

LBA update: answers to your pressing questions

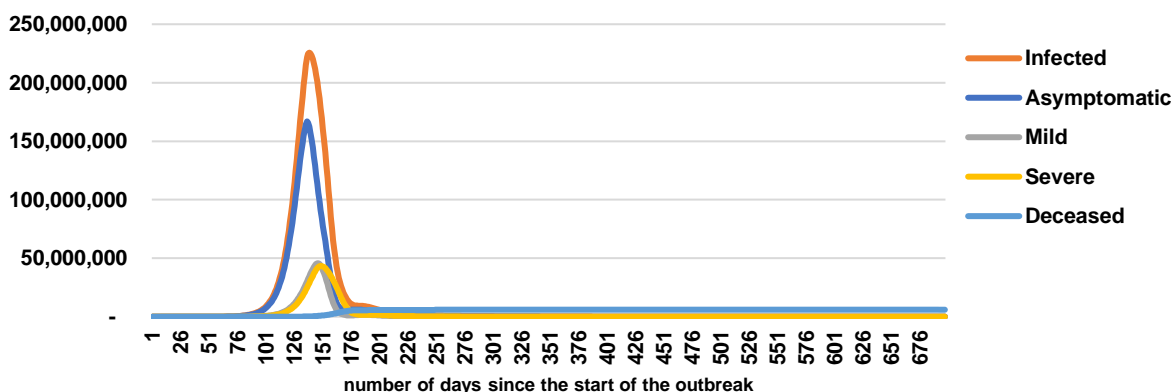
The scale of the Coronavirus outbreak is a once in a century event. It has caused considerable stress at the societal level, as well as upheaval in the global economy and in financial markets. The speed and intensity of investors' reaction has been breathtaking. The recent stock market volatility has struck unpleasant parallels to the financial crisis of 2008-09. Back then, the global financial system was severely tested and took several years to repair. In the current circumstances, we expect the virus' impact to work itself through in 12 to 18 months. This disease will pass, the economy will bounce back from the shock, companies will recover from the disruption, and the stock market will rebound.

We have fielded many questions from you regarding the severity and duration of the disruption from COVID-19 (the disease), and on our strategy to navigate the portfolios safely through this difficult period. We have issued two special communications on this subject and we believe current events warrant an update. We welcome the opportunity to address your important questions and invite you to contact us if you have additional concerns.

There is conflicting information available from public sources. What makes COVID-19 such a threat?

How rapidly an epidemic spreads depends greatly on how infectious the virus is, measured by how many new infections are caused by each infected individual. This is called the basic reproduction number, denoted as R_0 and pronounced "R nought". A pathogen with a higher R_0 will spread more easily than one with a low R_0 . The R_0 for SARS-CoV-2 (the virus) is estimated to be between 3 to 5 *if no mitigation measures are taken*, which means that one infected individual will spread the virus to between 3 to 5 other people. This is higher than that for the common flu ($R_0 = 1.3$). We can simulate the progression of the disease assuming different R_0 and using basic assumptions regarding the degree of severity of symptoms and the rate of fatality given what has been observed in the recent scientific literature (recognizing that many of these parameters are still preliminary). For example, with $R_0 = 3$ and a population of three hundred million, like the U.S., the model projects that infections will peak between May and October 2020, with dramatic consequences.

Number of people affected on a given day
300 million population, $R_0=3$, Death rate= 2%



