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Australia's Chaotic Climate Policies



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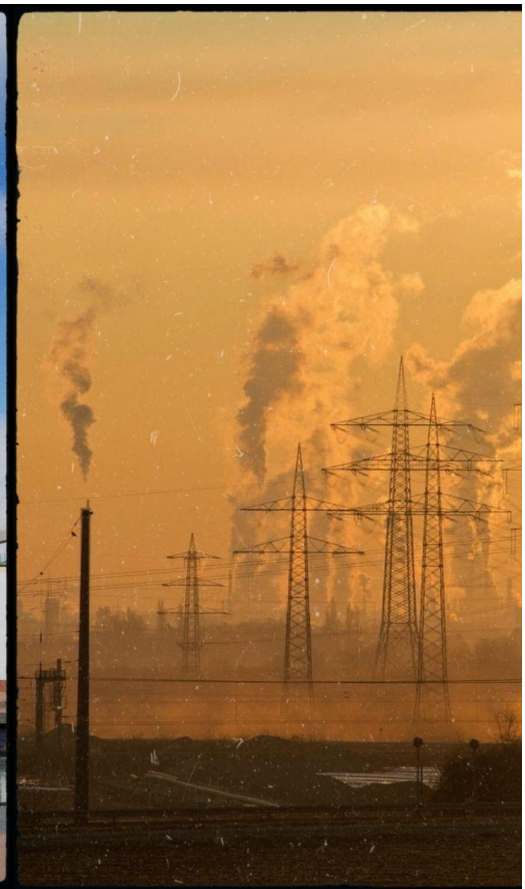
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AUSTRALIA'S CHAOTIC CLIMATE POLICIES (PART ONE): AUSTRALIA – THE CONSPICUOUS LAGGARD

Australia's deadly bushfires in the summer of 2019-2020 dramatically demonstrated to the entire world the horrific dangers of climate change. It confirmed what the steady accumulation of scientific data over the last 25 years has been predicting; and what the climate activist were demonstrating about in more recent times. These bushfires resulted in a dramatic shift towards action by the European Union, China, Japan, South Korea and, most recently, the US since the election of President Joe Biden, and the appointment of its former secretary of state John Kerry as his Climate Envoy.

John Kerry will make the point in coming summits that countries collectively need to do at least three times as much as they are currently pledging. The costs of climate events are rising alarmingly, with Kerry drawing attention to the cost of some \$US350 billion (\$452 billion) in one year after three storms.^[i]

All of this highlights that existing Paris pledges are inadequate to meet the goal of keeping global warming below 2 degrees, i.e., the amount specified by science as an "upper limit", or "guardrail", or "tipping point", beyond which global warming becomes an unstoppable chain reaction. Our children could well face the prospect of their planet becoming uninhabitable in their lifetimes. To stay below that limit the world has a finite carbon budget – a fixed amount of pollution we all can emit over the next two to three decades. However, it is the next decade that will be the determinant. Hence the global focus on increased targets for 2030.

Here in Australia, however, the policy shifts have been more spin than substance.

Australia's Paris commitment in 2016 to reduce emissions by 26 to 28 per cent from a 2005 base was political and is widely considered to be inadequate to meet the Paris Accord goal of limiting global warming to well below 2, preferably to 1.5 degrees Celsius, compared to



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pre-industrial levels. Note that a 26 per cent target is consistent with global warming of about 3 degrees, defeating the whole objective of not reaching a tipping point. Recently, *Australia's Bureau of Meteorology* gave evidence to the Australian Senate that current world targets have Australia on track to warm by a catastrophic 4.4 degrees by the end of the century.^[ii]

Australia's Prime Minister, Mr Scott Morrison is a supporter of fossil fuels. Once, he famously brought a lump of coal to its Federal Parliament to show his support to the mining industry and score political points that ultimately helped him to win a prime ministership against all odds. More recently, in 2019, he warned that electric cars would end the Australian weekend as: "it's

not going to tow your trailer, it's not going to tow your boat, it's not going to get you out to your favourite camping spot with your family." [\[iii\]](#)

Despite this show of populism, he faced criticism, and even condemnation in some quarters, over his disastrous decision to take a holiday in Hawaii as Australia burned with the most devastating bushfires in our history. These were clearly the result of anthropogenic climate change caused by the burning of fossil fuels. [\[iv\]](#) His early return from holiday to deal with the bushfire crisis coincided with the onset of the Covid-19 pandemic; and climate change took a back-seat for a while. However, he could not continue to ignore the dramatic shift towards 'climate action' by the international community that was first horrified, and then galvanised, by Australia's devastating bushfires.

Technology Investment Roadmap

This international pressure resulted in the release of the Australian Government's 'Technology Investment Roadmap' in September 2020.

This roadmap articulated a strategy to accelerate development and commercialisation of low emissions technologies. These were the key milestones of the roadmap process. Priority was given to government investment on new and emerging technologies with the potential to deliver the strongest economic and emissions reduction outcomes for Australia. [\[v\]](#)

To the dismay of many climate scientists, however, the document whilst championing the use of gas, barely mentioned coal. Also, in keeping with the current Australian government's climate doctrine, it included no reductions targets and no price on carbon. Instead, the document claimed that emissions targets would be achieved by backing new technologies rather than penalising old industries. (These new technologies will be covered in Part Two of this series). Further, to meet its voluntary Paris Accord emissions goals, it was announced that Australia would use the 'Kyoto credits', i.e., what the government claimed to have earned in the past by beating reductions targets set under the Kyoto Protocol.

PM Morrison, when flagging the plan in the Australian Parliament, stated that, *"If this technology investment and use of previous carbon credits cut emissions by the amount the international community was increasingly demanding, it would be almost incidental"*. [\[vi\]](#)

Such vague promises and use of historical carbon credits was just not good enough for UK Prime

Minister Boris Johnson, the host of the upcoming UN climate talks in Glasgow in November 2021 (set for November 2020 but delayed by a year due to the Covid-19 pandemic). PM Johnson kept ramping up his own goals; claiming that the UK would not only hit net-zero by 2050 but also reduce emissions by 68 per cent on 1990 levels by the end of the decade. China, Japan, Britain and South Korea, which account for more than \$310 billion in Australian annual trade between them, have all now adopted the net-zero emissions target by 2050 or 2060, ramping up pressure on Australia's fossil fuel industry.

However, with coal and natural gas alone being worth more than 25 per cent of Australia's exports – or \$110 billion each year – in October 2020 PM Morrison said he will not be dictated to by other governments' climate change goals and declared that he is not worried about the future of Australia's exports despite the above four of the country's top trading partners adopting net-zero emissions targets. [\[vii\]](#)

PM Morrison went on to say: *"I am not concerned about our future exports. Australia will set our policies here. Our policies won't be set in the United Kingdom, they won't be set in Brussels, they won't be set in any part of the world other than here."* The outcome was that PM Morrison was not offered a speaking slot by UK PM Johnson at an interim climate meeting in December 2020. [\[viii\]](#) To put this into context, leaders from 70 countries, including Belize, Afghanistan and Rwanda, are speaking, but Australia does not have a seat at the table.

Policy Change 'Spin'

Despite PM Morrison stating that he will not bow to international pressure, the diplomatic snub by UK's PM Johnson resulted in PM Morrison announcing at a meeting of Pacific island leaders that Australia would not use the controversial 'Kyoto credits'. Despite this back-down, diplomatic pressure was mounting on Australia to take even more climate action.

This pressure grew with Joe Biden's victory as the President of the United States in November 2020 and his pledge to implement a "carbon-adjustment fee" (carbon tariff) at the border. Britain and the EU are already looking to settle on plans to impose carbon tariffs in the coming months. Such moves would establish levies on energy-intensive imports from carbon-price-free jurisdictions such as Australia. [\[ix\]](#)

This has resulted in a lot of spin about policy change, but no real action.

Perhaps this slow pace of change is in fact a deliberate strategy by PM Morrison. He is

probably aware that he cannot be seen to attend the Glasgow talks in November 2021 and be isolated alongside a small handful of climate rebels in the face of Australia's allies and trading partners. Further, he knows that, in the general community in Australia the winds have shifted and that there is a political advantage in acting on climate change. But he is perhaps weary of alienating those in his political party who oppose any sort of climate action.

