Is the US Money Good?

July 2020 – Q2 Explorations

America shut down for business rather quickly once it was evident that COVID was on our shores. Seemingly overnight, unemployment went from all-time lows to all-time highs. Our decade plus of economic growth swiftly came to an end in spectacular fashion. The US Government quickly initiated a $2.2 Trillion bail-out of the economy. **Are we money good?** Was $2 trillion too little or too much from a credit and economic growth/injection perspective? And where can I find this unlimited credit line to support my quality of life?

In conjunction with the US Government initiating their capital injection, the US Federal Reserve ("Fed"), the central bank for the US, took several actions including:

- Lowering the fed funds rate to 0% - 0.25%,[1] allowing banking institutions to borrow reserves essentially for free
- Purchasing treasury bonds at issuance, assuring key support in maintaining low yields and an easing policy
- Broadcasting intent to purchase non-government fixed income assets to unlock debt markets[2]

There is consensus that these moves were warranted and in fact more government support is more than likely necessary as COVID continues to wreak havoc on our economy. The US will not even come close to having a balanced budget this year (and most likely not for a couple of years to come either). In fact, the US told its chief revenue source (taxpayers) to hold on to their money a bit longer so the government is spending money with none coming in.

How Big is Our Debt?

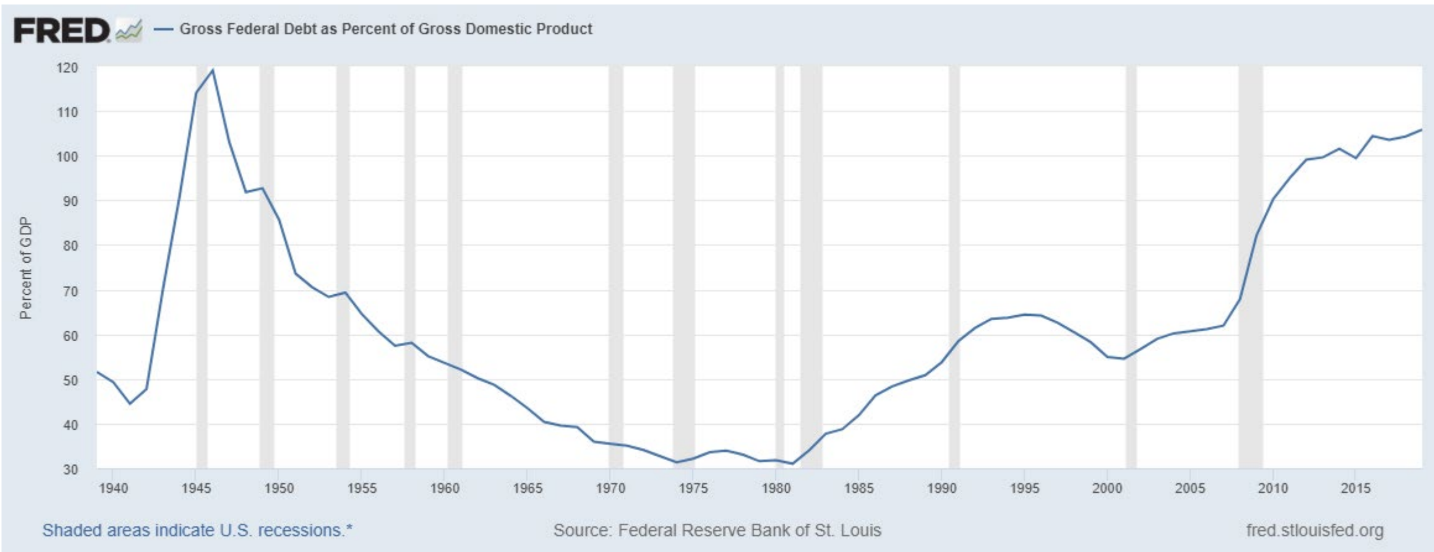
In a seedier period of New York City's history, a real estate developer installed a national debt clock[3] near Times Square to illustrate how much debt the country was taking on. At the time, national debt was $2.7 trillion. Once debt surpassed $10 trillion the clock had to be modified to account for the new digit. All this clock accomplished though was showing a very large number with no reference to its true meaning. After all, saying someone borrowed $100,000 with no context does not allow one to understand whether this is a big or small sum relative to that person's wealth or earnings.

