GIB ASSET MANAGEMENT

A New World

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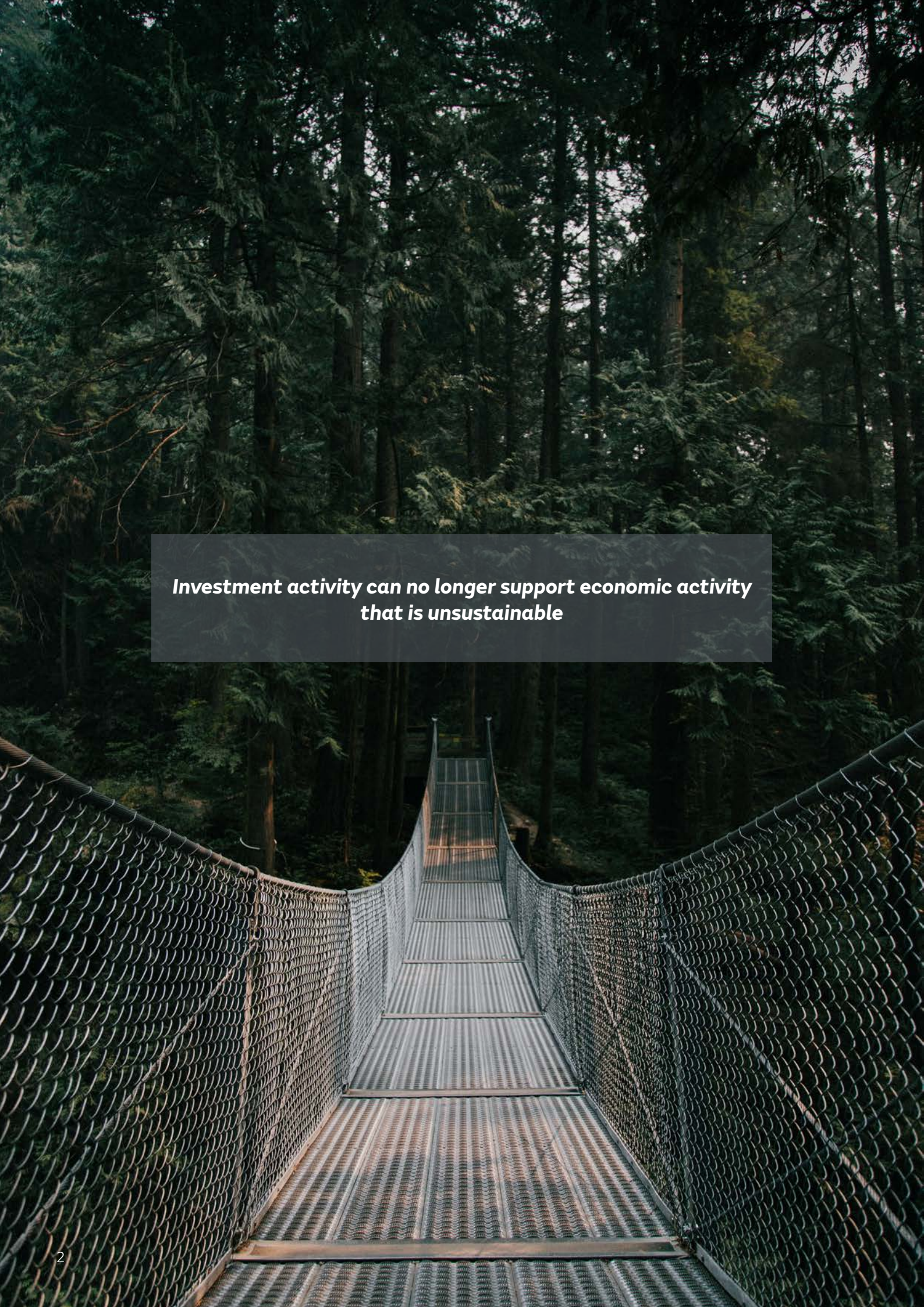
With thanks to Venetia Bell for her helpful contributions.



Investment activity can no longer support economic activity that is unsustainable

Introduction

At the time of writing, we don't know how the rest of 2020 will unfold but, we do know that it will be a year to remember. It must not be a year to forget, COVID-19 has showed us the need to apply lessons learned.

To be effective, those lessons must be fact-based. This suggests a shift from the hubris of forecasting to the humility of admitting we simply don't know what the future will hold. Given the sheer volume of uncertainty we can no longer construct forecast models with a high degree of confidence. Instead, we can build scenarios with hypotheses using inputs from history.

We don't know the shape of the future...

In this paper, we assume that traditional allocation models can no longer rely on expected risk and return inputs by asset class. The amount of uncertainty (epsilon) means we should expect to see considerable variability within and across asset classes. Accordingly, the hunt for success and failure factors for specific issuers and sub-sectors will become more of an imperative to create positive returns. On this basis, we expect the investment industry as a whole to tilt more toward alpha generation. The assumption that alpha generation is a zero-sum game means looking for alpha in new places where traditional active managers have not been present.

This paper looks at sustainability as a source of alpha based on actual historical data. We suggest that those issuers implementing more effective sustainability standards will out-perform their peers. Most sustainability literature (including our own) has focused on sustainability as a purpose-driven objective to support viable long term economic development without compromising investment performance. In the new world, we suggest that sustainability factors will underpin superior investment performance.

