ISSUE 6 | VOLUME 9 | DECEMBER 2020

Cadence clips

FOCUSED ON WHAT MATTERS MOST.

What Happens When the Fish Outgrow the Tank?

"The stock market is not the economy." Maybe you've heard this before, as any time the economy seems to be struggling but the stock market isn't we are reminded that these two things are not synonymous. However, they are related to enough of an extent where when one is doing well or poorly, we generally expect the other to follow suit. It's practically guaranteed that the stock market will rebound before the economy does during recessions, but how long can company stocks outperform the economies in which they exist, and what could the consequences look like?

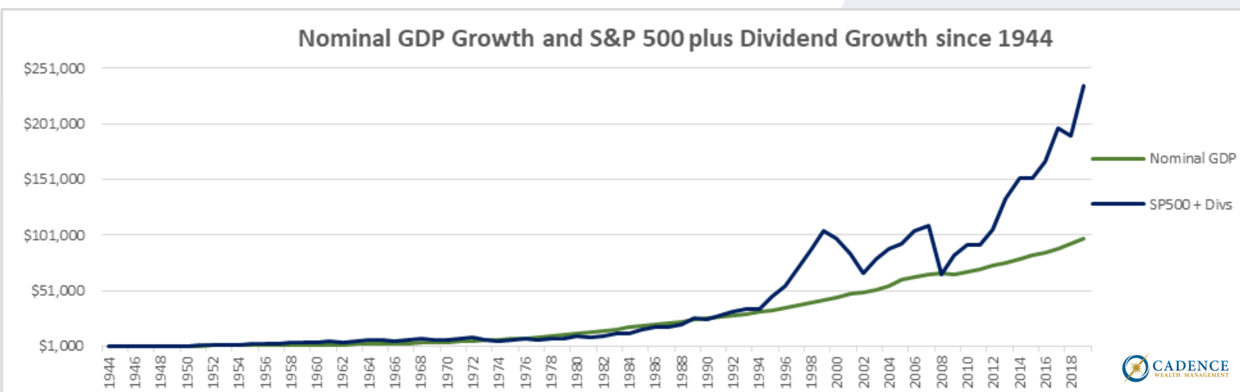
To understand why the economy and the stock market perform differently from time to time, it's useful to remind ourselves what each really is. There are many ways to describe what an "economy" is, but we feel a useful way to look at an economy is as a large set of interrelated activities that determine how resources are distributed. One extreme form of this would be a system where felt-clad workers loaded crops onto nondescript government vehicles for distribution to the population with no money ever changing hands. In this economic system no companies are involved whatsoever, but there is still an economy, albeit not a very entertaining one and not one that promises much in the way of upward mobility.

Technically, a stock market is actually the place where entities buy and sell shares of stock, like a farmers market for financial securities. However, when we refer to the "stock market" we are almost always referring to the stocks themselves, such that when we say the "stock market has lost value" we mean the stocks themselves have lost value, not the place in which they are bought and sold. A useful way to represent the value of various parts of a stock market, or the stock market as a whole, is by using stock market indexes. For example, the S&P 500 index is a market capitalization-weighted representation of the 500 largest publicly traded companies in the U.S. Of all the stocks that make up the $36+ Trillion publicly traded stocks in the US, the S&P 500 encompasses over 75% of that total. From here on out, when we mention "the stock market", we mean an index that represents the performance of stocks within the overall stock market. For a deeper dive on stock market indexes, refer back to our August 2018 newsletter: "It Pays to Understand the Indexes".

How do individual companies as well as groups of companies that represent stock markets and indexes relate to the economy? In a mostly capitalist system like ours, public and private companies are responsible for much of the creating and distributing of the goods and services inside the economy. Consider an economy being a fish tank and companies are fish swimming around in that tank, along with the water, plants, little scuba diver guys and bubbling treasure chests, what have you. If the tank is an economy and individual fish are companies, you can consider a school of related fish as a stock market index. Stock market indexes are affected by the other things in the tank, as well as affect the other things in the tank themselves, hence an economy is an "inter-related" system. The healthier, more vibrant and larger the fish tank is, the more opportunities there are for fish to thrive in the system, allowing fish to grow larger and more abundant.

