

Economic & Market Outlook

Executive Summary

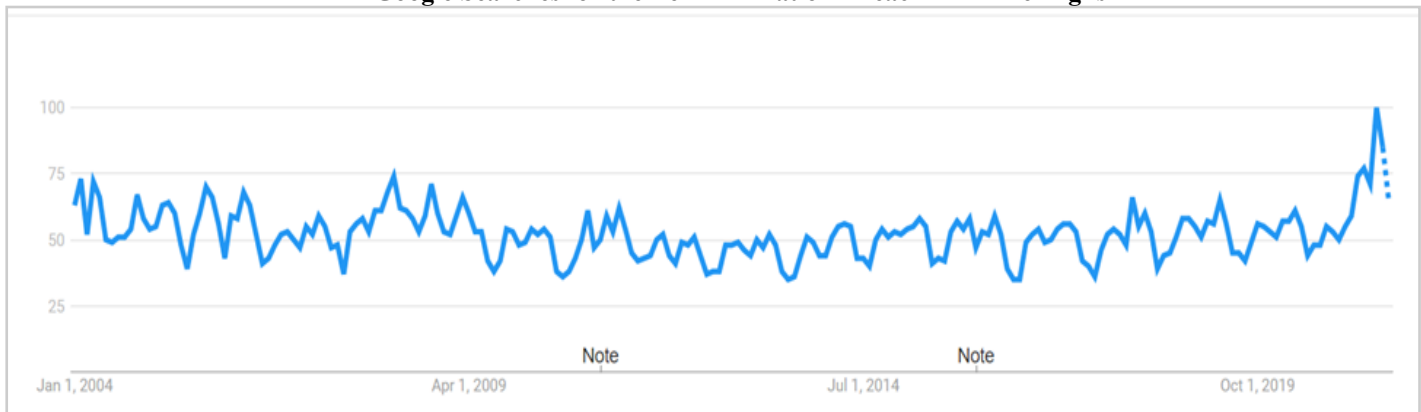
- ~ For the month of June, the Consumer Price Index (CPI) jumped 5.4%, the largest increase since early 2008.
- ~ The leaders of the Federal Reserve continue to call the surge in prices “transitory,” but subtle changes in their tone seem to indicate even they have been surprised by recent inflation reports.
- ~ If inflation does materialize, there is a logical narrative that it will harm longer duration assets like growth stocks more than it does value stocks.
- ~ Lastly, given the elevated valuations of traditional inflation havens (like real estate), we question their ability to protect investors if the recent bout of inflation proves permanent.

2021 Asset Class Returns

		Q1	Q2	YTD
Global Stocks	<i>MSCI ACWI</i>	4.7%	7.5%	12.5%
US Stocks	<i>S&P 500</i>	6.2%	8.6%	15.2%
Int'l Developed Stocks	<i>MSCI EAFE</i>	3.7%	5.4%	9.2%
Emerging Mkt. Stocks	<i>MSCI EM</i>	2.2%	5.1%	7.4%
Investment-Grade Bonds	<i>Barclays Agg.</i>	-3.4%	1.8%	-1.6%

Given that the purpose of our quarterly commentary is to update you on the news that matters, then inflation might be the only topic worth discussing. It felt the same way last quarter. The market’s views on inflation have a direct bearing on the direction of interest rates, and interest rates have a direct bearing on, well, everything. For years, the market has been able to blissfully ignore the topic of inflation because no matter what policymakers did, inflation continuously proved elusive. Recent data points, like June’s CPI reading of 5.4%, suggest we may be embarking upon a new era and the potential for a regime change has become one of the most hotly debated topics on Wall Street. On a more personal note, the relative performance of our portfolio has become highly correlated to changes in inflation expectations. When inflation worries grow, we seem to do quite well and when they dissipate, we seem to underperform. This is not by design, but there is a logical narrative as to why our portfolio is behaving in this manner. In this commentary, we will explore the inflation debate, discuss its potential consequences, and address some of the misconceptions surrounding the topic.