[1] Effective Rate: https://fred.stlouisfed.org/series/FEDFUNDS; Definition: https://www.investopedia.com/terms/f/federalfundsrate.asp

[2] Chronology of Fed actions: https://www.federalreserve.gov/covid-19.htm, https://www.federalreserve.gov/newsevents/pressreleases/monetary20200315a.htm

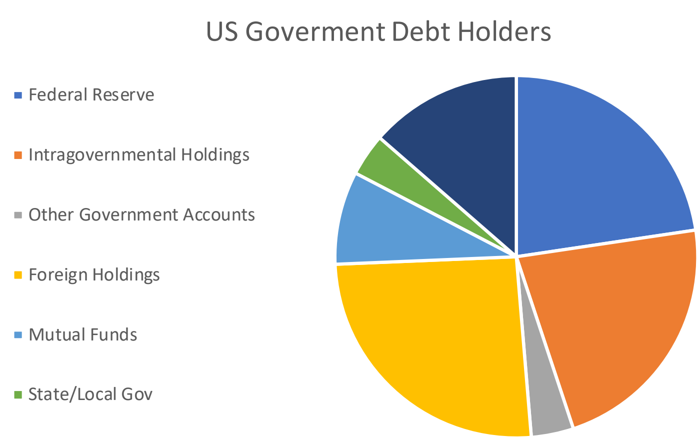
[3] Like just about everything else, this information is now digital, with https://www.usdebtclock.org/ a good source for those who want to keep up with our debt levels along with other interesting related statistics that allow a better understanding in context.

For context, economists compare debt levels to the Gross Domestic Product ("GDP") of a country. Gross Domestic Product measures the total value of all goods produced, and services provided in a year. The last time we had this high of a debt to GDP level was after World War II.



Despite the fact that we now have over $26 trillion in debt, an amount 1.3 times larger than the GDP and 7.9 times larger than estimated annual tax revenue of $3.3 trillion[4], investors are still willing to lend the government money at historically low interest rates. It would seem that the US can take on significantly more debt given continued interest of market participants and historically low interest rates.

Who Owns US Debt?



US Government Debt Holders	Amount	Percent
Federal Reserve	6	23%
Intragovernmental Holdings	5.9	22%
Other Government Accounts	1	4%
Foreign Holdings	6.8	26%
Mutual Funds	2.2	8%
State/Local Gov	1	4%
Other: Insurance, Pension, Banks, Corporations etc	3.6	14%
Total	**26.5**	**100%**

[5]

[4] https://www.usdebtclock.org/

[5] While the total debt outstanding is relatively easy to find: https://treasurydirect.gov/govt/reports/pd/pd_debttothepenny.htm there is conflicting data in regards who exactly holds this debt. We initially used https://www.thebalance.com/who-owns-the-u-s-national-debt-3306124#citation-26 but realized their numbers did not hold up so this is a best efforts based on:

Built into the US economic system are a number of parties that are willing participants with little sensitivity to interest rates, creating a base level of demand for US Government debt. For example, money market mutual funds are essentially cash reserves for individuals who want to ensure they have no risk of loss. There is currently $2.2 Trillion of US government debt held in these mutual funds. Banks and insurance companies have a regulatory mandate to have a portion of holdings in risk free securities. And many US companies have a portion of cash in US Government debt for the same reason as those purchasing money market mutual funds - to keep assets liquid and safe.

Due to the importance of America and the US dollar in global trade, foreign governments generally see the logic of holding US bonds as well. As a group, they own roughly 25% of the current float with the king of debt, Japan, holding $1.3 Trillion of this debt.

In fact, given 70% of global debt is US dollar denominated and given our undeniable position as the largest and most powerful economy in the world we are considered a safe haven - despite our high and still rising debt levels. When there is global volatility, global investors tend to pile into US Government debt given its perceived safety - exactly what occurred this year resulting in yields hitting historic lows despite the intent of the government to borrow more money.