Source: Letko Brosseau



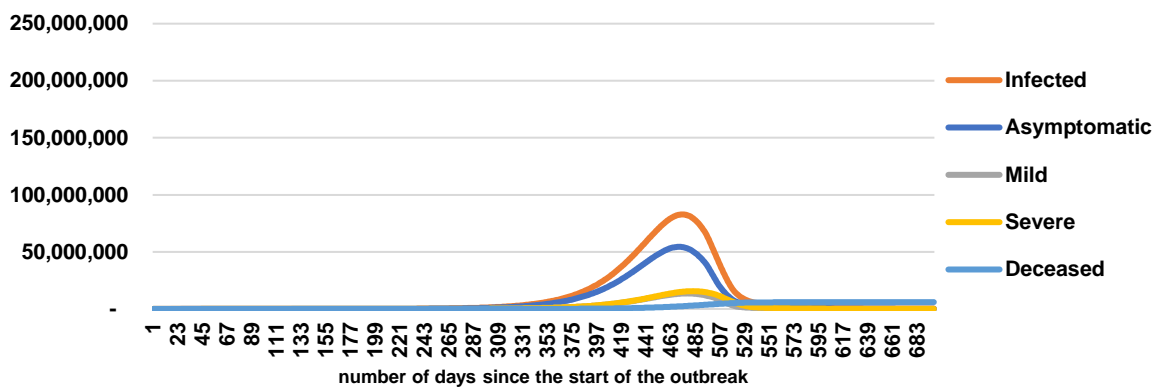


The worst of the peak would see tens of millions of patients seriously ill and in need of medical care. Without care, these patients would face life-threatening conditions. The U.S. hospital system has an approximate capacity of one million beds, of which most are already in use to treat patients with various illnesses. In such a scenario, the health care systems across the world would be vastly overwhelmed.

Fortunately, R_0 can be reduced by behavioural changes like social distancing and good hygiene. The aggressive actions undertaken in China to enforce such changes appear to have reduced the R_0 to below 1. If measures are maintained to keep R_0 below 1, the regional epidemic is contained and contracts. When measures are relaxed, R_0 increases. Until the population reaches herd immunity (estimated to occur when 60%-80% of the population has been infected), it remains vulnerable to further waves of infection.

With a R_0 of 1.5, we model a peak of infections between March and August 2021. This scenario buys us the valuable time required to develop a vaccine, which may come in 2021. Importantly, the peak of infections can be avoided by acquiring herd immunity via vaccination instead of natural infections. In the meantime, hospital volumes can remain at more manageable levels. This is what is being referred to as “flattening the curve” in the media today. The human outcomes of this scenario are clearly preferred.

Number of people affected on a given day
300 million population, $R_0=1.5$, Death rate= 2%



Source: Letko Brosseau

We believe governments and society will attempt to reduce R_0 to a level which buys us the time to develop a vaccine and maintain the stability of health care systems. Unfortunately, this requires economic sacrifice. How much is still unknown due to the novel nature of the pandemic.

What is LBA’s best-case scenario and worst-case scenario for the virus? For the economy?

The answer is a conundrum. The best-case scenario for the economy is possibly to let the virus propagate as quickly as possible. Were this to occur, the worst of the outbreak would pass by the end of the summer. Most of the work force would only get mild symptoms and the effect on production and consumption would be marginal, only a few times the effect of the flu. But the social consequences would be great because the health system would be overwhelmed and the fatality rate, particularly amongst the population aged 60+, would be considerable. If the progression of the disease is slowed through active social distancing measures, then the effect on the economy would be more prolonged, but the fatality rate would be reduced. With strong, globally coordinated mitigating action, enough time may be available to develop a vaccine and effective therapeutics. We assume the second scenario to be the base case, which significantly raises the risks that the global economy is headed for a recession.



What does a resolution to the virus look like?

Resolution can take four forms:

- 1) 60%-80% of the population is infected and the overall propagation is stopped. Herd immunity is achieved.
- 2) A vaccine is developed, and people become immune through vaccination. Current expectations are that a vaccine may be available by mid-2021.
- 3) A therapeutic is found that minimizes the negative effects of the virus and renders it benign, lightening the burden on the health care system. Two leading candidates on this front are Remdesivir (developed by Gilead, a company held in Letko Brousseau's non-Canadian equity portfolio) and Chloroquine (a generic drug). Many other therapeutic strategies are being researched.
- 4) Tests for the virus are developed that are so easy and precise that it is possible to identify everyone who is infected. These individuals can be isolated until the disease has run its course. Developments on the testing front are evolving rapidly but are not yet at the level required. For example, Roche (a company held in Letko Brousseau's non-Canadian portfolio) received authorization from the U.S. Food and Drug Administration on March 13th for a new COVID-19 test which will speed up the ability to test patients by tenfold (now up to 4,128 patients per day).