Google Searches for the Term “Inflation” Reach All-Time Highs

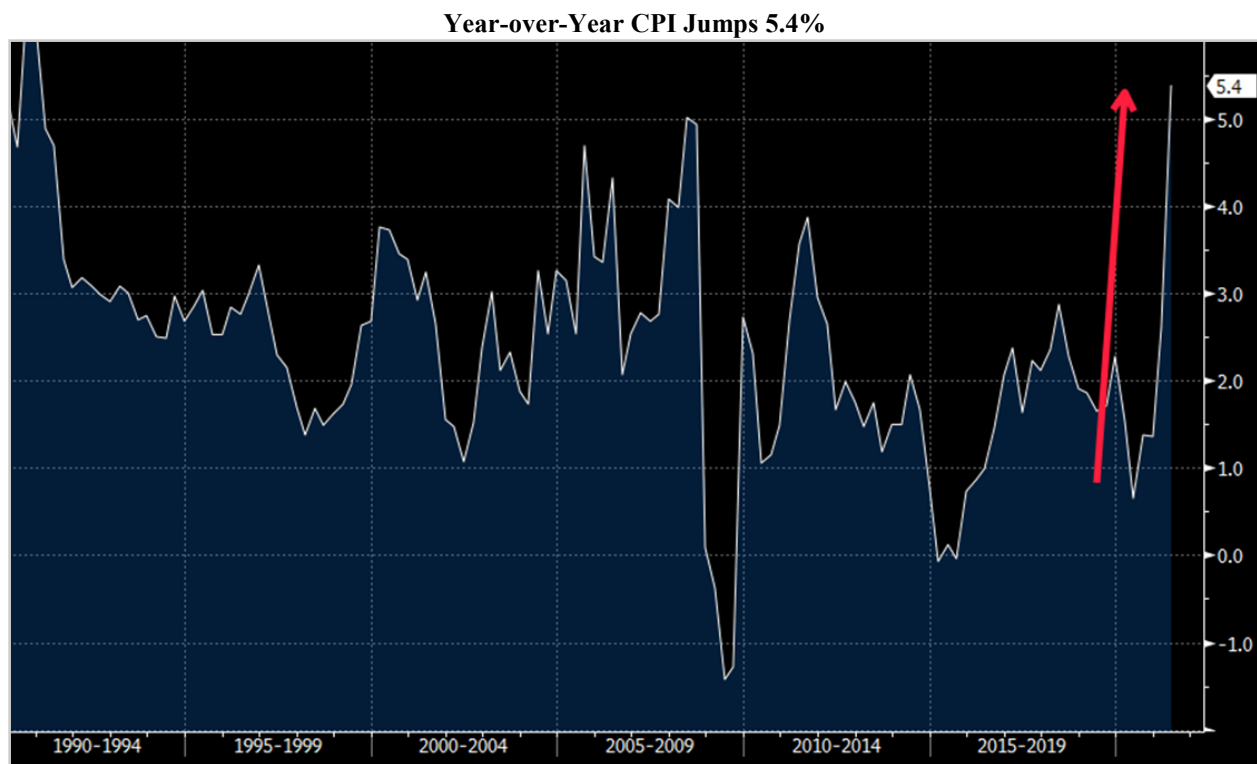


Source: Google Trends

Contextualizing Recent Events

Every quarter the Federal Reserve's Open Market Committee ("FOMC") publishes its infamous dot plots, a series of dots illustrating each FOMC voting member's forecast for the Federal Funds Rate over the next one, two, three, and four years. Following the June 16th FOMC meeting, investors were surprised to see the dots suddenly shift higher, a signal that the Federal Reserve who had been calling inflationary pressures transitory, was potentially behind the curve and now taking the possibility of sustained inflation more serious. Similarly, Powell's testimony, while still dismissive towards the idea of lasting inflation had softened. *"I will say that these effects have been larger than we expected, and they may turn out to be more persistent than we expected."* The Federal Reserve, which never goes off script, was telegraphing a subtle shift in its policy stance. It was warming the market up to the potential for higher rates and/or a tapering of its asset purchases.

To that end, June's inflation data (released in July after Powell's testimony) came in much higher than expected, almost double its forecasted level. Year-over-year, the Consumer Price Index climbed 5.4%, the largest increase since June of 2008. If you look at the measure, excluding food and energy it climbed 4.5%, a pace we have not seen since the mid-1990s. While the absolute size of the jump looks alarming (see the following chart), we would caution you from leaping to any immediate conclusions. Just know that policymakers and investors alike are puzzled. Everyone expected a bump in inflation rates as the economy reopened, but few, if any, expected a jump of this magnitude. As a result, we face a great inflation debate, and the answer to this debate carries serious implications for asset pricing.

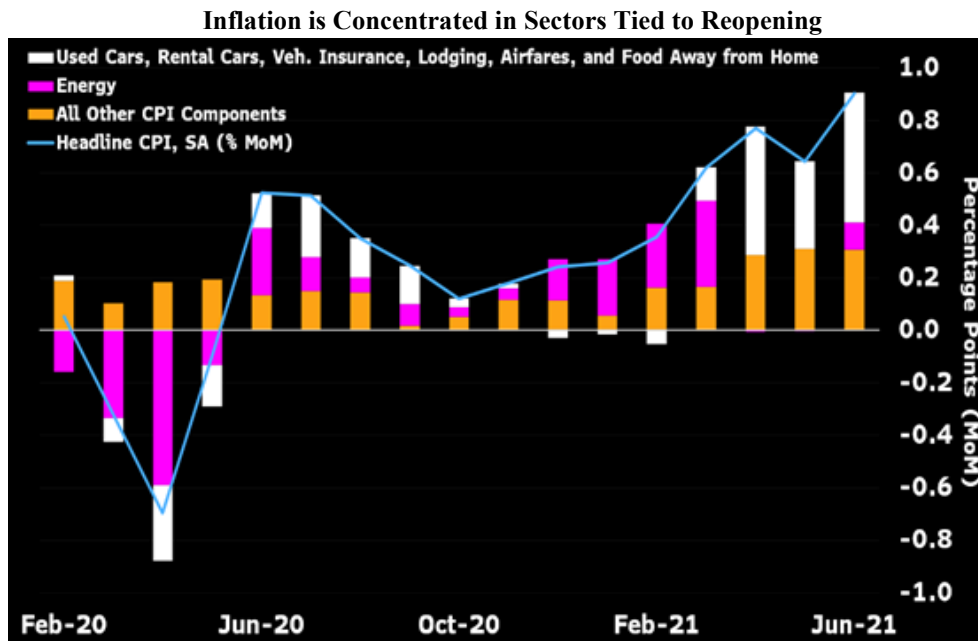


Source: Bloomberg

Transitory or Persistent?

Before examining the two sides to this argument, we need to issue a crucial disclaimer. We do not think anyone can forecast inflation any better than the market. Many of the greatest investors we know called for inflation to even hyperinflation after the Federal Reserve announced successive rounds of quantitative easing following the financial crisis. They all turned out to be wrong. With that aside, let us review some of the empirical and theoretical arguments for and against a secular change in the rate of inflation.

The argument that today's inflation is transitory deals mostly with base effects (a data issue) and supply constraints that were a direct result of COVID. As Chairman Powell likes to point out in his testimony, "a pretty substantial part, or perhaps all of the overshoot in inflation comes from categories that are directly affected by the re-opening of the economy." And in his defense, an analysis conducted by Bloomberg found that over half of the June price bump came from just six components – used cars, rental cars, vehicle insurance, lodging, airfares, and eating out.