In January 2021, PM Morrison took another small step, by announcing that *"the shift towards a net-zero economy was inevitable"*. Then in February 2021, instead of announcing a firm target of reducing greenhouse gas emissions to net-zero by 2050, PM Morrison said *"Our goal is to reach net-zero emissions as soon as possible, and preferably by 2050."* He also said that he would not commit to an emissions' deadline until *"I can tell you how we get there"*. Economists say despite Morrison's increasing ambition to hit a 2050 deadline for net-zero, the government's focus on low emissions' technology will not be enough on its own to achieve it. [\[x\]](#)

A firm net-zero target would have brought Australia's ambitions into line with Europe, the United States and much of Asia. [\[xi\]](#)

This slow shift in climate policy has, however, been viewed positively in Australian climate science circles. Professor Lesley Hughes, a counsellor with the *Climate Council* says it is clear the PM's progression is real. *"I think he is boiling the frog, getting opponents, mainly in the National party, used to the idea of action. He knows in the general community there is a political advantage in acting."* [\[xii\]](#)

The issue is one of 'Functional Reality' vs. 'Climate Reality'. Those who are in the 'functional reality' camp do not support any climate action policies – even when recommended by scientists, engineers, and economists – if they are perceived to be not politically implementable. Those in the 'climate reality' camp, on the other hand, recognise the actual reality of climate change that the Paris Accord and other treaties are urgently trying to address. Around the world, functional reality is being rapidly overwhelmed by climate reality; as demonstrated by the Australian bushfires; the melting of the glaciers, the intensity of the hurricanes, the flooding of the coastal cities, etc.

Unfortunately, functional reality has retarded climate action in Australia – longer than it has in comparable nations – in large part because the country creates its wealth not only by using fossil fuel but also by its export. This has resulted in Australia's chaotic climate policy.

Take for example the case of climate policy with regards to Agriculture in Australia. The current Australian government is a Coalition of parties, dominated by a more city-based Liberal Party (more politically akin to the Republicans in the USA or the Conservatives in the UK) and the more rural-based National Party.

In response to PM Morrison's net-zero by 2020 goal, the National Party said that it would oppose any emissions deadline that does not exempt agriculture, mining, and manufacturing. The National party leader Michael McCormack said: *"We are not worried, or I'm certainly not worried, about what might happen in 30 years' time. If the Nationals supported net zero emissions, we would cease to be a party that could credibly represent farmers."*^[xiii]

The climate reality is that in 30-years, if there is no climate action in the next 10 years, there will be no arable land to farm on.

Also, the National party seems to be hopelessly ignorant of their own constituents; as the *National Farmers Federation*, *NSW Farmers*, *the Grains Council*, *Meat and Livestock Australia*, the pork industry, and others across the agriculture sector, have already committed to net zero emissions by 2050. They believe that this can be achieved via 'Carbon Farming' (more on this later).

Australia's business community is also voting with its wallet for more ambitious climate action. An investment splurge on Australia's carbon credits markets revealed this week investors have started betting that PM Morrison will wind up with firm climate targets one way or another. Australian export behemoths including *Rio Tinto* and *BHP*, as well as *the Business Council of Australia*, employer groups, major agriculture lobbies and multinational food companies are pursuing carbon neutrality deadlines – in part to avoid being stung with trade tariffs or charges by countries that have set net-zero targets.^[xiv]

However, these shifts in corporate attitudes have not been reflected in the Australian federal government circles. Australia remains the only developed nation not to have committed to a mid-century net-zero emissions target, and some cabinet members are determined to push back against capital flight from fossil fuels. In fact, amazingly, in federal parliament an inquiry was launched in December 2020 to question banks and insurers over their plans to reduce support for new mines and coal-fired power plants due to global warming.^[xv]

In fact, whilst visiting a coal mine in Queensland, Australia in January 2021, PM Morrison fended off calls to phase out fossil fuels and toughen



action on climate change by stating that he expects coal mining to continue to generate wealth for Australians for decades to come. *“These mines have got, you know, 10, 20, 30 years to run”*, he said. [\[xvi\]](#)

Then, in February 2021, the National party’s former leader, Barnaby Joyce (a CPA, and not a CMA) lodged a formal amendment in Parliament to rule that the \$1 billion *Grid Reliability Fund*, to be administered by the *Clean Energy Finance Corporation (CEFC)* be “technologically neutral”, rather than limiting options. The amendment does not compel the CEFC to fund coal power but removes a restriction which will prevent it from backing the energy source. Mr Joyce said that, *“Our largest sale as a nation is fossil fuels, like it or not, and I can’t see anything to change that.”* Mr Joyce is hoping that his amendment would permit high-efficiency low-emissions coal (clean-coal) plant projects to apply to the fund, which he claimed would boost greenhouse gas reductions. The outcome was that the government withdrew the bill from debate and at the time of writing this article was considering whether to bring it to Parliament in weeks or months to come. [\[xvii\]](#) In part two of this article, we will discuss the scientific validity of this so-called “clean coal”.

Australia’s reliance on the exports of fossil-fuels will be severely tested on the international arena, due the possibility of ‘carbon tariffs’ being imposed. President Biden will host a climate leaders’ summit on *Earth Day*, April 22, 2021, and PM Morrison is hoping to be invited. If invited, it is reported that PM Morrison will argue against carbon tariffs, saying that they are not aimed at combating climate change, but rather at economic objectives including protecting local industries such as British and European meat, cheese, and wine. [\[xviii\]](#)

However, a briefing prepared for the European Parliament found carbon tariffs would not amount to protectionism provided they did not discriminate against one particular country and were set at the correct rate. [\[xix\]](#)

Just Transition

The reason why PM Morrison is talking-up fossil fuels is because the possible loss of jobs from coal to renewables. In Australia, most talk of an energy transition centres on thermal coal, which is burned to make electricity. Renewables are now largely cheaper than these old power sources; and that means more mines and legacy power stations will close in coming years. The question is: how fast and what happens to the workers when they do?

Almost everywhere industries have collapsed, and workers have been left in the lurch from manufacturing and coal today, similar to the cotton mills of the previous century. But when Germany shuttered its black coal industry in 2018, it did so without sacking a single worker, under a model known as “just transition”.

The term “just transition” was coined by North American unions in the 1990s as concerns about abrupt closures grew. The basic premise is that, as a shift from fossil fuels to renewable power is necessary for the common good, just as those industries have provided for the common good before the threat of global warming was understood, those workers and communities most affected should not be penalised.

Two decades on, the coal and steelmaking in Germany’s Ruhr valley that had once helped Europe recover from two terrible world wars was facing a similarly bleak future. But instead, the German government stepped in with a staged 10-year closure, now considered the gold standard of “just transition”. Working alongside communities, unions and the major employers under a slogan loosely translated as “no one left underground”, the German government re-nationalised the industry and then set a timetable for closures. It repurposed existing government subsidies into pensions for older workers and retraining packages for those looking to transition. Five thousand people were kept working on land remediation, funded by a \$355-million annual “eternity fund”, as the region was transformed through new infrastructure and research institutes. No miner lost their job. Today, Germany is running a similar phase-out of thermal coal by 2038.

Opponents to government intervention often speak of letting the market decide but others insist the shift to clean energy is now inevitable. And when there is no dialogue or formal support, the fortunes of workers on the losing side can be left entirely to big corporations squeezing the last drop of profits from a region. [\[xx\]](#)

Green Jobs – A Management Accounting Challenge

With all this activity in the renewable energy sector, should we be seeing a green jobs boom already, if not in Australia, then at least in Western democracies that have sounder climate policies?

Germany, which takes its transition to renewable power so seriously it has a word for it, *Energiewende*, offers a cautionary tale. It is on track for 65 per cent of its electricity to be from renewable sources by 2030. A report released in

February revealed the number of jobs in the German renewable sector — production and installation — had almost halved from 300,000 in 2011 to around 150,000 in 2018, offset partly by a gain of 30,000 in maintenance, up to 80,000. [\[xxi\]](#)

The reason is that most of the green jobs have been created in Asia. Last year, sixty-three per cent of all green jobs were recorded in Asia, confirming the region’s status as a market leader. Biofuels jobs followed closely behind solar PV, reaching 2.5 million. Many of these jobs are in the agricultural supply chain, particularly in countries like Brazil, Colombia, Malaysia, the Philippines, and Thailand, with labour-intensive operations. Other large employers in the renewables sector are the hydropower and wind industries, with close to 2 million and 1.2 million jobs, respectively. [\[xxii\]](#)

The growing competitiveness of Asian companies (in China, Korea, and India) in creating green manufacturing jobs should be of concern to Western economies. For example, of the top 10 solar panel manufacturers in the world, eight are Chinese. German workers have priced themselves out of the market, as have Australian workers.

Australia is in a worse position than Germany. It has lost its manufacturing expertise in key industries that could have enabled it to compete with the Asians. [\[xxiii\]](#) For example, Australia’s car industry that was the backbone of manufacturing in Australia from 1925, is now lost (along with its related know-how). Tesla, the electric car manufacturer is building gigafactories in Austin, Texas, Shanghai, and Berlin. If Australia had a car manufacturing base, a factory could have been built in the country. After all, Australia’s Pilbara Minerals mines the key resource of lithium needed for the batteries. Also, its wages would be competitive against at least Austin and Berlin, so that would not be an excuse.

But the actual calculation of exactly how many green jobs are created is a management accounting challenge. Should it be ratio of those who work in the creation and capture of renewable energy compared to those who work in the mining of fossil fuels; or should it be a percentage of the total labour force? What about farming – traditional vs. carbon farming? What about manufacturing – do we include those manufacturing lithium batteries, hydrogen fuel cells and solar panels? What about the mining of lithium for the batteries – should it go to the green jobs count?

