Investing in a time of massive collective grief

By Dr. Pooja Khosla and Seann Stoner (part 2)

This is Part 2 of a 3-Part series of articles that will review the ongoing market reaction to Covid-19. We will explore in real-time the data and opportunities that can help reshape the recovery for a better climate future.

In the midst of this global crisis, each week feels like a year and each day brings news of COVID-19 hitting closer and closer to home.

Sitting in remote offices, our emails and news feeds overflow with analyst reports on the extreme market volatility and fiscal and monetary responses to the financial impact of the pandemic on economic and market growth. March was the S&P 500's most volatile month ever, as frenetic swings whipsawed the market from steep gains to even steeper losses. During March, the benchmark index averaged a daily move, in either direction, of more than 4.8%.

Last week, in Part 1 of this series, we looked at how recent market events might prompt investors to shift how they think about aligning their portfolios with both the most desired and the most plausible climate impacts. The message for investors was to change their objective from minimizing tons of CO_2 per dollar of earnings to maximizing tons of CO_2 avoided over a benchmark. This is now very much achievable with new datasets and more observable climate risk factors.

This week, we felt we should do something a little different and pose the question: *What can we imagine is possible given our new reality?*

Before digging into Entelligent's views on transitioning towards a new normal, we want to raise an issue that you might be surprised to hear from a financial analytics firm, and that is the concept of grief and mourning. Thom van Dooren and Deborah Rose from the University of New South Wales state in their journal article "Keeping Faith with the Dead: Mourning and De-extinction" that,

> "Mourning is a process of learning and transformation enabling accommodations to a changed reality… Mourning is about dwelling with a loss and so coming to appreciate what it means, how the world has changed, and how we must ourselves change if we are to move forward from here… genuine mourning might open us into an awareness of our dependence on and relationships with countless others beings."

This quote struck true for us in light of the horrifying stories coming out of ICUs across the planet and what recent events should perhaps teach us about how now there is a dire need to-re-structure global healthcare systems, global trade, and financial risk systems, but also brings us back to last summer's PRI event in Paris.

At this event, it was amazing to see the momentum with which some of the largest asset owners and managers came together to ask how financial markets could address climate change. At the same time, some still held onto the belief that the global emissions curve could be bent so that a 2°C or even a 1.5°C future could be obtained, even though hard science indicated that we had missed that window of opportunity, largely because so much of our existing industrial infrastructure is likely to continue on its current emissions pathway. Barring some new, yet-to-be developed technology for massive carbon sequestration or astounding international cooperation on geoengineering, it is very probable that the world will miss the 2015 Paris goal of limiting global warming to below 2°C.

While, there is tremendous value in setting goals that are aspirational rather than realistic, Entelligent uses data and analytics that are scientifically based. We identify the probabilities of climate futures and assess the risks for each potential scenario. The scenarios we use are aimed at being more realistic than aspirational with a sober view irrespective of how scary the results may be.

In light of this, we at Entelligent think it is important that as a financial risk firm and citizens who care about those who live in high risk zones that financial market participants dwell with the loss of this future so that we can all "appreciate what it means, how the world has changed, and how we must ourselves change if we are to move forward from here" and "open us into an awareness of our dependence on and relationships with countless others beings."

So, with that in mind, the pre-January 2020 business-as-usual has changed and there is no going back. Therefore, we would like to present Entelligent's view on how the world can move forward toward a new normal that takes into account what we hope is a deeper respect for the fragility of our systems.

At the core of our analytics is the assumption that no single scenario is the right scenario. Rather we take a range of potential future scenarios that include changes in policy, technology, economy, and energy use to evaluate and score a company's probabilistic exposure to transition risk associated with climate change and the resulting human behavioral economic responses.

Today, we will examine the most optimistic future scenario so that we can begin to address the question, *what can we imagine is possible given our new reality*?

Entelligent uses Global Circulation Models and Integrated Resource Assessment Models to apply a systems dynamics approach for evaluating the impact of stocks and flows of different decisions. This approach has been developed to materially evaluate climate change risk using state of the art science in order to plot a course forward rather than rely on stationary self-reported data.

From Entelligent's perspective, an optimistic (while still potentially possible) future that would keep the planet closer to 2°C is achievable, given a set of international actions that now seem a little closer given recent events. The source subsidy for delivered energy needs to change drastically as a function of dollars per gigajoule (GJ) on the order of -50% for oil, +50% for gas and bio, while renewables need to increase

100%. The world also needs to put a price on carbon equivalent to $100 per ton through either a tax or cap & trade system to achieve this cost.

Before you argue that this is not possible, remember what we are seeing for the costs of COVID-19 currently. Climate change has never been just about rising sea levels, forest fires and increasing storm activity as a result of more energy in the climate system. It is about a global population nearing 8 billion people using resources on a single planet of limited systems. Higher temperatures will have and are having a cost on our health care systems, retail, real estate, energy and more.

By placing a unit cost on carbon, the economy will find a new pathway. Internalizing costs will fire the imagination of industry to work to avoid the additional cost. It is now the opportune time to work globally towards climate risk mitigation rather than adaptation. With this COVID-19 experience, it is clear that adaptation costs will be much higher than the last projections by IPCC and UNEP-FI special reports.

Changes such as achieving annual improvements to energy efficiency on new capital transport by 3%, increasing energy efficiency of new capital for stationary assets by 5%, and decreasing the energy intensity of new energy-demanding capital that is occurring from technological change will push us away from a 3°C+ future. This push toward a 2°C+ climate future will be a huge gain to mankind.

We will still need to use our land better by decreasing deforestation and replanting. We still need to address ocean use and sea life preserves. But the actions above will change our industry and how we support our human needs on this planet. The imagination is moving from scarcity to abundance by including those costs that have been ignored for too long.

We believe that Covid-19 is teaching us that the old business-as-usual is dead. There is no going back. What is now needed is for us to feel the grief and mourn for everything we have lost. Then and only then, upon the full recognition and acceptance for how our world has changed, can we begin to envision and move towards a future that has awareness for the interdependence and connection that our systems are built upon.

Though none of the above-mentioned criteria for keeping warming anywhere near a 2°C are new, the world has changed, and this future seems closer than before. It is our hope that our new business-as-usual can be one where governments, companies, financial leaders, and whole societies can recognize and organize around a new future where priorities are aligned with our everyday practices of living healthy, successful, and secure lives with the objectives towards more environmentally sustainable global economic growth.