

It will get darker before the dawn

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Owing to past neglect, in the face of the plainest warnings, we have entered upon a period of danger. The era of procrastination, of half measures, of soothing and baffling expedients of delays, is coming to its close. In its place we are entering a period of consequences ... We cannot avoid this period, we are in it now

Winston Churchill, November 12, 1936

COVID 19 is not a 'black swan' – a singular, unexpected event. It is the first in a series of what NYT's Tom Friedman referred to as a '[herd of stampeding black elephants](#)' – multiple, predictable and economically catastrophic events. Events that everyone knows are coming but our political and business leaders have consciously *chosen* not to deal with.

Choices have consequences....

Having a global pandemic with devastating economic impacts used to be one of these predictable¹ and catastrophic 'black elephants'. Then it arrived – but we had *chosen* not to prepare. The others are now stampeding toward us, including climate change², the collapse of the fossil fuel industry³, social and economic inequality⁴, ocean and eco-system collapse⁵, famine⁶, mass refugees⁷ and others. As well as their direct economic impact, many will also drive social instability, civil unrest, nationalism, debt and credit crises⁸, protectionism, geopolitical realignment and military conflict⁹ – further magnifying the economic consequences.

That these are all stampeding toward us is known. What is unknown is whether we – taking the lessons of COVID-19 – will now decide to make different choices. Will our political and business leaders decide to act? We will we demand they do so?

If we choose not to, the consequences are clear. While each event will have varying national, regional and global economic impacts; collectively, they risk merging into a mega crisis and triggering global economic collapse. That is an arguable risk. But there is near certainty they will together unleash devastating economic, security and social consequences.

So have we suffered enough yet? What would it take to drive the level of transformational change we need – not just on climate change but on inequality, ecosystem collapse and all the others impacts now so clearly on the horizon?

In considering this question, we should first recognise there is no real dispute on the risks. Very few question they are real and coming our way. But we then make three errors.

- Firstly, we see them as 'risks' i.e. events that *could* occur, whereas most are as close to certain as the future ever gets.
- Secondly, we fail to look at the whole system and therefore miss the negative economic synergies. Synergies that mean they accelerate each other while also making each one harder to manage (e.g. inequality has driven worse health *and* economic outcomes from the pandemic).
- Thirdly, we suffer from some combination of optimism bias and denial – assuming these events are somewhere 'out in the future' and 'we always figure these things out'. The pandemic was like that. Until it wasn't. And we didn't. Observe the consequences.

So why do we – particularly business and political leaders who have both the knowledge and the power to act - get this so wrong? Why do so many still see COVID 19 as a singular economic event, in a linear chain of events, that we will deal with and move on from?

Partly because each event does have differences in consequences and timescales. For example, COVID-19 is historically unique and sudden in its economic impact. Governments deciding to turn off major parts of the economy, in a relative synchronised global way, has no parallel. Many then assume that because we effectively 'flicked the switch' to off, we can just 'flick it back on'. Then, within a few years, we will get back to growth and things will be 'back to normal'.

This is a linear view of the global economy. It is profoundly wrong – and incredibly dangerous because it means we aren't ready for what's coming.

This is the main reason we misdiagnose the problem. When you consider the system as a system, you can see those other economic events still stampeding towards us. You also see the negative synergies, which both magnify each of the risks and shorten the time to others.

Even though most people don't see things this way, it is not a radical thought. Indeed, it is a process very well understood from history. As the [Bank of America Merrill Lynch](#) argued in a recent economic analysis of the impacts of the pandemic:

"Historic global crises like wars, revolutions, and pandemics often feel like they put history on fast-forward"... "Processes that normally take decades or longer to play out unfold in a couple of weeks."

"Coronavirus is the political, economic, and psychological event of our lifetimes that will drive disruption and transformation for years to come. It will bring a radical transformation of the kind that occurs only once in a generation."

How will this all play out practically? In many and diverse ways, but consider these:

- The collapse of the fossil fuel industry – good for climate action but bad for geopolitical stability¹⁰ - has long been understood as a systemic financial risk. The pandemic may have just triggered it¹¹, leading not just to economic losses but major global power shifts.

