor's standpoint, two things about inflation matter. One is the impact it has on interest rates. Higher inflation tends to come with higher rates, and lower inflation with lower rates. The story of the three periods above could easily be re-framed to be a story of three interest rate eras. And the level of interest rates is probably the single most important macroeconomic determinant of stock prices. The value of a stock is the discounted value of the stream of profits a company will earn over its entire future. The higher the interest rate, the less a dollar of profits tomorrow is worth today. Thus, it is perfectly natural if investors expect interest rates to rise or remain persistently higher, the value of stocks will be worth less, all else equal.

The second point about inflation that is relevant to investors is its effect on corporate profits. Warren Buffett once called inflation a "gigantic corporate tapeworm." He elaborates:

> That tapeworm preemptively consumes its requisite daily diet of investment dollars regardless of the health of the host organism. Whatever the level of reported profits (even if nil), more dollars for receivables, inventory and fixed assets are continuously required by the business in order to merely match the unit volume of the previous year. The less prosperous the enterprise, the greater the proportion of available sustenance claimed by the tapeworm.[1]

He wrote those words in 1981, and while they remain accurate, they are less relevant to today's mix of Corporate America, which is much less reliant on tangible assets than it was 40 years ago. Thus, today, the impact of inflation is much more visible on the income statement, in expenses, than it is on the balance sheet. To put it another way, in the old economy, inflation decreased return on capital by expanding the denominator (capital). But in the new economy, inflation decreases return on capital by shrinking the numerator (income). And ultimately, return on capital is the single most comprehensive metric of profitability that matters to equity shareholders.

To summarize, inflation has two pernicious effects on the equity investor: it diminishes corporate profitability, and it lowers the present value of the future (reduced) profits. This dual effect (and its inverse) can be a powerful impact on stock market returns. To continue referencing professor Buffett, he gave a talk in various forums in 1999, touting the unusual symmetry of two 17-year periods of stock market returns, December 1964 to December 1981, and December 1981 to December 1998.[2] In the first period, the Dow Jones Industrial Average index progressed exactly 0.88 points, from 874.12 to 875.00. That's right, after 17 years, the index ended at almost the exact same place it began. In the second 17-year period ending in December 1998, the Dow Jones returned a compounded average of 19% a year.

You'll notice that the dates of the first period, when the stock market went nowhere, coincides with the Great Inflation. Inflation rose, and interest rates rose with it. And during that period, corporate profits as a percentage of GDP fell from the upper levels of its historical band to the lower levels. Inflation was certainly not the only factor contributing to lower overall corporate profitability, but it was very likely a factor.

Once inflation began to improve starting in 1982 and rates began to decline, we experienced a long bull run. By 1998, profits as a percent of GDP were near the highs of its historical band. Again, lower inflation was certainly not the only factor contributing to higher profitability, but it was likely a factor.

We mention all of the above, not to make any predictions, but to point out that inflation is like Lyme disease: if left untreated for too long, it can cause lasting problems and becomes more difficult to cure. Better to take the medicine now, even at the risk of triggering a recession.

As you know, macroeconomic forecasts are not where we focus our time. That's an admission that we don't think we have the ability to make any strong forecasts with any conviction. And that's not just humility on our part. We're skeptical of *anyone's* ability to accurately predict macroeconomic conditions with enough consistency to come out ahead over long stretches of time. That doesn't mean we don't

[1] Buffett, Warren. Letter to Shareholders, 1981 Berkshire Hathaway Annual Report

[2] Later converted to an article by Carol Loomis, and published in the November 22, 1999, edition of Fortune magazine

pay attention to the greater economic environment or that we don't think they have bearing on our investments. It's that we tend to think probabilistically, rather than in binary terms such as recession or no recession, or higher rates or lower rates. Certainly, if we were to project correctly, and position our portfolios accordingly, we will have home run performance. Yet, if we're wrong, we will strike out. Do this enough times, and the effect of compounding will mean that we will come out behind over the long-term, even with a reasonably good success rate.