...we do know that sustainability creates better performance

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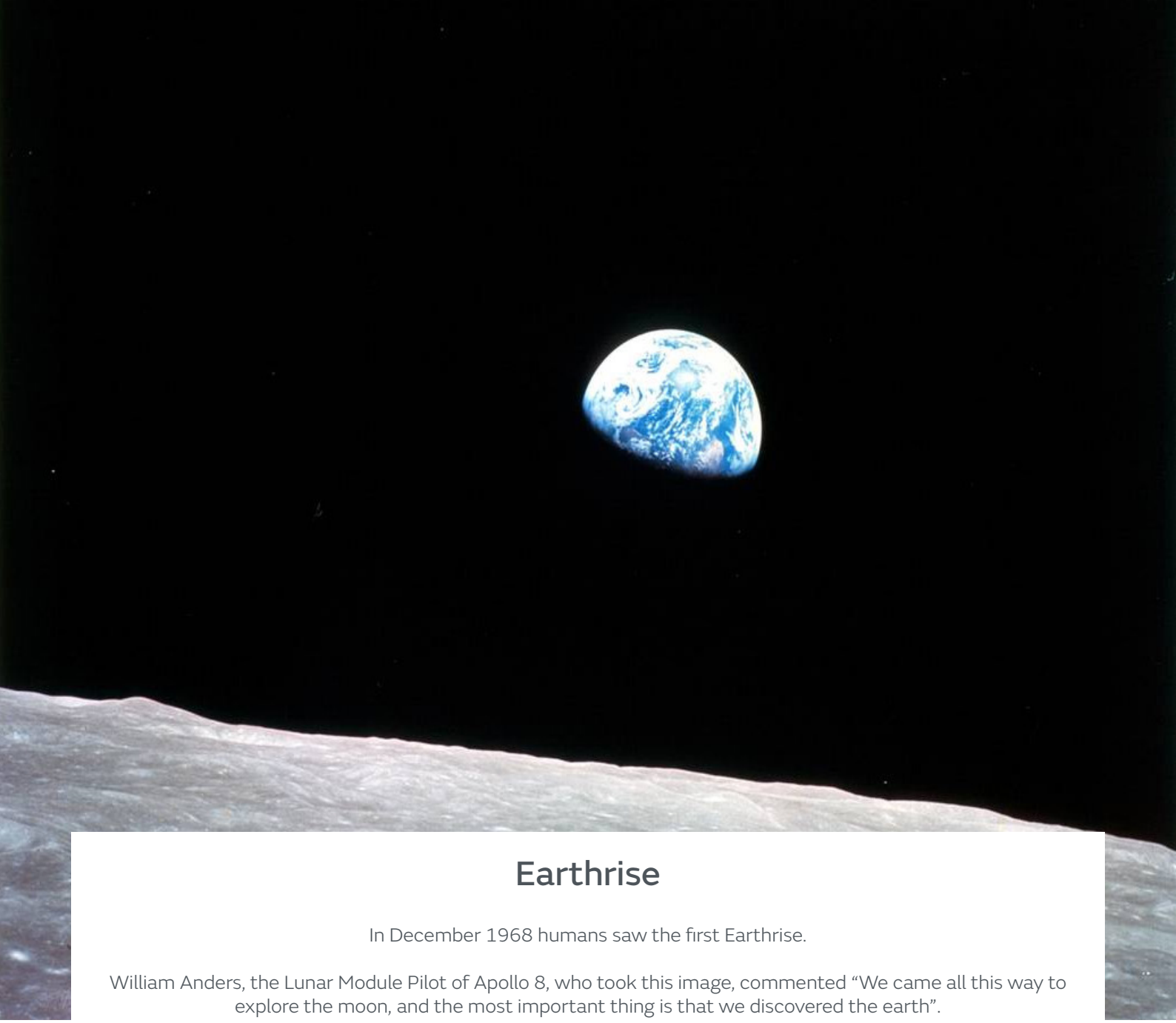


Earthrise

In December 1968 humans saw the first Earthrise.

William Anders, the Lunar Module Pilot of Apollo 8, who took this image, commented “We came all this way to explore the moon, and the most important thing is that we discovered the earth”.

1968 was a turbulent year: the Warsaw Pact invasion of Czechoslovakia; the Vietnam War; the assassinations of Martin Luther King and Robert Kennedy; and global student demonstrations culminating with Bloody Monday in Paris.

Against this backdrop, NASA has cited the Earthrise image as marking the modern beginning of environmentalism and greater concern for the cause of humanity[i].

Then in 2020 the world stopped.

The future: what we don't know

It is clear that the COVID-19 pandemic will be a teachable moment. But what will we learn?

"Prediction is very difficult, especially if it's about the future", Nils Bohr.

From the creation of the Capital Asset Pricing Model in the 1960's to the Paris Agreement of the 2010's, our current investment behaviour has been based on expected future outcomes.

Those future outcomes are primarily based on models using expected risk and return data. While we use hindsight to inform our future view, the COVID-19 shock reminds us that uncertainties make investing difficult. Making correct forecasts can be enormously rewarding and fuels a whole investment ecosystem competing to impress for investor attention. Yet, we are well aware that confirmation bias[ii] tends to mean that price targets are too often simply anchored to existing prices.

Over the past five years, the 12 month price targets of General Electric (GE) and Apple (AAPL) (whose prices have gone down and up respectively) have shadowed current prices fairly consistently (Chart 1 LHS). When we time-shift actual prices 12 months forward (Chart 1 RHS) we see significant over- and under-confidence in future price performance respectively.

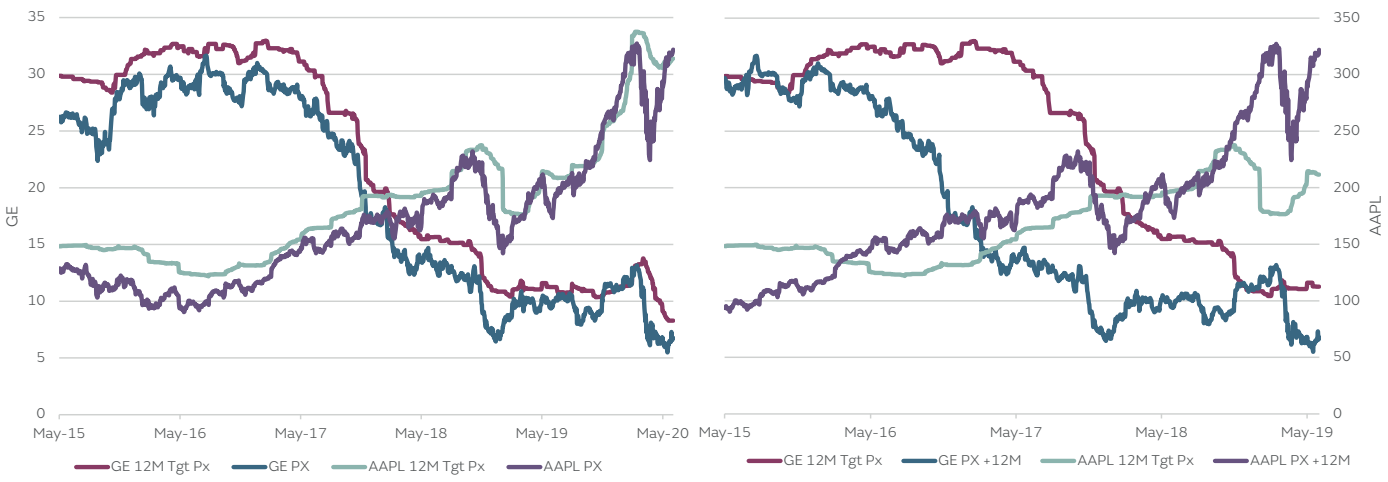
We also observe that market predictions tend to be wrong, egregiously so, during periods of high stress and volatility. Despite the evident and overwhelming reality of economic shutdown all around as COVID-19 took hold, consensus forecasts (made **one day prior**) of US jobless claims were initially well wide of the mark (Chart 2).

So how confident are we today in ex-ante models given that the stop of the world economy is unprecedented?

"All models are wrong, but some are useful", George E.P. Box.