Source: Bloomberg

Base effects are simple to understand. When you are looking at data and compare one period to another, you must be careful the starting data point or base is not artificially depressed. And to be clear, base effects are most certainly influencing the eye-popping inflation figures we see today. Consider the year-over-year change in energy prices. During the pandemic, the price of RBOB gasoline (unblended motor fuel) fell 46.7%. Demand for motor fuel was down because nobody was driving. A year later the spot price for RBOB gasoline had climbed 119.5%. Gasoline prices have not grown 119.5% from what we are accustomed to paying. They have only increased by that level if you compare them to their nadir when demand was nonexistent. A more accurate read would show RBOB gasoline prices have increased 16.7% from pre-pandemic levels, which is still a hefty price increase for consumers to bear.

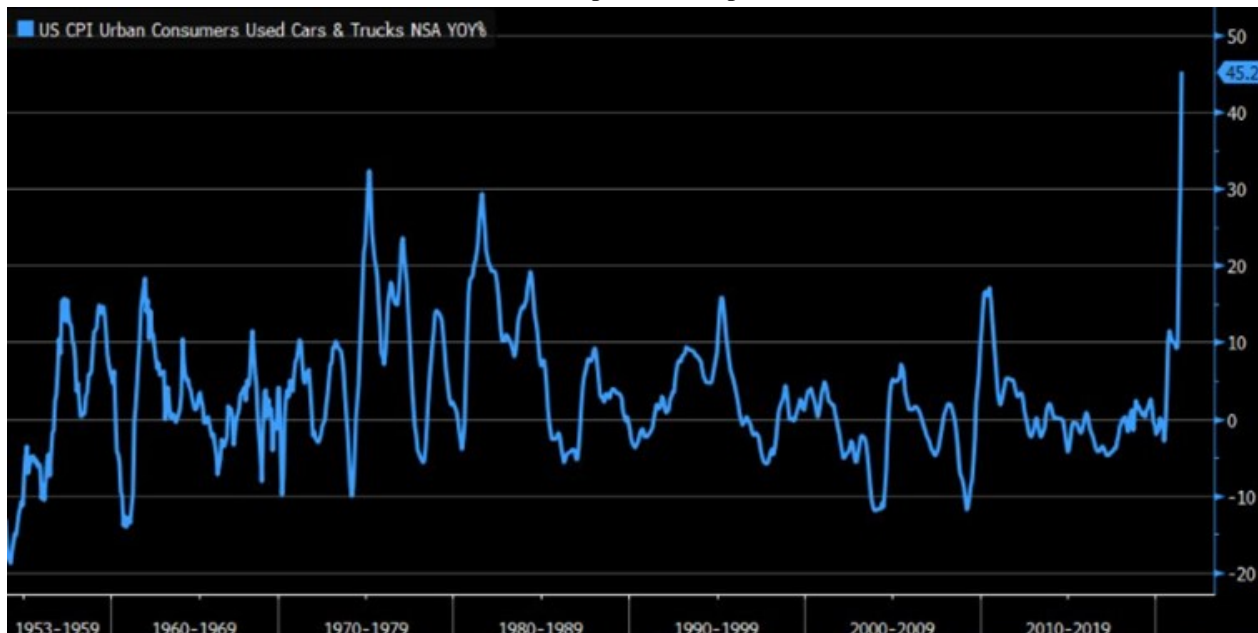
Data issues, like base effects, can easily be teased out by the markets, and we only cite them because they are responsible in part for some of the abnormally large price increases you hear about. That said, if we adjust the data to account for such issues, inflation is still very real. Here is some quick data to illustrate our point. The year before the pandemic struck, 2019, the inflation rate oscillated between 1.5% and 2.5%. Now assume that instead of falling when the pandemic struck, the rate of inflation continued to grow in that range, call it 2.0%. Using these assumptions, we can obtain an extremely crude assumption of what June's inflation print might have looked like without base effects. Our calculations still arrive at 4.0%, a level not witnessed in over a decade.

The other considerations investors need to account for are supply bottlenecks that were created and/or exacerbated by the pandemic. We said it in our last commentary, and we will say it again, price spikes driven by supply shocks tend to be transitory, and COVID impacted supply chains around the world. Factories were shuttered for safety reasons. Companies pulled orders for materials to preserve cash. Individual consumption preferences changed overnight. Money that was once spent eating out or on clothes shifted to the items needed for entertainment, exercise, education, and work at home.

An acute example of supply bottlenecks can be found in the semiconductor and automobile industries. During the pandemic, the demand for PCs, tablets, cloud storage, and other electronic devices/services skyrocketed. This...