- The pandemic has highlighted inherent structural weaknesses in some of the world's largest economies, but none more so than the US. Their weak response to the pandemic combined with inequality will likely tip the US into depression¹² – or worse. Social commentator Umair Haque [describes](#) the current state of the US as “*A nation in which income, savings, life expectancy, happiness, trust are all in free-fall. This is the stuff of epic social collapse*”. I think he's right. The collapse we're witnessing will likely lead to violent civil unrest and political chaos - but certainly to ugly polarisation and instability, manufactured trade conflicts, nationalism and protectionism.
- Just those two examples, happening on top of the renewable energy and electrified transport revolution already underway, will precipitate massive global shifts in political and economic power – not just from the US to China but more broadly - with far reaching implications¹³. As argued by the [Bank of America report](#), it could lead to “...some of the largest shifts in power ever seen in modern economic history.” The US will be an empire in decline, with all the risks that entails.

Events of this nature – if not these precise ones - will almost certainly happen. That's why most of these 'risks' are best understood not as 'risks', nor black swans, but as stampeding black elephants. We can see them clearly; we know they are very dangerous and there is a large herd of them racing towards us.

The only way to avoid them is to force a collective recognition amongst policy makers and the business community as to what this is really about. We have a system problem and unless we address it in a systems way, we will fail.

Will we do so? Or will we launch some token version of a “Green New Deal” programme, add on a slightly stronger social safety net and call it a revolution? Will we use this opportunity - or will we just apply unfocused monetary policy – basically spend lots of money – still deluded that we can restart the economy as it was?

History is a brutal teacher on this topic. As we have seen with COVID 19, it's only when an existential crisis hits - with direct and immediate impact - that we then embark on truly dramatic change. Will this crisis be enough to trigger a broader understanding of, and appropriate reaction to, the greater systemic crisis?

The evidence so far is probably not. Not until things get worse. A lot worse. It may or may not be a synchronised global depression, and it may not be global collapse, but it will be very bad, and it will last for a long time.

My writing is often referred to as 'optimistic'. So let me be clear - I'm not having a bad day. My views on all this - and how it will likely unfold - have largely stayed the same for 25 years. I have a powerful belief in human ingenuity and our capacity to change. I study history and note that when we decide to change, there is virtually no limit to how fast or how dramatically we can do so.

But first we have to decide to change.

This is about choice, not about our capacity to deliver. Each and every 'black elephant' is fixable – if we act in time. We have the technology, the financial capacity, the intellect, the humanity and a visceral instinct to survive. But if I dwell on that potential here, I risk triggering your optimism bias and the opportunity for denial.

I don't want you to think 'We always figure these things out.' I want you to face reality. We won't act until we shift to what activist and writer Margaret Klein Salomon calls "[Facing the Truth](#)". When we face the truth about the state we are in, what's at risk and how bad it could get - we will act. But that moment is not here yet.

It will get much darker before the dawn.

¹ Professor Andrew Cunningham, of the Zoological Society of London [advised](#) that "*The emergence and spread of COVID-19 was not only predictable, it was predicted*". A [2007 study](#) of the 2002-03 SARS outbreak published in the Clinical Microbiology Review concluded "*The presence of a large reservoir of Sars-CoV-like viruses in horseshoe bats, together with the culture of eating exotic mammals in southern China, is a timebomb.*" A [2018 study](#) published in Frontiers in Microbiology also warned of the "*emergence of a novel bat-CoV disease*".

² Modelling the potential economic costs of climate change is exceptionally difficult given the complexity and contagion amongst the cascading impacts – what we do know is the number will be big. How big, is the point of contention, as explored in Spratt & Armistead's '[Fatal Calculations](#)'. A 14 April 2020 Study in [Nature](#) instead explored the loss of *benefit*: Following current emissions reduction efforts (NDC's), the whole world would experience a loss of benefit amounting to almost 126.68–616.12 trillion dollars until 2100 (compared to 1.5 °C or well below 2 °C commensurate action). If countries are unable to implement their current NDCs, the loss of benefit climbs to 149.78–791.98 trillion dollars until 2100. While Spratt & Armistead are right to be sceptical about calculations in this area, they do show us that directionally we are talking about global collapse.

³ Well before the drop in demand caused by COVID was being felt by the fossil fuel industry, [experts](#) warned that the magnitude of the loss from stranded fossil fuel assets may amount to a discounted global wealth loss of US\$1–4 trillion. A [Nature Climate Change](#) described the current overvaluation of fossil fuel assets as a 'carbon bubble', and warned that plunging prices for renewable energy and rapidly increasing investment in low-carbon technologies could leave fossil fuel companies with trillions in stranded assets, sparking a global financial crisis.