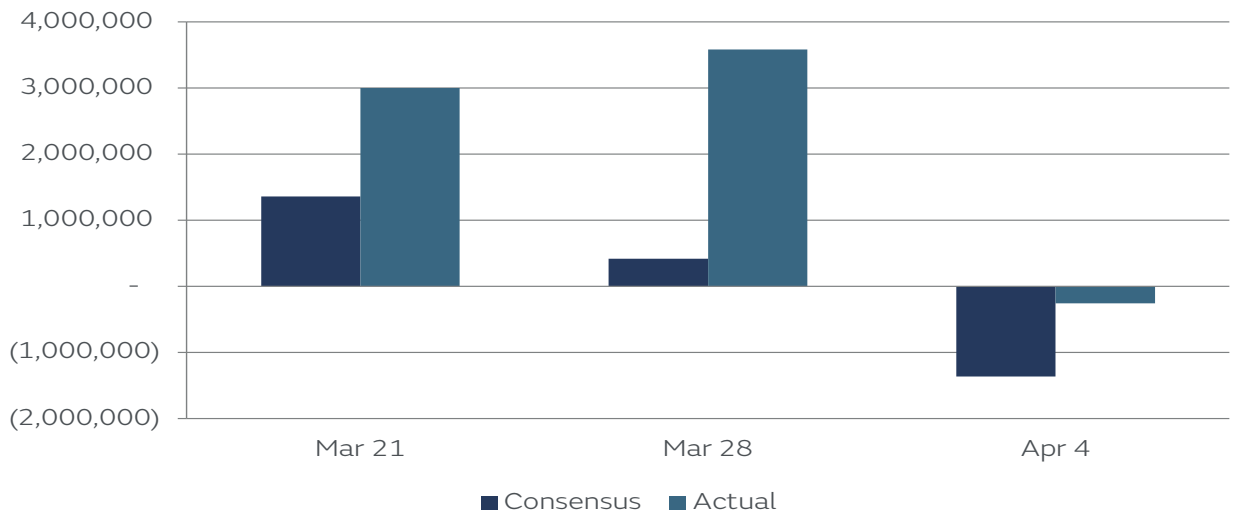
Efficient market theory, which holds that market prices today reflect all available information, has long been challenged by information economics[iii] on the simple basis that, if it were true, then informed investors could not earn a return on their investment in information. This boils down to the simple equation: $U = \Theta + \varepsilon$, where the variable return of a risk asset (U) has two components, Θ (theta) and ε (epsilon), where Θ is observable at a cost while ε is unobservable.

Chart 1: General Electric and Apple 12 months price tag (May 2015-May 2019)



Source: Bloomberg and GIB UK analysis

Chart 2: Change in US jobless claims



Source: Bloomberg, US Department of Labor

The cost of theta today is prohibitive given the known unknowns, and there is more epsilon around than in the history of modern investing.

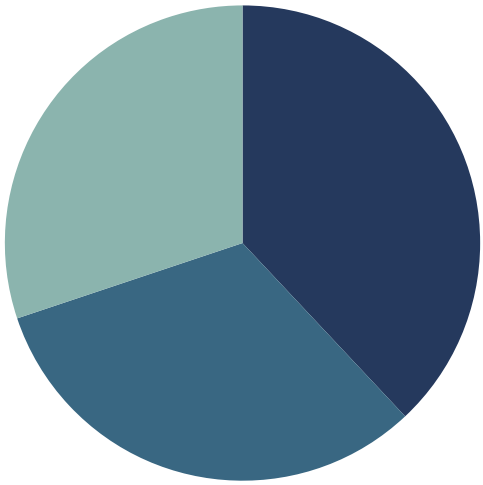
We can't buy what we don't know

The difficulty in making forecasts in such an uncertain environment is reflected by those US equity issuers who have essentially stopped providing earnings guidance, an unprecedented move by its scale.

To the extent they did, it has been to revisit prior guidance and announce various cutbacks.

Chart 3 shows the change in guidance by 521 US issuers during the second quarter earnings guidance period. The current situation calls for a refocus on ex-post models and an examination of what is it we do know.

Chart 3: Change in guidance by 521 US issuers (current period as of 22 May 2020)



Source: Bloomberg Intelligence, GIB UK analysis (Other refers mainly to donation announcements)

The past: what we do know

In the face of extreme uncertainty, it is natural to search for a framework based on historical precedent.

Unfortunately, it seems there is no real precedent (with data at least) for the COVID-19 crisis.

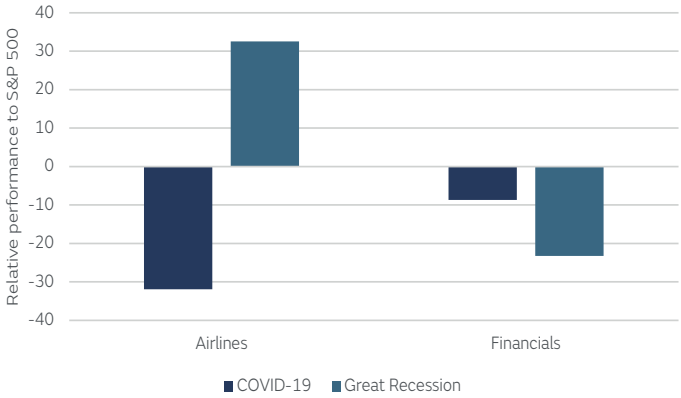
Differences and coincidences

We know that different sectors respond in diverse ways to different external shocks. The COVID-19 crisis impacted airlines more than financials while the reverse was true during the Great Recession; see Chart 4.

On the other hand, we don't know how different sectors responded to the same external shock because today's financial markets didn't exist during the Black Death 670 years ago.

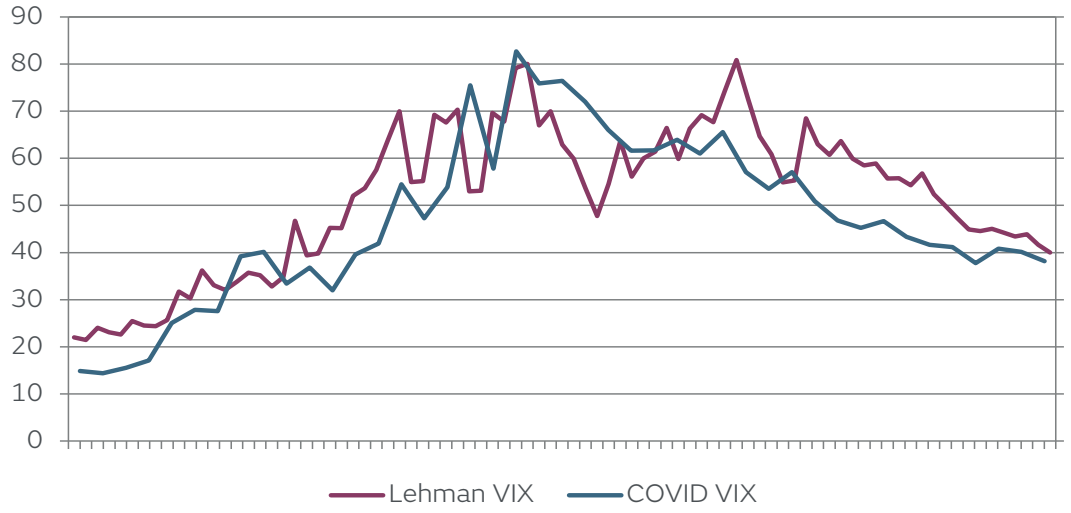
As we search for analogues for the COVID-19 crisis, we note that while market behaviours can repeat, this only means that measures of change, such as the CBOE VIX, are coincident, not leading indicators. Chart 5 shows the VIX during the timeframes of the Lehman and the COVID-19 crises. The similarity, while interesting, is not informing of the future.

