CION INVESTMENTS

Forecasting Failure
Why They All Got It Wrong

Political and economic "tail events" are unpredictable, and their probabilities are not scientifically measureable. – Nassim Nicholas Taleb

COVID-19 has upended the planet. The coronavirus marks an epoch; an indelible change with a distinct before and after period. There is already a new After-Time vocabulary: social distancing, sheltering in place, flattening the curve, etc. And the new After-Time rituals will certainly outlast the quarantine – Zoom meetings, face masks everywhere, and speculating on the fate of Carole Baskin's husband.

What no one expected was its speed.

On March 8th, there were 450 confirmed cases in the US, but life was still normal.

On March 10th, in Las Vegas, 15,000 attended the UFC fight at the T-Mobile Arena, something absolutely unthinkable today. At the time, the financial press was mostly concerned with supply chain disruptions. And not a single state had non-essential services closed. The overall consensus was that this was just a serious version of the flu. That consensus quickly changed.

March 11th was when things got serious. That day the NBA shutdown for the season and actor Tom Hanks announced that he was infected.

By March 22nd, the number of confirmed cases reached over 33,000 and by then the S&P 500's market cap had declined by over $5 trillion from its peak.

Less than a week later, on March 27th, the largest relief bill in history, over $2 trillion, was signed into law.

By end of March, 46 states had non-essential services shut down and there were 300,000 COVID-19 cases in the US.

Where did everyone go wrong? Forecasting infection rates is hard because behavior is dynamic. Exponential growth, the formula that forecasts the spread of infection, is appallingly difficult to predict. And because compounded growth is entirely dependent on past period performance, projections after a few iterations rapidly become unstable.

It's hard to imagine that 62 cases on March 1st quickly turn into hundreds of thousands of infected. But, it's what the math tells us to expect: it takes just twice as long to spread through a population of 100 million as a population of 10,000.

A significant difficulty in predicting exponential growth is that results are heavily back loaded. The largest increases come during the last few iterations. This is why charts showing the spread of COVID-19 are logarithmic. On their y-axis, logarithmic charts scale the distance from 100 to 10,000 cases to be the same distance as from 10,000 to 1,000,000 cases. If outbreaks weren't charted this way, the massive growth would make the lines go essentially straight up.

What's next for Q2? For now, businesses and consumers are focused on outlasting the quarantine. Already entrepreneurs are finding opportunities to meet the evolving needs of a quarantined world. New workout programs are in abundance, cooking instructors are helping those stuck at home, and TikTok (parents: ask your kids) has hit record levels of activity. Once the pandemic passes, new cultural routines will change everything from airlines to universities. We talk about who the winners might be after we summarize market activity for Q1.

Q1 Market and Economic Summary

The US ended 2019 still in the longest economic expansion in US history. **But now, like the rest of the world, the US economy has come to a halt**. The economic impact has been devastating. In an unprecedented 30-sigma[1] event, jobless claims hit 3.3 million for the week of March 21st, far exceeding consensus. Both post-Q1 releases more than doubled that number. Unemployment applications for the weeks of March 28th and April 4th hit 6.9 and 6.6 million, respectively. Almost 17 million Americans have filed claims since mid-March. That number will continue to rise. Q1 GDP is expected to decline 5%, with Q2 GDP declining between 38% and 45% says Morgan Stanley.

In US Equity Markets, corona trampled the bulls as the S&P ended Q1 down 20%. Volatility roared back to levels exceeding 2008's financial crisis. In equity markets, huge gyrations were a daily event, as the S&P 500 notched 13 of the top 15 largest daily point moves ever. Investors have been able to hold fast through the gut-wrenching swings for now. According to Vanguard's data, 90% of investors made no trades at all between February 19th and March 20th. **All eyes will be on the impact of the major fiscal and monetary policy actions that are intended to ultimately drive recovery for the economy and financial markets.**

Credit markets across the board were hammered by the coronavirus. Both the high yield and leveraged loan markets were down over 13% in Q1. Investment Grade (IG) suffered as well, with a 4% drop. The contraction has been so universal and hitting both good and bad companies alike, that analysts are now seeing opportunities in the wreckage. With spreads at unprecedented levels, plucky buyers can scoop up bargains where angels fear to tread.

