Q1 2020
Investment Perspectives

Dave Keevins
Chief Investment Officer

Andrew Krei, CFA
Head of Investment Research

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- **COVID-19 COLLAPSE:** The spread of the novel coronavirus, COVID-19, brought broad swathes of global economic activity to a standstill by the end of the quarter. With little visibility around the duration or magnitude of the economic slowdown, prices of risk assets plummeted.
- **CENTRAL BANKS' SUPPORT:** In response to the dramatic market dislocations around the world, the Fed and other central banks slashed interest rates and pledged seemingly unlimited support to keep markets functioning properly. In the US, 2008/2009-era programs were swiftly reinstated, and efforts to combat illiquidity and thaw frozen credit markets were generally well received. US policymakers also responded by passing a $2 trillion stimulus package aimed at supporting households and businesses.
- **OIL MARKETS CRATER:** Just as global travel was being curtailed and overall energy demand began to falter due to the virus impact, negotiations around an oil production cut between OPEC and the Russians broke down. The inability to curtail supply in the face of significant demand destruction sent oil prices to their lowest levels since early 2016.

Market Recap

In an almost unthinkable turn of events, the spread of COVID-19 caused a cascade of societal lockdowns around the world during Q1. Stock markets plunged as investors struggled to assess the trajectory of the virus and its ultimate impact on economic activity. The longest bull market in US history finally came to an end amidst the selling pressure, and major stock indices closed the quarter down anywhere from 20-30%. Small cap stocks fared the worst during the period as investors favored bigger enterprises with less leverage and better access to capital markets.

With the exception of US Treasuries, fixed income indices also suffered declines as investors fled to the safest of haven assets. The Fed cut its benchmark interest rate to 0% in an effort to blunt the effects of the virus on financial markets, and longer-term Treasury yields followed suit by tumbling over 1% to their lowest levels ever. Concurrently, credit investors demanded higher yields to compensate for the added risk of an uncertain operating environment. High yield credit spreads—or the additional yield that investors command for buying lower quality bonds—increased

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FIXED INCOME

Index	USD Total Return (%) Q1 2020	2019
Barclays 1-10 Yr Muni	-0.6%	5.6%
Barclays US Agg. Bond	3.1%	8.7%
BofA/ML HY Master II	-13.1%	14.4%

EQUITIES

Index	USD Total Return (%) Q1 2020	2019
Russell 3000	-20.9%	31.0%
S&P 500	-19.6%	31.5%
Russell 2000	-30.6%	25.5%
MSCI All Country World	-21.4%	26.6%
MSCI EAFE	-22.8%	22.0%
MSCI Emerging Mkts	-23.6%	18.4%