Despite all of these participants, our own government still holds the lion's share of our debt. Around $6 Trillion is owed to intragovernmental agencies such as Social Security. Interestingly, at some point Social Security revenues exceeded benefit payments resulting in a surplus which by law had to be placed in US Treasury[6]. The Federal Reserve now holds $6 Trillion of our debt and conceptually can purchase all slack in the system, essentially controlling yields[7] as well as money flow.

As can be seen, there are natural participants for some level of US Government debt that should grow with GDP. The Fed can and will participate as buyer of last resort. The ability to ease or tighten money supply is one of the many tools that the Fed has at its disposal. Of course, as we will soon explore, with the Fed already holding $6 Trillion of US Government debt, additional debt purchases at some point becomes less meaningful and potentially problematic. The question remains of how much can be borrowed.

Japan: The Canary in the Coal Mine

Japan's debt is approaching 3 times its GDP. Assuming we can borrow as much as Japan, that means we have at least another $30 trillion of available borrowing capacity. Japan has had really low growth over the last two

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https://www.federalreserve.gov/releases/h41/current/h41.pdf (Treasury held outright (4.2) and general account (1.6)) and https://www.federalreserve.gov/monetarypolicy/bst_recenttrends.htm

[6] Estimates of running short on Social Security is based on a growing base receiving benefits relative to the group paying into Social Security – it is a "pay as you go" system, a bit different than a traditional pension. For an in-depth review: https://www.ssa.gov/policy/docs/ssb/v70n3/v70n3p111.html

[7] On top of setting fed funds and potentially controlling the short end of the curve, simply by increasing or decreasing purchases they control demand by other participants.

decades and until recently has experienced a bit of deflation as well. However, these characteristics are actually more likely due to their aging demographics - a topic we touched on a couple of explorations prior. Japan has one of the oldest populations in the world, with over 33% of the population above the age of 60. They also have a declining population base with some estimates of a 25% drop in population by 2050. With a declining workforce and less spending, it is no wonder that growth and inflation is simply not existent.

Most of the debt held by Japan is lent internally. It is held by the older generation directly and through pensions as well as the Bank of Japan, Japan's central bank. Despite the high debt levels, interest rates are primarily negative. That means when lending money to Japan you actually are guaranteed to receive less money back if held to term[8]. The takeaway here is that despite having high levels of debt, Japan is still able to maintain incredibly low interest rates.

For years there has been speculation that Japan would have real issues given their debt load[9]. But to date, none have surfaced, and they continue to sport a strong credit rating from S&P[10]. That doesn't mean the debt is not problematic for Japan down the road, but there are definitely more significant issues with a declining and aged population that the government is focused on. Given their debt load, it seems like the US is in relatively fine shape – or at the least, we will find out what levels may be problematic for a country based on what plays out in Japan, the canary in the coal mine.

Why Are Interest Rates So Low?

Perspective is a funny thing, and our perspective can illuminate our biases. One of the craziest little pieces of trivia I heard recently is that Anne Frank and Martin Luther King Jr. would be the same age as Barbara Walters is today. All three were born in 1929. Yet, we tend to think of the 1940s (WWII and the Holocaust) when referencing Anne Frank, the 1960s (Civil Rights movement) when referencing Martin Luther King and today with respect to Barbara Walters (given she is alive--at some point she will be assigned to a decade or two in our memories just like the first two).

Yes, interest rates are at historic lows. But many are biased by the historic highs seen in the '70s

[8] German debt and much of EU debt is negative as well. This is a really hard concept to understand – lending money and receiving less back. However, if expectations are for negative growth and there is enough of a population that more or less is forced to invest in government debt it becomes the norm.

[9] https://www.marketwatch.com/story/heres-a-lesson-from-japan-about-the-threat-of-a-us-debt-crisis-2018-05-14

[10] https://www.reuters.com/article/health-coronavirus-japan-debt/sp-affirms-japans-sovereign-debt-rating-even-as-huge-stimulus-eyed-idUSL4N2BR2O0#:~:text=The%20rating%20agency%20affirmed%20Japan's,beyond%20what%20it%20currently%20projected.

and ’80s and relatively high rates experienced in the ’90s. That bias toward more recent history can obscure the fact that we have been on a steady yield decline now for close to 40 years, with seemingly little room to continue the ride without going into negative territory.