As management accountants know, numbers can be manipulated to tell the story. In a recent

article, it was interesting to see that big mining businesses and their arch enemies the labour unions singing from the same song sheet. It showed that, in the decade to 2019, the number of workers in the renewable energy sector in Australia added only 27,000 green jobs out of a total labour force in excess of 13 million. The report claimed that for every full-time equivalent job in renewable energy there were 56 jobs in agriculture, mining, and manufacturing. The report went on to say that “carbon workers” in coalmining, gas and oil extraction, fossil-fuel generation and integrated steelmaking amounted to around 100,000. [\[xxiv\]](#)

Renewable energy is fundamentally less jobs-intensive than supplying energy from traditional power sources. It takes hundreds, sometimes thousands, of skilled workers to operate coal, gas, and nuclear plants. By contrast, solar panels and wind turbines are largely set-and-forget once they are up and running.

Of course, it is bad economics to choose a particular energy source because it sustains a large number of jobs. Economic history is a series of new labour-saving devices that free up workers to do other, higher-value jobs.

Clearly, there is an urgent need in the longer term for Australia to expand from an economy that extracts and farms to one that adds value and manufactures complex things in a sustainable way. In the long-run, Australia needs to support advanced manufacturing, not just primary production. This means that Australian companies must manufacture complex products such as drones and robotics, renewable energy, processed food for export and the like, so they can scale up to become global powerhouses that can compete on quality, not on price.

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The opinions in this article reflect those of the author and not necessarily that of the organisation or its executive.

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AUSTRALIA'S CHAOTIC CLIMATE POLICIES (PART TWO): THE ROAD TO NET-ZERO BY 2050

In **part one of this series**, the reasons why Australia's carbon policy shifts have been more spin than substance; and why it is a laggard in international climate action were discussed.

In late-January 2021, the UN Secretary-General Antonio Guterres called on wealthy nations to abandon coal and set net-zero emissions targets to reach key milestones by the time the COP25 climate talks begin in Glasgow in November 2021. He said nations that were responsible for 65 per cent of global emissions had announced plans to reach net-zero by 2050 and by November he hoped that figure would be 90 per cent. He went on to say that no new coal-fired power plants should be built, and wealthy nations should abandon coal by 2030, and all nations aim to end its use by 2040. Also, that a carbon price should be embraced and an end date for financing all fossil fuels, starting with coal, should be introduced.^[1]

Australia was, most likely, foremost on his mind.

This part two will cover the new and emerging technologies with the potential to deliver the strongest economic and emissions reduction outcomes for Australia, as per the government's *'Technology Investment Roadmap'* released in September 2020. This roadmap articulated a strategy to accelerate development and commercialisation of low emissions technologies. But first, a transition period is called for.

Transition from Coal to Gas

Gas has been used in Australia for decades in power generation, heating, and manufacturing. In Australia, large stores of it are

found onshore and offshore, bound up in sedimentary basins capped by impermeable rock as well as in shale and coal seams. For domestic use, it is typically extracted by drilling then treated, piped to distribution hubs near cities and industrial centres, and plumbed into homes.

The Australian government backs the expansion of the gas industry for two main reasons.

The first is economic: more gas, the government says, means more affordable and reliable energy to domestic manufacturers that rely on it – thereby boosting employment. The second is to smooth the electrical grid's transition from coal.

Many large Australian companies in the energy industry support the government in promoting gas as the "transitional" energy source, i.e. one that (supposedly) emits far fewer greenhouse gasses than coal but is still capable of dispatching the around-the-clock energy needed to support the growing use of weather-reliant wind and solar generators. The government says it is focused on ensuring that electricity remains reliable and affordable as the market transitions from coal and, for this reason, it is promoting gas as the key plank of its plan.

The problem, however, is natural gas also faces some big challenges.

The first is that gas is still a heavy source of emissions. While it is a cleaner-burning fossil fuel than coal, it is a fossil fuel, nonetheless. Australia needs to reduce its reliance on all fossil fuels over time in order to achieve its climate targets. There are also growing

questions among scientists about the extent of unmeasured methane emission leaks, known as “fugitive emissions”, which escape during drilling and processing. If the methane escapes unburnt into the atmosphere, in its first two decades it is a devastating 84 times more potent as a greenhouse gas than carbon dioxide.

The second problem is that gas has become very expensive. Gas prices began sharply rising on the east coast of Australia in 2017, when commercial and industrial buyers started receiving new contracts offered at above \$10 a gigajoule, much higher than the historic levels of between \$4-\$6 a gigajoule. This price rise coincided with Australia deciding to sell natural gas in its super-chilled form, known as *Liquefied Natural Gas (LNG)*, overseas. The construction of six new LNG export facilities at Gladstone in Queensland increased overseas demand for Australian gas – our top LNG export destinations are Japan, South Korea, and China – and required producers to tap more expensive gas fields to meet their obligations. This linked the east-coast gas market to international LNG prices, pushing up domestic prices.

Australia has become the world’s number one exporter of LNG. In 2019, cargoes of LNG accounted for about \$50 billion in export earnings, sealing its position as the country’s second-biggest commodity export after iron ore (\$100 billion a year).

The Achilles’ heel of gas is that it is still a global-heating fossil fuel. An estimated 19 per cent of Australia’s greenhouse gas emissions are caused by gas and its long-term use must be reduced over time for the world to meet the goals of the Paris agreement to limit global warming.^[ii]

Carbon Farming

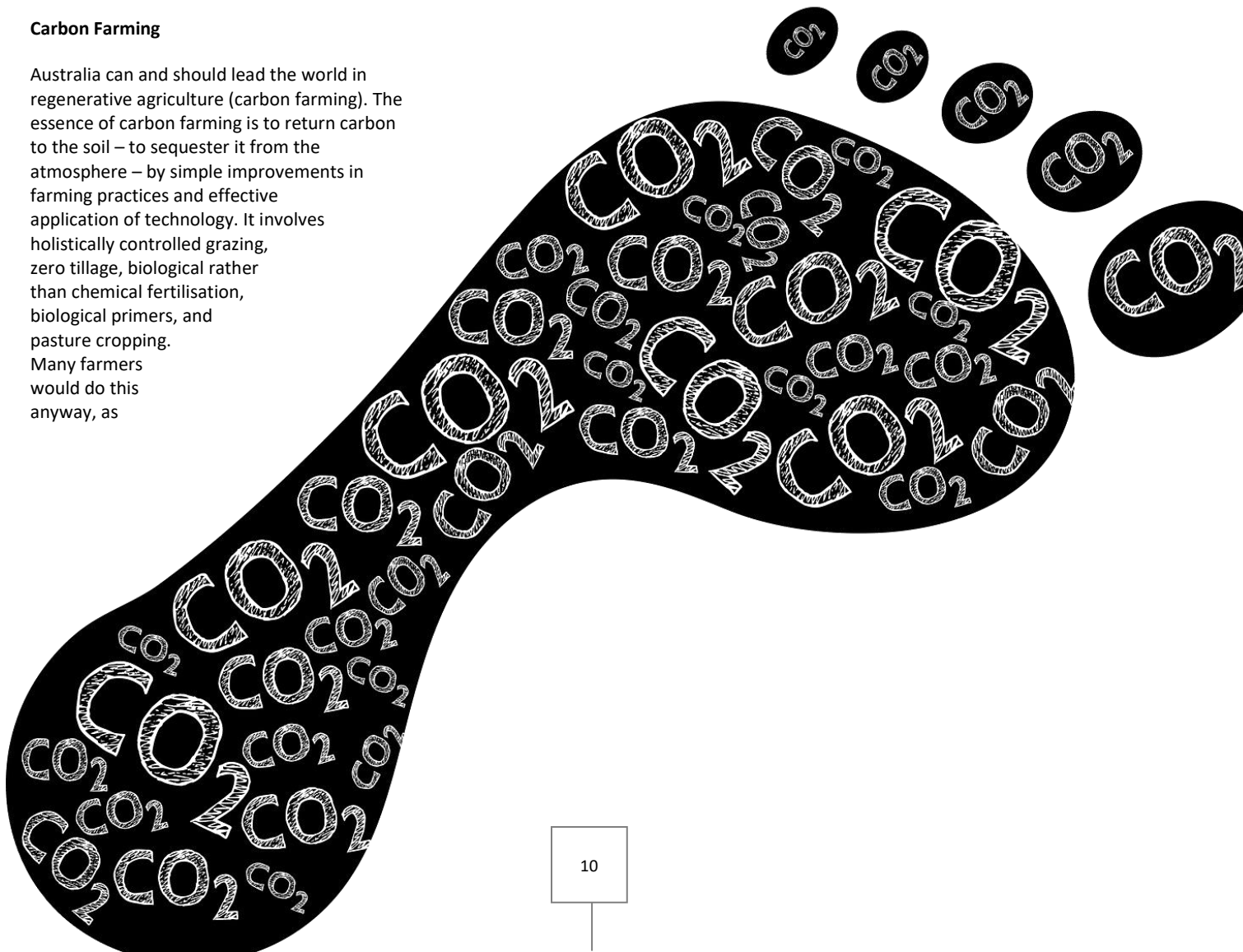
Australia can and should lead the world in regenerative agriculture (carbon farming). The essence of carbon farming is to return carbon to the soil – to sequester it from the atmosphere – by simple improvements in farming practices and effective application of technology. It involves holistically controlled grazing, zero tillage, biological rather than chemical fertilisation, biological primers, and pasture cropping. Many farmers would do this anyway, as

these methods improve farm productivity and profitability.