Chart 4: Impact of COVID-19 vs. the Great Recession (COVID-19: 15 Feb 2020-19 Mar 2020; Great Recession: 2 Jan 2008- 15 Jul 2008)



Source: Bloomberg and GIB UK analysis

Chart 5: Lehman VIX vs. COVID VIX
(Lehman VIX: 2 Sep 2008-31 Dec 2008; COVID VIX: 15 Feb 2020 – 17 Apr 2020)



Source: Bloomberg and GIB UK analysis

Information asymmetry further undermines corporate finance engineering focused solely on the efficient maximization of free cash flows. Perfect quantifiable information does not exist: the explosion of data[iv] makes the acquisition cost today of observed information (theta) so high as to be inefficient while unknown unknowns (epsilon) simply proliferate.

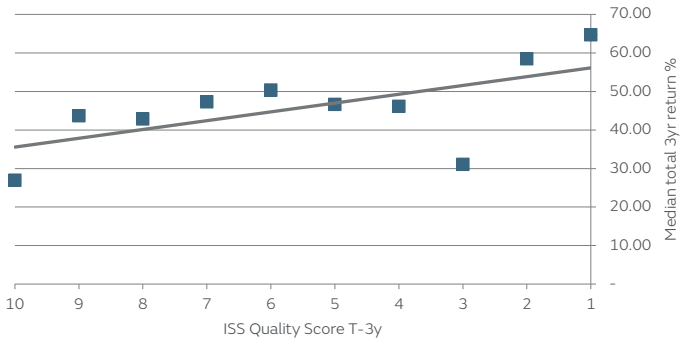
Qualitative data adds to the mix

On the other hand, we know that qualitative factors impact free cash flows too. In the pre-Big Data world of traditional market economics the notion of what a corporation should do (governance) was not measured and thus mattered little. In reality, corporate governance matters a great deal[v].

Chart 6 shows the Institutional Shareholder Services (ISS) 1-10 Governance Quality Score (where 10 = higher risk) against median 3 year total equity return (2017-2019) for those S&P 500 Index members with data. The chart suggests a positive correlation between better governance and equity returns and thus supports the case that qualitative factors play a role in investing.

We know there are many quantitative and qualitative factors driving financial return. Actual measurements and assessments of corporate governance now can provide data-driven input into expected performance and therefore security selection.

Chart 6: ISS 1-10 Governance Quality Score against median 3 year total equity return (2017-2019) for S&P 500 Index members with data



Source: Bloomberg, SPX members with data (n=477), GIB UK analysis

But does security selection even matter anymore?

Crises are an opportune time to reconsider the whole process of security selection. Over the past 25 years, we have seen increased demand for, and flow into, passive strategies.

Passive assets under management (AUM) finally surpassed active AUM in the 3rd quarter of 2019 according to Morningstar data (Chart 7).

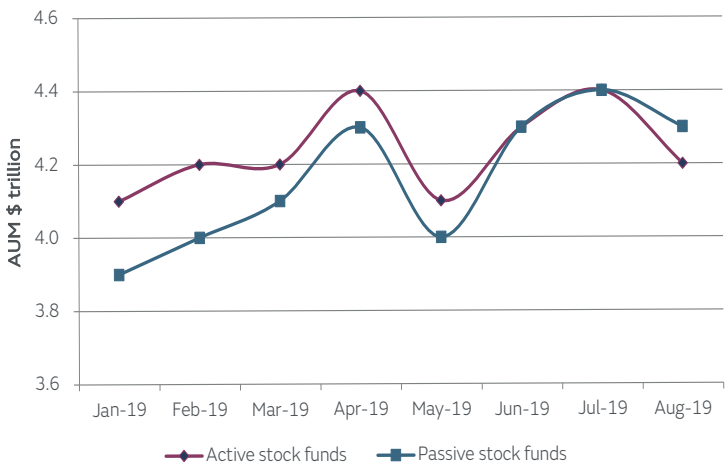
This shift reflects, in part, the outperformance of passive strategies in many asset classes. The cost to research ever expanding volumes of available data has made it increasingly challenging for active managers to monetize their market knowledge and translate it into alpha.

Chart 8 shows the performance of various passive strategies relative to their active peers over the past ten years.

COVID-19 has been comprehensively negative. This is reflected in a historically high correlation of individual stocks in the S&P 500, as shown in Chart 9 over the past 5 years.

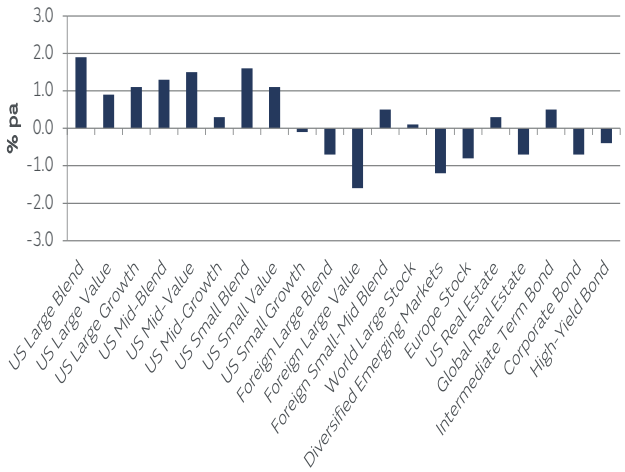
While such historically high correlation works against active management, we suggest that the sheer amount of uncertainty (known and unknown) means that this shift is about to reverse. We propose, therefore, that COVID-19 is an opportunity to identify and incorporate meaningful success and failure factors for investment portfolios.

Chart 7: Passive AUM



Source: Morningstar Direct, GIB UK analysis

Chart 8: Ten year return differential (passive – active)



Source: Morningstar Passive Active Barometer 2019 (net of fees), GIB UK analysis

Chart 9: Correlation of individual stocks in the S&P 500 (May 2015- May 2019)