It is important to note the Fed’s primary job:

- Moderate long-term interest rates
- Stabilize prices
- Maximize employment

Keeping inflation and growth in a preferred range generally achieves the above mandate. Inflation increases (inflationary) if (1) product demand or (2) underlying costs of products increase, and declines (deflationary) if supply is high but demand is low. COVID was a deflationary event in that there was an abrupt shift in demand which the Fed tried to combat by immediately dropping short term yields materially, creating an easy money environment.

If inflation increases due to high demand, one way of trying to control and lower it is by increasing interest rates to tamp down this demand. Increasing interest rates would be problematic given our debt load – an example of the negative effects and potential lack of flexibility that come with a high debt load.

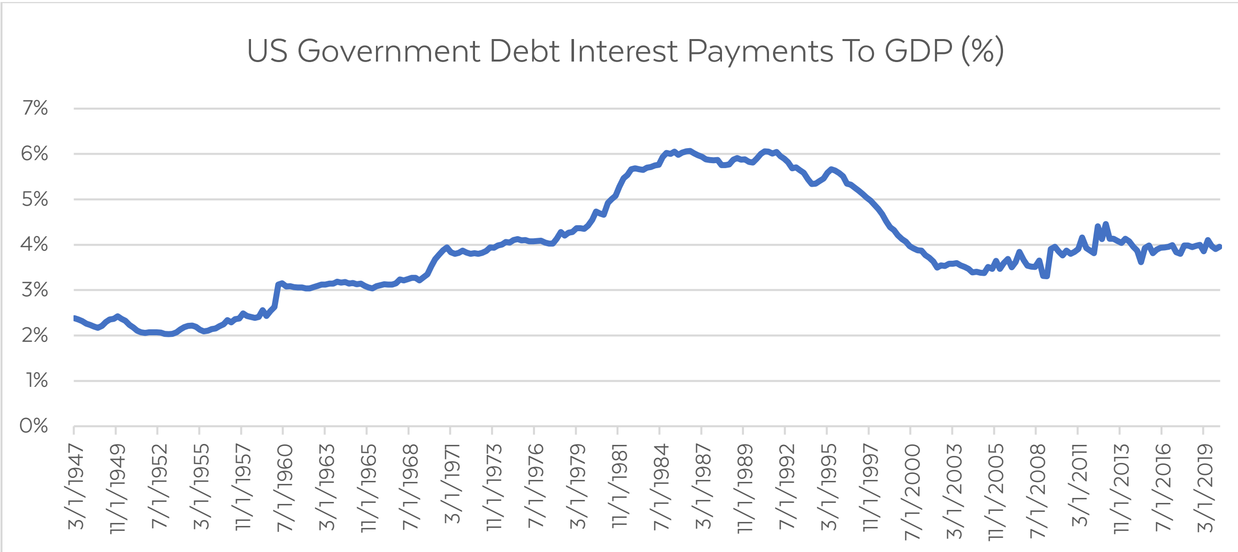
Looking across developed markets, which generally encompass Europe, Japan and the US, there has been extremely low growth over the last couple of decades (lower in Europe and Japan) as well as no hint of worrisome inflation or deflation. It all goes hand in hand. The Fed as well as other central banks have created easing policies through lower interest rates in an attempt to increase growth. Central banks have also more or less coordinated in buying up assets and maintaining what seem like artificially low interest rates. Like the US, there are a number of participants in respective markets that will always participate regardless of yield, which assists in vacuuming up debt while keeping yields low.

General Risks of Debt

A borrower owes (1) principal borrowed and (2) associated interest payments on a typical loan. General risks are as follows:

- Interest payments are not affordable or, at the least, restrict other spending
- Unable to pay back principal at the end of the term
- Lenders are not willing or less willing to further lend money

Despite having historically high debt loads as a country, due to historically low interest rates our interest payments are rather manageable and are in the middle of the historical range below. In fact, because yields declined materially over the last few months, our interest obligations should continue to decline if we maintain our debt levels. At the moment, it seems like we can keep interest payments manageable. A major risk is that interest rates increase prior to our ability to lower our debt levels.



Source: Ycharts

Conceptually, the Fed can always step in and lend to the US Government (that is right, one arm lending to another). The Treasury Department can also print money. There are real and significant issues if it comes down to one arm borrowing from another arm and simply printing money to finance the government, but the point is that having control of the printing press does negate the issue of defaulting due to not being able to raise additional capital.

