

Briefings

Thought leadership for the independent schooling sector

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LONG-TERM EFFECTS OF COVID-19 TO IMPACT ON SCHOOLS?

From the Executive Director

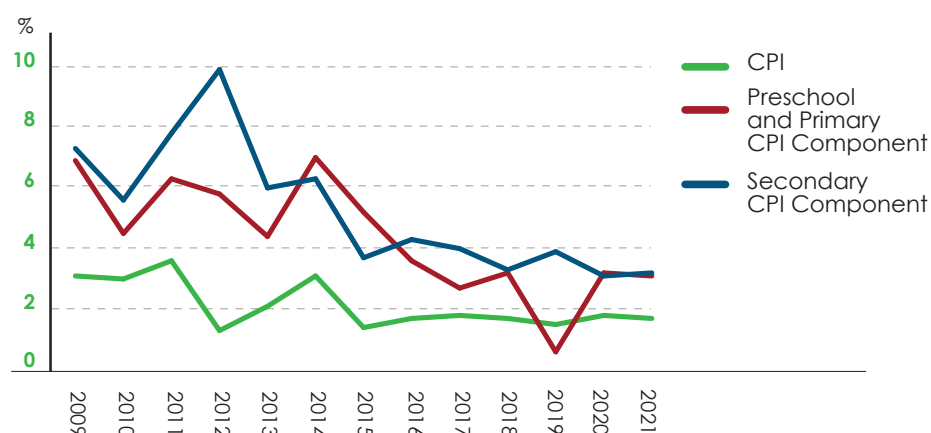
Demographic, economic and social trends, all of which influence the health of the independent schools' sector, have all been severely disrupted by COVID-19.

Whilst independent schools have shown extraordinary flexibility and innovation to deal with the day-to-day operational changes required to handle COVID-19, they need to be mindful of longer-term trends and impacts to ensure sustainability and affordability of their provision into the future.

The release of the March quarter Consumer Price Index (CPI) data by the Australian Bureau of Statistics (ABS)¹ is one illustration of the challenges for schools. The CPI consists of various components, including an Education component with sub-categories of Preschool and Primary, Secondary and Tertiary. The Preschool and Primary and Secondary components of the CPI are generally a measure of school fee increases.

Whilst the headline figures of an increase in the Education components

Figure 1: Consumer Price Index and Education Components - Annual Percentage Change (March Quarter), Brisbane



of the CPI for the March quarter 2020 to 2021 for Brisbane of 3.1% for Preschool and Primary and 3.2% for Secondary suggests "business as usual" in terms of fee increases (see Figure 1), the underlying data presents some key questions for schools.

The overall annual increase in the CPI for Brisbane was 1.7%²; yet school fees rose by over 3%. This continues a long-term trend where fees have been increasing at between 1 to 1.5% above CPI.

Table 1: Percentage Change in Education Components of CPI March Quarter 2020 to March Quarter 2021

	Primary and Preschool	Secondary
Brisbane	3.1%	3.2%
Sydney	-0.3%	2%
Melbourne	-5.9%	1.3%
Adelaide	-1.4%	1.1%
Perth	-0.4%	0.5%

¹ See <https://www.abs.gov.au/statistics/economy/price-indexes-and-inflation/consumer-price-index-australia/latest-release> for details of the Consumer Price Index for the March quarter 2021.

² The CPI increase for Australia was 1.1% for the year with the increase less than 1% for both Sydney and Melbourne.

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Table 2: Quarterly Changes in the Education Components of the CPI

Percentage Change from Corresponding Quarter of Previous Year

	BRISBANE		MELBOURNE		SYDNEY	
	Preschool & Primary	Secondary	Preschool & Primary	Secondary	Preschool & Primary	Secondary
Sep 2019	1.4	3.9	3.1	4.0	3.6	5.6
Dec 2019	1.2	3.9	3.2	4.0	3.8	5.6
Mar 2020	3.2	3.1	4.6	3.7	3.9	4.4
Jun 2020	-8.8	3.1	-15.4	3.7	-19.6	4.4
Sep 2020	1.7	3.1	-12.0	3.7	-4.5	4.4
Dec 2020	3.1	3.1	-2.7	3.7	1.6	4.4
Mar 2021	3.1	3.2	-5.9	1.3	-0.3	2.0

Source: ABS

More importantly, the March quarter figures show a significant disparity between the increases in the Education component for Brisbane compared to the other State capitals as illustrated in Table 1.