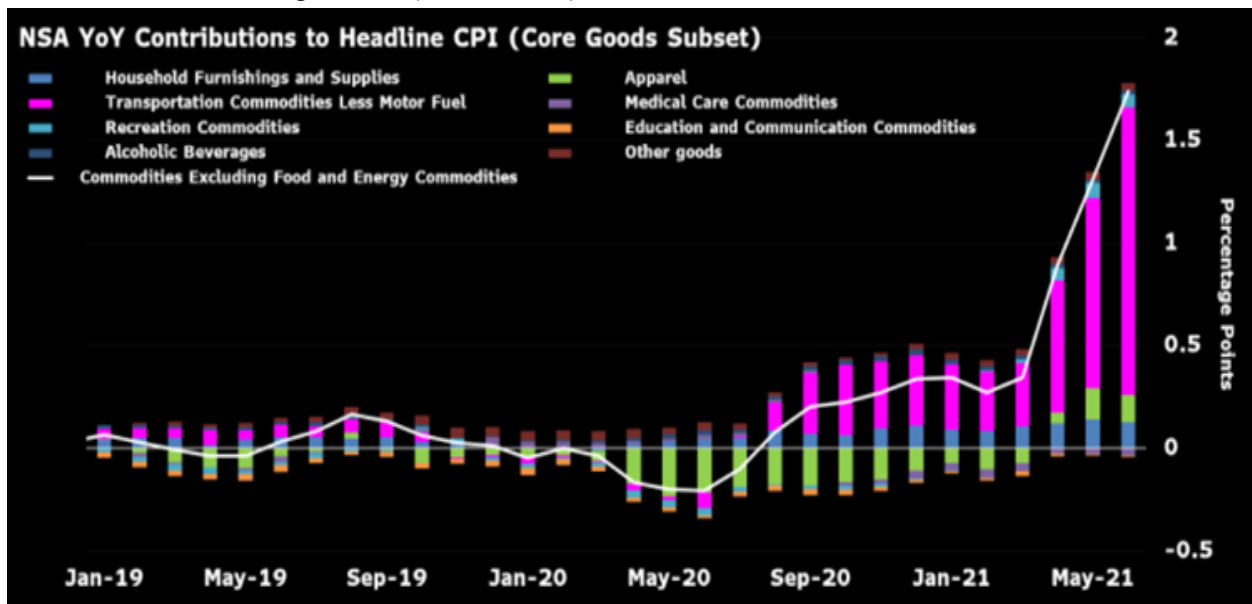
acceleration in demand created a massive shortage in the number of semiconductor chips, which reside in almost every electronic device we use. The shortage of chips hit the automobile industry particularly hard because each of the distinct systems (cameras, sensors, audio, heating/cooling, cruise control, etc.) in your car utilizes a distinct set of chips. Dan Hearsch of AlixPartners estimates, “there are up to 1,400 chips in a typical vehicle today” and he also notes that as we move towards electric vehicles our reliance on chips is only set to increase. The lack of semiconductors is forcing auto manufacturers to throttle the production of new cars at a time when demand for cars is booming. The result has been inflation in both new and used car prices. Per Bloomberg, higher used car prices alone added 1.1% percentage points to the Consumer Price Index’s 5.4% jump in June.

CPI Used Car & Truck Component Jumps 45% Year-over-Year



Source: Bloomberg

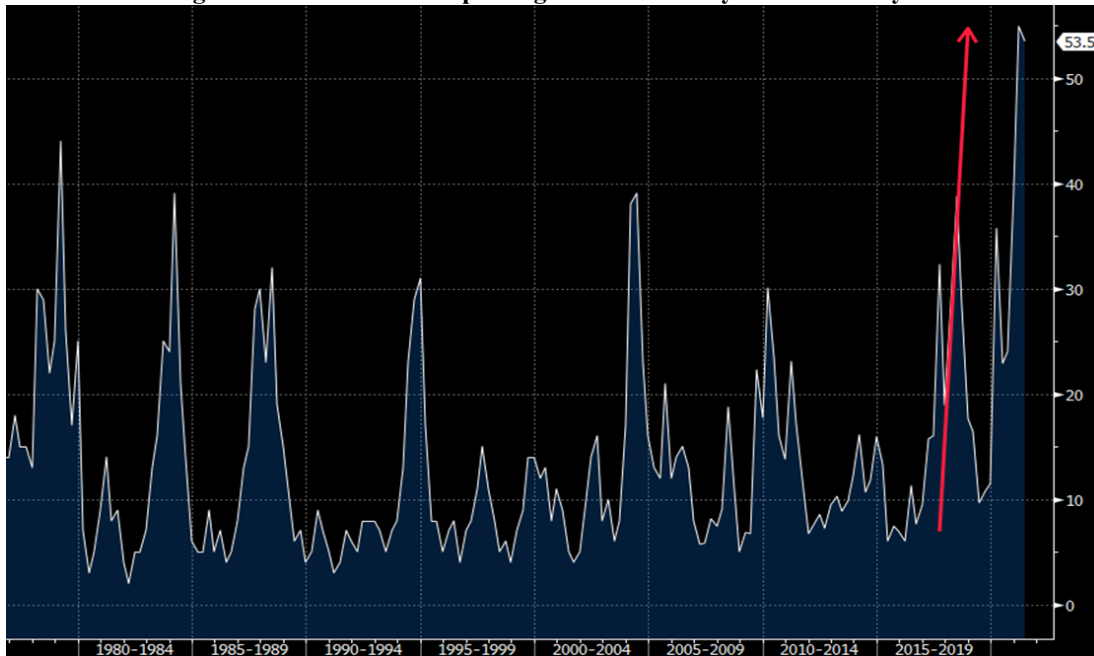
Transportation (ex Fuel Costs) Account for 1.1% of Headline Inflation



Source: Bloomberg

The spike in inflation data attributable to base effects will pass quickly. As early as next quarter, we will see the abnormal data points begin to vanish and data comparisons will become far more relevant. It is much harder to judge how long the spike in inflation attributable to supply constraints will last. Curing the semiconductor chip shortage will require the construction of new semiconductor fabrication plants. And to be clear, we have shortages in many areas of our economy beyond the semiconductor industry. Just look at the current state of the housing market.