Source: Bloomberg and GIB UK analysis

The hunt for better investment ideas

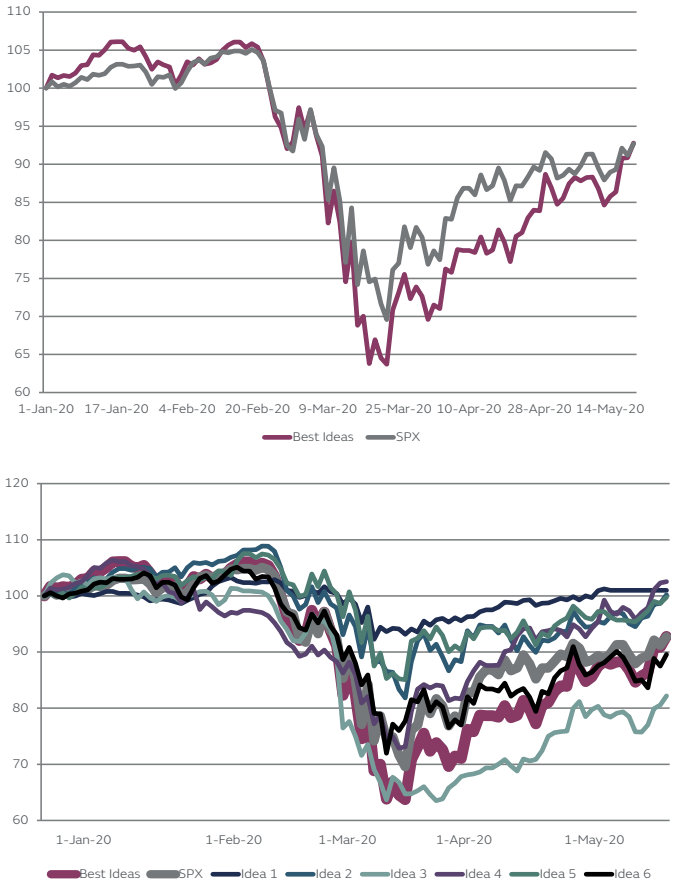
Many studies address both sides of the question of whether or not hedge funds deliver alpha consistently. A recent study[vi] across a composite of hedge fund managers found excess returns of 2.5% p.a. (gross of fees) over market indexes across long stock picks over the period from 1999 to 2019.

The study goes on to point out, however, that best ideas did not meaningfully contribute to that excess return relative to the rest of their portfolio positions. In the current crisis, however, the best ideas[1] identified in the study, as reported by Bloomberg, performed as shown (in aggregate and individually) in Chart 10.

Five out of six best ideas outperformed the index supporting the notion of an increased focus on active security selection.

We suggest, therefore, that investment skill becomes even more of a premium relative to market consensus than in the past 10 year period of ever more allocation to passive strategies[vii].

Chart 10: Performance of best ideas vs SPX index (Jan 2020 – May 2020)



Source: Bloomberg, GIB UK analysis

[1] 'Best ideas' refers to hedge fund managers' best ideas on what they believe are the best stocks to pick in order to outperform the market. These ideas are usually discussed at industry conferences and dinners.

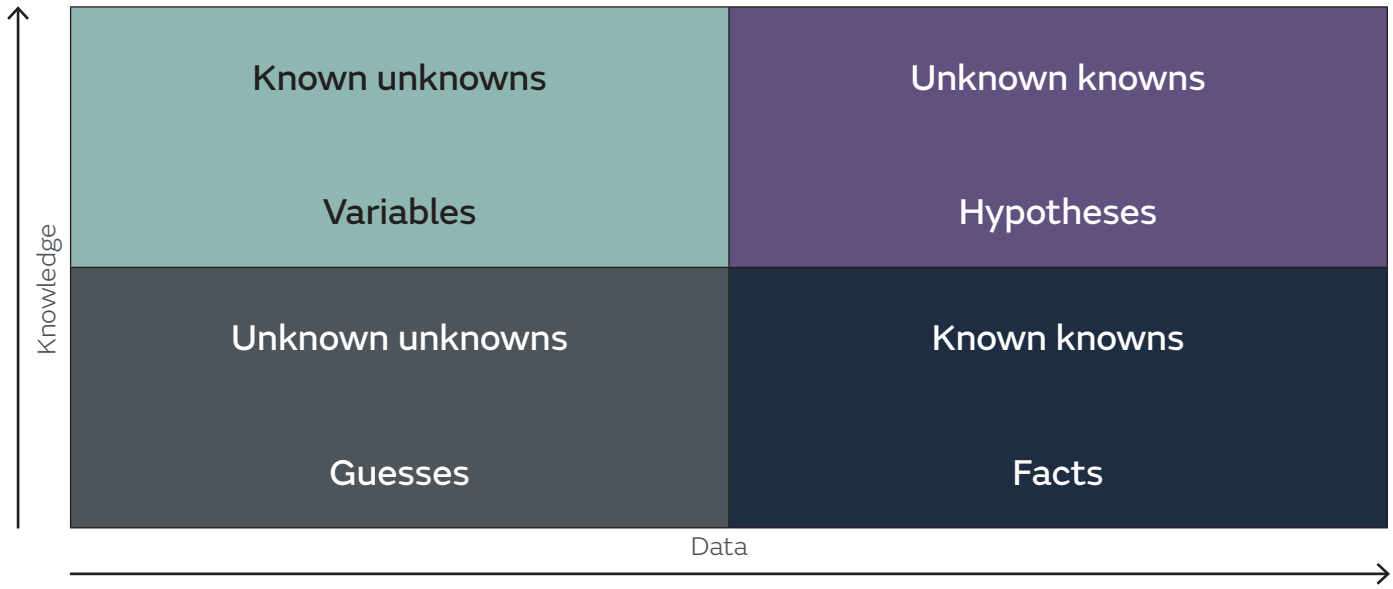
The past: applying what we know

Artificial intelligence, data mining, robotics, machine learning all will support the scientific discovery required to thrive in a new world. In the meantime, we suggest a re-examination of what we do know to reapply facts in a meaningful way. We do not know what the next coronavirus will bring.

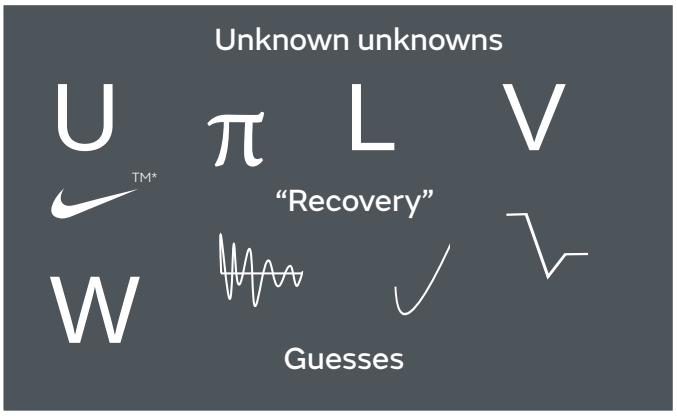
The cure, the vaccine, the virus eradication are yet to be discovered: unknown unknowns. Investing in such discovery efforts is underway. In the meantime, we can form hypotheses that investing based on sustainability factors will be beneficial to health and therefore be economically rewarding.

Greater uncertainty calls for hypotheses and scenarios and not for forecasts and budgets

What used to be forecasts are now guesses.



Source: GIB UK analysis



There are many different shapes promoted as defining a future economic recovery.

While we ponder what shape the future may be, we suggest re-examining history to form hypotheses to support better investment ideas regardless of contextual shape.