The quarterly changes during the period March 2020 to March 2021 as outlined in Table 2 are also worthy of consideration. Without the COVID-19 effect, there would normally be little or no change in the quarterly figures for the education component of the CPI for June, September and December. The March quarter figures reflect annual fee increases at the start of the school year.

During 2020, the Preschool and Primary education component of the CPI had significant changes each quarter. For this component, much of the variation can be attributed to the provision of free preschool by Governments as part of the COVID-19 response.

For Secondary, the quarterly figures followed the normal pattern (fee discounts and cuts during 2020 being of a short-term nature) yet for Sydney and Melbourne fee increases at the start of 2021 were clearly much less than for Brisbane.

The capacity of parents to pay fees is a critical aspect of independent schooling and schools will need to monitor future movements in fee increases as the disruptions associated with COVID-19 dissipate. Research from Independent Schools Queensland tells us that a very high percentage of independent school parents pay the school fees from salaries and wages. Data confirms that increases in salaries and wages across the economy have been around 2% for some time (see Figure 2).

This “disconnect” between school fee increases and increases in wages should be high on every school’s strategic agenda.

Another economic trend that schools need to closely monitor is Gross Domestic Product (GDP) growth. GDP provides an overall indication of the health of the economy. Historical data suggests a strong association between the health of the economy and independent school enrolments.

COVID-19 resulted in a sharp and rapid decline in GDP growth during 2020, as illustrated in Figure 3.

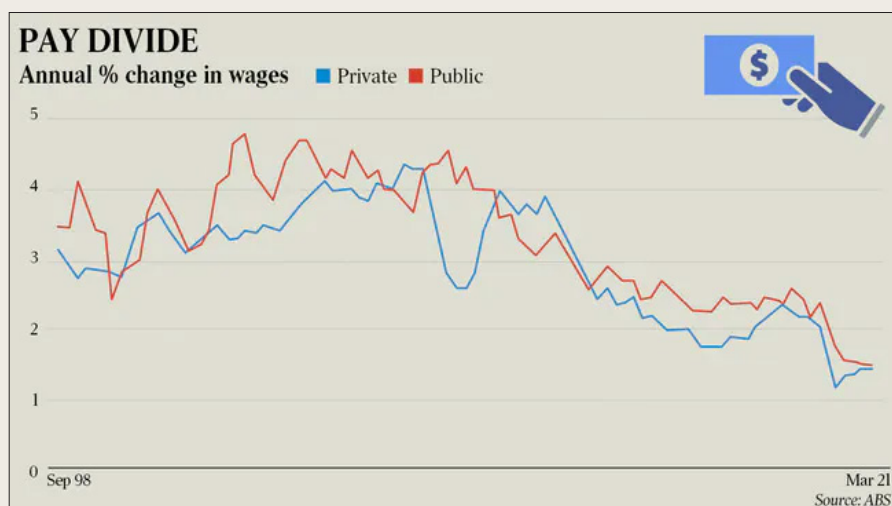
However, as outlined in the recent Federal Budget for 2021/22, GDP growth has already made a strong recovery taking us back to pre-COVID-19 levels. Further, forecast growth over the next couple of years is very strong.

The forecasts are very encouraging but should be monitored closely for any longer-term trends. For the parents of individual independent schools, the impacts of COVID-19 on industries or sectors of the workforce also need to be considered.

Independent schools have a long history of supporting families during times of financial stress and no doubt will continue to do so into the future. However, high-level data indicates a period of increased economic prosperity and relatively low unemployment.

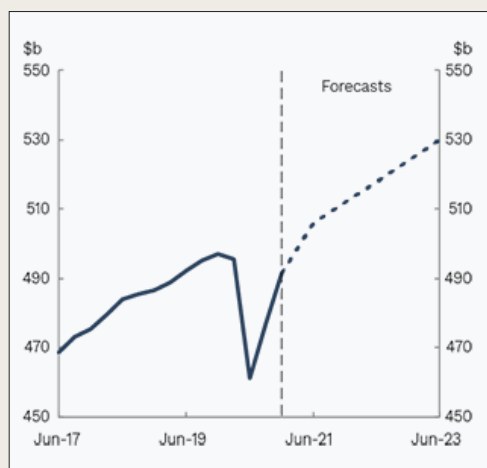
COVID-19 has also resulted in the lowest population growth for Australia this century. Whilst Queensland is benefitting from strong interstate migration at the current time, the longer-term trend in population growth is a critical statistic for schools to monitor.