We think there's a better way to maximize our long-term returns with our equity investments. And that's to invest in companies that are resilient in difficult economic and political environments and can grow profitably over the long-term despite cycles… and invest this way all the time, not just at certain junctures. There's an old corporate ad campaign with the slogan "You can't predict. You can prepare." This seems like a fitting motto for our investment philosophy as well. The turnover rate for most of our portfolios has not picked up noticeably, despite the volatile and changing economic conditions. That's because we like the investments we hold now. We liked them when we bought them, we like them today, and we hope to like them tomorrow. Our whole research and analytical process around a new investment revolves around asking ourselves many questions in the form of, would we still be happy owning this company at this price if XYZ were to happen? And XYZ would most certainly include varying economic scenarios such as recession, inflation, and higher interest rates, as well as the usual questions around competitive strengths, financial profile, capital allocation, etc.

VALUATION MATTERS

A recent Wall Street brokerage report on the stock of a profitable company commented that "shares of [company A] trade at roughly 8 times our calendar 2023 estimate, a discount to the peer group median at 10 times" without any other context or elaboration on what multiple exactly. It took us a while to figure out that the author was referring to the stock's Enterprise Value to Revenue multiple (EV/Revenue). How did it get to the point where an analyst can write "8 times" in a stock investment report and assume that the reader would correctly assume that he is referring to an EV/Revenue multiple?

Three decades ago, when your undersigned entered the investment profession, the industry yardstick for an attractive multiple to pay for a stock was 10 times after-tax earnings, also known as the Price-to-Earnings ratio (P/E). Then, at some point, as the stock market went up, the yardstick changed to 10x Enterprise Value to Earnings Before Interest and Taxes (EV/EBIT). Then, as the market increased further, 10x Earnings Before Interest, Taxes, Depreciation, and Amortization (EV/EBITDA) became known as an attractive price for the average company. And then sometime in the past several years, 10x EV/Revenue became the yardstick. You can see what happened here. By keeping the number the same, it was easy to slowly shift investors' mental yardstick without making it seem outrageous. It was the equivalent of the potato chip company that maintains the $1.50 price point year after year and keeps the package dimensions the same but decreases the number of actual chips in the bag over time. Many investors are now discovering upon opening their bag of chips, that it consists of nothing but air![3]

Of course, that would be a disingenuous excuse on their part. Investors knew they were buying chip-less, I mean profitless, companies. That's precisely why they ended up resorting to using EV/Revenue, to attempt to gloss over the fact that many of these companies were losing so much money, and so early stage, that the prospects for profits were years away.

As the market rose, Wall Street began to contrive ever more kinds of multiples to justify loftier valuations, eliminating more and more types of expenses and capitalizing figures higher and higher up

[3] In reality, the "air" in potato chip bags is nitrogen gas. It keeps the chips fresher than actual air.

the income statement. By the time it reached EV/Revenue, it got to the point where many investors were using these multiples robotically without regard to what these multiples mean. Ultimately, the only figure that the shareholder has a claim to is free cash flow and all other metrics are simply starting points to triangulate to that number. Here at Madison Investments, we tend to use after-tax earnings or free cash flow generally, but we also use plenty of other multiples depending on the situation or the point we are trying to assess. If a company has volatile earnings and temporarily suppressed margins, it may make sense to use EV/Revenue as one point of reference. But it would need to be put in its proper context, such as an assumption about how much of the company's revenue will eventually drop to the bottom line. If a company has no debt and you're trying to compare its valuation to a similar company with high levels of debt, then EV/EBIT may make sense to use. Here too, there are implied assumptions, such as the concept that the capital structure of a company is separately manageable from the operations of a business, or that more debt equals more risk, something that a P/E ratio will not capture adequately.

Let's do some math for what 10x revenue really means. Say we have a fast-growing software company that is still unprofitable. Let's assume that the company grows revenues at a very rapid 20% annual clip for 10 years, and that it posts a very good 15% net after-tax margins at the end. If the stock then receives a hefty 25x P/E multiple, the shareholder would have garnered an 8.8% annualized return over the decade. Respectable, but not a particularly good return, given the risks involved. By nature, the earlier in the life cycle of a company, the lower its eventual survival and success rate. Thus, to give so many early stage public companies a high multiple that reflects such a high success rate in aggregate, that doesn't make sense. To make it crazier, less than a year ago, many of these companies traded at 15-20x revenue, which would imply negative to flattish stock appreciation, even using optimistic growth assumptions. Despite the considerable decline in the stock prices of such companies, we still don't believe that this cohort represents good value, with many still trading at 8x, 10x, or 12x revenue.