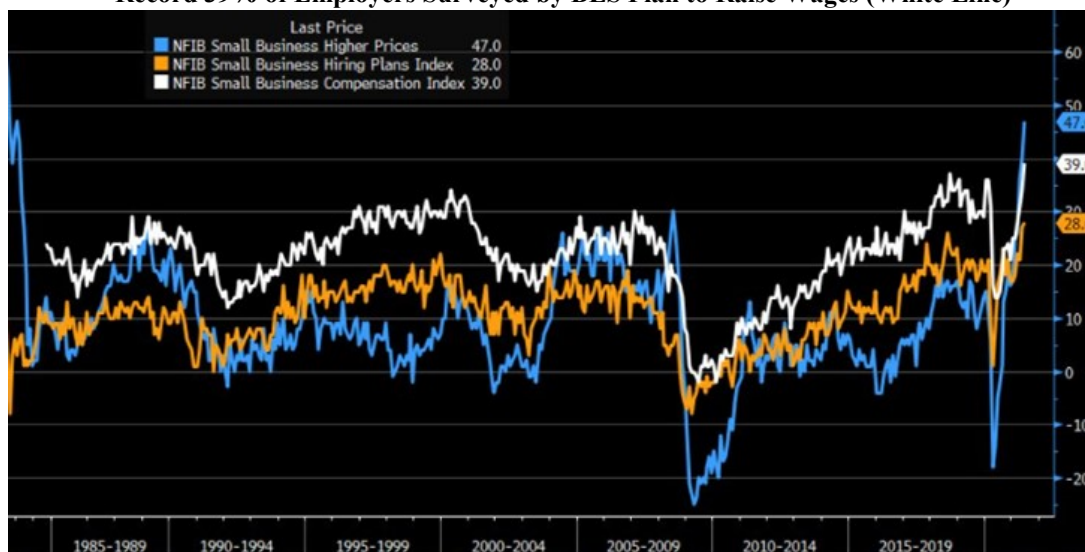
Percentage of Manufacturers Reporting Slower Delivery Times has Skyrocketed



Source: Bloomberg

One supply shock that could prove more troublesome is a lack of labor. Despite elevated levels of unemployment, 5.9% today versus 3.8% before the pandemic, we are already seeing signs of labor shortages in certain sectors. The shortages exist mostly in lower-paying jobs within the hospitality, construction, and manufacturing industries. A regular survey on job openings conducted by the Bureau of Labor Statistics shows there are currently 9.2 million job openings in the United States. Note that since the onset of this survey the number of job openings has never been higher, not even close. The 9.2 million job openings compares to an unemployed population of 9.5 million. In short, unemployment is high, but there is also a record number of job openings ready to be filled. One theory is the \$300 weekly unemployment subsidy is discouraging workers from re-entering the workforce. Over 25 states, mostly GOP-led, have terminated the supplementary unemployment benefit citing amongst other reasons the labor supply shortages faced in their respective states. Our society may face a more acute labor shortage if new job openings continue to accrue as our economy reopens, which would put upward pressure on wages and make the spike in inflation longer lasting.

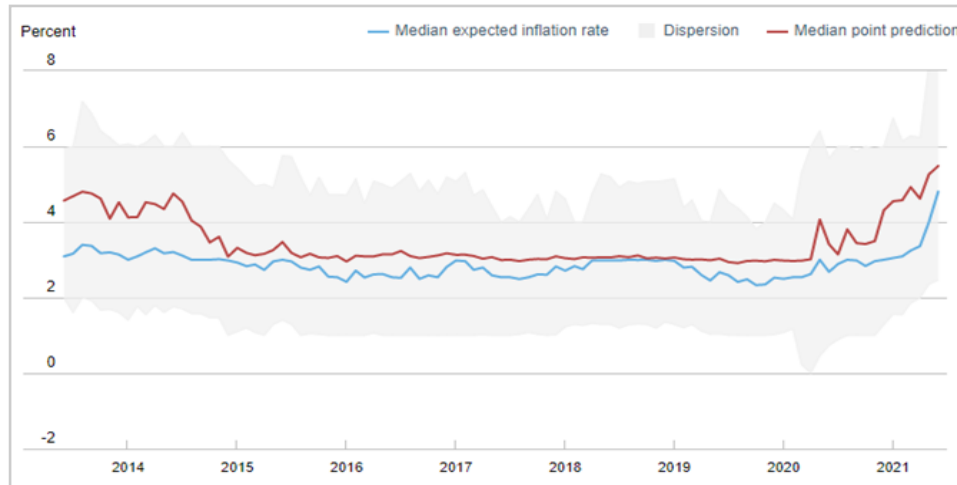
Record 39% of Employers Surveyed by BLS Plan to Raise Wages (White Line)



Source: Bloomberg

As a rule of thumb, inflation driven by supply shocks tends to be transitory. It is often quipped that the cure for higher prices is higher prices. Prices are a signal; they contain information. Right now, the escalation in semiconductor prices is inciting manufacturers to build more fabrication plants. Prices are telling and encouraging homebuilders to add additional supply. Eventually, this free-market process will cause prices to normalize. There is one curveball, however, and that has to do with the psychology of inflation. If the recent price pressure strengthens or persists longer than consumers and businesses expect, it can and will change the way individuals behave. The belief that prices will rise causes individuals to pull forward consumption to lock in today's lower prices. The same can be said for the purchasing managers at businesses. It is plausible that growing inflation expectations can beget more inflation.

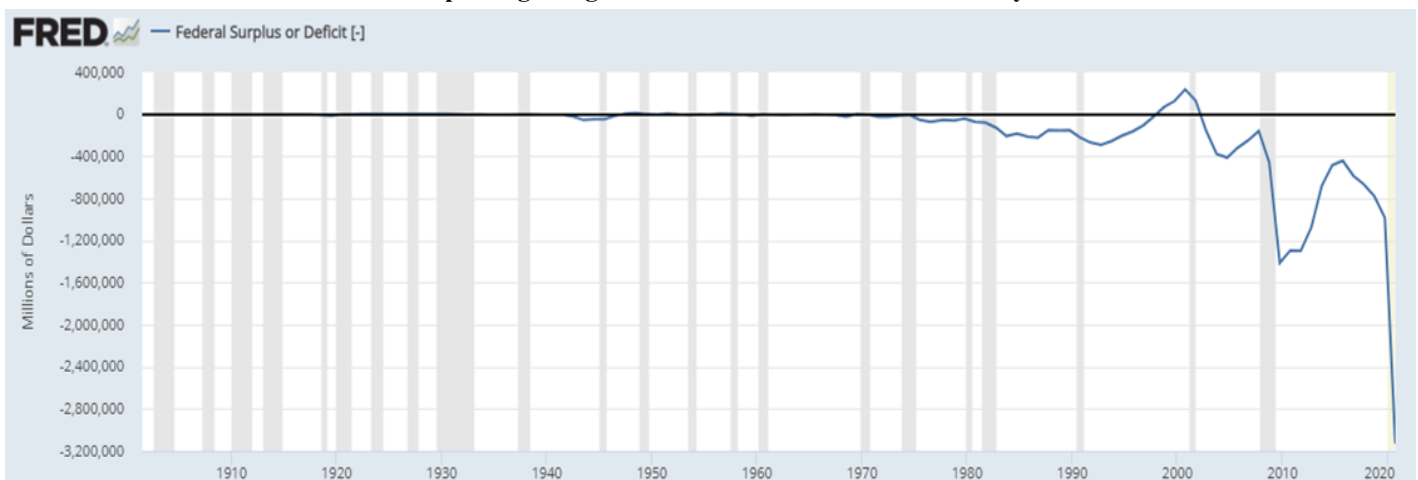
Per Fed Survey - Median Consumer Expects Prices to Rise 5.5% by Next Year