So though the economy and the stock market are not the same thing, they are most definitely related and most definitely affect each other, but what happens when a school of fish seems to be growing too large for the tank? What happens when the value of the stock market seems to be getting over-valued relative to the size of the economy?

Let's assume that the aggregate value of stock markets and the economies in which the companies exist should grow roughly at about the same rate over the long term. There will be years that stock prices decline much more than the economy shrinks, and we know stock prices increase a lot faster than the economy expands at times. However, over time we can assume the schools of fish are constrained from growing by the size and health of the tank. The chart below shows the growth of the US economy as measured by Gross Domestic Product in nominal (not corrected for inflation) terms, as well as the growth of the S&P 500 price plus annual dividends since 1944:



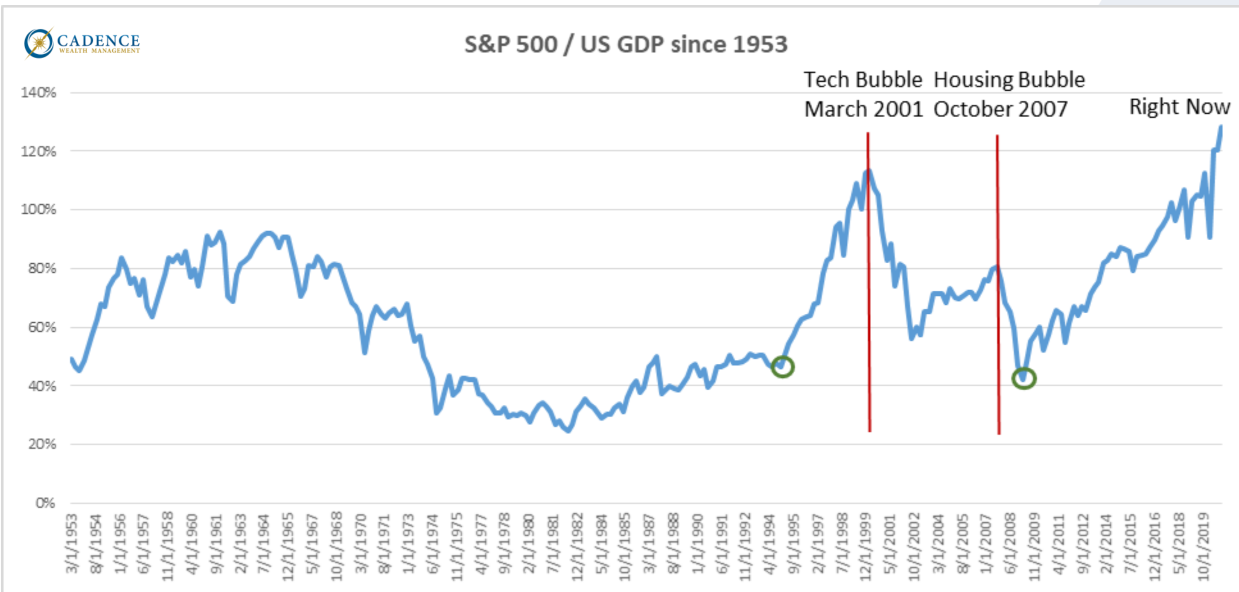
Data source: YCharts

The growth of each was relatively similar for the first 50 years since the end of 1944, with GDP growing around 7.2% per year and the S&P 500 plus dividend value growing around 7.3% per year. However, a noticeable divergence started in the late 90's with the Tech Bubble inflating stock price growth, followed by the real estate bubble doing likewise during the mid-late 2000's, until the Great Recession dropped stock price growth once again in line with the size of the fish tank. However, since that point US GDP has grown at a slower 3.5% while the price of the S&P 500 plus its dividends has grown by 12.3% per year.

We can see there's been a divergence in growth rates between the economy and the stock market since the mid-90's, with a very meaningful acceleration of S&P 500 price and dividend growth relative to GDP growth since New Year's Eve 2008, but growth rate and size are two different measurements. We can see the fish are growing faster than the tank, but how do we know when they've possibly gotten too big? After all, maybe there was a lot of room for the value of companies to grow relative to the size of the US economy.