Known knowns

- Coronaviruses are not new
- Emission growth is tied to climate change
- Consumer preferences are a demand driver
- Weather events negatively impact physical assets
- Air pollution and mortality are positively correlated
- Global temperatures are rising
- Tech life cycle drives cost down
- Pollination is necessary for food security

Facts

Unknown knowns

- Emission abatement investment
- Investment intervention to slow emission growth
- Sustainability brand investing
- Multi-factor energy investing
- Weather resistant infrastructure
- Biodiversity investment

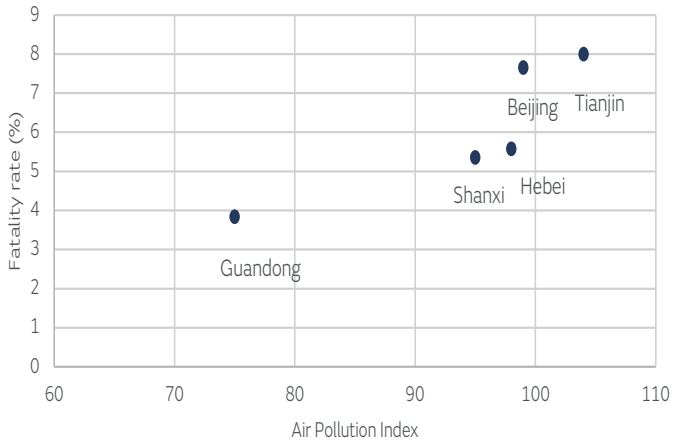
Hypotheses

Coronaviruses are not new

The COVID-19 crisis is not the first coronavirus outbreak. That was in 2002 – SARS. A study conducted in 2003 showed that the difference in the SARS fatality rate in China was passively attributable to air pollution, with a correlation coefficient of 0.86, as shown in Chart 11.

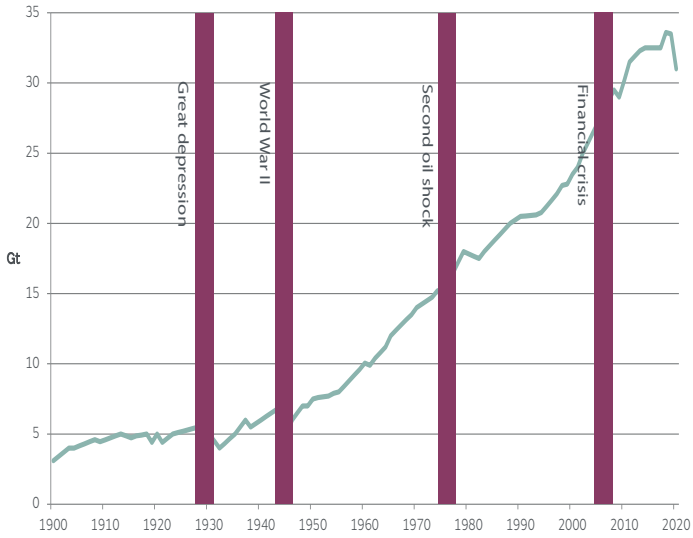
The SARS spread was contained before it had reached every continent. This suggests that insufficient global attention fostered an indifference to such studies. Will this time be different? Global emissions have roared back after all previous crises, as shown in Chart 12.

Chart 11: Correlation between air pollution and SARS fatality rate



Source: Cui Y, et al. (2003)[viii]

Chart 12: Global energy related CO2 emissions (1900-2020)



Source: IEA[ix], GIB UK analysis

*Source: https://www.weforum.org/agenda/2020/05/z-u-or-nike-swoosh-what-shape-will-our-covid-19-recovery-take/

The investment hypothesis is that markets will reward investments that are linked to emissions reduction because the healthcare benefits will now be recognised.

Emission growth is tied to climate change

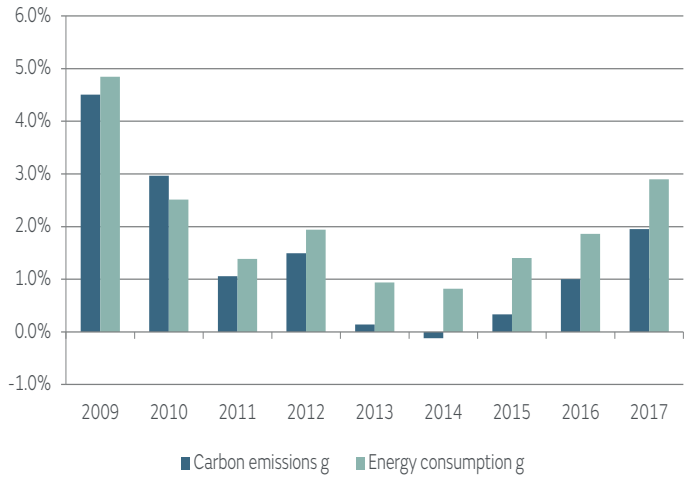
We know there is a link between emissions and primary energy consumption, as shown in Chart 13 illustrating the relationship between energy consumption growth and emissions.

In 2018 data started to suggest that the long-held correlation of economic activity and energy consumption was changing. Historically primary energy growth has correlated to real GDP growth. Accordingly, given slower real GDP growth rates, we should have expected slower primary energy consumption growth in 2018; however, energy consumption growth grew faster than historic correlations suggested.

A hypothesis is that it's the weather. In a stable climate, it is expected that the number of hot and cold records should be equal, and new records should occur less frequently over time. In 2018, 430 weather stations globally saw all-time high temperatures and 40 saw all-time lows. In the US, the combined numbers of heating and cooling days were the highest since the 1950s. That unusually large number of hot and cold days created an increased demand for cooling and heating services which may explain the strong growth in energy consumption not related to economic activity.

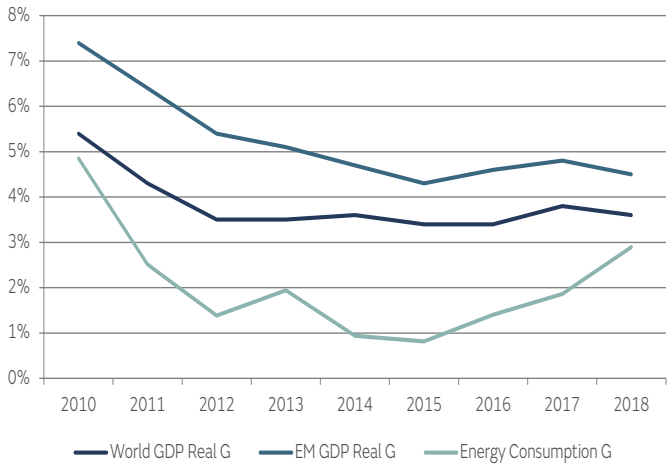
The hypothesis is that emission abatement investing will be valued by the market because slowing emission growth will require investment intervention regardless of the trajectory of economic activity.