Regarding sovereign debt, US Treasuries are still considered the world's safe haven. TLT, a 20+ year Treasury ETF, was up over 20% in Q1. With rates near zero, and not expected to go negative, this trade may have exhausted its capital appreciation upside.

Central Banks around the world responded aggressively to blunt the economic impact of the virus. The Federal Reserve pulled out all the stops. It slashed rates to near zero and restarted QE to add liquidity. The Fed initiated an alphabet soup of programs (MMLF, PDCF, CPFF, etc.) to keep various credit markets functioning. After the quarter, the Fed announced a package of nine lending programs to provide $2.3 trillion to support corporate debt as well as city and state finances. For now, the Fed remains unwilling to provide direct support to the equity market. Outside the US, other major central banks took similarly aggressive initiatives.

In the commodities sector, oil markets are in agony. Oil ended Q1 near 18-year lows after a Russia-Saudi production feud and corona-related economic slowdown. For the US oil and gas sector, which has been struggling for years, the virus was insult to injury. Post Q1, signs that the production feud may be resolved has spiked oil prices.

What was the best performing commodity in Q1? This commodity hasn't received so much attention since the Duke Brothers went broke buying it in 1983's Trading Places. Orange juice futures were the unexpected winner of Q1 with a 24% surge. OJ futures were propelled upward as the

virus simultaneously caused consumer demand to skyrocket and supply to be constrained.

Outside the US, the global economy and financial markets were hit hard. The EAFE index, representing developed markets outside the US and Canada, was down 23% for the quarter. EEM, the emerging markets index, was down about the same. Fitch Ratings now believes that a deep global recession is the "base case" due to the virus, with FY GDP declines expected nearly everywhere.

Post-quarantine economic recovery will likely be driven by consumer spending

What the rest of the year looks like cannot be determined until the quarantine is over and consumers start spending. The United States is a consumer driven country, with approximately 70% of GDP from consumer spending. How quickly that spending rebounds will determine the speed of recovery. Consumers won't recover right away. The quarantine has been a financial disaster for many. Nearly 1/3rd of US renters didn't pay April rent, according to the National Multifamily Housing Council. Consumer spending declines have otherwise been brutal.

Credit card data shows an ugly picture. **Most major categories of consumer spending show a > 50% drop year-over-year.** On March 24, for example, spending on airlines, lodging, and cruises, dropped 102%, 121%, and 113%, respectively—declines that exceed 100% reflect refunds. That spending won't be reversed anytime soon.

Many businesses have seen revenue drop to zero. Restaurants and bars are suffering and so is Hollywood. The domestic box office brought in just $5,000 for the week of March 20-26 (thanks, drive-ins!), down 99.99% from the $204 million dollar haul one year earlier. Streaming won't make up for that lost revenue.

Overall US GDP could decline 10.4% for the year says Bank of America (by comparison, during the 2008 crisis GDP declined 4.0%).

The Equity Market is unlikely to regain former highs anytime soon

Regardless of fiscal and monetary policy, there will likely be a material reduction in stock buybacks and dividends. Both will act as a headwind for the equity market for the remainder of the year.

Since the 2008 recession, the primary net purchasers of equities have been companies buying back their own shares. Buybacks boost EPS and can increase stock prices as fewer shares are outstanding. Fueled by easy credit and low interest rates, record levels of buybacks had supported market values.

The numbers are staggering. **Brian Reynolds of Reynolds Strategy believes that buybacks have added a net $4 trillion of value to the stock market (the S&P 500's market values is about $20 trillion).** In 2019, companies in the S&P 500 repurchased about $730 billion of their own stock. That number will be significantly reduced this year. Not only is any company accepting federal loans or guarantees prohibited from making buybacks, but now that cash is at a premium, expect further suspensions. **An analyst quoted in the Wall Street Journal described buybacks as "an endangered species" and noted that "during bad times, you don't do discretionary spending."** To regain their former heights, the equity market will have to find other buyers to take up the slack.