The way for us to gauge whether or not the S&P 500's total value, and by extension the stock prices that comprise that index, has grown too large relative to the size of the economy is to compare their values over time. We do this by dividing the total value of the S&P 500 as measured by market capitalization, or "Market Cap", by the size of the economy as measured by GDP. The current Market Cap of the S&P 500 is around $27.1 Trillion. The current size of the US economy is roughly $21 Trillion. That gives us a ratio of about 1.28 S&P 500 Market Cap to GDP. Is that big? Is that small? What does that mean?

To answer that we'll have to look at this ratio over time, and look for periods where it seems like that ratio is small and times where it is large. Consider that ratio since 1953, which is as far back as we can go to get meaningful data for this comparison:



Data source: YCharts

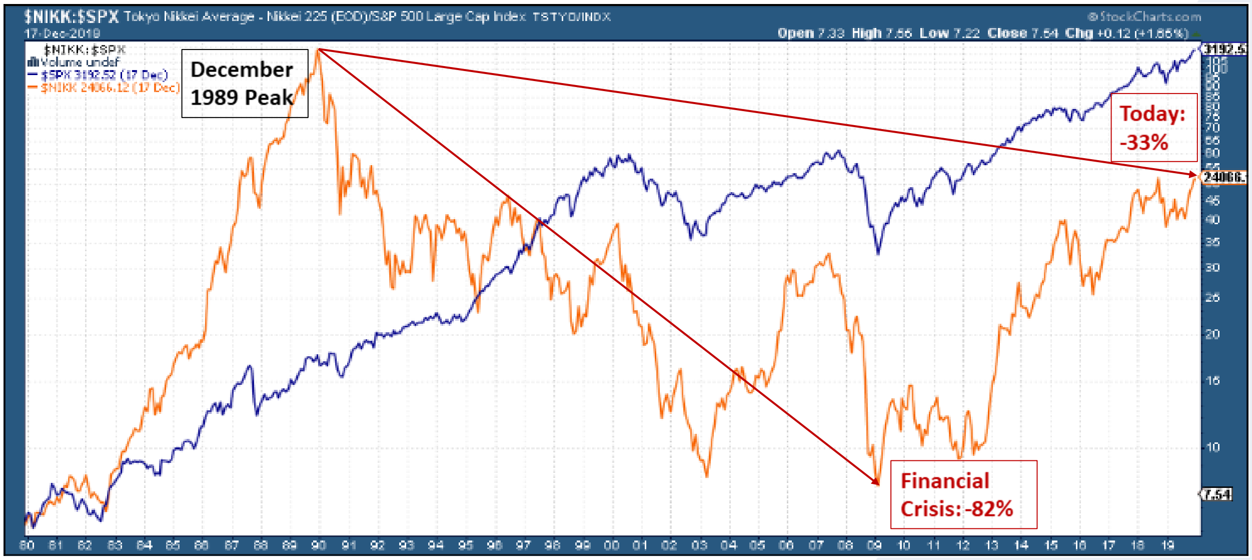
Per this measure, since 1953 the S&P 500 Market Cap has never been larger relative to the size of the US economy than it is right now. We have looked at this particular metric using a number of different stock market indexes: DOW/GDP, Wilshire 5000/GDP (the Wilshire 5000 index encompasses nearly 100% of publicly traded US companies versus the S&P 500's 75%), and the Corporate Equities/GDP measure. They all tell the same story, with nearly identical charts – stocks look significantly overvalued relative to the size of the economy. Those are some really big fish swimming in the tank at the moment.

How much they are overvalued, or more importantly to us how much their values could fall the next time they sell off, is unknowable. We can, however, use various measures to approximate. For example, the two green circles in the chart above represent points in time where the S&P 500 price and dividend growth rate equaled the growth rate of GDP since 1944 as depicted in the first chart. These two green circles correspond to the blue and green lines touching in 1994 and again in 2008. In order for the S&P 500 plus dividends to "touch" the GDP line again right now, the S&P 500 would have to shed around 60% of its value.

Despite any measurements we make, there is no way to know when and by how much stock prices will fall. If we want to see examples of other fish outgrowing their tanks and what the resulting stock market value changes were, then we can look to the Japanese stock market as measured by the Nikkei 225 average since 1980.

