

# GRAFT: COVID-19 Implications

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This paper is a real-time application of how to evaluate the future direction of your organization applying the Global Risks and Trends Framework (GRAFT)<sup>1</sup>.

Please review the [GRAFT overview](#) for the complete framework.

## HOW DID WE GET HERE?

The **asset bubble**<sup>2</sup> burst as we watched the largest one-day market correction ever experienced, both in Canada and globally. The COVID-19 virus has changed the world's reality. The risks and trends that were projected into the future have moved to the current moment and have intensified their impact. (GRAFT MATRIX Figure 1 & 2)

The tipping point was sparked by the **spread of infectious diseases (COVID-19)**, with over 1 million cases and 90K deaths globally so far<sup>3</sup>. The pandemic spread to over 200 countries influenced by **rising geographic mobility** and hit those most vulnerable—older people influenced by the rise in **aging populations** and those with underlying medical conditions influenced by the rise in people with **chronic diseases**. The **changing landscape of international governance, interstate conflict**, and a **rise in nationalism** lead to the **energy shock**.

Markets saw the April crude contract decline by 10.15 USD (at 31.13 USD per barrel) —the largest one-day decline since the Gulf War in 1991. West Canada Select (WCS) hit a low of under 4 USD. Oil demand was already depressed when OPEC members failed to come to an agreement to reduce oil production. The price drop was ignited by Saudi

## THE ASSET BUBBLE BURST

The TSX fell over 33% from a high on Feb 20<sup>th</sup> of 17,944.06 to a low on March 16<sup>th</sup> of 11,883.66. The DOW was down 7.8% and the TSX down 10.3% on Monday, March 9, 2020. On the same day, the energy index was down 27%, with Cenovus Energy down 51.6% and Crescent Point Energy Corp down 43.3%. The markets recovered momentarily, then continued to plunge 9.99% and 11.5% respectively on March 12<sup>th</sup>. A bounce of the dead cat occurred on Friday the 13<sup>th</sup> as markets rose over 7% to 13,666.15. The following Monday in Asia foreshadowed the start of the overnight drop of 11% the next week. The uncertainty of “catching a falling knife” is keeping many out of the markets.

Arabia launching a price war, ramping up output after Russia refused to roll back production. It is speculated that Russia's response and attacks, aimed to damage the U.S. fracking industry, are Russia's retaliation for sanctions imposed on it, mainly by the US.

The interrelationships of Global Risks and Trends 2019 set the stage for the world tipping point. **Rising income and wealth disparity**, was cornerstone to this crisis. This refers to the reality that only eight men control the same amount of wealth as 3.6 billion people, or half the world's population. **The asset bubble** continued to increase as world equity and real estate markets continued their 10-year rise. Simultaneously, we have seen a rise in **interstate conflict** and **cyber attacks**. By way of example, the Iran/US conflict (both military and cyber) continued to drive involuntary migrants out of Syria and other Middle Eastern and African countries. This rise has continued to diminish

<sup>1</sup> <https://globalriskinstitute.org/publications/global-risks-trends-framework-graft-overview/>

<sup>2</sup> All Global Risks and Trends from the World Economic Forum are **bolded**.

<sup>3</sup> See the WHO website for up to date figures. <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports/>