We are not even close to the aforementioned worst-case scenarios, or even one where our interest costs become extreme. First, there are many natural participants that will continue to lend the US government money regardless of yields. Second, there is reason to believe that yields will remain low due to the current structure of the global economy.

Combating a Recession: The Haves and Have-Nots

There are generally four ways to combat a recession:

- Cut Spending
- Reduce Debt
- Redistribute Wealth
- Print Money

The first two do not really apply to the "Haves". The Haves are those countries that issue debt in their own currency, have flexible exchange rates and control the printing press. Until the financial world decides otherwise the Haves do not need to cut spending (e.g. austerity measures) or reduce debt. The Have-Nots, like Argentina and to some extent Greece and Italy (both complicated due their membership in the EU), are not so lucky.

Given America is a Have[11], their approach is to redistribute wealth or print money. When the US Government initiated their $2.2 Trillion bail-out they redistributed wealth. Issued debt pulled from investors and Fed reserves effectively recycled the existing money supply to new participants in the marketplace through unemployment checks, PPP for small businesses and the like. If the Fed instead printed money they would conceptually introduce inflation by introducing new money into the system rather than recycling.

Conclusion: Potential Future Issues

There are universal truths and human truths. An example of a universal truth is gravity. It has nothing to do with us humans but affects us all equally. Human truths are human created - an example being the concept of democracy. Banks do not hold all deposits in a vault within each branch. If it did, it would cost a lot more to keep your money there. Rather, banks can use deposits for all sorts of profitable means as long as it is risk averse enough to create a level of trust with its customers (deposits) and lenders. Otherwise there is a bank run and the bank will be no more.

Currently, the world is awash with debt. The EU, Japan, and America all have historically high debt levels and historically low interest rates. Further, some lead economic theories claim that this is all OK[12]. The belief is that as long as we do not print money we are good and we will simply "outgrow" our debt. Throughout history though, keeping the economy in a perfect range where growth is not too slow nor too fast has been more or less impossible. There are just too many factors in play.

At the least, high debt levels and low interest rates lower the flexibility and tools of the Fed. If inflation does increase for any reason, then one of the lead ways to keep it in check is to increase interest rates. However, if interest rates increase then the debt burden of our country increases – and dramatically so – a double edged sword.

As an example, we have spoken in the past about the world, America especially so, moving away from globalization. A move away from globalization may result in an increase in product costs which creates inflation. Other examples abound.

The good news is that based on today's narrative we have money to spend and we are money good! That means we can continue to assist our population and our economy in getting on good footing. The negative is that it is hard to see how this does not saddle future generations with too high a debt load and its associated issues.

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[11] There seems to be evidence that inequality is a contributing factor to recession. It is a topic unto itself. Here is an article from a claimed non-partisan think tank on the subject: https://www.epi.org/blog/fighting-inequality-is-key-to-preparing-for-the-next-recession/ We are currently at levels of inequality within our society not seen since the roaring 20's.

[12] https://www.investopedia.com/modern-monetary-theory-mmt-4588060

We Continue to Bias US Equity Investments; Revisiting Effectiveness of the 60/40 Portfolio

Our general approach to investing on your behalf is to take a top-down approach in creating diversification of risks and returns in one's portfolio. Let's unpack that. A top-down approach means we start by viewing the high-level investing opportunities. Equities vs. Fixed Income exposure first. Then within equities, US, Developed Markets (e.g., Europe & Japan), and Emerging Markets (e.g., less- developed markets like China & India) and so forth. We continue on this path to actual strategy and manager selection. Diversification of risks and returns means we invest in multiple exposures on your behalf in order to increase the likelihood we'll have varied return streams as well as risk streams. Since we do not know with certainty (nor does anyone else to our knowledge) what investment will do best, we attempt to smooth out the experience. We do have biases though.

We have maintained a US bias for the last couple of years. Each of the Exploration pieces we have published this past year illustrated the positive attributes and strong positioning of the US relative to the rest of the world. Given what is occurring now around the globe and despite what seems like a rather lackluster response to the virus, we believe the US remains best positioned given its large consumer base and a move away from globalization. We are currently not analyzing a potential shift in exposure but will resume once the world normalizes to some extent.