Australian Government’s *Technology Investment Roadmap*’ has listed soil-carbon measurement as one of five priority technologies with the aim of reducing costs by about 90 per cent to under \$3 per hectare.^[iii] Since European settlement Australian agricultural soils have lost about two-thirds of their carbon content. But as the soil-carbon expert John White has reported, a 0.5 per cent increase in soil carbon on only 2 per cent of our agricultural lands would more than offset all of Australia’s emissions from all sectors.^[iv]

Farmers can generate credits for their improvements to the carbon content of their soils. *Australian Carbon Credit Units (ACCUs)* were developed as a key element of the *Carbon Farming Initiative*. The government also uses the A\$2 billion *Climate Solutions Fund* to incentivise farmers by buying these credits via low-abatement reverse auctions. These credits are now traded – recently at \$17 a tonne. In time, farmers should be free to trade these overseas, if the domestic market proves inadequate. They are being increasingly sought by large emitters seeking to voluntarily offset their emissions.

However, whilst the Coalition parties of the Australian government fight among themselves due to perceived ‘functional or political reality’, the Europeans and the British, amongst others, are talking about introducing carbon tariffs on Australia’s agricultural exports for as long as it remains a conspicuous laggard in response to climate.



Renewable Capacity (Wind, Solar, etc.)

There is good news here.

The *Australian Energy Market Operator* has forecast strong investment in renewables to continue with an additional 24GW of rooftop solar by 2030, tripling the nation's small-scale solar generating capacity over the decade. Official government data has found that, despite the coronavirus-induced economic downturn, more than two million extra Australian homes were powered by new renewable energy generation last year as wind and solar projects hit record levels.[\[v\]](#)

The *Clean Energy Regulator* in Australia estimates that a record 7 gigawatts of new renewable capacity was installed throughout Australia in 2020 off the back of record rooftop solar investment, which was 11 per cent above the previous record of 6.3 gigawatts installed in the previous year. Data compiled by the regulator also found the share of renewables in the *National Electricity Market* exceeded 30 per cent for the first time in 2020; with a record 53 terawatt hours generated from renewable projects in the year. The analysis found that the renewables boom has helped Australia deploy new renewable energy 10 times faster per capita than the global average and four times faster per capita than Europe, China, Japan or the United States.[\[vi\]](#)

The government's policy is to underwrite new firm generation capacity and establish a \$1 billion grid reliability fund; as the renewables boom was increasing the reliance on firm generation, such as gas-fired or pumped-hydro. Australia has invested \$7.7 billion or \$299 per person in renewable energy, placing the nation ahead of Canada, Germany, Japan, Korea, New Zealand, and the United States on a per capita basis.

Carbon Capture and Storage (CCS)

This is an unproven technology that is being pushed by the fossil-fuel industry as its 'saviour'. A case in point is the February 2021 amendment put forward by Australia's National party that wants access to government funds that would permit high-efficiency low-emissions coal (clean-coal) plants to be commissioned (see part one of this article).[\[vii\]](#)

Carbon capture and storage describes capturing the carbon dioxide emitted by an industrial process – say, burning gas or coal for electricity or in cement and steel production – and permanently keeping it out of the atmosphere. For large projects, this generally means pumping it underground, typically into the geological formations from which oil and gas have been extracted in the first place.

CCS's champions – which include not only the Australian government and resources sector but the *International Energy Agency (IEA)* and even the UN's lead agency for assessing climate science, the *Intergovernmental Panel on Climate Change (IPCC)* – say the technology will be critical to meeting net zero emissions targets to slow the trajectory of global warming.[\[viii\]](#)

But its detractors – which include leading engineers and scientists along with climate activists – say that CCS is an unproven and expensive Band-Aid designed to extend the life of unnecessary, dirty industries. They say it is a diversion that has wasted billions of dollars that might have been better spent on reducing emissions.

In Australia, however, CCS technology was being referred to as "clean coal technology" in government and industry circles, much to the frustration of climate scientists. "Clean coal is like dry water. It's an oxymoron," says Dr Martin Rice, head of research for the *Climate Council*.

Recently, there has also been a surge of interest in what is known as *Bioenergy with Carbon Capture and Storage (BECCS)*. This is the process of capturing emissions released when a biomass is used for energy. A Biomass is a measure of biological matter, customarily expressed in weight. The biomass of a forest includes all organisms, trees, fungi, insects, and so forth. When a biomass is growing in is sequestering carbon dioxide (CO₂). However, when it is used to produce energy (e.g., for electricity and heat) then it is releasing CO₂ to the atmosphere; thus, the result is a *zero-sum* (i.e. the CO₂ that was captured by the bio-mass when it was growing is released when the biomass is converted to energy).

However, the theory goes that if this energy can be somehow captured and stored it will result in '*negative emissions*', i.e., CO₂ is prevented from being released to the atmosphere. BECCS is the process of extracting bioenergy from biomass and then capturing and storing the carbon that released in this process – thereby removing it from the atmosphere. In a BECCS process, some of the carbon in the biomass can be converted to CO₂ or biochar which can then be stored by geologic sequestration or land application.

Some advocates see this as the future of CSS. In 2014, the IPCC presented 116 models of how the world might reach the Paris Agreement's target of keeping climate change to 2 degrees or lower, and in 101 of them carbon removal from the atmosphere, mainly via BECCS, was considered. This provoked criticism from a range of scientists who argued that the world, via the IPCC, was at risk of putting its hopes of avoiding the global calamity of climate change in a technology that was at best unproven and at worst fanciful.[\[ix\]](#)

Electric Vehicles

Electric Vehicles are undisputedly more climate friendly than conventional petrol or diesel cars.[\[x\]](#)

Just a month after he took office, President Joe Biden ordered a complete policy U-turn for the USA in terms of climate action. As a centrepiece of the US's commitment to hit net-zero emissions by 2050, he pledged to convert the US federal government's fleet of 650,000 vehicles to electric cars. This bold policy was a catalyst for General Motors which immediately announced that it would stop making petrol commuter vehicles by 2035 and is now rolling out big-budget advertisements claiming that its commitment to reach net-zero emissions by 2040 can jumpstart the country's beleaguered auto industry.[\[xi\]](#)

President Biden's electric vehicle transition, estimated to cost around \$20 billion, is backed with market-driving policies including tightened fuel efficiency rules for cars, extending the \$10,000 rebate for electric vehicle buyers, and funding the roll-out of 500,000 charging stations across the country. The President has also launched a \$2 trillion green stimulus fund, which will include funding for electric vehicle manufacturing, which he claims will generate one million new jobs across the automotive supply chain.

The contrast with Australia, USA's electric vehicle policy could not be starker. The Australian government released in early February

2021 its long-awaited electric vehicle strategy, which unlike other developed nations included no targets for market share, and no incentives to drive uptake. The Australian government has ruled out offering taxpayer subsidies for the private uptake of plug-in hybrids and battery electric cars, arguing in its long-awaited strategy that subsidies would not represent value for money in efforts to drive down carbon emissions. Instead, Australian businesses were encouraged to invest in plug-in hybrid and electric car fleets in an attempt to increase private uptake by flooding the second-hand market with new vehicle technologies at lower prices. [\[xii\]](#)

Hydrogen Export Supply Chain

An international race is on to be the first nation to develop a hydrogen export supply chain. The fuel source is viewed as a potential boom commodity if it is adopted as a zero-emissions replacement for petroleum products. Australia, with its abundant land and sunshine, can become a hydrogen superpower, and the Morrison government has committed \$500 million to support the hydrogen industry.

But Australia's investment to date pales in comparison to other nations. Saudi Arabia, the world's biggest oil exporter, is investing \$6.5 billion in the hydrogen industry to drive down production costs and make exports economically viable. Other heavy fuel users in Japan, France, Spain, and Germany are planning to invest more than \$10 billion each in production and to switch from fossil fuel energy generation to hydrogen. [\[xiii\]](#)

At present hydrogen can be generated at scale using either renewable energy to split water, known as *green hydrogen*, or using gas, which emits carbon that may in future be captured and stored, known as *blue hydrogen*. The problem is that future exporters of hydrogen would then have the problem of transporting and shipping this hydrogen which needs to be stored under pressure or converted into ammonia.

Interestingly, the world's first commercially available line of hydrogen-powered domestic products, including a barbecue, a bicycle and most crucially a unit that creates and stores hydrogen power, has been developed by an Australian company, LAVO, working with the University of NSW. The company claims that the LAVO battery, which is about the size of a large fridge, can be hooked up to an existing array of solar panels. Inside it, electrolyzers use that power to convert water into hydrogen and oxygen. The oxygen is vented and the hydrogen is stored in patented *hydride* canisters (a fibrous metal alloy not dissimilar to iron-fillings in appearance) in inside the unit for use as needed.