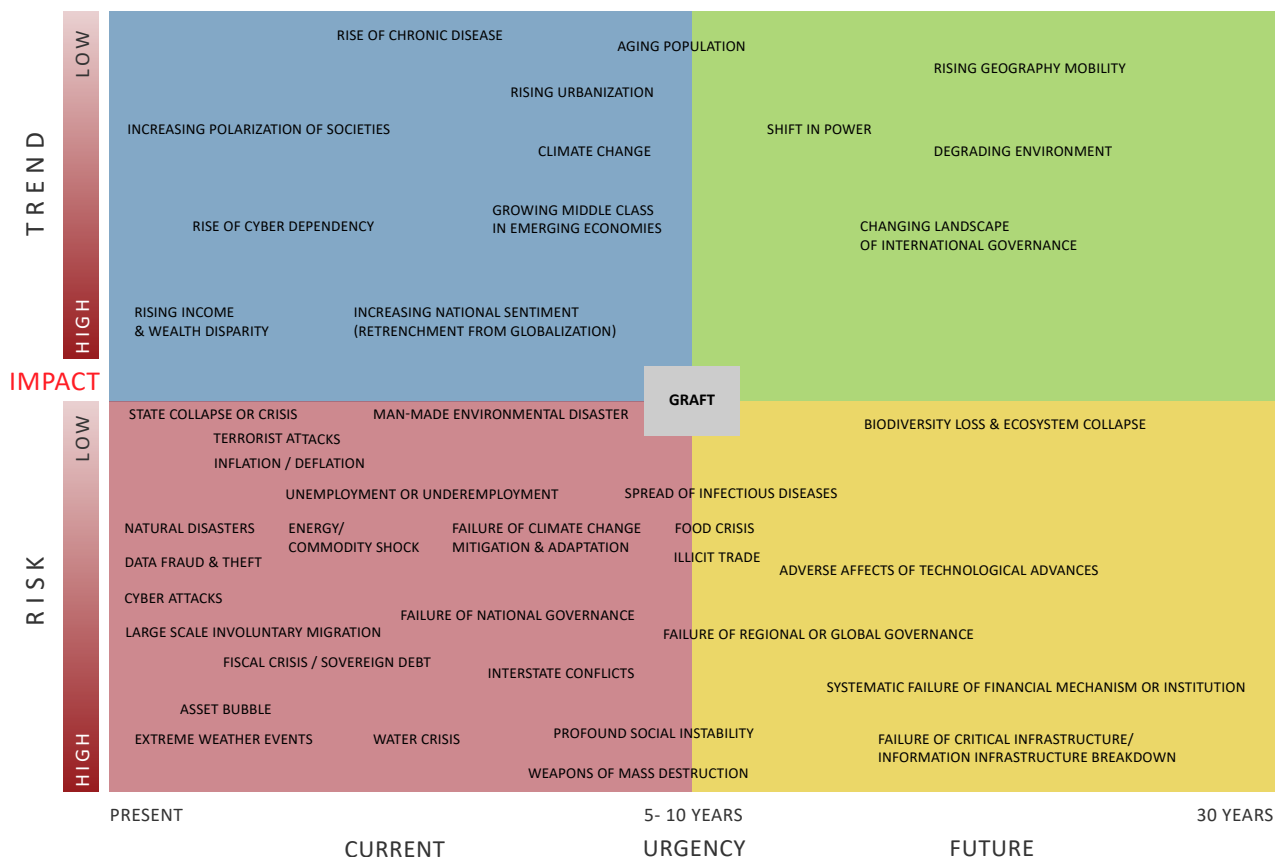
trust both between and within countries. Depletion of trust has fueled increasing **nationalism**, evidenced in the trade dispute between China and the USA and in the global movement away from multilateral agreements to bilateral ones. This influenced who controls power as the **shift in international governance** moved away from governance agencies that are charged with dealing with international crises (such as the WHO, IMF, UN, The Hague, and OPEC) to wealthy and/or powerful, individuals and/or country leaders.

**Sovereign, corporate, and personal debt** have all risen significantly since the credit crisis. Sovereign debt compared to GDP has risen, on average, by a third compared to 2007. The US debt/GDP in 2007 was 62% vs 108% in 2020<sup>4</sup>. Canadian debt/GDP in 2007 was 66.9% vs

89.7% in 2018<sup>5</sup>. US credit markets have increased from 2 trillion USD in 2007 to 7 trillion USD at the end of 2019. Leveraged debt or Zombie companies have risen to 45,000 or about 17% of the world's public companies (FactSet). They have not generated enough earnings before Interest and taxes (EBIT) to cover interest costs for at least the past three years. Zombie borrowing has risen to 3 trillion USD - a rise from 3.6% to 5.1% the week of March 16<sup>th</sup>. The increase in debt across the board weakens the ability of governments, corporations, and individuals to respond to any crisis on the horizon.