Like debt levels, interest rates mean nothing without context. Is an 8% yield high or low? Well, relative to what? Yields in the marketplace are based off the risk-free rate. As a result, the risky assets that are based off of those risk-free rates now have historically low lower bounds. An example of this is Amazon's ability to raise $1 Billion at a 0.4% interest rate[13].

For those corporations with access to debt markets over the last decade it made perfect sense to raise capital through the debt markets and then initiate stock buybacks as debt represented a more efficient form of capital.

As discussed in the last exploration, due COVID, fixed income investments are pricing in more risk than they have over the last few years resulting in a higher interest rate relative to the risk free rate, creating potential short-term opportunity. The premium on these fixed income investments has come in materially over the last quarter as equity markets have rebounded and as some economic activity has resumed. If these yields continue to come in, at some point interest rates even on riskier investments may be historically low.

Fixed income has been a meaningful part of investor portfolios for the last few decades. Beyond potential returns, it was viewed as ballast for a portfolio, protecting at times like these. However, with risk-free rates at historical lows, holding longer term fixed income becomes riskier. Furthermore, yield levels are abysmal. Less ballast and less potential for decent returns create a need to find other potential exposures. We have defined the issue but do not have the answer – it is something we are actively working on.

[13] https://markets.businessinsider.com/news/stocks/amazon-raised-10-billion-through-record-low-borrowing-costs-2020-6-1029272938

Concerns: ***Partisan Gap and Inequality at Extremes***

Democracies are afflicted by at least seven plagues[14]:

- Parties eroding
- Citizens not trusting one another
- Minorities being excluded
- Voters losing interest
- Politicians who turn out to be corrupt
- Rich getting out of paying taxes
- Growing realization that our modern democracy is steeped in inequality

Does any of this ring true for you? According to many measurement's wealth inequality has reached highs not seen since the 1920s while the Average Partisan Gap is showing increased political polarization. As noted in footnote eleven, there is evidence that inequality contributes to recessions and slows recovery from them. We have highlighted concerns about a portion of our citizenry not accepting the outcome of the presidential election if it was close. It now feels like regardless of how close the elections may be, it may not be accepted by a significant portion of our citizenry.

COVID of course simply exacerbates these trends. An increasingly stressed population does not help any situation. We have been following Scott Gottlieb among others in staying informed on the Virus. His recent belief is that we will either have herd immunity or an approved vaccine by the end of 2020[15]. It is worth stressing, as he has, that this virus is very new and we simply don't have all the facts quite yet. However, as we have pointed out, given the incredible strides we have made in biotechnology and innovation generally over the last 100 years, there is reason to be optimistic that we will overcome in a decent time frame. The question of course is how much permanent damage will be done by then. Optimistically, disruption creates further innovation. The world will now reimagine their workspace and living space arrangement. Cities will need to modify materially. New York City just approved five thousand permits for restaurants to have outdoor and first traffic lane tables within **three** days. How is that for public-private partnership!

Geopolitical climate: COVID will likely continue the negative geopolitical climate as countries continue to close borders and hoard medical supplies in a bid to keep citizens safe and get economies back on track – to the detriment of global cooperation.

Artificial market support by governments: $2.2 trillion and counting of added spend in 2020. Is it possible that the government is purchasing negative yielding bonds from the government? Yes, it is. We are not sure of the

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[14] *Humankind: A Hopeful History*, by Rutger Bregman, page 298. I highly recommend this book.

[15] We are personally bullish on a vaccine being approved as commented on recently. However, there is still the task of getting everyone vaccinated. This will take quite some time and is most likely (and hopefully) a 2021 event.