Figure 2: Annual Change in Wages



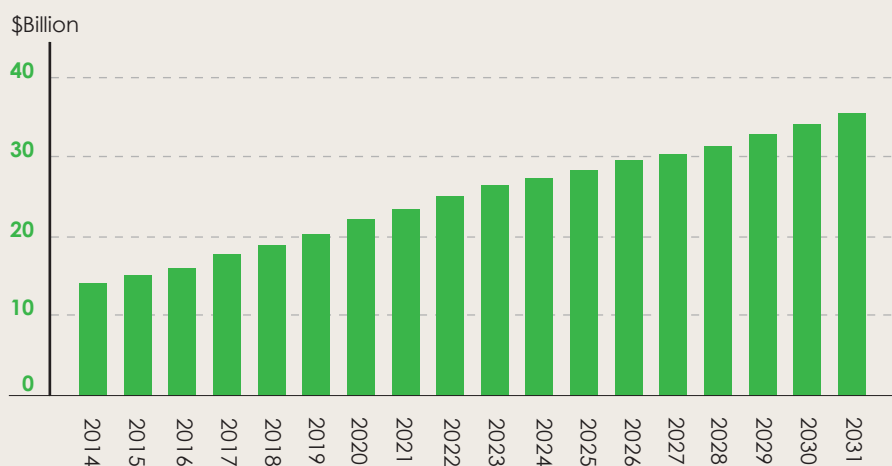
Source: *The Australian* 20/5/21

Figure 3: Australia's Real GDP Growth



Source: ABS Australian National Accounts – National Income, Expenditure and Product and Treasury

Figure 4: Commonwealth Funding for Schools



Source: 2021/22 Federal Budget papers

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Table 3: Major Economic Parameters

	OUTCOME	FORECASTS				
	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Real GDP	-0.2	1 1/4	4 1/4	2 1/2	2 1/4	2 1/2
Employment	-4.2	6 1/2	1	1	1 1/4	1/ 1.4
Unemployment rate	6.9	5 1/2	5	4 3/4	4 1/2	4 1/2
Consumer price index	-0.3	3 1/2	1 3/4	2 1/4	2 1/2	2 1/2
Wage price index	1.8	1 1/4	1 1/2	2 1/4	2 1/2	2 3/4
Nominal GDP	1.7	3 3/4	3 1/2	2	4 3/4	5

Source: 2021/22 Federal Budget – Budget Paper No 1

Demographers indicate that it will take two to three years for the longer-term demographic trends to stabilise and Australia's policy settings on overseas migration (which dropped to virtually zero during 2020) will be a significant determinant of future population growth.

The longer-term position on "working from home" for many industries will also have a significant impact on demographics. If it is accepted that more people will work from home, the potential for the "sea" and "tree" change trends to accelerate further are high. Queensland has been and will probably continue to be a beneficiary of such trends (also driven by the affordability of housing in Sydney and Melbourne).

The Federal Budget is a key document in forecasting economic and demographic trends. The 2021/22 Federal Budget was delivered on 11 May 2021³. Budget Paper No. 1 includes information on the major economic parameters including forecasts and projections (see Table 3).

In terms of schools funding, the Budget projects increasing Commonwealth funding for schools over the forward estimates period (see Figure 4). In 2021-22, the Australian Government will provide \$24.4 billion in funding to government and non-government schools, increasing to over \$28 billion in 2024-25 and is forecasted to reach over \$35 billion by 2031.

The major education initiative announced in the Budget was an Australian Government commitment to provide \$1.6 billion over four years from 2021-22 to make ongoing Commonwealth funding contributions to preschool. A new four-year funding agreement will be negotiated with the states and territories, and will replace the existing arrangements which were on a year-to-year basis. This is good news for early childhood services and will provide greater certainty in terms of their funding.

It was also pleasing to see funding for the National School Chaplaincy Program confirmed in the forward estimates of the Budget at the current level of \$61.4 million per annum.

The Budget papers also reveal that Australia is in a period of record Government debt (a similar situation will no doubt be revealed in the Queensland Budget scheduled to be delivered on 15 June 2021). Schools will need to consider how Government's financial capacity may impact on future funding levels.