Among these four possibilities: a rapid #1 is socially unacceptable because of the disproportionately adverse impact to the elderly and those with pre-existing health conditions; #2 requires 9 to 18 months; and #3 and #4 are possible but not yet available. Our current base case is a combination of a gradual #1 and ultimately #2: herd immunity will be achieved through active social delay measures until a vaccine is developed, all of which should take 9 to 18 months.

Are we headed for a recession?

In our prior communication to you, we highlighted that the risks of recession had risen considerably, and we were therefore assessing a change to our economic forecast. Since then, the number of infections has increased substantially worldwide, and the U.S. and other countries have declared emergencies. As containment measures are increasingly adopted by government mandate and through personal behaviour, it appears likely we will have a global recession in 2020. The severity of the downturn remains the question mark because the required effort to contain the outbreak is yet to be determined. In the meantime, global central banks have been quick to respond by slashing interest rates and announcing the injection of trillions of dollars into the financial system while fiscal authorities have also committed to enacting massive stimulus measures. While these measures are unlikely to prevent recession, they will help reduce the magnitude of the economic shock. Once the population has become immune through infection or vaccine, demand and production will return to previous levels, and the rebound could be quite sharp due to pent-up demand.

LBA has often argued we are in a bond bubble. What does all this do for your bond bubble theory?

We may well have been too early in calling for the end of the bond bubble. And it is the case that interest rates may decline from current levels or stay low throughout a recession. The Federal Reserve has only one principal instrument of intervention: interest rates. However, many books have been written on the causes and dynamics of bubbles. The consistent conclusion is that bubbles are chaotic, and they tend to end badly. If interest rates on a 30-year bond are 1%, it means that the bonds are trading at 100 times their income. There is no hope of growth in this income because it has been pre-determined in the bond contract. Our equities are trading at less than 10 times earnings and there is every reason to believe that earnings will grow over the next 30 years. Companies can develop new products, penetrate new markets, benefit from new technologies and generally contribute to





the overall advancement of human society. We choose not to speculate on how low rates can go. Our approach is to invest in assets that offer an attractive risk-adjusted return in the medium-term. We are still in a bond bubble and it is getting bigger. The fact that it is getting bigger means the end will be more painful for investors who stayed too long.

What explains the speed and severity of the market drop?

The speed and extent of the stock market's drop probably indicates that very technical factors are at play. It should be noted that 40% of shares are held in exchange-traded funds (ETFs) which are proxies for the market index. The holders of these ETFs are largely indifferent – and possibly unknowledgeable – of the true value of the individual companies they have invested in. This can lead to more primitive, instinctual but erroneous reactions to market volatility. In addition, there has been a vast proliferation of machine-driven investment strategies which involve technical buying and selling rules emphasizing short-term volatility exposures. This type of investing is also insensitive to the key tenets of our approach to managing portfolios, which rests on price sensitivity, underlying intrinsic company value and a longer-term horizon. With quantitative and high-frequency trading accounting for as much as half of all U.S. equity trading (often using ETFs for their strategies) and traditional investors like us making up about 10% of the market, the former can dislodge prices well below fair valuations during periods of high volatility. If one further adds leveraged portfolio strategies and option-writing strategies to the mix, the combined action can reinforce downward pressure on stock prices. This type of market disruption, while unpleasant, is temporary in nature. In our portfolios, we are focused on distinguishing between the potential for permanent capital impairment (which is a company we do not want to own) versus a temporary price downturn of a fundamentally sound company (which we do want to own). Value will be rediscovered once the uncertainty of the human and economic costs of the virus dissipates, and the potential upside is significant.

What action have you taken in the portfolio in these difficult market conditions?

Let us recall that we began the year on a positive note. All the ingredients were in place for an acceleration in global activity: trade tensions were subsiding, fiscal and monetary policies were very loose, job markets were robust, and consumers were spending. Our portfolios were structured to capitalize on this growth. In late-January, barely seven weeks ago at this writing, China recognized the problem posed by the Coronavirus. Our health care team flagged the potential threat to human life and the impact on the global economy and our investment team began to work on re-evaluating the risks to the holdings in the portfolio. Since mid-February, however, the stock market has been in a steady downfall. We had already begun to take concrete action to reduce exposures to companies vulnerable to a protracted period of economic difficulty. Cash balances were in the process of being raised. However, when the market declined precipitously in March, it may appear we did not do enough. We believe the most important action to take in determining what to sell, what to hold and what to buy, is to make sure the companies in the portfolio will be there 3 years from now. When we look back at this disruptive period, we will find the market was full of opportunities.