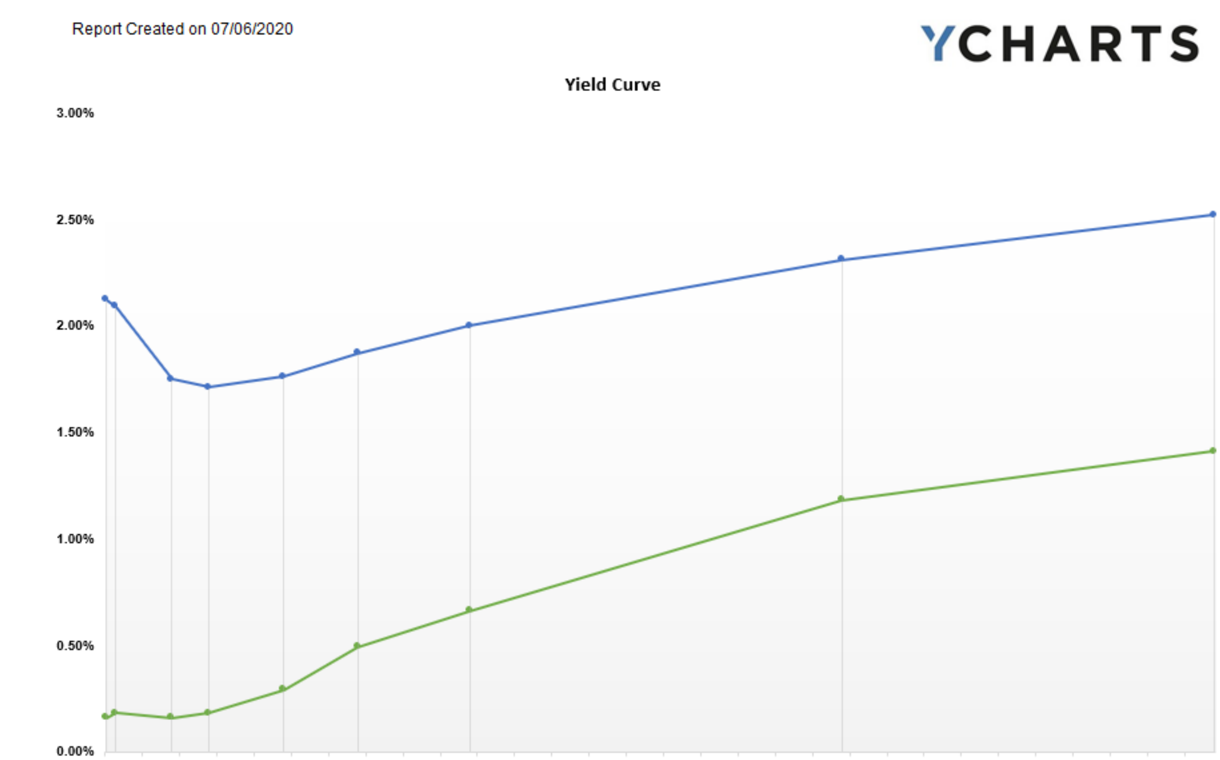
implications or how this potentially even ends (negatively or not), or if it does, but we are actively analyzing this risk as may be noted by the main topic of this exploration.

Shorter-term volatility and risks: We expect volatility and headline risks to remain heightened relative to the last couple of years.

To be clear, there are and always will be concerns in the market and in the world. We explore them to give us the best chance to navigate them effectively. It is worth noting, though, that the reason we diversify both risks and returns is that the future is simply unknown.

General Market Review: Fixed Income Risk and Opportunity

We typically show the following chart last in order to inform the reader of the move in yield curves. Given it is the topic of the day, it felt right to lead with it. Note how the yield curve has dropped dramatically over the last year. The interest rate captured for buying a 10-year treasury note from the government is 0.66% annually. That compares to 2% one year ago. While interest rates can certainly go lower, the Fed continues to communicate that they will not go negative. While our growth and inflation levels have been relatively low over the last decade, it has been way better than the rest of the developed world. We have a number of things going for us inclusive of a relatively good-looking population pyramid and the largest economy in the world. All that points to limited upside potential in lower risk fixed income securities.