Expect dividends to disappear for the same reasons. With liquidity at a premium and profits tanking, the remainder of 2020 will see already low dividends go lower.

The Credit Market may offer shelter from the stock market storm

Most people probably missed the all-time record that was set during the week of March 30th. **The new issue market for Investment Grade debt had all-time record volume of over $110 billion.** With the Fed's support, highly rated companies issued a record amount of debt, albeit at higher rates than earlier this year. The coupons from new debt issuance spanned from 5.65% and 6.6%, versus 2.4% and 3.3% in February.

Outside of IG, for companies willing to pay a higher coupon, there is still an abundance of capital available. Airbnb, for example, a company hit hard by the quarantine, was able to borrow at Libor + 10%. The $1 billion loan came from a private equity firm, according to WSJ reports. The Airbnb loans highlights two trends that haven't been changed by

the coronavirus: (1) lenders who can quickly provide capital will be compensated for it, and (2) banks are increasingly disintermediated. These trends will possibly drive the credit market in 2020 and beyond. **Credit investors have their work cut out for them, but with spreads at levels exceeding the 2008 financial crisis, investors can be well compensated for identifying the right opportunities and diligent credit selection.**

Fiscal policy will determine which businesses survive the quarantine.

Investors are paying close attention to Washington. Monetary policy has kept the wheels on, but fiscal policy will probably drive the recovery. Through no fault of their own, 75% of US businesses have been shut down due to the virus. A lifeline for them will come in the form of legislative aid and relief.

The CARES Act, a $2 trillion dollar program that was proposed, considered, and put into law in record time, will be followed by additional legislation. As expected with any hastily done fix, flaws are starting to appear. For example, the Paycheck Protection Program, a $350 billion program to support small business, was implemented too late to help many businesses. The funds allocated for small business are already nearly exhausted. **For certain sectors of the economy—restaurants, gaming, apparel, retail, etc., no policy action could ever be fast enough or large enough to save everyone.**

Inflationary pressures may finally reappear

This unprecedented flood of money, amounting to 10% of US GDP could bring back something that's been absent for years. Inflationary pressure (kids: ask your parents) may start to appear.

In 2008, the Federal Reserve's unlimited balance sheet swelled into the trillions to stem the financial crisis. No CPI inflation resulted, primarily because QE was generally contained within the financial sector and didn't filter through to broader money measures. Today, the fiscal flood is widely dispersed and may bring inflationary consequences. **Charles Goodhart[2] of the London School of Economics, believes that inflation could reach a high of up to 10% in 2021, depending on how quickly the quarantine ends. This will be intolerable for the Federal Reserve, beneficial for floating rate debt holders, and may help inflate away otherwise unsustainable debt levels.**

Arthur C. Clarke, the great science fiction writer noted that there are "two hazards of prophecy: failure of nerve, failure of imagination." He could have been talking about long-term investing.

COVID-19 is a catalyst for disruption. It's speeding up societal changes that would have taken years to otherwise appear. Expect WFH to be normal and no longer a perk. Business travel will plummet. Many universities will realize that they never should have existed in the first place. It's only when the quarantine ends that we will be able to reckon how the world has changed for good, and to think about the next pandemic. Will the world shelter in place for months every few years? Will there be frequent bailouts?

In the meantime, investors are coming to terms with a resurgence in volatility and the end of a decade-long bull market. Active investment managers will be in high demand. There isn't much nerve or imagination needed to make money in a bull market. That's over now. Expect to see allocations decrease for passive funds. In a bear market, alpha is worth paying for.

1. That is, 30 standard deviations from the mean.
2. Best known for Goodhart's law, which states: "When a measure becomes a target, it ceases to be a good measure."