Can the price of oil go lower?

At the beginning of the year, the global demand for oil was expected to be strong. The IEA estimated the demand would grow by 1.3 million barrels per day, or 1.3% year over year, in line with its average growth rate over the last decade. Two big shocks have since rendered this forecast invalid. First, the Coronavirus delivered a shock to the demand for oil. To slow the advance of the virus, governments around the world have restricted travel and implemented quarantines. Activity levels have dropped, and so has demand for the commodity. It is difficult to determine the level of the decline, but the IEA estimates that global demand has fallen by 2.5 million barrels per day (mb/d) in the first quarter, and we believe it could drop significantly further as countries extend their virus containment efforts. Second, a supply shock is being delivered with Russia and Saudi Arabia signaling loud and clear that they do not intend to absorb the brunt of the demand decline without spreading the load to all other



producers in the world. The combination of the two shocks led to a decline in the WTI price of oil from around \$60 per barrel at the beginning of the year to a low of \$31 per barrel.

It is possible in the short-term that the price of oil trends lower, but current levels are unsustainable for large swaths of the industry. Inevitably, the oil market will respond with production declines in order to rebalance. Indeed, companies in Canada and around the world have already announced initial drastic cuts to 2020 capital budgets – many on the order of 20-40%. If prices stay low, cuts will deepen. We believe the resulting global production cut could reach 1.5 mb/d by the fourth quarter of this year, and 2.5 mb/d by the first quarter of 2021. When demand bounces back, it will likely be impossible for the industry to rapidly ramp up production after an extended period of zero-to-little investment. We therefore see potential for oil prices to be well supported once we emerge from this episode.

What is LBA's strategy for its energy portfolio considering the dislocation in energy markets? How long will it take for the share prices of oil and gas producers to recover?

Considering the potential for low oil prices to persist into 2021, we have stress-tested our holdings in this sector to assess the risk of permanent impairment. We believe that 95% of our energy sector exposure has substantial resilience to low commodity prices and is not at risk of credit or liquidity issues. While oil and gas companies won't earn money at these levels, they will eventually participate in the upside of a recovery. Meanwhile, we are closely monitoring and engaging with the small minority of companies that do carry risk of impairment.

In reaction to the oil shock, the energy component of the MSCI is down 46%, compared with 20% for the overall index year-to-date to March 13th. In Canada, oil and gas exploration and production companies are down 56%, while the TSX has fallen 20%. We are reluctant to dispose of assets that temporarily trade significantly below their economic value and whose future upside potential is substantial.

If oil market supply/demand balances either through production cuts or a return of demand, share prices will rebound. But even assuming extremely low oil prices for the next year or two and a gradual adjustment to a level well below the average for the last decade – a pessimistic scenario – our assessment of the companies' long-term value is little changed whereas current valuations are depressed. If long-term WTI is assumed to be \$60 per barrel, our energy holdings are trading at a 40% to 50% discount to their Net Asset Value. The market will at one time anticipate the rise in oil prices and share prices could then recover even sooner.

Why is LBA holding mining stocks in the face of a recession?

We decided not to sell our base metals producer positions in mid-February because we believed that company valuations were already reflecting commodity prices in a severe recessionary environment. As part of our ongoing analysis, we considered industry costs curves and cost cutting trends in a poor commodity price environment, historical demand declines, current industry inventories, and potential new supply. We stressed the values of our mining companies using an adverse economic scenario. We concluded that the risks of their share prices falling lower for a sustained period were small. Demand for commodities like copper, zinc and iron ore has not been destroyed, merely delayed. As the global economy picks up, the need for these commodities will rise and this will be reflected in prices. When investors begin to expect that the end of the recession is near, shares of base metals producers will be amongst the first sectors to react positively.