The independent schools' sector in Queensland has shown a great deal of resilience during the COVID-19 period to date. In fact, the sector is experiencing strong growth as parents embrace the quality of education and services provided by schools. However, longer-term trends will take some time to settle into clear patterns that can be easily factored into school planning.

Schools which closely monitor the high-level economic trends (as well as the many and varied local circumstances) will be well placed to respond to parent and community needs and circumstances into the future.



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³ See <https://budget.gov.au/> for Budget details.

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Paul will address the shifting domestic political and economic environment in the wake of the COVID-19 pandemic at the Independent Schools Queensland State Forum: Celebrating Change, 17 June 2021, Brisbane Convention and Exhibition Centre.

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PREDICTING THE UNPREDICTABLE



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Forecasting Like Chimpanzees?

Independent schools make strategic decisions in the face of uncertainty. To ensure their strategic plans are robust, they ask: What is our risk exposure to future funding policy changes? Will potential shifts in public opinion about non-State schooling have an impact on us? Will positive market trends continue? Will new technologies disrupt education delivery? How secure is the supply of the future teaching workforce? And of course, since last year: How will the pandemic impact on our enrolments, operations, and business model?

Crafting effective strategic plans would be so much easier if we could only accurately predict the future. Unfortunately, many indicators point to our gross inability to do so. In a long-term study described in his book *Expert Political Judgment*, psychologist Philip Tetlock (2009) came to the widely debated conclusion that experts who make their living from providing commentary and advice on future political and economic events and who spend their lives investigating trends in their area of expertise, provide worse forecasts than chimpanzees selecting their guesses by chance.

If celebrated 'experts' have trouble predicting the future, how can boards and leaders of schools approach the task of leading their organisations into an unknown future? In this article, we examine five authors approaching this question in different ways.

In his follow-up book *Superforecasting*, Philip Tetlock found that, despite his sombre chimpanzee conclusion, some people do use practices that make them consistently more accurate in forecasting future world events. Margaret Heffernan's book *Uncharted* provides an alternative approach to predictions. She maintains that it is better to imagine a range of possible scenarios of the future to generate and test strategies regarding their likelihood of success amidst a variety of futures. *Gut Feelings* by psychologist Gerd Gigerenzer, posits that a complex and unknown future requires something we have come to view with suspicion: our intuitions, based on reduced, rather than increased, amounts of data. We then refer to Nassim Taleb's book *Antifragile* in which he argues that we should not worry about the unknowable future but about the way we are placed to take advantage of the uncertainty that is ahead. Finally, from *Decisive: How to Make Better Choices in Life and Work*, we consider several strategies to alleviate some of the inherent biases in our thinking.

Superforecasting

After raising considerable doubt about experts' ability to look behind the veil of the future, Phillip Tetlock was on a mission to find out if some people indeed have superior forecasting skills than others. To do so, he first needed to establish a way to measure the accuracy of forecasts (the Brier score). The difficulty of doing so lies in the act of forecasting itself. If a meteorologist, for example, claims a 70% chance of rain and it does not rain, the forecast may still have been right. If that meteorologist makes the same prediction 100 times, and it does not

rain 70 times and is dry 30 times, we know that the prediction was incorrect. The Brier score measures this accuracy. Until Tetlock's research, forecasting accuracy was hardly ever tracked over the long term and forecasters were able to get away with inferior accuracy.

Using the Brier score methodology, Tetlock identified individuals who were consistently better at predicting future world events and entered them into an intelligence community tournament, pitching ordinary civilians against professional analysts who had access to classified intelligence information and a multi-billion-dollar intelligence apparatus. The outcome was that teams of 'superforecasters' were 30% more accurate than intelligence teams and 60% more accurate than regular people. Tetlock points out that the superforecasters were scoring 10% above the intelligence of regular forecasters – they were smart but not necessarily geniuses. How they applied their intelligence made all the difference.

During his research, Tetlock identified several strategies that superforecasters use. Superforecasters break down complex questions about the future into smaller components for which reasonable estimates can be made ('Fermi' estimates, after the Italian physicist). An example how this strategy may be applied to the education sector is the risk of future teacher workforce supply shortages. To determine the extent of the future problem, schools can create sub-questions such as: What is the size of the working-age population in our region? What are the current ratios of teachers in this workforce and in recent graduate cohorts? What is the historical trend of teacher graduation decline? What are our recent teacher retention ratios? After determining these relevant data points, a simple mathematical model that combines them could improve a school's forecast of future teacher supply to an acceptable level of accuracy.