Source: Federal Reserve Bank of New York

Our biggest concern however is the potential for demand-pull inflation, which arises when the aggregate demand for goods and services in the economy outpaces supply. We have no clue if it will materialize, but deficit spending financed by debt is likely a key ingredient. When the government spends money, it ultimately ends up in the hands of individuals and businesses. This spending is financed in one of two ways: debt issuance or taxes. To date, the explosion in our deficit has been financed by the issuance of debt, large quantities of which were purchased indirectly by our own Federal Reserve. In short, it appears we truly are printing money and placing it directly in the hands of individuals and businesses. Our only hesitation is inflation never materialized after the Federal Reserve embarked upon its first four rounds of quantitative easing, but that may have to do with the fact that the increase in monetary reserves never circulated through our economy. This time around, the Federal Government is doling out the checks directly to individuals and businesses. Only time will tell if this leads to a sustained increase in inflation expectations.

Exploding Budget Deficits are in Uncharted Territory



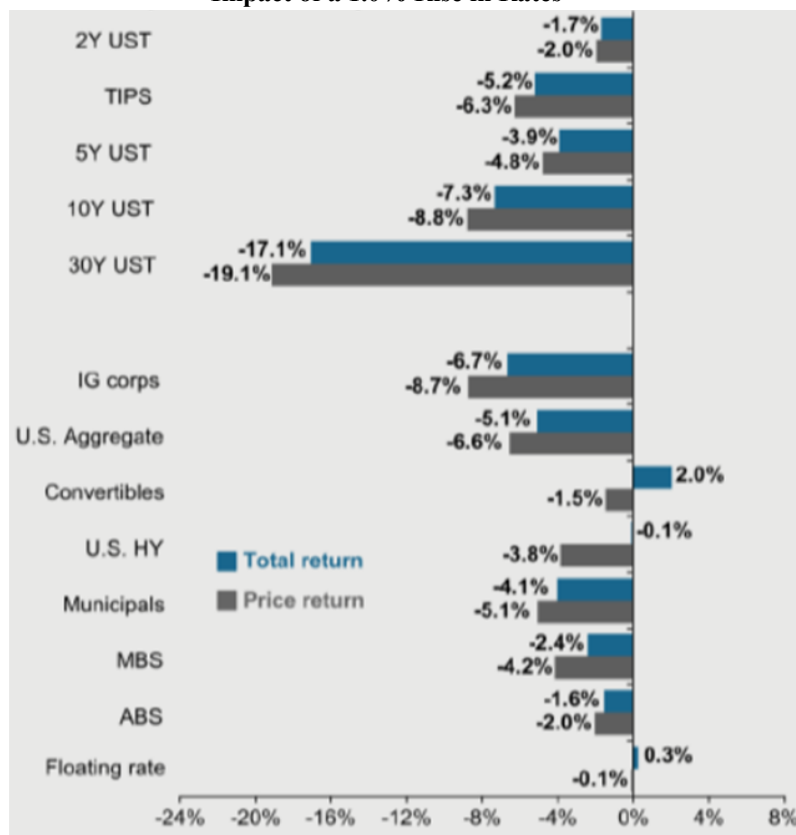
Source: Federal Reserve Bank of St. Louis

The Impact of Inflation on Financial Assets

The entirety of this commentary is devoted to the topic of inflation and so was a decent portion of our last commentary. Why and who cares? We care because inflation expectations are a key driver of nominal interest rates and nominal interest rates impact 100% of our investments. We would also put forward President Reagan's more entertaining answer, "inflation is as violent as a mugger, as frightening as an armed robber and as deadly as a hit man."

While Reagan's quote was not about the bond market, it would still hold. When inflation strikes, financial contracts that carry a fixed rate of return, like bonds, are obvious losers. The logic is quite simple and was introduced in our last letter. Nominal interest rates reflect the real rate of interest plus the expected rate of inflation. Assuming real interest rates hold constant, an increase in inflation expectations leads to a direct and proportional increase in nominal interest rates, and when inflation expectations fall, interest rates fall directly and proportionally. This should make intuitive sense. Imagine you lived in a society where the price of goods and services rose 3.0% every year like clockwork. In this world, a rational individual would never lend money for less than 3.0%. Likewise, an investor would never purchase a bond yielding less than 3.0%. Doing so would guarantee a loss in future purchasing power. Bond yields (i.e., interest rates) always reflect the marginal investor's expectations about future inflation. And, from here the story is simple. Bond prices and interest rates are inversely related, so if growing inflation expectations drive interest rates higher, bond prices will fall and returns will suffer. Simply put, rising inflation expectations and bonds do not go well together. The following table shows the return sensitivity of bonds to a 1.0% rise in interest rates. We would argue that persistent inflation, on the order of 3-4%, should result in rates moving more than 1.0%.