The Nikkei 225 grew in value exponentially throught the 1980's until it peaked on December 29th, 1989, nearly 31 years ago. From that point throughout the 1990's and 2000's, the Nikkei seesawed up and down, but mostly down, for decades, finally bottoming out in March of 2008 having lost nearly 82% of its value since peaking in late 1989. Like our stock market indexes, the Nikkei 225 has rebounded from that Great Recession low, but it still sits nearly 33% below its all-time peak more than three decades later. The chart on the following page shows the Nikkei's and the

S&P 500's market fluctuations since 1983, with the Nikkei in gold and the S&P 500 in blue. As you can see, the Nikkei grew much faster than the S&P 500 did then or since, until it too was extremely overvalued relative to the Japanese economy. As you can see, it fell jaggedly for decades and has yet to climb back above its late 1989 peak.



Could our own stock market really do that though? Falling 60% is bad enough, but falling 82% and being below its peak for multiple decades? As we showed in our July 2017 newsletter piece "Could Multiple Decades of Zero Stock Market Growth Happen to You?", the S&P 500 average has peaked six times since the early 1870's, not including the current peak. Each of those six stock market peaks was followed by a crash, and then the market bottomed out and eventually increased back above the previous peak and never fell below it again. The average time it took to peak, crash, recover, and increase beyond the peak for good was 32 years. The three most recent US stock market crashes took less time to recover and permanently eclipse the previous peaks than the earlier crashes, however the average permanent recovery time after the three most recent peaks was still nearly 16 years. Corrected for inflation, the average recovery time for the three most recent peak-crash-eclipse periods was also, coincidentally enough, 32 years.

Unless immigration increases above its current rate, demographic trends point toward lower economic growth from smaller workforce participation. Combine that with the amount of debt that has been used to elevate stock price growth 12.5% per year since 2008 compared to the economy's much more sluggish 3.5% nominal growth, plus many, many other structural factors, and at some point headwinds on the stock market may be great enough to impede its price growth for a long period of time. The analysis in this article does not mean that a 60% - 82% multiple decade stock market decline is definitely going to happen, but it does show that it could. After all, it has several times before now. Despite that grim possibility, and with an uncertain future in a period of high stock market valuations, there are still ways to invest for protection and growth as detailed in last month's article "Taking Control".

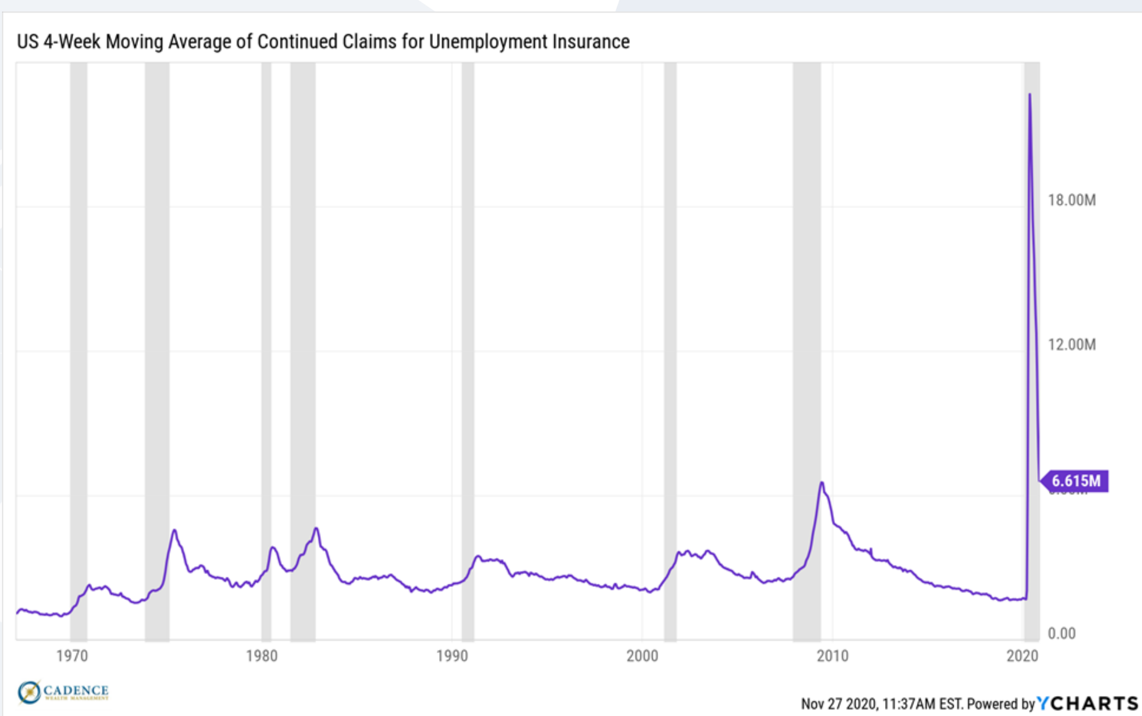
Like all stock market analyses and resulting conclusions, there are any number of counter arguments to these points. This article and our readers' attention spans have their reasonable limits, so debating the finer points of the analysis will have to wait for another day, but consider this: the way the Federal Reserve and other central banks around the world have been throwing money into the financial markets the past decade in an effort to prevent deflation, the way some companies have been feeding off of low interest rates for growth as opposed to sales, and the way dollars have been burning holes in the pockets of affluent investors, well. . . how long can you shake the food container into the fish tank before something terrible happens?