Further, Tetlock describes how

superforecasters use a strategy he calls "outside view". Using the example of a school wanting to make a reasonable determination of future market share growth, superforecasters would start with looking at external factors first (the outside view): They might determine the percentage of schools in the sector or region who have had a positive market share trend and describe the extent of it. This data establishes a forecasting baseline. Then, superforecasters adjust this figure up or down by contemplating the internal circumstances within the school that may make it reasonable to assume a change in the baseline (the inside view). The inside view could include whether significant internal events have happened that may impact market share; whether the school has recently established new extra-curricular programs; whether recent changes of leadership have occurred; or whether building programs have recently been completed.

In addition to strategies used by individual forecasters, Tetlock identified characteristics of superforecasting teams. Not surprisingly, teams that performed best were those in which a culture of psychological safety allowed members to disagree with others' assessments and critically examine their views. Their team leaders assured members that diverging views were a welcome and necessary component of good team decision-making.

Schools can use Tetlock's thinking to examine how they form their assumptions about the future. Breaking down complex questions about the future into smaller parts, using the outside view before the internal narrative, and establishing the right team culture are just some of the strategies that may be beneficial to schools when dealing with the uncertainty that lies ahead.

Uncharted

Margaret Heffernan's book *Uncharted* also makes the case against people who believe that the future lies

behind a locked door and that only a few specially gifted people have the key and are occasionally allowed to take a sneak peek. For Heffernan, not knowing what lies ahead is also an opportunity that requires us to ask better questions. If there is no way for us to predict when the pandemic will end, we must consider different scenarios about the future. What if the pandemic ends at the end of this year? What if it ends in two, three, five years' time? What would we do in each of those scenarios? And further: Which of my options would be a good choice regardless of the timeline? Which of my options is a robust choice for most of the possible scenarios?

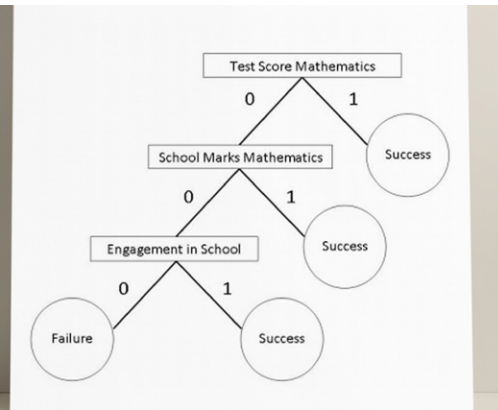
Heffernan evokes the power of the strategic thinking tool called Scenario Planning, first developed as an innovative project by Shell in the 1970s. Having survived as a valuable strategic tool for decades, Heffernan believes that it is still relevant for today's organisations. Importantly, scenarios developed through this process do not claim to be predictions. They are simply relevant and plausible stories about possible futures. After identifying multiple plausible scenarios, they can be used to stimulate the creation and evaluation of the strategic options available to an organisation.

A school may develop a scenario where they are faced with multiple concerns such as unfavourable school funding changes, increased capital investment into the local government schooling sector, and a significant increase in compliance and regulatory matters. If this was a description of the school's future, what would school leaders have wished they could have done right now? In another scenario, a school is faced with increased funding opportunities and a strong growth in market share with maintained levels of compliance and regulatory matters. What would school leaders wish they were doing right now? Are there things that could be done right now which would situate a school favourably, if either of those scenarios were to eventuate?

PREDICTING THE UNPREDICTABLE CONTINUED

Figure 1: Fast-and-frugal decision tree with three predictors for identifying students at risk of school failure.

0 means under median of the variable, 1 means over median of the variable.



Adapted from Klapproth & Scholtz, 2013, p. 196

Gut Feelings

In his book *Gut Feelings: The Intelligence of the Unconscious*, Gerd Gigerenzer argues against the conventional wisdom expounded in much of today's decision-making literature that says rational decisions require deep analytical skills to be applied in the process. In-depth reflection and thoroughly analysed actions are usually thought to lead to better outcomes. Options should be carefully weighed by the benefits they provide. The more complex the decision-making models, the more variables they take into consideration, the better the outcome will be.