In 2019 the world was also dealing with the effects of **climate change**, experienced as the highest increase in air and sea temperatures over a 5 year period, and increased melting Arctic ice and a corresponding rise in global sea level. **Extreme weather events and national disasters** witnessed the burning of the West Coast of the US and

The GRAFT Matrix in Figure 1 Illustrates the foundation that was laid before the outbreak of COVID-19



<sup>4</sup> <https://www.thebalance.com/national-debt-by-year-compared-to-gdp-and-major-events-3306287>

<sup>5</sup> <https://tradingeconomics.com/canada/government-debt-to-gdp>

across Australia and flooding in India, Iran, and China. These risks and trends also added to the fragility of the natural and economic environment.

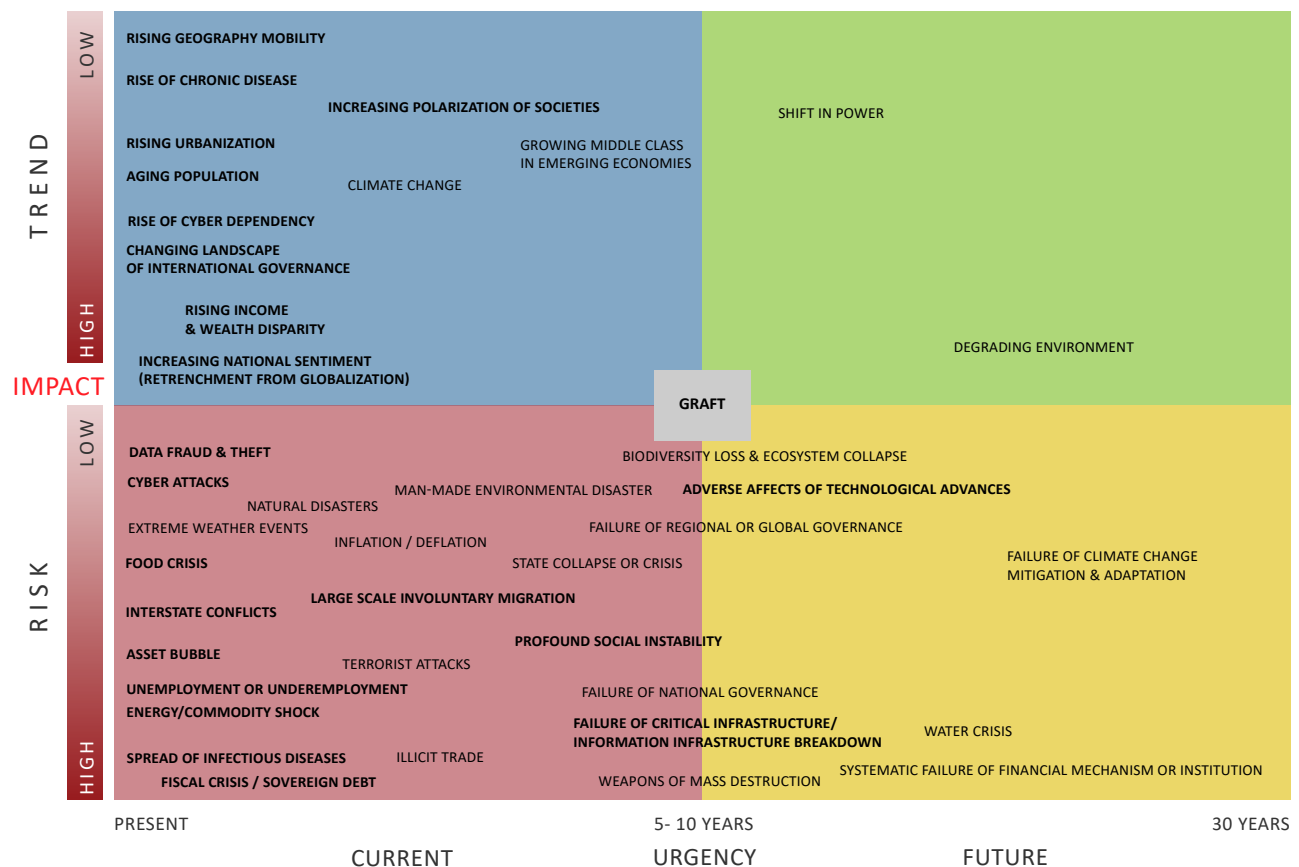
**Cyber attacks, data fraud and theft** continued to rise with experts estimating that cybercrime caused damage to the economy in the magnitude of 450 billion USD in 2019. That number is expected to increase to 6 trillion USD by 2021<sup>6</sup>.