Market Update

As we've written about recently, there's been quite a bit of push and pull in markets and among experts around the issue of inflation and there are very smart minds on both sides of the argument. Are we likely to see lower interest rates and subdued inflation (what some call disinflation) continue into the future, or are we finally on the cusp of seeing unambiguously high inflation; that condition where prices of goods and services across the board are rising at a noticeably faster rate than we're accustomed to? We'd venture to say that we'll likely face both. It simply comes down to timing.

Markets over the last few weeks have been focused more on the light at the end of the tunnel than the economic reality we're currently facing, which is no surprise since markets don't always reflect what we see outside our windows. A vaccine available by early next year has investors envisioning a return to normal as though nothing has happened. A return to normal, pre-Covid conditions would certainly get people moving around again, making purchases in potentially even larger quantities due to the newfound attitude of living for the moment, and this of course would be good for corporate profits which as everybody knows is the reason stock prices are supposed to go higher. This is the bullish sentiment at the moment and stock and commodity prices have moved higher as a result of it.

The other side of this argument is that corporate profits don't matter as much as they used to for stock prices. There are plenty of popular stocks whose companies earn no or very low profits, yet they still move higher. Today's markets are more about investment flows. Is money moving in or out of investments due to systematic savings programs such as target date mutual funds within 401(k) and other retirement plans? Are investors actively adding or removing funds from investments such as stocks due to their attitudes toward risk-taking? Are central banks actively buying or selling? These things matter more today than profits – at least over the shorter term. And so, the bearish case will weigh those things that could cause flows to change negatively in the near term and chief among those factors is the daunting fact that regardless of a vaccine in early 2021, there have never been more people in the United States out of work and not contributing to their retirement plans than right now. Despite the headlines putting a positive spin on the "improving" unemployment picture every week, the stark reality is that the amount of people currently reported by the Department of Labor to be collecting unemployment benefits is over 6.6 million, the highest level in over 50 years of observable data. (See chart below).



Adding gravity to the situation is the fact that there are actually far more people out of work and dependent on government support than is being openly reported. When you add other programs such as Pandemic Unemployment Assistance and Pandemic Emergency benefits, the total number of people currently out of work and dependent on assistance tallies to over **20 million**. If most of these people go back to work immediately upon arrival of a Covid-19 vaccine, then the bullish case has some merit in our opinion. Record valuations could well be sustained for a bit longer as we experience a cyclical recovery off of this year's low activity levels, but this is a big if and it would only serve to delay the larger set of adjustments that have continually reasserted themselves over the last couple of years.