Chart 13: Carbon emissions (G) and energy consumption (G) (2009-2017)**



G** = per annum growth

Chart 14: Correlation between GDP and energy consumption (2010-2018)



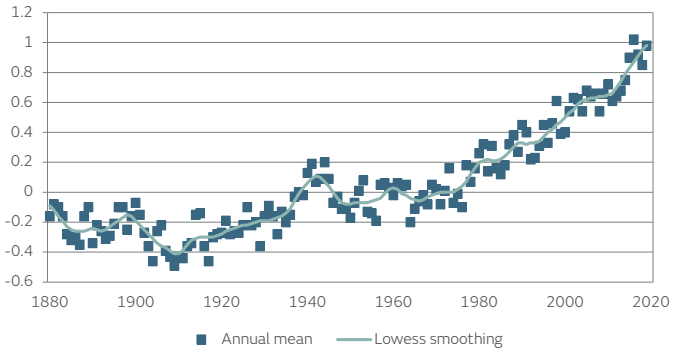
Sources: BP World Energy Statistical Review, GIB UK analysis

Global temperatures are rising

Chart 15 illustrates the change in global surface temperature relative to 1951-1980 average temperatures. It is the chart most frequently cited to support the fact that 19 out of the 20 warmest years have all occurred since 2001.

The data used is broadly consistent with research produced by the Climatic Research Unit[2] and the National Oceanic and Atmospheric Administration[3].

Chart 15: Global surface temperature (1880-2020)



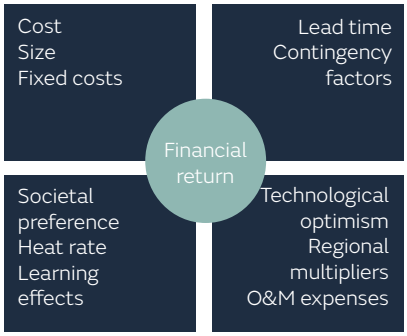
Source: NASA's Goddard Institute for Space Studies, GIB UK analysis

Technology life cycle drives technology costs down

We know that technology life cycle adoption drives the cost of new technologies down to reach mass market. Moore's law still applies.

There are innumerable studies examining the costs of new technologies for energy generation. Most show that the $/kW hour cost of clean-tech energy production is declining. We agree but note that utilities have to balance many factors in capital decisions. This is not a single factor debate.

Fighting the transition is not going to stop the transition.

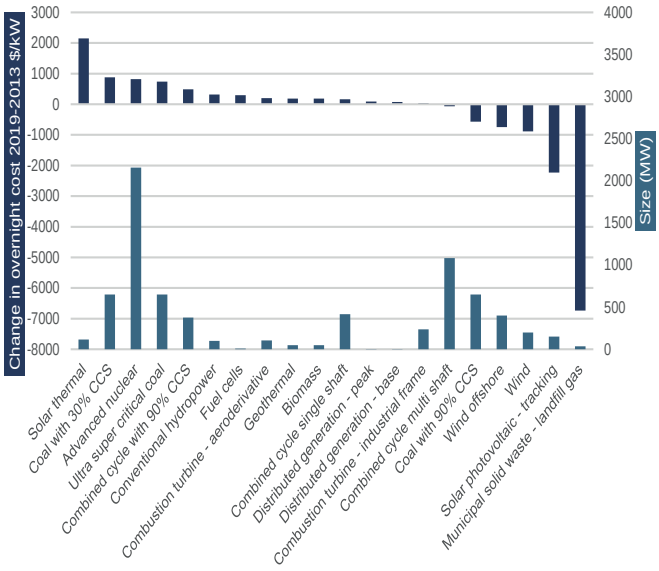


The utility sector has traditionally been modelled as a defensive allocation within a diversified portfolio.

We suggest that a cross factor approach can be a source of differentiated returns in a time of climate transition.

For example chart 16 shows the change in total overnight capital cost from 2013 to 2019 (based on comparable EIA data) ranking different technologies (new and old) by change in cost (left axis) against size (right axis).

Chart 16: Change in total overnight capital cost (2013-2019)



Source: EIA[X] and GIB UK analysis

[2] http://www.cru.uea.ac.uk/
[3]https://www.noaa.gov/

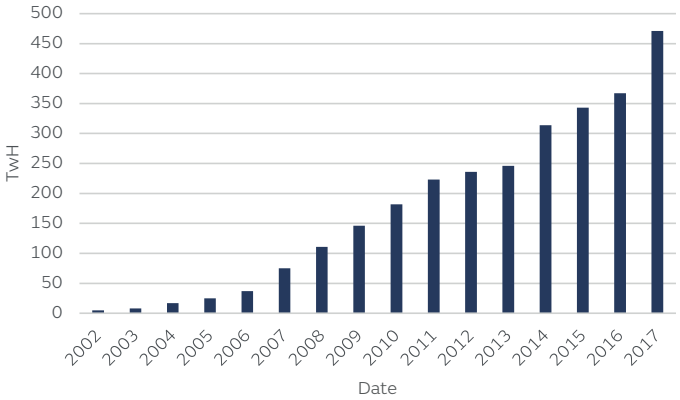
Consumer preferences are a demand driver

We know that societal preference is changing demand patterns for different energy sources.

Demand for renewable energy is not new and is growing as both a policy priority and an-end consumer preference. This is particularly evident in Europe. Chart 17 shows the growing demand in Europe.

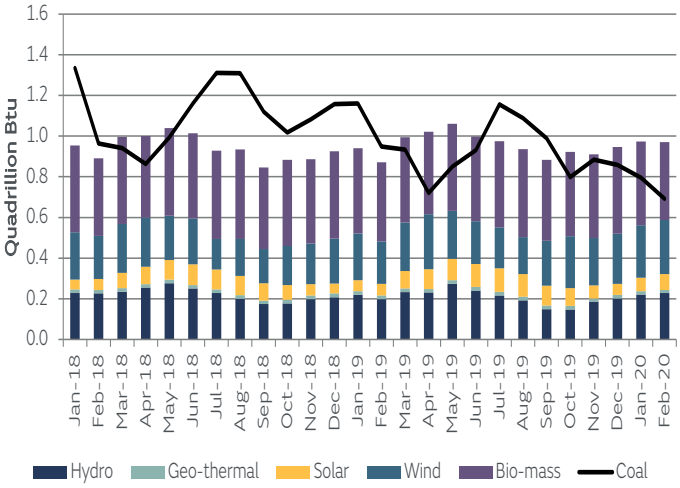
The same demand trend for renewables is also apparent in the United States where, despite policies to support the coal industry[xi], renewable demand has now overtaken coal.

Chart 17: Market demand for renewable electricity with Guarantees of Origin in Europe (2002 – 2017)



Source: ECOHZ[xii]

Chart 18: Primary energy consumption, coal and renewables (2018-2020)



Source: US Energy Information Agency Monthly Review[xiii] GIB UK analysis

Weather events negatively affect physical assets

We know that weather events can have significant and negative economic impact. Super storm Sandy was one of the most damaging and costliest weather events in the history of the United States. The storm closed US financial markets as sandbags surrounded the New York Stock Exchange.