The GRAFT MATRIX 2020 in Figure 2 illustrates the movement of major risks and trends to the left and bottom of the chart symbolizing increased urgency and impact. Just prior to the spread of COVID-19, Canada was witnessing its own transportation interruptions as impacted by way of climate change, disparity of income and wealth, and profound social disruption. These issues in conjunction with the Wet'suwet'en First Nation people blocking rail lines and shipping ports to protest the

building of the Coastal GasLink pipeline may, in part, have influenced Teck Resources to withdraw its application to build a massive oil sands project in northern Alberta.

Looking ahead, the **spread of infectious diseases** and resulting uncertainty is giving rise to the necessity to quarantine individuals, neighborhoods, and countries. This is manifesting itself in all types of closures and cancelations: manufacturing, suppliers, stores, schools, restaurants, borders, sporting events, conferences, airline flights, etc. Supply chains were first affected by the quarantine of Chinese cities, shutdowns or delays in production, shipping and ports. We are now witnessing, perhaps, the most significant impact: the reduction of worldwide demand resulting from the culmination of risks and trends on consumption factors.

Figure 2 - 2020 GRAFT Matrix



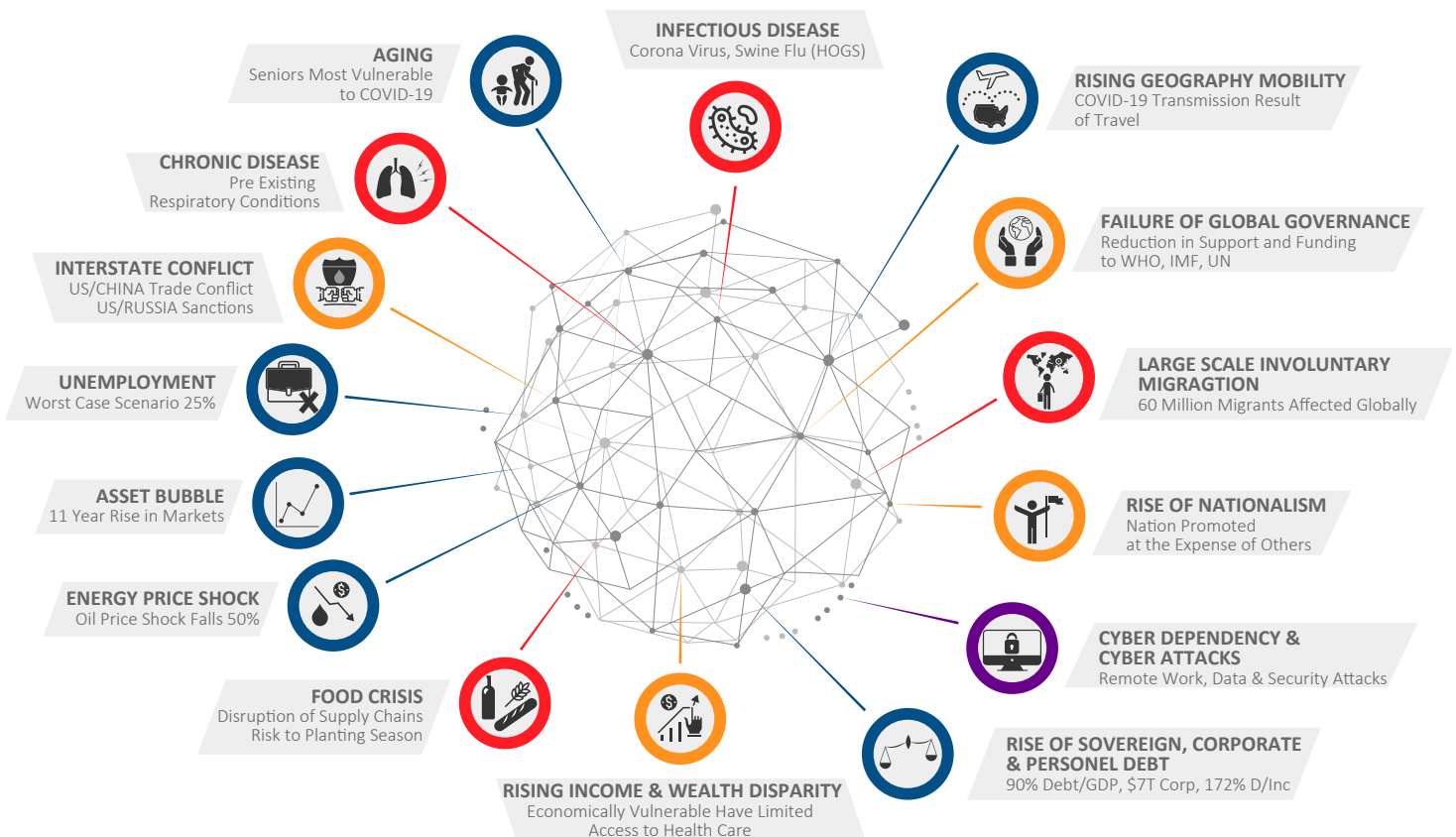
<sup>6</sup> <https://www.visualcapitalist.com/cybersecurity-fighting-450b-damage/>