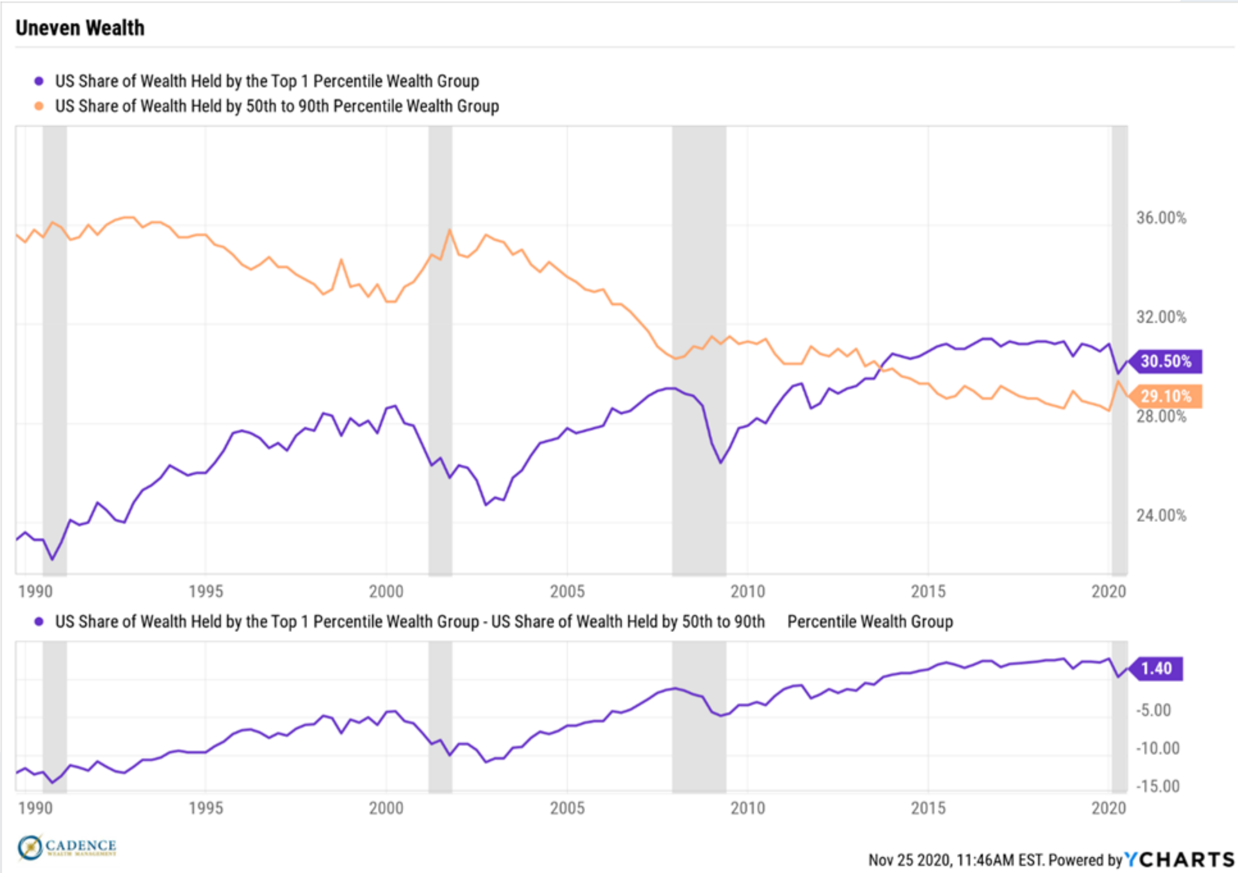
If, however, a good number of those people stay out of work due to damage already done, corporate realignments, and/or a slower return to normal, then we're left with a gaping hole between stocks and other financial markets and the health of our underlying economy as measured by the number of people out of work and struggling to consume. And remember, not only are these people consuming less (assuming government assistance fails to make them completely whole), but they are also no longer directing a regular chunk of their paychecks into the markets via their retirement plans which means flows get impacted in a big way.

All of this brings us back to inflation. Like we mentioned up top, inflation will likely come and go over time allowing both camps of experts to declare victory along the way. As we've seen throughout this year, as supply chains get disrupted, prices of things can rise sharply as long as demand doesn't fall faster – which it hasn't. What we've noticed in this regard is actually very dissonant. With more than 20 million people unemployed, you'd think that spending would go down, but it hasn't. Consumption has actually been strong due to the federal unemployment assistance and small business support that's been available this year. Supply down with demand flat to up equals inflation, and that's exactly what we've been seeing in commodity prices lately. The question is whether or not this can persist as we move into 2021. With federal stimulus set to expire at the end of December, and without additional aid, we could very well see demand finally fall with spending. It depends a great deal on what Congress can agree to in the coming weeks and months.