LAVO's chief executive, Alan Yu, claims that the unit can store three times as much power as the largest popular commercially available wall-mounted batteries, allowing it to power the average household for two to three days on a single charge. Also, the developers claim that the transportation problem could be solved by the hydride used in the LAVO system, which is safer and easier to transport than hydrogen stored under pressure or converted into ammonia. [\[xiv\]](#)

Listen to the Scientists and the Economists

The Covid-19 pandemic taught policy makers in Australia some important lessons in meeting its climate challenge. Australian federal and state leaders put aside ideology and listened to the

scientists and the economists. Australia's conservative leaning government instituted policies that did not come to it naturally – rules that impeded personal freedom and the dumping of billions of dollars of taxpayer money into the economy to prop it up, as business activity withered on the vine. [\[xv\]](#)

The number one lesson is to listen to the science. For the pandemic that meant trusting in the expert modelling to set targets for when restrictions could ease. Decisions were based on evidence and data, not focus groups or guestimates of what was politically palatable. And it worked – Australia was one of the few countries in the world that successfully contained a sizeable outbreak.

Australian leaders can be proud of that achievement, and with the same strategy it can win that war against global warning by heeding the scientific advice to guide policy. Recently a new report from some of Australia's most senior climate scientists and policymakers showed that to be on track to meet the 1.5-degree objective of the Paris Agreement, Australia should cut emissions by 74 per cent by 2030.

The second lesson learnt from Australia's COVID-19 response is the compounding costs of delay. "*Go hard, go early*" has become the mantra for both stopping the spread and stimulating the economy. The *circuit breaker* lockdown in different states was this theory put into practice. Unfortunately, climate change is a very different crisis and the world has already squandered decades so we can hardly say acting now is 'early'. However, it is still not too late if we go hard today.

Wilfully ignoring the issue or tinkering about with half-measures only leaves a much bigger problem to deal with later. The danger with climate change is that we are fast approaching tipping points where global warming becomes an unstoppable chain reaction. As such, what is required is the political conviction to act decisively during the next decade, and that means forward-loading the emissions cuts with strong targets for 2025 and 2030.

Herein lies a solution to the climate impasse in the Australian Federal Parliament. As discussed in part one of this series, while a credible national mechanism to cut pollution is the logical choice, a small but influential rump of the Australian federal government's right wing has thwarted progress for too long, and even the PM Morrison's much-hyped climate pivot looks more like a delaying tactic. [\[xvi\]](#)

Summary

The reality is that if Australia is to have any chance of reaching the tighter objective of the Paris Agreement, and upon which its Pacific island neighbours rely for their survival, namely, to limit global warming to 1.5 degrees, then it must get to net zero emissions by 2035, with a 74 per cent cut by 2030. [\[xvii\]](#)

The problem is, each month the world fails to take significant action, carbon accumulates in the atmosphere. The goal of reaching net-zero by 2050 gave us a good chance of meeting the Paris Agreement target of holding warming to as far under two degrees as possible when it was first set in 2015. But since the world has not reduced emissions enough since then, the goal posts have shifted closer.

The global response to the coronavirus pandemic has shown us that we can all work together to radically and quickly change our

lifestyles for the greater good. We need to consider how we can prepare for a world that will be faced with regular extreme weather, unpredictable water and power supplies, food shortages and the resulting unrest that will come with these.

We need to face our worst fears and then work through them starting, well, yesterday.

Create community, build skill bases, buy water tanks and solar panels with batteries, grow a garden, future-proof your house if you have one, demand more action from governments and encourage others with compassion and determination. [\[xviii\]](#)

Basically, we need to be good be stewards of our collective future ... and the only way we can do this is together.

Professor Janek Ratnatunga, CMA, CGBA

CEO, ICMA Australia

The opinions in this article reflect those of the author and not necessarily that of the organisation or its executive

IN NEXT ON-TARGET: Professor Brendan O’Connell, ICMA President will consider “How Accounting and Finance Professionals Can Help in Climate Action”

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HOW INVESTORS AND ENTREPRENEURS CAN PLAY AN ACCURATE FORECASTING GAME

New research has quantified the size of the gap between the forecast and actual earnings of start-ups presented by entrepreneurs to potential investors.

Entrepreneurs typically overestimate realised revenues by about 22 per cent in the estimates provided to potential investors the previous year, says UNSW Business School.

In particular, founder-CEOs overshoot revenues by about 15 per cent, while non-founder-CEOs do so by 27 per cent, according to research conducted by Frederik Anseel, Associate Dean of Research and Professor of Management at UNSW Business School, together with researchers at Vlerick Business School & KU Leuven and Ghent University.

While entrepreneurs are often tempted to paint an optimistic picture of the future in order to secure further funding and keep investors on board, the research has important implications for investors looking to accurately assess a start-up's financial potential and entrepreneurs who want to develop realistically optimistic valuations for such investors.

"We discovered that both founders and non-founders have to find a way to navigate the often-conflicting expectations from investors," said Prof. Anseel.

"Investors like ambitious goals – it's a testament to the drive of the entrepreneur(s) concerned and holds the promise of a lucrative financial return on investment.

"As one investor we talked to formulated it: 'We typically want to see more than 50 per cent annual growth... at the end of the day, you need to have them run fast. The more ambitious they are, the more I like it.'"

Prof. Anseel said this encourages entrepreneurs to present extremely

ambitious forecasts – but entrepreneurs can also take it too far because investors also value accuracy and credibility.

"There is a fine line between presenting oneself favourably and outright lying. Entrepreneurs need to be careful that their forecasts are still credible and sufficiently accurate," he said.

The research paper, *The sandwich game: founder-CEOs and forecasting as impression management*, examined how tactical (and thus, rational) entrepreneurs are when presenting forecasts to investors.

Forecasts are not simply the result of a financial accounting estimate, according to Prof. Anseel, who said they involve subjective judgment which allows entrepreneurs to present themselves less or more favourably to investors.

By tactically biasing forecasts, entrepreneurs try to navigate the conflicting expectations investors hold for them, he said.

"One of the entrepreneurs interviewed called this 'the sandwich game' and founder-CEOs and non-founder-CEOs play this game differently," said Prof. Anseel.

Non-founder-CEOs have shorter-term career horizons in a venture, so they tend to care less about what intentional overshooting may do to relationships with investors.

"The costs of being wrong are less important to them," said Prof. Anseel.

For founders, however, their business is their life's work so they try to be positive enough to keep investors on

board, but without going overboard.

"Thus, founders are not naïve dreamers but carefully weigh the pros and cons of providing an inflated forecast," said Prof. Anseel.

Entrepreneurs may naturally ponder and ruminate how they will be seen by investors and what the implications for their venture could be, said Prof. Anseel.

"We found that investors are actually pretty good in tracking and monitoring forecasts in their investment decision-making," he said.

"Entrepreneurs who provided overly optimistic forecasts to investors got penalised in the form of a risk downgrade."

As such, Prof. Anseel says overoptimistic entrepreneurs don't get away with their risky projections and are flagged on the investor's radar.

"Moreover, despite entrepreneurs often hoping for this, we found that overly optimistic forecasts did not help in securing a next round of financing," he said.

"So, in the end, our advice is – try to make the forecast as accurate as possible, as tactical game-playing gets picked up anyway."





CAN TESLA'S SHARE PRICE BE JUSTIFIED? PROBABLY NOT

By John Rice, Zayed University and Nigel Martin, Australian National University

Elon Musk is now the world's richest person, edging out previous title holder Amazon's Jeff Bezos. His rocketing fortune is due to the booming share price of Tesla, the maker of electric vehicles and clean energy technologies.

In the past week Tesla's share price surpassed US\$880, ten times its March 2020 low of US\$85, giving the company a market capitalisation (or total value) in excess of US\$880 billion – more than Toyota, Volkswagen, Daimler, General Motors, BMW, Honda, Hyundai and Ford combined.

That's an extraordinary amount for a company that only last financial year made its first full-year profit since being founded in 2003; and that profit was relatively modest. It gave Tesla a price-to-earnings ratio – a standard measure of a stock's value – close to 1,700.

Compare that to the other shares that have boomed since global stock markets rebounded from the COVID-induced lows of March 2020 – technology companies such as Facebook, Apple, Amazon,

Microsoft and Google. Amazon's PE ratio is about 97, Apple's about 44, and others in the 30-40 range.

Tesla's latest quarterly profit is equally modest, missing analysts' expectations with reported earnings per share of just 80 cents. Its share price has dipped as a result, but still remains a very optimistic valuation.

So can Tesla's valuation be justified, or is this one more example of a bubble waiting to burst? Well, Tesla is clearly an extraordinary innovator, but there are several reasons to think that, though irrational exuberance may drive its value even higher, sooner or later it's going to come crashing back down to earth.