Weather hypothesis are better than forecasts

At least the weather forecasters predicted the storm. Nonetheless, according to the National Hurricane Centre, the storm cost nearly $70 billion[xiv] and killed 206 people worldwide. The immediate impact on homes damaged in the storm was a 17 to 22% drop in value and five years later they had recovered to an 8% discount. But that discount wasn't just limited to those homes actually damaged; it extended to the values of properties in New York flood zones[xv].

Medium term weather forecasts are as fickle as medium term cash flow forecasts. But based on what we do know, we can create scenarios that can impact asset prices today. According to McKinsey Global Institute's April 2020[xvi] case study, a potential devaluation of $30 to $80 billion in real estate prices by 2050 due to increased flooding in Florida will lead to price declines in advance of any actual event. This should have knock on impacts for primary and securitized mortgages, insurers and direct lenders. As risk awareness increases, the more immediate we should see the impact. The net present value of $30 – 80 billion at the 30-year mortgage rate is $11 – 28 billion today, or 5% to 13% of Florida's current real estate GDP.

Our hypothesis is to invest in weather resistant assets.

Pollination is necessary for food security

Macroeconomic impacts from global events are well studied. But the micro matters too. Minute changes in complex systems can have an enormous impact: "the butterfly effect". We know that there is a link between pollinators and the value of agricultural assets.

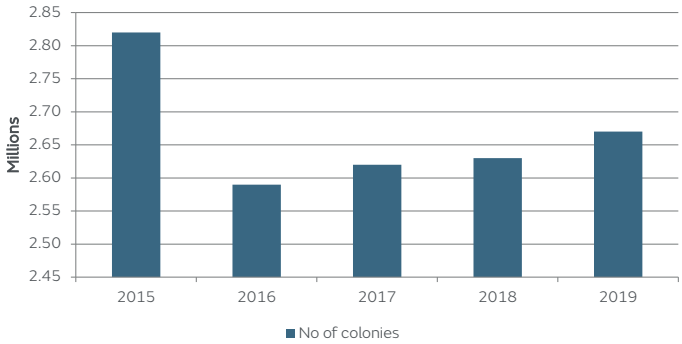
This contribution to agricultural production is a significant underpinner of pension fund investment in agricultural assets such as farmland to which $ 14.8 billion was allocated in 2018[xvii]. The recent decline of honey bees therefore becomes a significant factor in alternative allocations by pension funds.

Pollinators, such as bees, butterflies and insects, are the highest contributors to agricultural yield. According to the Food and Agriculture Organisation, pollinators affect 35% of agricultural land worldwide.

Further, crops dependent on pollination are five times more valuable than those that do not require pollination. The global price tag for pollinator dependent crop is estimated to be $235-577 billion a year[xviii]. Honey bees themselves have a market cap of $20 billion[xix].

Source: Carlo Allegri/Reuters

Chart 19: Number of US honey bees colonies (2015-2019)



Source: USDA[xx] , GIB UK analysis

Nevertheless, the amount of pollinators worldwide has been declining, and by 2016 Colony Collapse Disorder led to concern about the potential for local extinction. While the US honey bee colony population decline has since abated, the fragility and importance of these pollinators warrants investor attention. Chart 19 shows US honey bee colonies (for operations with five or more colonies).

Studies indicate that the absence of pollinators could lead to a 3-8% direct reduction in direct agricultural production[xxi]. This will not only have a negative impact on food production but also portfolio investment performance for many endowments and pension funds.

The hypothesis is that biodiversity investing will be valued by the market because of the imperative to care for our food supply in a pandemic environment. Invest in biodiversity.

Brand value increases financial valuations

We do know that companies better able to meet consumer preferences will outperform their peers.

This becomes more pertinent in an environment where most consumers have experienced a decline in income during the COVID-19 crisis, as shown in Chart 20.

While consumer behaviours will change in ways still to be fully determined, consumer confidence in a particular brand is therefore expected to remain important. Further, according to McKinsey's recent report on consumer sentiment[xxii] , consumers are placing more importance on brands' broader purpose. This suggests that sustainability will become an even bigger driver of brand value. This has already been seen in valuations of companies embracing sustainability such as Danone (see Chart 21).

The realisation of brand value tied to sustainability is making unicorns out of shoe companies such as Allbirds[xxiii]. The sustainable brand value of an Allbirds (valuation $1.4 billion) becomes a public market valuation factor when industry leaders such as Adidas (valuation $52.8 billion[4]) opt to collaborate, not compete, to create a zero carbon footprint[xxiv].

The hypothesis is that sustainability branded assets will be valued by the market as sustainability is seen as a source of economic value.

Chart 20: Consumer income change during COVID-19

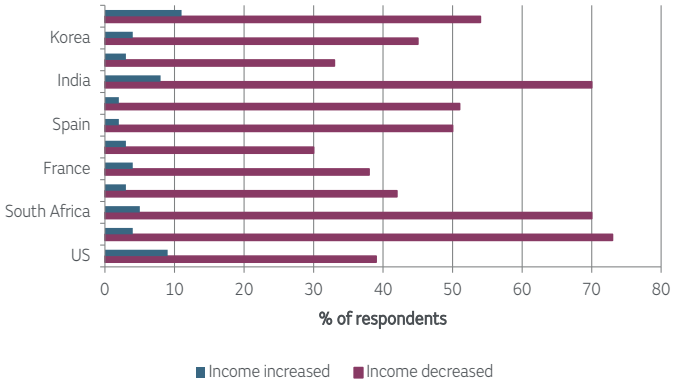
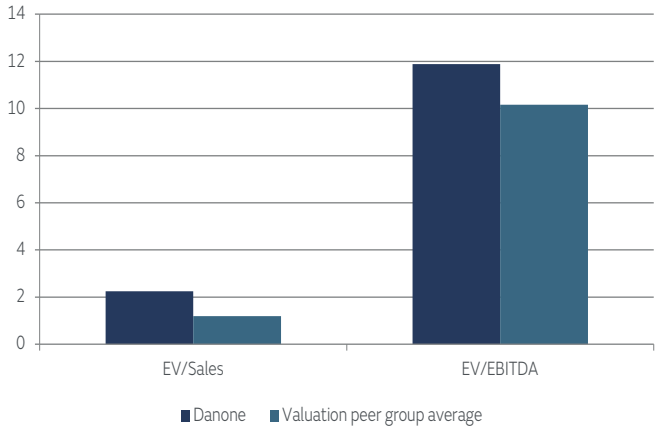


Chart 21: Valuation multiples for Danone vs. peers



[4]Source: Bloomberg

Investment assets are vital to achieve a sustainable future

The new world will reward investors for incorporating what they do know into current portfolios facing an unknowable future.
We suggest that sustainable factor tilts will become an increasingly important factor in portfolio construction.

The COVID-19 pandemic will teach us that sustainable and responsible investing (SRI) has real value. SRI will no longer measure the long term purpose of investing against broad investment benchmarks but will be a source of better investment performance in its own right.

Sustainability factors are therefore vital to investment assets

For more information, contact our sales team at +44 207 259 3149, or by email:

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