Bigger picture, the inflation story will continue to work in shorter-term cycles with prices rising and falling over time just like we're experiencing right now. Longer term however, the driving factors are primarily demographics and debt. Population growth has been slowing and we've gotten increasingly indebted in recent years. These things keep prices relatively subdued. One of the reasons we're looking at historically low rates here, and in many places around the world negative rates, is because there is so much debt already that if rates were any higher there simply wouldn't be any eligible borrowers. Looked at this way, as long as we have the amounts of debt that we do today across the personal, corporate, and government sectors, we won't have meaningfully higher interest rates and probably not much inflation either. Shorter-term ups and downs, sure, but big, long-term changes are probably less likely. As long as the solution to the world's problems continues to be to pile more debt on top of what exists already, economic vibrancy and growth, as well as interest rates, will remain low.

There are two things that could change this however. First, if the business cycle were allowed to play out naturally, debt taken on by the riskiest borrowers would default as part of a deflationary asset price bust. Irresponsible risk-taking and speculative excess gets wiped out, and eventually we have a clean slate from which to build again. Under this scenario, and especially if governments and central banks continue to inject liquidity along the way, inflation would likely reemerge in a much more meaningful and lasting way. To summarize, deflationary asset bust first, less debt in the end, more inflation later as activity picks up again.

The second possibility and the way to create real lasting inflation is if instead of solving the world's problems with debt, governments simply start giving people money with no strings attached other than maybe that it has to be spent, well then, inflation we will have. This concept coined "Modern Monetary Theory" (MMT) is gaining popularity and so we must take the possibility of this sort of thing seriously. What's becoming increasingly clear is that the current playbook of encouraging more debt to keep the economy chugging forward and people employed is not working. Intuition tells us why and we can see from the chart below that since the early 1980's when interest rates started falling, wealth inequality has gotten increasingly wider. We are at one of the most extreme points in history where the top 1% in net worth own more assets than the middle 40% (between 50 and 90th percentile).



What we can also see is that recessions actually bring this disparity back into balance. By trying to minimize or eliminate recessions, central planners are actually perpetuating wealth inequality. We'll leave this point here and let you ponder the implications of such an imbalance coupled with more than 20 million currently out of work.

And because this playbook isn't working, MMT is the next bright idea for allowing those with assets to hopefully keep them (by avoiding a natural recession-driven asset price correction) without the bottom 90% falling too far behind. We have no doubts however that if the focus of MMT were on helping the individual consumer, the little guy, that prices would rise faster than corporations would raise wages and this would be problematic. There is no free lunch, but this fact certainly doesn't mean that those desperate to find it won't try. And so, what we're probably observing right now and will most likely continue to observe in the near term with respect to inflation are the normal ebbs and flows given the current rule book of central bank liquidity injections when markets misfire. If MMT comes into play however, inflation, and a lot of it, could become the norm. We'll monitor this carefully, but in the meantime, we continue to favor asset classes that are both historically cheap, do relatively well in recessionary environments, and can also perform if and when inflation takes hold. Our sense is that we'll see inflationary impulses until the deflationary wave of defaults and insolvency arrives. Economic reality at the end of one of the longest expansions in history can't be ignored and doesn't come without some lessons. After this however, we expect real, lasting inflationary pressure to exert itself. Of course, things can play out differently, but this is our highest probability outlook at this point and we're positioning for it and managing to it within our client portfolios every day.

These are very difficult times to be an investor. There are false signals, big price moves, and competing narratives all over the place. It's important to keep a longer-term, common-sense perspective through all of this in selecting your portfolio positions and staying with them. It's also important to remember that no matter how difficult it can seem from day to day being an investor, it's far more difficult for many folks out there just being a human being. Regardless of how good markets lead us to believe things are, let's not forget what we're observing right outside of our windows. Not only does this help us stay calibrated and in tune with those around us, but it can also make us better, more grounded investors.

CADENCE
WEALTH MANAGEMENT