All governments are responding to the COVID-19 pandemic. China locked down cities with over 110 million people. Italy has restricted movement across the entire country. The US has, so far, pledged over 2 trillions USD to contain the outbreak and has blocked entry from European travellers. The Canadian Federal Government has pledged over 100 billion CAD in funding to battle the virus. The ability of governments, corporations and individuals to react to this crisis is significantly reduced by the level of sovereign, corporate, and personal debt. Central banks have cut rates to almost zero around the world and are in the process of infusing financing into the market – actions similar to the quantitative easing measures that were made after the credit crisis.

The interrelationship of nonfinancial risks, in Figure 3, have never played out in such a drastic and global manner.

If you remember what you were taught in statistics class, the normal distribution curve upon which most models are developed works well in normal times. The current time is not normal. During times of crisis, correlations often move to zero or one.

Figure 3: GRAFT COVID-19 Correlations



## CORRELATION, SCENARIOS AND KEY INSIGHTS

How do we make sense of the new reality? After identifying the risk and trend correlations, assess the magnitude of those correlations on your organization and identify the implications. From these implications identify the events, or potential events, stemming from the correlation of trends and risks.

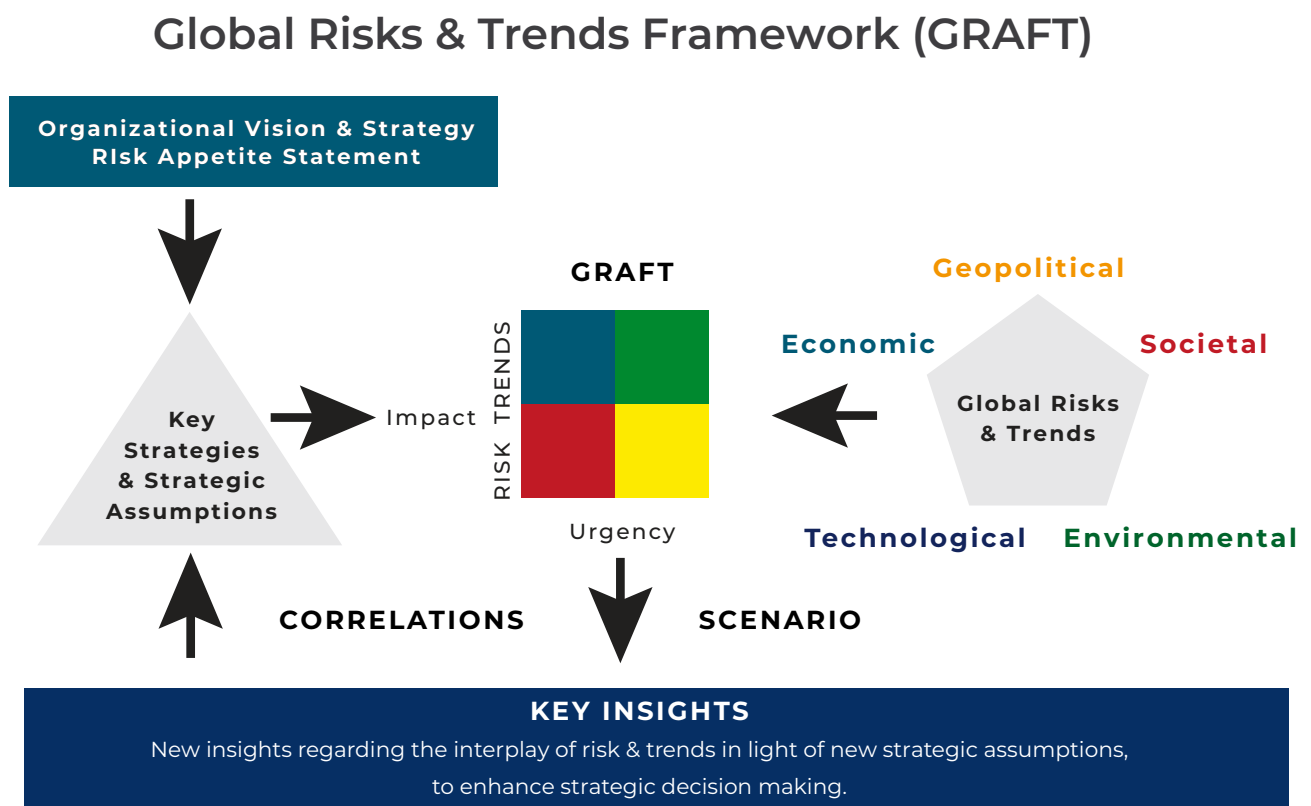
Figure 4: Example COVID-19 Correlations, Implications, and Key Insights

| Magnitude of Correlation and Implication   | KEY INSIGHT - Events or Potential Events Stemming from Correlation of Trends and Risks  |
|--|---|
| RISK - Spread of Infectious Diseases   | RISK & TRENDS - Interstate Conflict/Nationalism/Migration/Asset Bubble  |
| <ul style="list-style-type: none"> <li>•The Coronavirus was declared a <b>pandemic</b> – Estimated over 200 billion COVID-19 and 100 – 200 thousand deaths.</li> <li>•Cases in China have reportedly stabilized, 60 million people in Hubel province were on lockdown, largely confined to their homes, with schools and businesses closed. A total of 780 million people across China were under strict travel restrictions. And almost two dozen airlines have severely curtailed, or flat-out cancelled, their flights in and out of the country.</li> <li>•Growth in S. Korea, Iran and Japan — and further cases emerging in Canada, Germany, Brazil and several other countries. <a href="https://www.worldometers.info/coronavirus/">https://www.worldometers.info/coronavirus/</a></li> <li>•Global stock and commodity markets fell on expectation of extended and systematic supply chain disruption.