The positives

Tesla has benefited from its founder's vision. It has established a strong brand as the premiere producer of electric vehicles and renewable energy systems – two industries on the cusp of significant growth as the world moves away from fossil fuels.

It has successfully developed a suite of electric cars where other car companies have failed. It has done this by capturing the

imagination of investors and technology enthusiasts alike with technically impressive and aesthetically beautiful products.

It has become a major manufacturer of solar photovoltaic systems.

Connected to both these markets are its developments in batteries to power vehicles, homes and entire communities. In South Australia it built the world's largest lithium-ion battery, storing renewable energy from nearby wind turbines when generation exceeds demand and balancing out the grid when demand exceeds variable supply.

These industries will accrue a greater share of vehicle and energy markets over time, and Tesla will be a major player in both.

However, Tesla faces serious challenges.

Tesla has led, but others will follow

The major car makers, once wedded to their old internal combustion technologies, are embracing electric in response to what is, for them, an existential threat. Car makers from Korea to Japan to Germany – and of course China – are responding with new products to challenge Tesla's position.

In strategic management, this response is called "disruption".

The term is most closely associated with the American academic Clayton Christensen. In his influential 1997 book *The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail*, he describes the inexorable processes of how "early movers" are confronted with a new batch of entrants intent on securing their share of growing markets.

Clayton Christensen discusses the innovator's dilemma.

Tesla's success is tantalising, something both established and start-up competitors will seek to emulate. Late movers may start with simpler, cheaper and by some measures inferior products. But over time they can learn what consumers want and are willing to pay for. They then challenge industry leaders for a share of the market, starting at the bottom but always moving upward.

Indeed, Tesla itself has benefited from these very processes.

Smoothing the road for competitors

As an early mover, Tesla is also laying the foundations for emulators' success. By establishing the impetus for infrastructure needed for the massive roll-out of electric vehicles, later movers will face fewer entry obstacles than Tesla and other early movers.

These include creating charging stations that, once established, will drive a virtuous cycle of increased demand for electric vehicles and supply of stations.

But the differences between Tesla and its big-tech peers may be a source of serious challenge.

Other tech companies benefit from what economists call network effects: the more ubiquitous a product, the more valuable it become to users.

Social media platforms are an obvious example, but it also applies to companies such as eBay and Amazon: the more buyers and sellers on these platform, the greater their value to sellers and buyers – and therefore the greater the returns to the service provider.

For Tesla, network benefits are harder to protect. More electric vehicles will create more demand for charging stations, and more charging stations will help vehicles sales. But it will be harder for Tesla to protect its stations from benefiting competitors.

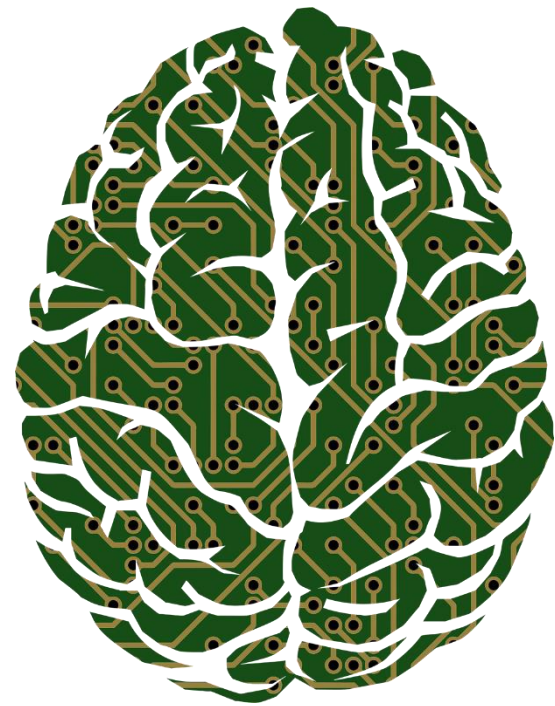
Perhaps for Tesla's visionary founder that's just fine. His plans extend far beyond making money – and Earth.

But if you're an investor, it's something to be careful about. You might be able to ride the speculative rocket, so long as you time when you hop off. But if you're looking at Tesla as a long-term investment – as you should – there are no guarantees.

About the Authors

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HOW QUANTUM COMPUTING AND AI WILL BUILD YOUR WEALTH IN FINANCIAL SERVICES



The personal banker of the future is more likely to be a highly intelligent machine than a human, using quantum computing to continuously provide individual, tailored services to customers, according to a new report from KPMG Australia.

- AI will continually track and analyse your financial position
- Loan applications will become instant, with the data already accessible
- COVID has accelerated the “death of cash” and the rise of central bank sponsored digital-currencies

30 Voices on 2030: The New Reality for Financial Services brings together insights from thirty senior leaders in Australia’s financial services sector and beyond, to paint a picture of the possible 2030 industry landscape. As well as changing customer expectations, evolving regulations and new business models, the report identifies key technology advancements that will drive new services and capabilities.

1. Instant risk analysis

A financial services firm’s greatest asset will be what it knows about a customer. This will enable it to quickly and instantly price risk and credit – instead of taking days and weeks to process loan applications, and seeking information from customers, reliable data will already be accessible.

Simon Bligh, CEO, illion believes that companies have underestimated the value of time to their customers: “Failing to value a customer’s time will be unacceptable and indefensible in 2030. The amount of time it takes to interact with a financial services provider – signing and scanning a document, physically getting your ID checked in a branch, waiting on hold – is a barrier to spending additional time with the

kids on a Saturday. Incumbents currently take weeks to approve a mortgage – a process which takes Tic:ToC just an hour. By 2030, the approval process will be done in minutes.”

2. An end to cash

Hygiene issues during the pandemic have accelerated cash-less, contact-less payments, as have the growing plethora of wearable digital devices with embedded payment technology such as Apple Pay, Google Pay and Beem It. Some financial institutions have even brought out their own wearables, such as WestPac PayWear.

As Ross Buckley, KPMG Law – KWM Professor of Disruptive Innovation, UNSW predicts: “Cash will be defunct in Sweden by 2024, replaced by electronic payments and central bank digital currency (CBDC). Australia has long been on a similar trajectory, trailing by five to eight years. So by 2030, cash usage in Australia may have ended, or be close to ending. Certainly by 2030 most major economies will have issued CBDCs for use in wholesale and commercial transactions, and in some in retail transactions.”

3. Real-time financial advice

Data, machine learning and advanced algorithms, powered by quantum computing, will provide a constantly updated information stream about a person’s financial position, generating insights and advice. The Commonwealth Bank’s Customer Engagement Engine is one example, running more than 400 machine learning models across 157 billion data points in real-time to automate what notifications are most valuable to send.

Toby Norton-Smith, Managing Director, x15ventures, explains: “This goes beyond

traditional ‘sales and service’ messages, for example during the COVID crisis, the status of loan requests, or saving a portion of a tax refund. It includes coordinating access to a broader range of CommBank’s digital banking features like Benefits finder, which aggregates hundreds of government benefits in one place, CommBank Rewards offering customers cashback on relevant offers, and Bill Sense, which uses historical data to manage and predict upcoming bills and payments. It also connects customers to new, innovative services coming out of x15ventures such as Home-in, aimed at helping home owners buy and settle into their home in a simpler and smarter way.

The Australian report follows a previous UK report from 2018: *30 Voices on 2030: The Future of Financial Services*. Daniel Knoll, National Industry Lead, Financial Services, KPMG says new perspective and vision were needed following the unprecedented disruption of COVID-19.

“With the pandemic turning industry playbooks upside down overnight, we once again turned to 30 industry experts and asked them to consider the long-term impact of the pandemic, and how it may have changed the rules of the game. We hope these insights and predictions will inspire leaders to make the decisions that will enable their organisations to thrive in 2030,” he says.

CFO SENTIMENT: CONFIDENCE BOUNCES BACK

Australian CFO optimism has bounced back from a severe COVID-induced shock, with the strength of the country's economic recovery supporting a return to more positive sentiment after the confronting year that was 2020.

More than 70% of CFOs are feeling optimistic or highly optimistic about the financial prospects of their companies, and more than half are even willing to take more risk onto their balance sheets. But they also appreciate that challenges remain, particularly for some sectors, as COVID restrictions such as border closures impact some more than others.

According to the latest edition of **Deloitte's biannual CFO Sentiment survey**, and covering the second half of 2020:

- 62% of CFOs are feeling optimistic about the financial prospects of their company, and a further 13% are highly optimistic
- Net optimism compared to six months ago has increased significantly – to positive 62% from negative 30% – the biggest bounce in the survey's history
- Net uncertainty about economic conditions was 87%, only slightly lower than the record 92% from mid-2020
- 54% think Australian businesses are optimally geared, while 27% think they are under-geared

- 65% see environmental, social and corporate governance (ESG) including climate change considerations as important when it comes to most parts of their business, and 49% see value creation potential in the longer term
- 71% expect their M&A activity to increase over the next 12 months, with a focus on acquisitions
- Flexible working (62%) and digital opportunities (55%) are top business recovery priorities for 2021.