Gigerenzer describes our reality as one in which our knowledge about the world is significantly limited. We have limited time to make decisions and the future is characterised by both complexity (many variables interact with each other) and uncertainty (the probabilities of outcomes are unknown). Rather than considering this worldview as limiting, Gigerenzer is fascinated by our ability to adapt to those limitations and make intuitive

decisions relying on rules of thumb (which he calls heuristics) that perform equally, and sometimes better, than complex decision-making models.

Gigerenzer attempts to explain where gut feelings come from and to reinstate their role in our decision-making. He believes they are a result of using subconscious heuristics. For example, when a baseball player has a gut feeling about the direction and speed of their running in order to catch a flying ball, they are not solving a complex differential equation in their minds but are using a subconscious rule of thumb called the gaze heuristic. It states, fix your eyes on the ball in the air and run towards it. If your gaze lowers, run faster; reversely, run slower. If this rule is followed, the player will be right under the ball at the right time.

In another example, when a sample of Americans were asked whether Milwaukee or Detroit was the larger city, around 60 percent voted for Detroit. American participants weighed up all the different things they knew about both cities to come to their conclusion. German students were

asked the same question and nearly everyone selected Detroit as the (correct) answer. Why? Because they relied on their gut feeling. The heuristic that created this gut feeling was the recognition heuristic. "If you recognise the name of one city but not that of another, then infer that the recognised city has the larger population" (p. 8). The partial ignorance of the German participants helped them make a better decision.

The author argues that a good way to make decisions in the real world is to bring the heuristics that inform our gut feelings into the open and consciously use them in situations where probabilities and risks factors are not fully known.

A study by Klapproth & Scholtz, (2013) found that the use of a simple heuristic called a fast-and-frugal decision tree identified at-risk students much more quickly and just as accurately as a complex linear regression model. In this decision tree (see Figure 1), a series of simple questions were asked:

1. Consider *diagnostic test score* in Maths. If below median, then...
2. Consider *school assessment marks* in Maths. If below median, then...
3. Consider *engagement data in school*. If below median:
Student is at risk of disengagement.

If the result of any of these prompts is above the median, the student is not considered to be at risk.

Bryant (2005) offers another application of a fast-and-frugal decision tree while analysing the decisions of entrepreneurs assessing new business opportunities. Many entrepreneurs go through the following decisions: Is the opportunity a good strategic fit? If yes then ask: Is the worst case an acceptable risk? If yes then ask: Are other parties involved in the opportunity trustworthy? If yes then ask: Do we have the right amount of market knowledge for the opportunity? If yes to all questions: Proceed with the opportunity.

Antifragile

For Nassim Taleb, life is much more random and unpredictable than we expect it to be due to our hindsight bias. This may be because it is easy for people to describe why past events have happened, and this gives the illusion that we can similarly explain why the future will shape up to be one way or another. For Taleb, however, our future is composed of complex systems creating chain reactions of events that make it impossible to provide any robust forecasts.

Although we cannot control the future, we can control our exposure to it. In the face of wind, we can either be a candle that gets extinguished or a fire that is being energised. Taleb says we have some control over whether we are a fire or a candle, and are able to harness uncertainty to our benefit, regardless of what the wind will do.

In order to take a posture that benefits from whatever the future throws at us, we must have an asymmetrical stance towards risk. This happens when we have more to benefit from shocks and unexpected events than we stand to lose. Once our orientation is asymmetrical, unknown events may still harm us at times, but more often than not, they will bring us benefit.

Taleb believes that in order to develop an asymmetrical orientation toward the future, we have to decrease the potential for losses and maximise the potential for gains from uncertainty. For an analysis on practical steps schools can take to develop their asymmetry to risk, refer to *Briefings*, Vol 24-4 (Independent Schools Queensland, 2020).

We have limited time to make decisions and the future is characterised by both complexity (many variables interact with each other) and uncertainty (the probabilities of outcomes are unknown).

Decisive

The need for effective decision-making has always been high, but the COVID-19 crisis highlighted its importance. School leaders have needed to make decisions with huge implications for their communities, students and staff. Needing to make these decisions with limited information and in an uncertain environment has exacerbated the levels of stress and anxiety experienced by school leaders.

In the article *A leader's guide to decision making under uncertainty*, Hughes-Jones outlines how uncertainty can affect decision-making and explains that "[a]t a neurobiological level, our limbic brain translates uncertainty into a strong threat or alert response, at the expense of our neo-cortex, the thinking part of our brain. Our feelings range from general uneasiness to outright anxiety and panic. Our ability to focus and make good decisions is impaired, which has obvious consequences for leaders" (n.d., para. 4).