</li> <li>•Some companies are asserting that the outbreak constitutes a force majeure event or gives rise to another legal basis excusing nonperformance under commercial contracts.</li> <li>•Recommendations made by health authorities to stock up on essential supply chains — shops in big cities are resupplied daily, for example.</li> <li>•Forecasts that global demand growth for oil will be essentially zero in 2020. China's oil demand down 25% during crisis. Price declined to \$30 with stress test below \$10.</li> <li>•The surging outbreak in many major cities has overwhelmed the health system despite governments sending assistance.</li> <li>•Millions of children around the world and in Canada are staying home from school as officials wrestled with the epidemic in more than 60 countries.</li> <li>•All major sporting events have been cancelled until further notice.</li> </ul> | <ul style="list-style-type: none"> <li>•<b>Crisis Plan</b> ensure that Pandemic crisis plan is well communicated and understood as potential for COVID-19 to spread in Canada.</li> <li>•<b>Stress Test</b> scenarios of COVID-19 knock-on effects to economy, supply chains, and government ministries, services and programs.</li> <li>•<b>Playbook</b> testing to ensure that communications and crisis plans can be implemented if needed.</li> <li>•<b>Strategy Review</b> - review strategic assumptions to identify shifts in underlying future industry and business direction.</li> <li>•<b>Data/Technology/Facial Recognition</b> coordination — AI advancement has been implemented in China to aid in the containment of COVID-19 spreading. Policy direction necessary on Canadian privacy policies.</li> <li>•<b>Supply Chain and Commercial Agreements</b> impacted by the coronavirus outbreak should promptly analyse their rights and obligations.</li> <li>• Identifying key provisions of material contracts that may be affected by the recent events (e.g., representations/warranties, covenants, termination rights, conditions, force majeure clauses or "change in law" clauses);</li> <li>•Identifying notice requirements that have been or may be triggered;</li> <li>•Analyzing the potential consequences of a breach and/or default;</li> <li>•Managing communications with suppliers, bearing in mind the importance of global coordination of local relationships to ensure a consistent approach; and</li> <li>•Understanding local regulatory actions and restrictions.</li> <li>•<b>OSC version of SEC Law360</b>, it reports that the epidemic has created disclosure obligations for companies in annual reports, Form 10-Ks, earnings releases, current reports on Form 8-Ks and public and private securities offering documents.</li> </ul> |