COVID-19 amongst other pressures, is bringing this carbon bubble closer to rupture: In 2020 we have seen the US oil price drop below zero ([-\\$40.32](#) pb), for the first time in history; Faith Birol, the conservative IEA's executive director [warning](#) that "*The plunge in demand for nearly all major fuels is staggering, especially for coal, oil and gas.*"; oil majors (Chevron, Total, ExxonMobil, Shell & BP) accruing a [\\$216 billion](#) cash flow deficit to appease nervous shareholders with dividends and buybacks and [analysts warning](#) that the situation is now so dire that "*Banks are preparing for a wave of oil bankruptcies by setting up their own oil companies to operate seized assets*".

⁴ Back in 2014 S&P Economics [warned](#) the business community that income equality and resulting poverty in the US was impeding economic growth, so much so, that it downgraded its 10-year growth forecast. An [OECD](#) report looking at 30 years of data confirmed this trend globally, also finding that inequality has a negative and significant impact on growth. COVID not only disproportionately physically impacts those who are most vulnerable in society, but economically also. [Bank of America Merrill Lynch](#) analysts say inequality and the current inadequacy of some healthcare systems (highlighted by the crisis) will act as a catalyst for political change, deepening the trend for populist politics and increasing the risk of social unrest.

⁵ The World Economic Forum's 2020 Global Risk Report released in January 2020 [warned](#) that biodiversity is declining faster than it has at any other time in human history. This dramatic loss of biodiversity brings serious risks for societies, economies and the health of the planet. For example, [leading scientist](#) see COVID-19 as a "*clear warning shot*" for these risks. Climate change and the destruction of the natural world for farming, mining and housing have driven wildlife into contact with people. "*Never before have so many opportunities existed for pathogens to pass from wild and domestic animals to people,*" warns UN environment Chief, Inger Andersen, explaining that [75% of all emerging infectious diseases come from wildlife](#).

Attempts to put a monetary value on goods and services provided by ecosystems, estimates the worth of biodiversity between [US\\$33 trillion](#) per year (close to the GDP of the United States and China combined) and [US\\$125 trillion](#) per year (around two-thirds higher than global GDP).

Our oceans - which produce more than half the oxygen we breathe and absorb 30% of carbon emissions - have been valued at [\\$24 trillion and contribute at least \\$2.5 trillion each year to global GDP](#). More than 2/3 of this annual value relies on healthy conditions to maintain output, however habitat destruction, overfishing, pollution and ocean acidification from climate change puts this value at risk. The value at risk from ocean acidification alone had been placed at least [\\$1 trillion](#) annually by 2100.

⁶ In 2019 135 million people globally were suffering from food insecurity and possible starvation. Intensified by the COVID-19 pandemic, this number may now be closer to 265 million people. The [World Food Programme](#) who tracks these numbers has warned of widespread famines "of Biblical proportions". Uncertainty of future impacts of the pandemic combined with restrictions on movement, soaring unemployment, limited access to food, and the erosion of already fragile livelihoods may generate discontent, fuelling violence and conflict.

On top of the immediate impacts of COVID-19, is an increasing global population who require food - the [World Resources Institute \(WRI\) report](#) proposes a 50% increase in global food production by 2050 will be required to meet the demands of the world's population. A recent [World Economic Forum report](#) warns that this proposal will cost a landmass twice the size of India being stripped of forests and savannahs to be repurposed into arable land and the loss of ecosystems as intensive monoculture farming techniques are employed and land degraded in a bid to produce more food.

⁷ For example: A May 2020 [publication](#) in Proceedings of the National Academy of Sciences found that by 2070 as many as 3.5 billion people will be exposed to "near-unliveable" heat, invoking forced relocation and social tension. Less than 1% of the Earth's surface currently endures such heat. Safely relocating, housing and feeding even a portion of these 3.5 billion refugees will come with enormous social, geopolitical and financial cost.