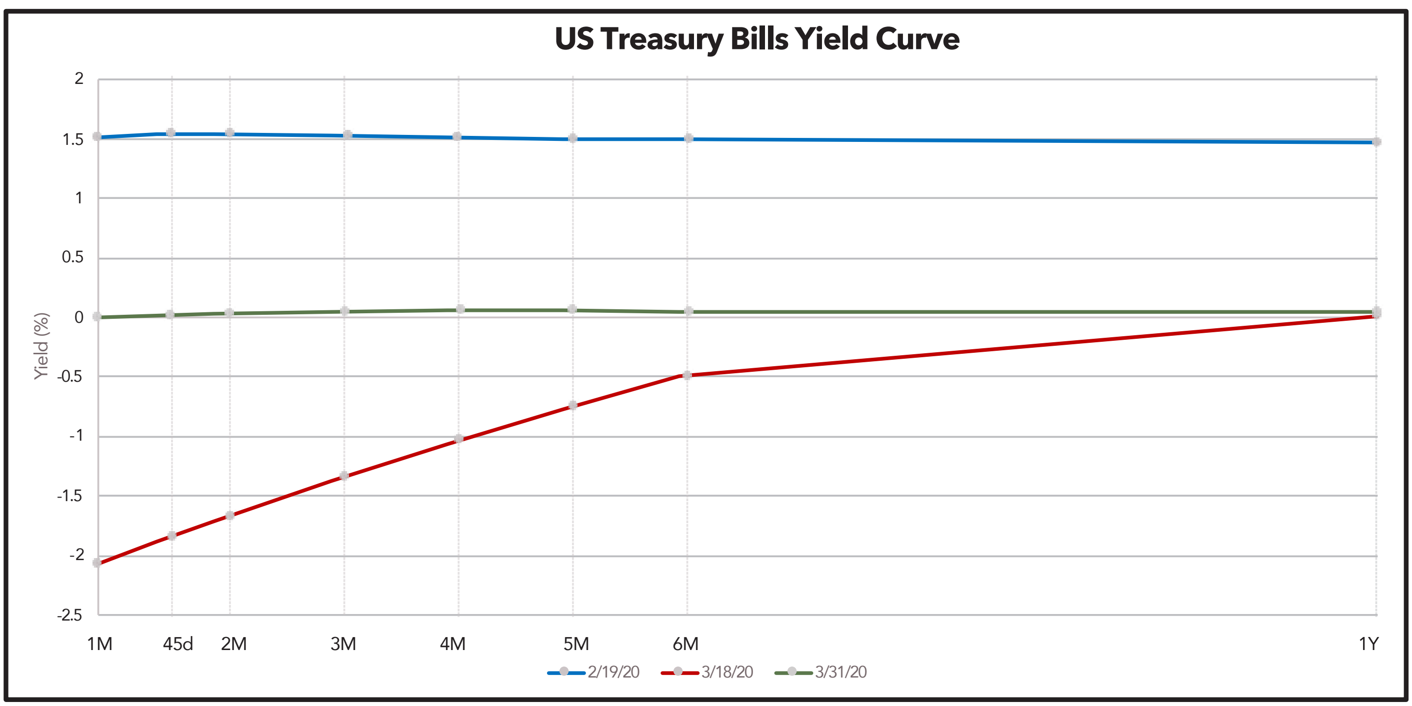
Source: Bloomberg (Data as of 3/31/2020) by approximately 550 basis points from the beginning of the year (from roughly 3.3% to 8.8%), sending bond prices reeling.

We can offer little more than parroted information on the medical and epidemiological fronts, so we will focus on contextualizing what has been unfolding in markets during this extraordinary period.

THE DASH FOR CASH

After years of investors "buying the dip" when stocks briefly retreated or suffering from "fear of missing out" as stocks surged to new all-time highs, Q1 saw a marked shift in investor psychology. Not only was there an observable threat to the health and wellbeing of citizens around the world, but vast swathes of the economy were being shut down in an attempt to slow the spread of the virus. Against that backdrop, liquidity became prized above all else. Whether it was families raising cash to fund living expenses, companies selling short-term assets to bridge working capital needs, banks raising cash to fund customers' lines of credit, or hedge funds selling holdings to meet redemptions, investors prioritized having cash on hand.

To illustrate this dynamic, consider the chart below that plots the yields of short-term Treasuries. The blue line shows where yields sat at the peak of the S&P 500 on February 19—almost perfectly in synch with the Fed Funds target rate of 1.50%. Roughly a month later, as risk assets declined precipitously and investors were fleeing to safe havens, yields plunged into negative territory as shown by the red line (as of March 18). Per data from the Investment Company Institute, nearly $1 trillion was added to government money market funds between the end of February and the end of March, creating a massive wave of demand for short-term Treasuries. It was not until the Fed stepped in with programs aimed at boosting liquidity and stabilizing markets that yields reverted to the Fed's target levels (green line showing yields as of March 31).



Source: Bloomberg (Data as of 3/31/2020)

POLICY RESPONSE BAZOOKAS

In an effort to blunt the effects of the coronavirus and convince investors that they will do whatever it takes to backstop financial markets, central banks around the world acted rapidly to fire their policy "bazookas" during the quarter. For the Fed's part, it reverted to its 2008/2009 playbook of slashing interest rates to 0% as well as ramping up short-term lending and asset purchases via its alphabet soup-style programs (Term Asset-Backed Loan