## WHAT DO WE DO NOW? RE-EXAMINE STRATEGIC ASSUMPTIONS

In the past month we have witnessed a significant change in the world giving rise to the need to implement a crisis plan, stress testing, and a new playbook for operations. In order to chart a direction for the future, organizations must examine the assumptions underlying their previous strategy and identify what new underlying assumptions might guide their actions. For many industries and companies these underlying assumptions have often only been identified intuitively. Figure 5 illustrates the Global Risks and Trends Framework that integrates strategy, strategic assumptions and non-financial risks to provide directional guidance to the identification of correlations, scenario analysis, and stress testing. Out of the GRAFT analysis key insights are developed considering the new reality.

FIGURE 5<sup>7</sup>: OVERVIEW OF GLOBAL RISKS AND TRENDS FRAMEWORK (GRAFT)



<sup>7</sup> Figure 5 illustrates the Global Risks and Trends Framework that eight Canadian Financial Institutions have adopted to help them manage nonfinancial risk.



## STRATEGIC ASSUMPTION VS THE NEW REALITY

The following is a review of some examples of strategic assumptions that have changed in 2020. We look first at leading indicator industries that were first hit with the impact of the COVID-19 outbreak, then to the implications for the Financial Services sector.

### CASE EXAMPLE: HOSPITALS

Strategic assumption: Hospitals will manage demand for running at 100% of capacity through increasing wait times and shifting patients to other facilities.

New reality: The community spread of COVID-19 would outstrip supply of medical treatment by hospitals, medical centres, and outpatient facilities. Shortages of staff, equipment, and medical supplies. Worst case scenario pandemic to last 18 months with multiple waves, with over 250 million cases just in the US.

### CASE EXAMPLE: CRUISE SHIP AND AIRLINE INDUSTRY

Strategic assumption: Ships or planes will be accepted at the port where they are scheduled to dock or land. Passengers will be allowed to leave the ship or plane.

New reality: Cruise ships have often been denied entry into ports where they had been scheduled to dock. Flights have been cancelled or postponed. If a COVID-19 case is discovered the entire ship or plane will be quarantined.

### CASE EXAMPLE: OIL INDUSTRY

Strategic assumption: World demand is increasing by 3% per year. OPEC will regulate supply to ensure oil prices remain above USD \$50 – 60 USD/bbl.

New reality: Demand in China dropped by 25% in 2 months. Future demand from China is recovering slowly. World demand for oil is still dropping. World supply is increasing from exporting countries, with prices between USD \$20-30 USD/bbl for WTI, and USD \$4-10 USD/bbl for WCS.