Deloitte partner, and CFO Program leader, Stephen Gustafson, said: "It goes without saying that the year 2020 was a rollercoaster for Australia's economy, for business, and for our communities, and for each and every one of us.

"When we surveyed Australian CFOs in early 2020, and before the reality of a global pandemic had hit at all, there was evidence of a positive turning point for business sentiment. When we went back to them in mid-2020 things had, not surprisingly, changed significantly. The COVID-induced global economic downturn, and Australia's first recession in nearly 30 years, struck the country, and CFO optimism, hard.

"They were under no illusions that there would be major challenges to confront, but also that those challenges would



present opportunities for those who had built true resilience and agility into their businesses.

“But 2021 points to a marked shift in Australia’s economic performance and a fairly remarkable V-shaped recovery. With nine out of ten jobs lost through the pandemic already returned, and consumer confidence at a decade-long high, it’s perhaps no real surprise that Australian CFOs have their mojo back.

“That doesn’t mean the pandemic no longer poses risks to the economic outlook, and it’s not a one-size-fits-all recovery – tourism and accommodation and international education, for example, remain severely impacted by border closures. But Australia is one of only a handful of nations that can lay claim to entering 2021 well-placed, and positive CFO sentiment is significantly up on the back of this.”

The confidence and uncertainty conundrum

“This bounce back in confidence still needs to be seen in the context of extremely high levels of uncertainty, and the risks that go with that, playing on many CFOs’ minds,” Gustafson said.

“Fortunately, and this has been an emerging trend identified by the survey more recently, it appears CFOs are continuing to adapt to high levels of uncertainty as a ‘new normal’ they have to factor into business strategy and operations.

“So, in spite of uncertainty, confidence has not been held back, and record low borrowing costs, combined with strong economic momentum, can be seen as a recipe for an increased appetite for taking on balance sheet risk, and pursuing opportunity and growth.”

Climate considerations

Gustafson said the survey revealed that environmental, social and corporate governance (ESG) including climate change are increasingly important considerations for CFOs and their businesses.

“In a recent Deloitte Access Economics report – A new choice: Australia’s climate for growth – if climate change goes unchecked, then Australia’s economy will be 6% smaller and have 880,000 fewer jobs by 2070. But there’s a \$680 billion dividend, and 250,000 more jobs if we do rise to this challenge.

“Australian business are increasingly focused on environmental impact and opportunity – by desire as well as necessity, and according to our CFO survey respondents, more than 75% factor ESG including climate change impacts into their planning and decision making.

“While a focus on nearer term business issues and demands is the largest barrier to fully integrating ESG including climate action into

core planning and operations, CFOs also recognise these issues could be much greater sources of both risk and value in the longer term when it comes to achieving strategic business objectives and capital allocation.”

Flexible working, digital opportunities top priorities

“Surely one of the most visible impacts COVID has had on Australian businesses big and small has been the increased need for flexible working arrangements,” Gustafson said.

“As CFOs look to 2021 as a year of recovery, incorporating ongoing employee demand for flexibility around work location and hours is the most common opportunity identified to support their recovery.

“When COVID-19 first hit, physical attendance at workplaces obviously dropped sharply, but even at its best, as restrictions have eased, it still remains about 20% lower than pre-pandemic. This suggests there will continue to be ongoing demand for flexible working arrangements for some time yet, both because COVID has not yet gone away, and to accommodate shifting worker preferences. Accordingly, many CFOs are prioritising this.

“Technology, including AI, and digital transformation are also high on the agenda, as CFOs look to refresh parts of their business strategy. This has likely been driven, at least in part, by the prioritisation of flexible working arrangements, with better technology making different ways of working more efficient and viable.”

And looking ahead...

“Just as it has been in recent surveys, navigating uncertainty in the pursuit of opportunities and growth will be a key focus for CFOs – in 2021 and beyond,” Gustafson said.

“In accordance with Reserve Bank guidance that the cash rate will likely stay at its record low level for at least another three years, most are expecting interest rates to remain that way 12 months from now, and this will drive the renewed impetus to invest and seek pursue acquisitions.

“That said, just over 10% of CFOs also still think it is possible that interest rates could be higher than their current level a year from now, a possibility given the RBA will be watching closely for signs of inflation and/or distortions in asset markets.

“As one of the factors shown to have a positive impact on optimism for many CFOs, interest rates remaining low should certainly help support continued confidence growth in Australian business activity more generally.”

MANAGEMENT CONSULTANTS IN HEALTHCARE DO MORE HARM THAN GOOD, BUT KEEP GETTING REHIRED – NEW RESEARCH

The use of management consultants has grown enormously in recent years. In the UK, consultancy brings in around £10 billion a year in fees across the public and private sectors. And while not totally recession-proof, the numbers grew in the run-up to Brexit and then COVID-19. (Remember test and trace? Consultants played a major role.)

Consulting firms can provide advice and extra resources at short notice and can be very effective for the right task and client. But their use often brings controversy, especially when public money is at stake, over the value of outsourcing, for instance. This raises a number of questions. Does consultancy bring improvements such as

increased efficiency? If not, how can we explain its huge growth?

In the NHS, there is a remarkable lack of clarity and transparency over how much consultancy is used and with what effects. This falls within broader concerns noted in a recent National Audit Office report on procurement across public services.

In our ongoing research on management consultancy in the NHS, we have started to address these issues.

Efficiency in reverse

Three years ago, we published an article in *The Conversation* showing that across a sample of 120 English NHS trusts, each

spent an average of £1.2 million a year on external consultants between 2008-13. We showed for the first time that, all other things being equal, using consultants was associated with inefficiency down the line – in other words, the exact opposite of what might be expected by proponents of management consultancy.

Using two standard measures of efficiency in the health sector, the trusts became somewhere between 3.5% and 8% less efficient, depending on how you measure it. For every £100,000 spent, there were average costs of around £900 and losses of around £11,000. At the same time, the £1.2 million spent by each trust could have been put to other uses.

As you might expect, our findings attracted some attention, both in the media and from the consultancy industry. While it is impossible to definitively prove that correlation amounted to causation, we controlled for numerous other potential causes and reached the conclusion that the inefficiencies were very likely to have stemmed from the use of management consultants.

In our latest research, just published in the journal *Public Administration*, we

show that the heavy spending continues. After a short dip in NHS expenditure, over £300 million was estimated to have been spent in 2018-19 on hiring external consultants by NHS providers and commissioners as a whole. There are over 100 consultancies in the NHS's "framework" list of those that can be chosen for specific contracts, and it includes most of the leading names in the industry.

Our paper explores why using consultants can generate inefficiencies. We show that a key predictor of consultancy expenditure



within the NHS is previous hiring: high levels of use of consulting services in the past are linked to greater use in the future, despite no efficiency gains.

This suggests that demand rises even when the use of consultants reduces efficiency. Perhaps more alarming, when the effects of reforms such as outsourcing and private financing of hospital buildings were compared, they were found to have worse efficiency outcomes when carried out with consultants' advice.

In some hospital trusts, consultants did have a small positive impact on efficiency, but it was only a minority of cases. It is also important to note that in general, poor efficiency did not lead NHS managers to hire consultants to turn things around. Rather, the opposite was true – using consultants generated the inefficiency. And besides efficiency, we found no evidence of other improvements associated with hiring consultants, such as raising the quality of the service.

Finally, trusts were not continually hiring consultants to make up for a shortage of managers. Surprisingly, perhaps, the biggest users were those trusts that employed relatively more managers.

What can be done?

These findings are important as they do not rely on one-off cases of good or poor consultancy or client practice, but show the effects across a large number of trusts over years. They have some significant implications.

Clients and the authorities that oversee them should monitor the effects of consultancy more closely and/or limit repeated hiring of consultants. Consultancy is probably most useful for one-off client issues. This is contrary to the popular view that more open-ended contracts based on personal relationships of trust are likely to deliver better results.

The public sector should develop more internal consultancy units. Many actually

already exist in the NHS and other public sector organisations, but are often hidden from view or considered less prestigious. Indeed, a “Crown Consultancy Service” has been discussed for government departments after concerns about the excessive use of external consultants during the COVID-19 pandemic.

Consulting firms should place less emphasis on rewarding and promoting consultants on sales performance or repeat business. As recent research from the University of Oxford **has argued** in relation to auditing, which is in a related category, firms should encourage a “culture of challenging clients” or at least not acting as mere “servants of power”.

This might seem unlikely in hugely profitable and ever-expanding global consultancies. There are signs of a better way forward in a handful of consulting firms who promote themselves as socially responsible and transparent, such as the so-called “**B Corps**” organisations, although it is too early to tell how different they are from mainstream firms. Certainly, some NHS clients prefer smaller firms with ex-NHS staff on board, since they often share values and objectives.

While it seems unlikely that NHS clients knowingly bring inefficiencies in through consultancy use, the precise reasons for hiring consultants remain unclear. It could be linked to the high status of many consulting firms, fuelled by their promotional activities and close relationships with potential clients.