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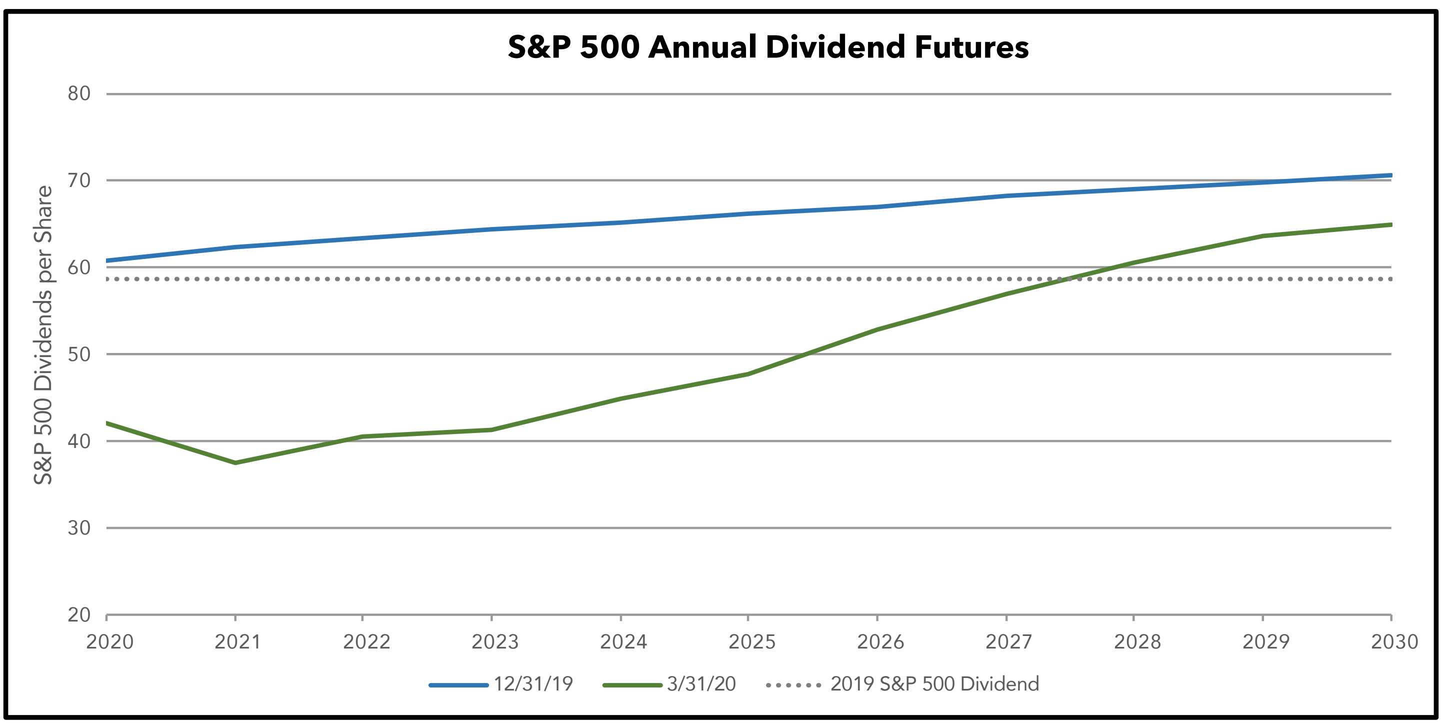
Facility or TALF, Commercial Paper Funding Facility or CPFF, Primary Dealer Credit Facility or PDCF, etc.) aimed at supporting market liquidity—albeit on a much quicker timeline. Other central banks around the world also cut rates and began their own liquidity operations in short order.

In addition to the response from global monetary authorities, fiscal stimulus measures were swiftly enacted to support workers and businesses. The US Congress passed a $2 trillion measure that would provide direct payments to qualifying households, loans to small businesses, and bailouts to large corporations in hard-hit industries. Even notoriously frugal Germany joined the fiscal stimulus efforts by passing a 750 billion euro package to support its economy alongside other stimulative efforts from countries around the world. These measures were likely necessary to stem the tide of asset liquidations in global markets, but whether they will be sufficient to avert a deep global recession remain to be seen.

TRADITIONAL SOLUTIONS FOR A NONTRADITIONAL CRISIS?

With the Fed dusting off its playbook from past crises, investors have rightly wondered if traditional portfolio maneuvers would work in the current environment. One haven for equity investors during prior market downturns has been dividend-yielding stocks. The investing orthodoxy would suggest that these companies should be relatively healthier businesses if they can afford to pay out a portion of their earnings to shareholders via dividends, and investors can get "paid to wait" for the stock price to recover. Moreover, the cash flow from the dividends would theoretically provide a cushion in the event of further stock price declines—or, at least an opportunity to buy more shares at a lower price.