### CASE EXAMPLE: EQUITY MARKET

Strategic assumption: Equity markets will continue to increase, with opportunities to buy on the dips.

New reality: Markets have moved into bear territory with a 30-40% decline by the end of March, 2020. Uncertainty as to where the bottom of the market is makes buying on the dip like catching a falling knife. With uncertainty it is difficult to confirm that a trend has reversed. A U shaped recovery is predicted by many analysts.

### CASE EXAMPLE: BANKING

Strategic assumption: Global economic recovery, IMF projections of an average of 3% rise in GDP. Nonperforming loan and loan loss levels will continue at a level similar or lower than the recent past. Unemployment rates at their lowest levels. NIM has been improving with rising interest rates.

New reality: Recession or potential depression in some countries. Reported retail sales down 25% in China for February. Italy, previously on the verge of a recession, now faces further declines. Nonperforming loans and loan losses are projected to increase due to projected declines in GDP. “Material change in Circumstances” IFRS 9 rules in Canada and Current Expected Credit Losses (CECL) in the United States will force earlier recognition of loan losses. There is concern that higher loan loss provisions could absorb much of the capital relief announced by central banks. Increases in corporate bankruptcies and increases in unemployment levels. NIM compressed by Central Banks lowering rates.

### CASE EXAMPLE: PENSION/ASSET MANAGEMENT

Strategic assumption: Growth economy, equity market returns will be positive. Fixed income yield will be positive. Real estate transactions will continue, and properties will continue to be open to pay rent; growth in the serviced office sector; the current footprint of space will be required in the future. Expanding economy leading to increases in infrastructure projects and invests.

New reality: Economic assumption ranging from fear, mild slowdown, lasting recession, to down-grade in underlying fundamentals. Equity markets sustained the largest correction since the credit crisis. Fixed income yields are near zero or negative. Real estate transactions were down 50% in February in Asia, and serviced office model enables quick occupants to quickly vacate space, virtual work locations drive structural decline in demand. The leverage loan market may cause Credit Crisis defaults.

### CASE EXAMPLE: INSURANCE INDUSTRY

Strategic assumption: Employees and distributors are able to continue working. Stable morbidity and mortality rates, rising fixed income returns, rising equity market.

New reality: Alternative work and claim delivery channels, new protocols for in-person adjusters. New modeling required to assess impact of rising morbidity and mortality rates. Fixed income returns near zero or negative. Significant decline in equity market investments, with limited short-term recovery. Insurance industry portfolios may also be impacted by a decline in the leverage loan market.



## WHAT DO WE DO NOW? IMMEDIATELY RE-EVALUATE

Given the new reality, organizations must immediately re-evaluate their strategy for the effects of nonfinancial risks. The long-term effects of quarantine, closures, delays, and cancellations demand that strategic assumptions be examined. Not everything will return to normal after the immediate COVID-19 crisis has resided. Some pent-up demand will return. If an organization had put off buying new computers, they will probably still buy them. If the organization cancelled air travel and replaced meetings via videoconferencing, there would be no need to replace that air travel. Some lost consumption will never return.

COVID-19 has been an accelerator for some trends such as **cyber dependency**. Behaviour through this time has changed, there will be long lasting effects, here are some examples:

- Will there be new accepted remote work methods?
- Is the increase in **sovereign debt** being influenced by a new modern monetary theory in a world where “increasing debt has no impact”?
- Is there overnight acceptance of the implementation of a form of “Universal Basic Income”?
- Money is being printed, goods may be in short supply, is inflation on the horizon?
- Is protectionism vs globalization going to be the new normal?

As we move forward as a nation, it will be difficult. Even though the immediate medical impact of COVID-19 has been significantly less in Canada than the US, the long-term economic impact may be greater due to Canada’s higher dependency on the energy sector, and our higher personal debt to income ratio.

It is time to craft a new strategic plan considering the implications of the GRAFT COVID-19 Correlations. Organizations will need to compare the increased risks to both supply and demand channels with the new reality assumptions identified for their businesses, as well as identify any potential opportunities for growth and recovery in this volatile time.