To alleviate the impact of some of the stress on our thinking process and alleviate some of the inherent biases in leaders thinking, Hughes-Jones advocates the use of a decision-making framework, such as Chip and Dan Heath's WRAP framework, from their book *Decisive: How to make better choices in life and work*. WRAP is a mnemonic for:

- Widen frames
- Reality test assumptions
- Attain distance before deciding
- Prepare to be wrong.

One of the main pitfalls in decision making is having a narrow frame. Doing so means possible alternatives that might be better options are not considered. Narrow framing can be overcome by avoiding 'whether or not' questions. An example of a 'whether or not' question is, 'Should we reduce class sizes to help attract enrolments?' To widen the frame, a more effective question is 'What is the best way we could spend some money to increase our enrolments?'

Leaders are also encouraged to consider the opportunity cost of any decision, e.g. when making a purchase, what else could the money be spent on? Another strategy is to develop at least five options because having a range of possible options limits the likelihood of proponents becoming too invested in any one option and then taking any criticism personally. It is important to ensure that the options are valid and not just binary options in disguise. For example, if two extreme options from either end of the spectrum of possibilities are presented and then a middle option is proposed, that middle option is seen as more reasonable. Therefore, in effect, only one realistic option has been presented.

Many decisions that we make are subject to cognitive biases and the inevitable flaws in our mental model of the world. A very common one is confirmation bias – the tendency to search for, interpret, favour, and recall information in a way that confirms or strengthens one's prior personal beliefs or hypotheses. To test our assumptions, leaders can:

- seek additional data from people who have successfully dealt with a similar issue or with opposing views
- ask specific questions, e.g. rather than asking in an interview, 'what travel demands are there in this job?', you could ask 'how many nights do you have dinner with your family in a typical week?'

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- ask “what information would I need to change my mind?”
- play the devil’s advocate and encourage others to do the same.

In their book, the Heath brothers use the example of Alfred Sloan, the former CEO and Chairman of General Motors, who once interrupted a committee meeting with the question “I take it we are all in agreement on the decision here?” All the committee members nodded. “Then I propose we postpone further discussion of this matter until our next meeting to give ourselves time to develop disagreement.”

Testing our assumptions using the strategies above is sound advice but seemingly faced with the need to make a quick decision in uncertain times, we are more likely to skip that step and allow our emotions to cloud our judgement. The Heath brothers argue that it is in that moment that leaders need to step back and take a breath.

Decisions are our best guesses based on the information we have at the time. In a world of ambiguous choices and imperfect human beings, there is no guarantee that any decision we make will turn out to be the correct one.

One strategy to try to pre-empt a bad decision is to conduct a pre-mortem. Ask yourself, if it turns out that this decision has gone badly, what would we have gotten wrong? It is also important to guard against hubris and the notion that we can predict the future with any degree of certainty.

Conclusion

All five books mentioned in this article acknowledge the difficulty in making predictions about the future with accuracy. However, they differ in the way they deal with this issue. While *Superforecasters* believes that some techniques will lead to consistently better predictive outcomes, *Antifragile* diverts us from even trying to investigate the future, and to only focus on ourselves and what we can do to manage our exposure to uncertainty. *Uncharted* is very sceptical about our predictive powers but encourages leaders to use creativity to imagine alternative futures for which we can craft strategies that have chances of success, whatever will eventuate. Finally, *Gut Feelings* and *Decisive* propose to stop putting a false sense of trust in complex decision-making tools and advocate for the conscious application of heuristics that have been instrumental in developing our successful gut feelings.

For schools, an approach that combines the useful and practical aspects of all of the viewpoints presented may be most advisable. If leaders consider strategic risks around school funding for example, the *Superforecasters* toolkit may be used to ascertain our likely risk exposure for the next five years. Then consider how to become more *Antifragile* by adjusting a school’s capital structure and other financial arrangements to increase financial robustness. Leadership teams can develop different scenarios highlighting the different worlds we may find ourselves in, in another five or ten years, as described in *Uncharted* to revisit what we will wish we had been doing right now. And finally, in the spirit of *Gut Feelings* and *Decisive*

we can critically evaluate if long-term budget forecasts are based on too many assumptions, each with their own forecasting error that compound in the aggregate. If they are, leaders may decide to use simpler models based on only the most fundamental financial health indicators to determine if long-term financial plans will hold.

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