What may have worked in the past may not work as well in this extraordinary period. We can look at S&P 500 annual dividend futures as a reference for what the market expects dividends to be over the coming years. Think of these contracts as a bet on the annual S&P 500 dividend payout. You can compute the dividend yield by taking the dividends per share divided by the S&P 500 level. For instance, the S&P 500 paid out roughly $59 of dividends in 2019 and closed the year at 3,231 for a divided yield of approximately 1.8%. The chart below shows where these expectations sat at the beginning of the year (blue line) and where they were at the end of the quarter (green line). The gray dotted line shows the 2019 S&P 500 dividend level.



Source: Bloomberg (Data as of 3/31/2020)

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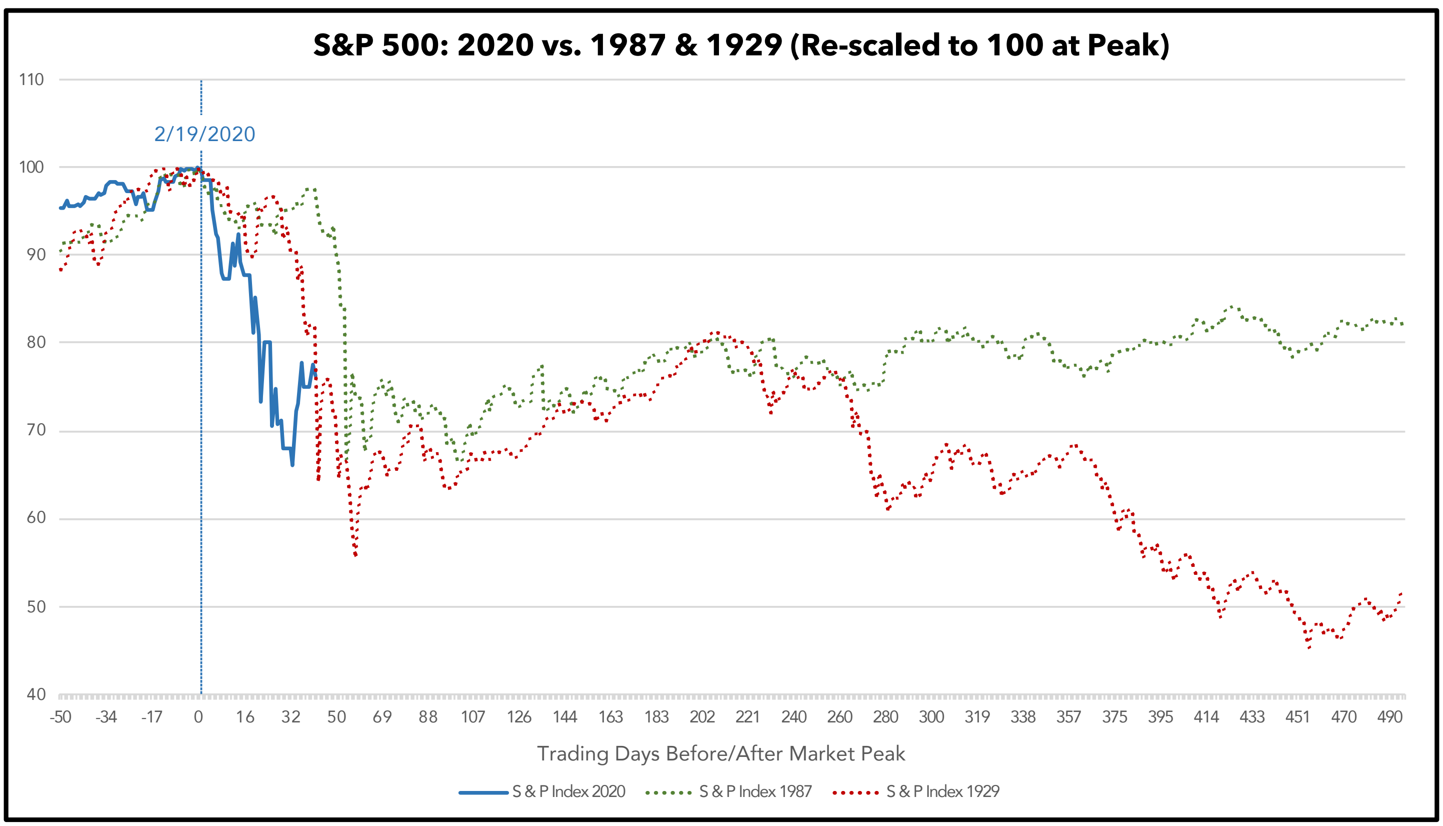
Clearly, markets are anticipating that dividends will plummet from current levels as revenues and earnings decline in conjunction with an emphasis on retaining cash. After starting the year at roughly $61 per share, investors were only expecting $42 of dividends per share as of the end of Q1. Using an S&P 500 level of 2,500 that would be the difference between a 2.4% yield and a 1.7% yield. Perhaps more concerning is the expectation that dividends will not return to their 2019 levels until 2028. Add this to the growing belief that share buybacks will be substantially lower as a result of the crisis, and the shareholder-friendly trends of the last few years may be reversed within the span of a few months.