A stock trading for 10x after-tax earnings, on the other hand, is still as rare as rocking horse manure, as the Irish might say. We don't think it's pragmatic or rational to wait for an abundance of stocks trading at 10x P/Es, given that interest rates are still low by historical comparison, but we will do our best to remain resistant to the slow degradation of standards.

GET RICH QUICK OR GET RICH SLOW

In the German movie *Run, Lola Run*, a young man is kidnapped for unpaid debts and is being held for ransom. His girlfriend Lola is told that she must obtain 100,000 Deutsche marks[4] in just 20 minutes in order to save her boyfriend's life. After some twists and turns, she ends up at the roulette wheel table in the local casino, with a starting pot of 100 marks. She bets the entire amount on one number, the lowest probability bet available, but with a payoff of 35 to 1, also the highest potential winning bet. Miraculously, she wins. She then places her entire proceeds back on the same number for another bet. Once again, miracle intervenes, and she wins again. She grabs her proceeds and runs out to go save her boyfriend.

Suspension of disbelief aside, and whether the screenwriter of the movie knew it or not, Lola did exactly what the rules of probability would dictate in that situation. If you are playing a negative outcome game such as roulette (where payoffs don't make up for the overall odds against you), then the maximizing strategy is to take the path that requires you to make the fewest number of bets to reach your targeted total winnings, regardless of how low the odds of any individual bet along the way. Note

[4] Germany's currency before the Euro.

that this is not a *winning* strategy, since negative outcome games don't have one. But it does maximize the chances of you reaching the hoped-for amount.

What is the relevance of this to investors? Lola's betting tactic demonstrates the complex and intertwined nature of risk, time, and human nature. Her actions mirror so many of the market participants of the past two years, for whom the stock market is a kind of casino, where the natural inclination is to take a gambling mentality, given that the odds are in the house's favor. We would characterize these market participants into three archetypes.

The first type is the retail investor, who, perhaps having seen how collective actions sparked on social media could move stock prices, decided to jump into the market and aim for the fastest, most direct route to big gains. The second type is the institutional investor who has entered the profession in the last 10 years or so, and believes that stock can only go up, and that valuation doesn't matter as long as sales are going up. The third type is the institutional investor who has been around for many a year, but after seeing how some peers were succeeding, convinced himself that this new paradigm must be real, and he must not be left behind.

We like to think that we're of a different type – that of the professional investor that has been around a while, but has retained our wits about us, with just enough cynical common sense to know that eventually what goes up must come down, however long it takes.

Intelligent investing is the antithesis of roulette or gambling. It's an undertaking that, with proper study and diligence, can provide participants an edge over the house, with the house being the sum of every other market participant out there. Investing is more like poker, where a proper understanding of the odds and a disciplined betting regimen can combine to tilt odds in your favor. The consideration of time is crucial in evaluating risk and opportunities. A foundational piece of our strategy is that we invest in decades-long frameworks, with the confidence that the elapsing of time is what allows for the law of large numbers to have its effect, to smooth out the randomness inherent in the unfolding of real-world, infinitely complex events. If we purchase the right stocks at the right prices, then the unavoidable failures will be offset by the frequent successes, as long as we don't deviate just because near-term events may or may not have favorable outcomes.

Time is the friend for our investments. Our companies are well-financed, well-managed, and competitively advantaged, and thus expected to grow their value over time so that any one of our investments is not dependent on the immediate recognition of its value. Because these companies tend to get better and better each year, we refer to them as "Spiral Staircase" investments, after the group that wrote a popular 1960s song with the refrain, "I love you more today than yesterday / But not as much as tomorrow / I love you more today than yesterday / But darling, not as much as tomorrow."

Those words also apply to how we feel about you, our clients and partners, as well as how we hope you feel about us. I look forward to communicating at the end of the year.

Respectfully,

Haruki Toyama

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Diversification does not assure a profit or protect against loss in a declining market.

The Dow Jones Industrial Average® (The Dow®), is a price-weighted measure of 30 U.S. blue-chip companies. The index covers all industries except transportation and utilities.

The S&P 500® is an unmanaged index of large companies and is widely regarded as a standard for measuring large-cap and mid-cap U.S. stock-market performance. Results assume the reinvestment of all capital gain and dividend distributions. An investment cannot be made directly into an index.

The Consumer Price Index (CPI) is a measure of the average change over time in the prices paid by urban consumers for a market basket of consumer goods and services.