	9/30/2020	12/30/2020	6/30/2022	6/30/2023	6/30/2025	6/30/2027	6/30/2030	6/30/2040	6/30/2050
Today	0.16%	0.18%	0.16%	0.18%	0.29%	0.49%	0.66%	1.18%	1.41%
Last Year	2.12%	2.09%	1.75%	1.71%	1.76%	1.87%	2.00%	2.31%	2.52%

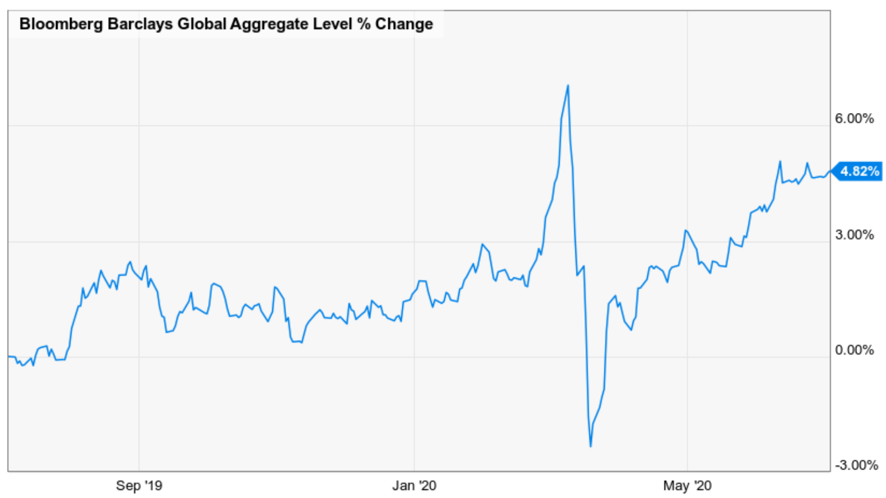
Both equity and fixed income markets materially retraced from the bottom. Some of this can be attributed to fed action which we outlined in detail on last explorations and repeat here given its importance.

FOUNTAINHEAD INSIGHTS

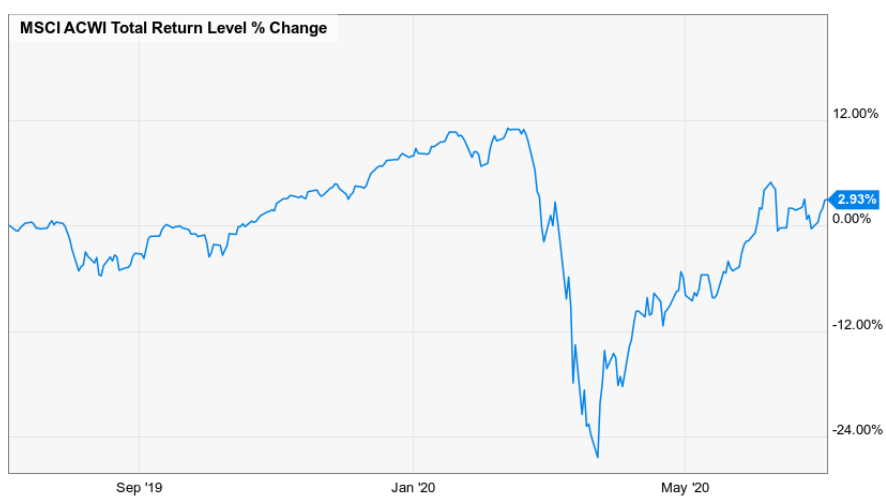
There were a number of structural realities and issues that created increased volatility and anxiety within the marketplace:

- While program trading and algorithms have always been a part of trade activity, computing power and lower friction costs have increased their presence materially. This results in more trading and increased volatility when markets become stressed. To get a small sense of how intricate some of the activities are I would recommend *Flash Boys* by Michael Lewis.
- Over the last 20 years increased regulation for banks and reduced requirements for market makers have generally reduced liquidity as well as buyers of last resort.
- Given the speed of the drop, highly margined accounts/funds and collateralized debt defaulted, resulting in forced selling and further adding to drops on big days

These points conspired to create a real structural issue especially within the short-term credit markets which is a very large over the counter market. There simply were no buyers as the traditional dealers (major banks) were limited in their ability to participate. The Fed finally stepped in with a number of programs to support the markets, which is at least part of the shorter-term positive retracement within the Barclays Global Aggregate index (top chart on right). This provides an indication of how fixed income markets performed.



As can be seen, both equity and fixed income markets have recaptured most of the losses generated. However, it is still unclear where we go from here. There is simply lots of uncertainty about the virus itself, the amount of permanent damage created, and how quickly we get back to a normalized environment.



As always, we continue to monitor markets closely and look for opportunity on your behalf.

IMPORTANT DISCLOSURE

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