Impact of a 1.0% Rise in Rates

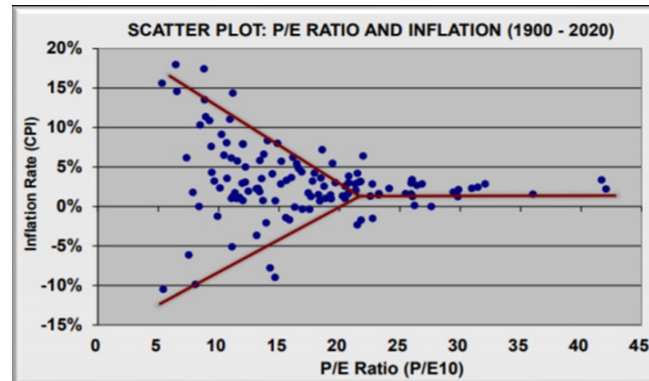


Source: Federal Reserve Bank of New York

The implications for equities are far more ambiguous. The theoretical value of an equity, private or public, is the present value of its future free cash flow. Said differently, it is the cash you as an investor can expect to take out of that business over time, discounted at some rate to reflect the fact that a dollar earned tomorrow is not as valuable as a dollar earned today. If inflation expectations rise, the rate by which investors discount cash flows will also rise and equity valuations will fall. This is the same relationship we just discussed with bonds. And, for this reason, most investors

have concluded that inflation is bad for stocks. We generally agree and so does the data, but inflation is not bad in every case. Bonds carry a fixed rate of return and equities do not. The cash an equity investor can expect to derive from a business changes with time and that level of cash flow is influenced by the level of inflation. A business that can pass on price increases and has a mostly fixed cost base will see its cash flows benefit from inflation. For equities, the pertinent question is what will matter more, the change in discount rates or the change in cash flows being discounted? For this reason, all we can say is inflation hurts equity valuations, but not necessarily equity returns. It is always possible that cash flow growth more than compensates for falling valuations. That said, such businesses tend to be rare, and the limited historical data shows a negative relationship.

When Inflation is at Extremes, Valuations Suffer



Source: Crestmont Research

Inflation's Impact on Our Portfolio

As alluded to earlier, our portfolio seems to do well, on a relative basis, when inflation fears are on the rise, and it underperforms when they are dwindling. To understand why this is happening you need to know our positioning. We own shorter duration assets than the market, and our bonds, on average, have higher yields and shorter maturities. Our equities tend to trade at lower valuations and, at present, are returning more capital to their shareholders in the form of dividends and/or stock buybacks. Simply put, our portfolio is quicker to see a return of cash than the markets, on average, which makes our portfolio more immune to changes in interest rates (and by proxy inflation expectations).

Value's Outperformance vs. Growth (White Line) has Been Correlated to 10-Year Breakeven Rates



Source: Bloomberg

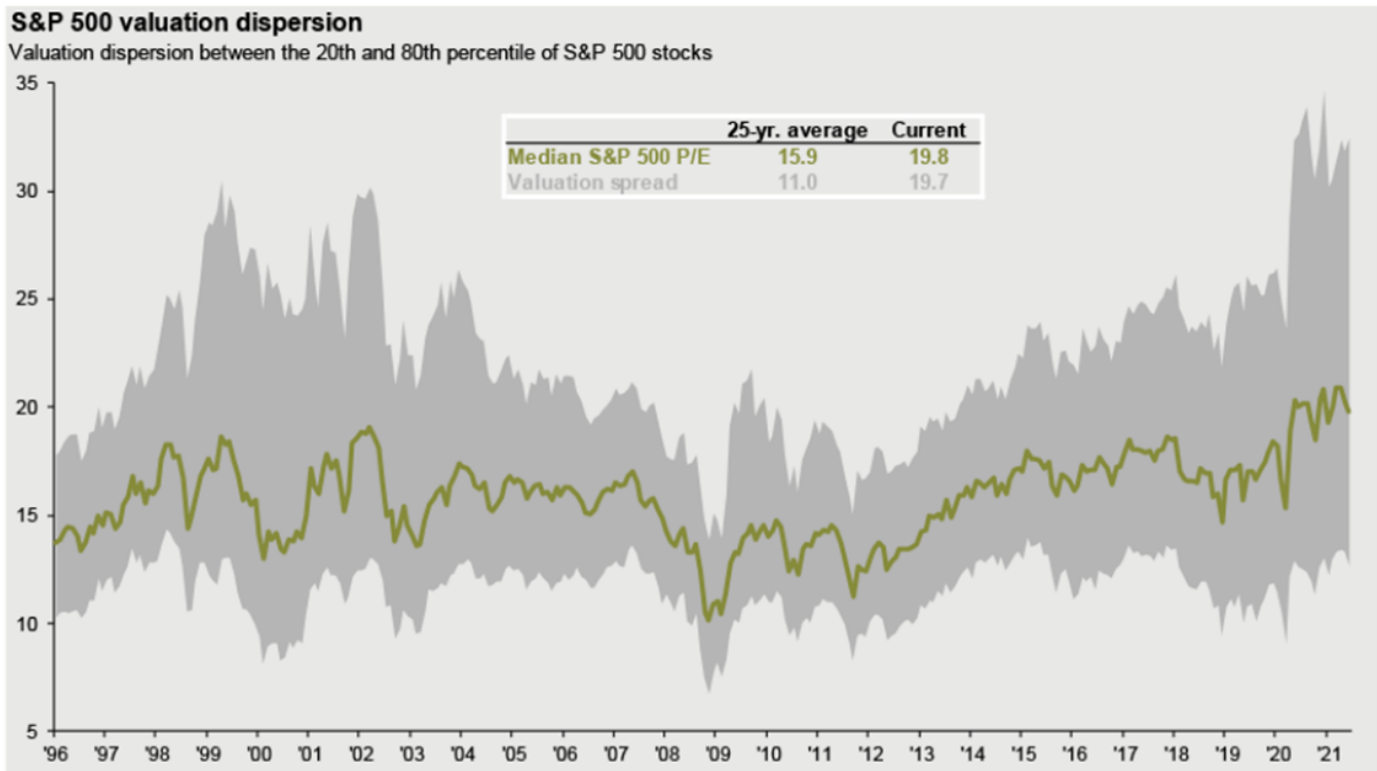
On the other end of the spectrum, you have today's hot growth stocks, epitomized by companies like Tesla and Virgin Galactic. These companies do not generate real and/or meaningful cash, and as a result, they cannot return cash to shareholders. On the contrary, the market fully expects these companies to fund future operations via some combination of stock and debt issuance. The hot growth stocks that do generate meaningful cash, like many of the software companies, are reinvesting heavily back into their businesses to gain market share. These growth stocks, which have become a much larger share of the investable universe, are longer duration assets, and thus more susceptible to changes in interest rates (and by proxy inflation expectations).