CRUDE OIL COLLAPSE

As the COVID crisis was wreaking havoc on global energy demand due to reduced travel and declining trade volumes, a spat between the Saudis and the Russians undermined a potential OPEC production cut. The intended cut was aimed at supporting prices via reduced supply, but after talks were broken off, the Saudis reversed course and announced intentions of increasing production roughly 20-30% per day while reducing its selling prices. Against the already weak economic backdrop, oil prices plunged, suffering their worst one-day decline since 1991. President Trump subsequently attempted to broker a truce and stabilize prices, but absent a comprehensive agreement, the problematic supply/demand imbalance may leave oil prices mired below $30 for some time.

WHAT IS YOUR ROADMAP?

Where the economy goes from here is already the subject of great debate, and the opinions range from a quick recession followed by a "V-shaped" recovery to a global depression. Depending on your view, the chart below can provide a market roadmap for the next 18 months. Specifically, we have synched the S&P 500 from the day of its peak in 1929 (red) and 1987 (green) versus the current environment (blue). Notably, the Q1 market selloff was the fastest in history to reach 30% off the highs, occurring in just 22 days.



Source: Bloomberg (Data as of 3/31/2020)

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For those more sympathetic to the arguments favoring a quick recovery, the green 1987 line represents a scenario where markets plunged in a short window of time, bottomed over the ensuing two months, and then steadily regained ground over the next year. If you believe the COVID-19 impact is likely to be longer lasting, the red 1929 line should be a useful reference. It paints a similar picture of the rapid decline, but after a brief recovery phase over the following two quarters, markets fell through the prior lows and sat roughly 50% below their peak 14 months later. Consensus favors the former scenario given the state of the economy coming into the crisis and the extraordinary policy response, but these roadmaps can serve as valuable guides as the process unfolds. ●

Maintaining Perspective

It goes without saying that COVID-19 has introduced a great deal of uncertainty into the lives of many around the world. The breadth and depth of the economic impact may not be fully understood for months, and we do not yet have a strong grasp on how the policy response will unfold—nor how effective it will be.

With that as our backdrop, consider one of the core functions of markets: pricing risk. With limited visibility into the future earnings power of companies, the range of possible outcomes grows significantly. Will this outbreak last two months and be a relatively short-lived shock to the economy? Will it trigger a protracted downturn resulting in a wave of business closures and a soaring unemployment rate? No one can say with a high degree of certainty at this point. In response, market participants will necessarily discount asset prices to the point at which the forward-looking rate of return provides sufficient compensation for the added risk. That translates into lower prices.

Admittedly, this portrayal is somewhat of an oversimplification and fails to capture other behavioral and technical factors at play, but it describes the essence of what has been happening in markets. Until investors can better evaluate the range of likely outcomes, markets will work to find an equilibrium point between supply and demand (in this case, sellers and buyers) based on the collective wisdom of participants. It can be a chaotic, disorderly process to get there—and prices often overshoot along the way—but at the most basic level, markets are just doing their job.

For its part, the Fed has cut interest rates to not only lower the cost of capital for businesses and households, but to encourage investors into riskier assets via a lower "risk-free rate". If you could buy a Treasury and earn a 4% rate of return, then an 8% rate of return for stocks may not seem particularly attractive given the associated risk. But, if Treasury returns move to 0% (likely negative after inflation), then perhaps investors could be convinced to own stocks offering a 6% rate of return given the paltry alternative.