⁸ In January 2020, the Institute of International Finance estimated that global debt would reach [\\$257 trillion in the first quarter of 2020](#) – with government debt alone expected to exceed \$70 trillion and corporate debt surging by \$20 trillion. To put this into perspective this is 3.2 times the world's economic output. Also in January a study released by [IMF economists](#) warned that rising public debt is "*the most important predictor*" of future crises, including defaults, sudden increases in borrowing costs or runaway inflation. These figures and warning emerged *before* the full impacts of the pandemic were even considered.

⁹ The Defence industry use the term '[threat multiplier](#)' to describe hardships that increase the risk of political instability and terrorism. It's most commonly used with reference to climate change but can be applied to any hardship that threatens people's basic needs being met (food, water, shelter, security, sanitation, education and healthcare). When people are deprived of their basic human needs, [mistrust and desperation result](#) between communities and the state and also within communities (between haves and have nots) aggravating already fragile situations.

¹⁰ In a recent [BBC interview](#), Prof Paul Stevens (from UK foreign affairs think tank Chatham House), explained that "*Many of the large oil and gas exporters are what might politely be described as politically unstable*" as gas and oil revenues fall, the disruption will result in a "*large number of failed states*". Failed states often become the homes to extremist violence - think Syria - and they often produce mass migration

The Kingdom of Saudi Arabia is a striking [example](#) of a state teetering on the brink of failure. Back in 2015 it shifted from budget surplus to a deficit of US\$98 billion attempting to tank the US shale industry. Now in April and May of 2020, pursuing the same objective, the Saudi's have slashed its sales price to the lowest levels in decades. [Saudi Arabia's fiscal break-even price](#) - the oil price they need to both cover the costs of extraction and balance their state budget that provides for their citizens- is \$85 per barrel. The last time Brent crude was steady above \$80pb was [2014](#).

Russia also is one of the biggest exporters of oil and gas in the world. Its economy and its government depend hugely on the revenues this brings in. Before the current oil crisis, Putin described the disruption caused by 'green technologies' as a one of the "[main challenges and threats](#)" to Russia's economic security.

The combination of historically low oil prices and demand, institutional shifts away from fossil fuels, electrification and the increasing dominance of renewables, will result in a loss of oil revenues along with the economic security, stability and geopolitical leverage it provides. As described by the [Economist](#), the Middle East and Russia are ill prepared: *"rapidly falling oil revenues can force an autocratic state to break its bargain with the people, leading to economic turmoil, social instability and regional tension"*.

¹¹ In BP's 2019 oil demand [outlook](#) through 2040, aviation and marine transport were set to account for nearly half of the increase in energy used in transport in the 2030s – considering the dramatic drop in demand from COVID-19, many analysts believe that COVID could speed up the arrival of peak oil demand *"The virus will bring forward peak demand for fossil fuels"* in an industry already heading towards a structural peak created by nations committing to net zero future emissions. "Peak emissions was almost certainly 2019, and perhaps peak fossil fuels as well," [said](#) Kingsmill Bond, at analysts Carbon Tracker.

[Analysts](#) also forecast that coal will not recover from the pandemic *"Covid-19 will slash coal emissions so much this year that the industry will never recover, even with a continued build-out in India and elsewhere. The crash in natural gas prices, record-cheap solar and wind power, and climate and health concerns have undercut the industry permanently."*

¹² By the end of September, the public debt in the US will be larger than the \$21 trillion economy, according to [CRFB calculations](#). The recession's impact will push the debt past the previous record of 106 percent of the economy, set in 1946. Atif Mian, economics professor at Princeton University [warns](#) *"We should be very worried... We are talking about a level of debt that would certainly be unprecedented in modern history or in history, period. We are definitely at a tipping point."*

¹³ The 2018 report '[A New world – Geopolitics of the Energy Transformation](#)' demonstrates that the rapid growth of renewable energy will *"redraw the geopolitical map in the 21st century"*. As countries embracing renewables achieve energy independence and security, power will shift away from those whose main exports were fossil fuels. The Middle East and North Africa, together with Russia and other countries in the Commonwealth of Independent States will be most exposed to economic decline (>24% GDP). Countering this loss will be large economic gains for current importers - Europe, China and Japan are currently heavily reliant on fossil fuel imports but would increase their energy independence as renewable energy shares grow, regaining 3-5% of GDP. Globally, the World Trade Organisation puts the cost of fossil fuel imports at around [US\\$1.9 trillion](#) – representing a large pool for dependent nations to redistribution across the economy.