A Quick Confession

While we have benefited from this environment, we did not construct our portfolio with rising inflation expectations in mind. Furthermore, we think the correlation between rising inflation expectations and value stocks has the potential to weaken if our portfolios deliver future outperformance. Again, the logic all comes back to the concept of duration. Value stocks, in the academic sense, are stocks that trade at statistically lower multiples of cash flow, while growth stocks trade at higher multiples of cash flow. Imagine the average value stock trades at 10.0x earnings and grows earnings at 3.0%. Under this scenario, it will take the value investor just under 9 years to recoup his investment with profits. Now imagine the average growth stock trades at 20.0x earnings and grows at 7.0%. Under this scenario, it will take the growth investor almost 13 years to recoup his principal with profit. In this example, the value stocks have much shorter durations than the growth stocks. When inflation is rampant, shorter duration assets have relatively more value, because inflation makes money today worth a lot more than money in the future.

Here is the catch and why we would expect the relationship to eventually decouple. Current valuation dispersions are wide (see the following chart). The valuation spread between "value stocks" and "growth stocks" is as wide as it has ever been. Likewise, the duration differentials between the two classifications are equally wide. If we do see a further increase in inflation expectations, this dispersion will close and so will the differentials in duration. Inflation will matter far less to the two classes of stocks. If valuation differentials were tighter like we witnessed in 2009, our preference would be to own today's class of large-cap growth stocks given their quality, even if we felt confident inflation sat on the horizon.

Currently, Record Valuation Dispersions Exist Between Stocks



Source: JP Morgan

Beware of Preconceived Notions

This brings us to our last point. The implications of inflation on an asset cannot be discussed outside of the context of valuation. There are a lot of investment beliefs when it comes to inflation. Most have weak theoretical foundations or are simply based upon observations from the past for which the sample size is not robust or is taken out of context.

For example, there is a general belief that real estate is a great inflation hedge. We agree, but it is not a maxim for us. A study by Bill Wheaton, a professor at MIT and consultant to CBRE, confirmed that retail, industrial, and apartment asset values kept up with changes in inflation in a period spanning 1978 to 2016. That said, the author also found that, in general, property incomes did not keep up. This implies that much of real estate's ability to keep pace with inflation was attributable to changes in cap-rates (i.e., the valuation multiples assigned to real estate assets compensated for the lack of NOI growth). Today, cap-rates are near historic lows (valuations at highs). Is it not possible that if inflation persists, the associated expansion in cap-rates (falling valuations) could dwarf the growth in NOI? We are not saying this will happen, but it must be considered as a possibility.

Another example can be found in the high-yield markets, which have historically been the fixed income haven during times of inflation. The basic logic is that inflation is more likely to occur when the economy is running hot, which lowers credit risk. High-yield bonds tend to carry higher coupons, which gives them more wiggle room to provide a real return after surges in inflation. Lastly, high-yield bonds tend to carry shorter maturities, which lowers their duration. Here is the reality. Yes, high-yield bonds have higher coupons and shorter maturities than your typical investment-grade corporate bonds. Yes, high-yield bonds have historically outperformed investment-grade corporates during periods of inflation. Whether or not the credit risk associated with high-yield bonds is lower during times of inflation depends upon the composition of the universe at that time. Today, the high-yield universe is dominated with energy debt, so that statement likely holds, but in the late 90s, the high-yield universe was dominated with telecommunication companies plagued by overcapacity and little pricing power. Lastly, the duration of high-yield bonds is a function of their valuation. As you can see in the chart below, high-yield bond spreads are as close to investment-grade corporate spreads as they have ever been. Their duration is lower, but not much, and maybe not at all after you account for default rates. Given this backdrop, are high-yield bonds the obvious choice over investment-grade bonds if inflation intensifies?

The Additional Compensation High-Yield Bonds Offer Over Investment-Grade Bonds is at Record Lows



Source: Bloomberg

Conclusion

At Annandale, we try not to make investments predicated upon our macro prognostications. We would never say, we believe even greater levels of inflation are on the horizon, and therefore we should load up on assets that benefit from inflation, like our mineral holdings. This may come as a surprise, but the unfortunate reality is predicting the future is tough. To make matters worse, it is not enough to make a roughly accurate forecast. Instead, an investor must outguess what the market has already priced in. Said differently, you do not get paid for being right if the market shares your view. We did not enter 2021 with a short duration bond portfolio because inflation scared us. We were positioned that way because we would make very little if interest rates continued to fall and we stood to lose a lot if they rose. Then, the market was not compensating investors for the risk of potential inflation or higher real interest rates. Rather than trying to outguess the market, we spend our time asking does this investment adequately compensate us for the potential risks?

As always, we appreciate the trust you have placed in us, and we do not take our role as stewards of your capital lightly. We are grateful to enjoy the work we do and for the clients we are fortunate to serve.

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