Beyond revisiting the basic functions of markets, sometimes it is helpful to zoom out. Take a look at the 30-year chart of the S&P 500 (black line) on the following page. Needless to say, markets go up and down in the short-term, but the longer-term trajectory has been higher. To smooth some of the noise, we have overlaid a red line on the chart that is the line of best fit for the full period. The line suggests a steady growth rate of roughly 6% per year, and if you were to add on a dividend yield of roughly 2.5%, that gets you quite close to the long-term S&P 500 returns. Where does the trend line suggest we ought to be now? Around 2,350, or roughly 9% below where we closed the quarter (2,584). While the selloff was sudden and painful, this framework would suggest that the levels achieved prior to the selloff were actually the more extraordinary occurrence.

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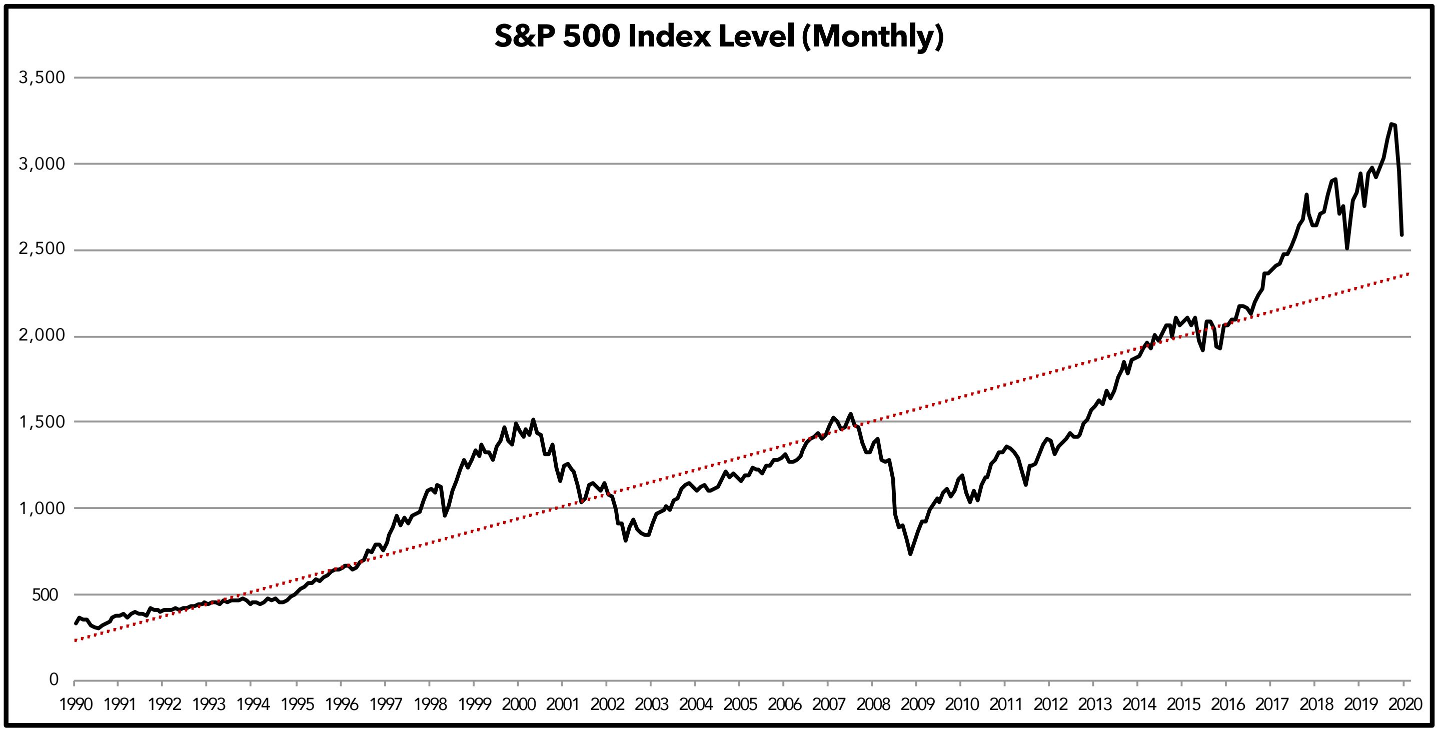

Source: Bloomberg (Data as of 3/31/2020)

These explanations may not make a significant selloff any less painful or a rally any less euphoric, but coming back to a "first principles" approach and viewing asset prices over a broader time horizon can at least bring an element of rationality into an otherwise emotional process. ●

Chart of the Quarter

Rather than revisit the obvious by showing a chart of declining stock prices or soaring volatility levels during the quarter, the Q1 2020 Chart of the Quarter approaches the current environment from a slightly different perspective. Specifically, this quarter's chart tells a few different stories that are emblematic of the uncharted territory that the economy and markets are currently navigating.