***Airlines and travel companies will be hardest hit by the virus. What is LBA's outlook for the industry?***

Our portfolio of travel companies experienced a very successful year in 2019 and exposure to the sector had been reduced, locking in substantial profits. A widely expected economic rebound in 2020 would have continued this trend. However, COVID-19 has dramatically changed the industry's outlook. China experienced an 88% decline in air travel in February. The virus' spread has now prompted travel bans and flight cancellations worldwide. Evidently, the impact of this disease on the airline industry is likely to be severe in the short-term. How should we look at these companies? The first effect will be from lost revenues. As equipment is grounded on a large scale, preserving cash while still discharging service obligations to customers will become the primary concern. No two airlines have the same financial profile but the costs of running an airline are similar around the world. Major differences lie in how airlines have financed themselves, principally their fleets of planes with leasing being the primary source. Ultimately, there may be a combination of concessions by unions and lessors, as well as government support to ensure the industry's survival.

While we have proactively reduced our overall exposure to this sector, we still hold investments in the travel industry. The outlook for these companies must be judged on whether their balance sheets can withstand the pressures of lower demand and what level of profitability they may attain when conditions normalize. We believe investors will ultimately focus on the considerable potential these companies offer, realizing the effects of the virus on travel is a onetime event and will not destroy what are otherwise strong business franchises.

How long will it take for stocks to recover from the downturn?

It is always difficult to say how low prices will go or when they will begin to rise. What we can say is that a lot of bad news has already been priced into much of the equity portfolio. Current valuations reflect considerable pessimism about prospects for the companies. In fact, at a price-to-book value of 0.7-0.9 times, the portfolio is currently trading 20% cheaper than the low point seen during the Great Recession in March 2009. When investors begin to "see light at the end of the tunnel" and anticipate the end of this crisis, they will return to the stock market. Share prices can react quickly and sharply to the upside. We are confident about the value creation potential of our holdings when conditions normalize.

Is it time to buy? If so, what are you buying?

Our current base case forecast is that the virus' progression will be slowed through delay measures. There is a chance that a therapeutic will be found to reduce the consequences of a viral infection, but we believe this has a lower probability of happening in the short term. We therefore conclude that we may be months away from a resolution to the outbreak. In the meantime, the severity of the market correction suggests that investors are already anticipating a very adverse scenario. We have raised cash in the portfolios and our investment team is reviewing many marquee companies that have declined in price and would be attractive additions to the portfolios. Market dislocation such as the one we are currently experiencing, generally offers once-in-a-decade investment opportunities. Our buy decision will depend upon stronger conviction on the virus' effect on the economy and the cross effects on different industries, but we are confident that patience will be greatly rewarded when we overcome this severe but temporary crisis.

LBA has tended to view the world through 'rose coloured glasses', yet you now paint a picture of difficult months ahead. What happened to your famous optimism?

We are realistic with respect to the social and economic cost of the pandemic, which will be significant but short-term, and remain optimistic with respect to the underlying strength and resilience of the global community. Demand and output will surely be interrupted in 2020 and for part of 2021. In the meantime, tremendous efforts are underway to care for the sick, to find therapeutics and vaccines, to find solutions to mitigate the disruptions to daily life and this is a remarkable sign of solidarity. The disease will pass, and when it does, significant pent-



up demand will be unleashed. There are structural forces at work that sustain the growth and advancement of society. Every day, people think of new ideas, take steps to have a better future for themselves and their children. We are optimistic that we will get through this temporary period of difficulty and resume the path to growth.

Concluding thoughts

We have shared with you our understanding of the outbreak, realizing that much remains unclear on the virus itself as well as its social and economic impact. The global response, while occasionally disjointed, has by and large been remarkably cohesive. The sharing of information, the collaboration on research, the degree of government action, the hard work by those on the front lines of the health care system are to be commended.

As events unfolded rapidly, we used utmost care and judgement to protect your capital. Unfortunately, we were unable to shield the portfolios from the market's downturn. While we did some things right, we acknowledge that we could have done more. We have invested your capital in companies that we believe offer considerable value and promise. Ultimately, this is what will determine the portfolio's success over the years. Rest assured that we have acted with your best interests at the forefront of our decision-making.

We appreciate your trust and are confident there are better times ahead.

The Letko Brousseau Team

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