In the chart on the following page, you will see a range of economist estimates compiled by Bloomberg related to the initial jobless claims report on March 26th. These reports are issued weekly by the US Department of Labor and track the number of US persons filing for unemployment benefits for the first time. The figures are widely followed by economists and investors alike, seeking insights into the state of the employment market and consumer health. For this report, there were 47 economists surveyed, and their predictions ranged from a low of 360,000 to a high of 4,400,000. The average estimate was 1,871,000—an almost unfathomably high number considering that the prior all-time high was 695,000 in October 1982 (the dataset begins in 1967). Despite their best efforts, these economists undershot the actual figure by roughly 1,410,000, with the release coming in at 3,283,000.

We are by no means passing judgment on the collective wisdom of these economists; they had the unenviable task of trying to forecast a number that no model was adequately equipped to produce. But, this episode is instructive. Beyond the clear and present impact to citizens that suddenly found themselves without a job, we would offer the following observations:

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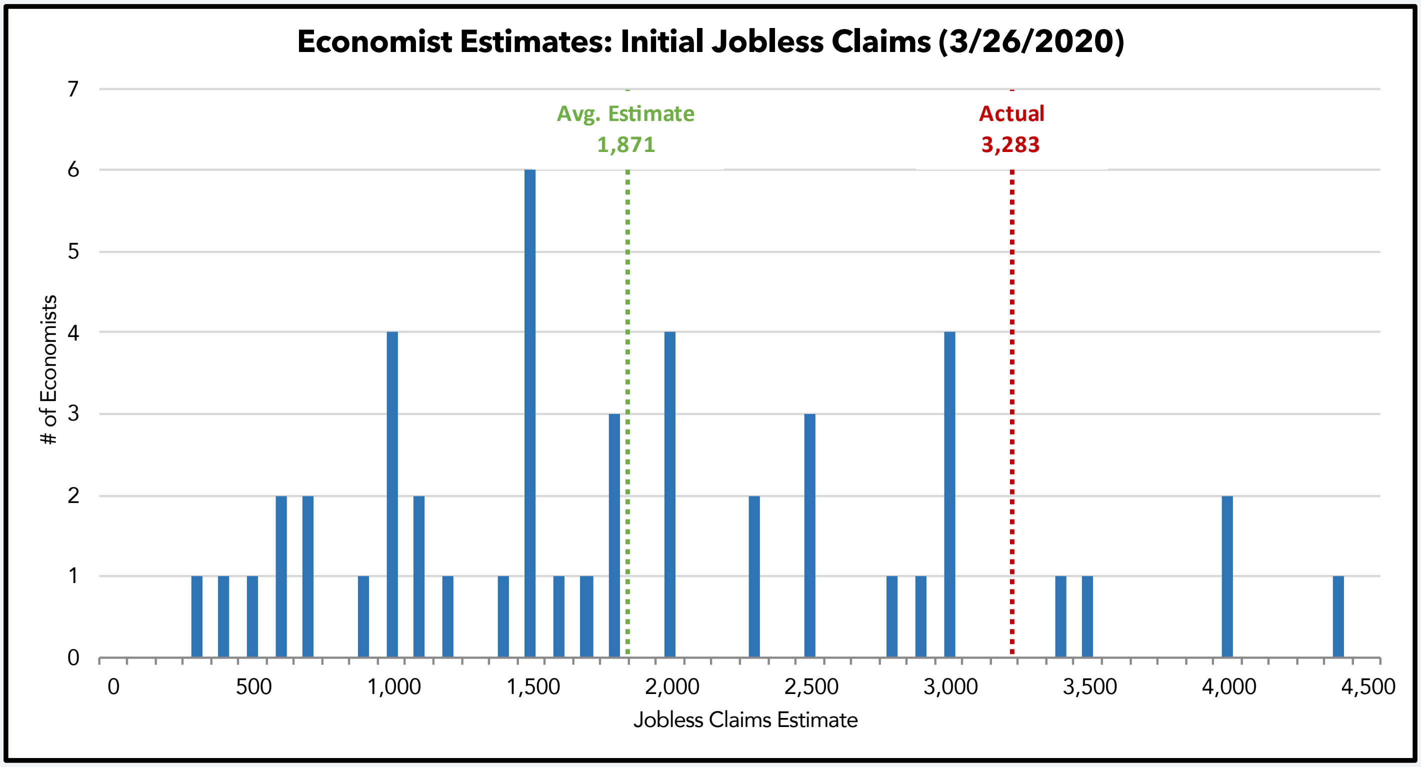

Source: Bloomberg (Data as of 3/31/2020)

1) *The worsening employment figures will exact a substantial toll on the US economy.* Estimates of a 30% unemployment rate were recently floated by the Federal Reserve Bank of St. Louis' President, who also suggested that the concomitant decline in GDP could be as deep as 50% during Q2. For an economy that is heavily reliant on consumer spending (roughly 70% of GDP in 2019), underpinned by a vast service economy (roughly 45% of GDP in 2019), rapidly rising unemployment all but guarantees a recession for the US. The fiscal stimulus efforts should provide some level of support, but economic data will likely get worse before it gets better.

2) *Even the experts are flying blind.* These forecasts are compiled by some of the most sophisticated teams of economists around the world, and even the brightest minds wildly underestimated the immediate impact on the labor market. That was reinforced by the following week's report (4/2/20) where the actual figure of 6,648,000 new jobless claims was nearly double the average estimate of 3,771,000. Along similar lines, there have been S&P 500 analysts that discontinued their distribution of price targets due to the lack of visibility. In the near-term—and especially on a day-to-day basis—we recall the famous quote from John Kenneth Galbraith, "There are two kinds of forecasters: those who don't know, and those who don't know they don't know."

3) *Sell the rumor, buy the news?* There is an old investment adage, "Buy the rumor, sell the news" which suggests that by the time data is announced, prices already reflect the consensus expectations. In other words, markets are forward looking, and most of the speculative activity occurs in advance of data being released. If you found the aforementioned unemployment figures utterly alarming, what if we told you that the S&P 500 actually closed *higher* on the days of those reports? In this case, the axiom may have been turned on its head; prices moved quickly to discount the likely deluge of bad news over the coming weeks and months, then showed signs of relief when the numbers actually hit the wire. For those in search of a silver lining, the market response would indicate that a great deal of bad news had already been incorporated into prices.

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This is another paradoxical example of bad news leading to good returns, and in an environment where everyone is focused on the day-to-day statistics as an indication of where we are headed, consider this evidence that individual data points are rarely useful on their own. We would encourage investors to focus less on the absolute numbers and more on what has been priced in as well as the rate of change (i.e., is data getting "less bad"). ●

It should be said that we at Crescent Grove Advisors in no way want to trivialize the human impact of the virus. We often speak of its spread and effects in impersonal, numerical terms, but our thoughts are with those impacted—both from a health perspective, but also as it relates to any economic hardship that may be endured. From the entire Crescent Grove Advisors team, we hope everyone stays healthy during these uncertain times.

Dave Keevins
Chief Investment Officer
Managing Director

Contact us

Andrew Krei, CFA
Head of Investment Research
Client Advisor

Alan Cheskey
Senior Client Advisor

Blake Durham
Client Advisor

Gary Gawryleski
Client Advisor

Gregg George
Managing Director

Chris Jauch
Client Advisor

Nick Kochanski
Managing Director

David Ness
Institutional Portfolio Manager

Robert Peterson
Senior Wealth Advisor

Mitchell Prosk
Senior Client Advisor

James Wood
Senior Client Advisor

Tony Wright
Senior Client Advisor

Crescent Grove Advisors, LLC
100 Field Drive, Suite 215, Lake Forest, IL 60045 • 847.752.0292
313 N. Plankinton Avenue, Suite 216, Milwaukee, WI 53203 • 414.386.5340
3284 Northside Parkway NW, Suite 495, Atlanta, GA 30327 • 678.585.6625
crescentgroveadvisors.com

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