More concretely, there is the appeal of having new and instant advisers available who will promise efficiency and rarely challenge their benefactors. Whatever the case, the clear message from our research is that the NHS continues to pay the price for relying so heavily on this industry.

In response to the claims made in this article, Tamzen Isacson, chief executive of the Management Consultancies Association (MCA), said:

Consultants play a vital role in the NHS and are valued by public sector leaders for the transformational impact, innovation and increased efficiency they bring. This study has a flawed methodology and we do not support the use of crude national statistics, the results or conclusions. The study, as the authors themselves admit, does not focus on the improvements in the quality of NHS services that management consultancies can help to deliver and no clients were interviewed as part of the research.

Furthermore, the use of consultants by more challenged trusts could relate to the need for consultancy advice, not causation – more financially challenged trusts are likely to look to expert external advice to drive improvement and efficiencies.

Our MCA member firms have highly stringent governance procedures which ensure staff working on public sector projects meet the highest standards in ethics and are held to account to ensure the public interest is being served. All our members also sign up to our Consulting Excellence principles which commit them to upholding the highest standards of client services, transparency and value.

About the Author:

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REGIONAL OFFICE AND BRANCH NEWS

TONGAN PRIME MINISTER HON. REV. DR POHIVA TU'I'ONETOA WAS CONFERRED AS A FELLOW OF ICMA AUSTRALIA

Tongan Prime Minister Hon. Rev. Dr Pohiva Tu'i'onetoa was conferred as a Fellow of the Institute of Certified Management Accountants of Australia, by the Australian High Commissioner, HE Mr Adrian Morrison, on behalf of the institute (ICMA) on 28th January 2021.

The following message from was read out by HE Mr Adrian Morrison on behalf of the Council of ICMA along with ICMA's President Professor Brendan O'Connell and CEO Professor Janek Ratnatunga; who were unable to attend the ceremony due to Covid-19 travel restrictions.

"It gives me great pleasure to induct Hon. Dr Pohiva Tu'i'onetoa, the Prime Minister of Tonga, as a Fellow of Institute of Certified Management Accountants (Australia).

Dr Tu'i'onetoa has been a Certified Management Accountant of ICMA since 1997 and has been instrumental in advancing the profession in Tonga, first an Auditor General and later as the Minister of Finance. Amongst his many qualifications he has a Master of Business (Accounting) that he completed at Monash University, Australia; and through which he completed his Certified Management Accounting professional qualifications.

The Institute of Certified Management Accountants is honoured to induct Dr Pohiva Tu'i'onetoa, as a Fellow of the Institute for his services to the profession in Tonga and the Pacific Islands."

After his induction as a Fellow, Rev. Dr Tu'i'onetoa, said:

"This achievement is a profound and most humbling moment for me,"

"I have used this intellectual ability to assist the decision makers, including the leaders to make well calculated decisions based on the accuracy, the reliability, credibility and with complete financial information that are provided and audited on a timely basis in order to help government ministries, the people and business community to make the right decisions."

Welcome remarks were made at the induction ceremony by H.E. Ms. 'Aloma Johansson, Honorary Consul of Sweden to the Kingdom of Tonga.

Remarks congratulating the Prime Minister on this significant achievement was also made by Mr. Maile Fihinoa Tangitau 'Akau'ola, District Officer of Lapaha and Lord Sevele 'o Vailahi, the Former Prime Minister of Tonga.

The event was held at the Fa'onelua Convention Centre.



Prime Minister Hon Pohiva Tu'i'onetoa is congratulated by Hon Siaosi Sovaleni, Hon Tevita Lavemaau, and HE Adrian Morrison, Nuku'alofa. 28 January 2021. Photo: Prime Minister's Office.0

INDONESIA ZOOM WEBINARS

Throughout the Covid-19 pandemic, ICMA Australia Indonesia Brach continued its commitment to facilitate the capability development for CMA Members, professionals and academics in the fields of accounting and finance. In the January-February period 3 more webinars were held. ICMA facilitated the events, which were moderated by ICMA Australia’s Indonesia President, Mr. Daniel Godwin Sihotang, Dr Ana Sophana, Mr. Nursakti Niko Rosandy, the Branch Treasurer.



ICMA congratulated Dr Ana Sophana, the ICMA Regional Director, who was inarguated as Dean of the Economics Faculty of Widyagama University, Malang.

A WARM WELCOME TO NEW MEMBERS (Dec 2020 & Jan 2021)

Abarquez, Jennifer

Adikari, Kavindri

Agarano, Maria jonaida

Agayan, Russel

Ahuja, Raman

Aisy, Naufal

Al Taki, Naiem

Alrais Almarzooqi, Fatema

Ambarwati, Risna

Ambulo, Lee Ron

Anastasya, Angela

Anastasya, Rahmatila

Andini, Nopriska

Andreou, Chrysavgi

Ang, Francesco

Antarikso, Rizky

Apriliani, Sandra Deffi

Ariaty, Desy

Artadi, Wikanto

Astika, Vivi

Astuti, Alifah

Aurellana, Hanna Krizzle Mae

Aviantara, Ryan

Avicena, Nurhan Qudsy

Ayu R, Anggraeni Dyah

Baker, Katharine

Bandara, Virajinie

Basilio, Juliet

Bautista, Jenny

Brigas, Wenny

Bui, Khanh

Busaina, Harira Irba

Butar Butar, Ramses

Cabacas, Mary Rose

Calles, Jasmin Faith

Calo, Heidi Joan

Caser, Corina Jeane

Celeste, Princess

Chaminda, Hewa Dewundarage

Chotaliya, Jaydeep

Chui, Sin Heng

Corrente, Ciro

Dary, Ahmad

De Guzman, Amelia

De La Peña, Mariebien

De Leon, Johnson

De Vera, Ella Merel

Destianti, Reyka Dea

Dewiyanti, Sarah

Diaz, Claries

Dimapilis, Eunice

Dionisio, Ted Ian

Diva, Devonika Aura

Dzakiyatul Khasanah, Urini

Estillore, Kevin

Fachran, Yuried

Faiz Lazuardi, Muhammad

Fan, Yili

Fangohoi, Yosep Basilius

Fastidio, Jhoan Marie

Febrina, Tania

Fernandez, Virginia

Ferolin, Frances Anne

Ferry, Mary Angeline

Fida Salsabila, Andi Lahfah

Figueras, Evanren Fletcher

Firmansyah, Sigit Agung

Fitzgerald, Anthony

Fiyars, Rameez

Fopalan, Robby Dedrick

Furqoni, Arina

Ginting, Johan

Go, Ma. Rossella

Green, Jackson

Guial, Charles

Guitarras, Nenath

Gunawan, Fenia Agustin

Hakim, Farhan Luqmanul

Hamidjaja, Erfin Editya

Hanifah, Anisa

Harmana, I Made Dwi

Harsanto, Maswanudin

Haryoko, Dai Malik

Hasanah, Lutfia Nur

Herawati, Septiana

Herliana, Miranti

Hewage, Wajira

Ho, Shing Hei Dodge

Ho, Sze ying

Holipitiya, Wasana

Hyder, Mohammed

Ilangarathna, Kumudu

Imrazaki, Aris Muhammad

Indra irawan, Wayan bayu

Islam, Mohammad Rafiqul

Ivanov, Lyudmila

Jacob, Jinson

Jafar, Muhammad Heryanto

John, Leo

Karin

Kearney, Pete

Kim, Min

Kohadi, Kevin

Kristiana, Monika

Kudagama, Dasuni

Kumari, Leena

Kusgianto, Evelyn

Kustiningsih, Nanik

Kusuma Putra, Herry Respati

Kwan, Marcus Chun Him

Kwong, Chi Heng

Leaper, Ryan

Lesmana, Irianto

Lim, Bee

Lizardo, Cara

Lubis, Fina Wulandari

Lusiana, Frida Annisa

Lye, Alexis

M. Silalahi, Benny

Mackinlay, Philippa

Mallapre, Ennaira charisse

Manalansan, Joy

Manapat, Richard Kristoffer

Manggara, Hartfied

Marfil, Maricel

Maria, Friska Debora

Maribao, Aljune Carl

Martha, Yohana

Matas, Pia

Maulana, Muhammad Heri Hendra

Mendoza, Dianne

Mendoza, Dianne

Merdila, Martini
 Mohamed, Ahmad Razlan
 Mojica, Maria Ana Carmela
 Mong, Wai Yin
 Muharza, Romi
 Munsyii, Abdi
 Muttaqien, Zaid
 Nabila Isfaiza, Zulfa
 Nabilla, Salsa
 Nada Alfiyah, Jauza
 Nailah, Zayyan
 Nainggolan, Lidia
 Nareswari, Kadek
 Niawati, Astri Lilin
 Norman, James
 Novaditya Saputro, Gregorius Ivan
 Nuesca, Sol Cielo
 Nugrahani, Diptya Dwi
 Nurcahyono, Soeharto
 Nurhidayah, Yeni
 Nursyachputra, Naufal Fauzi
 Nurul, Arifa
 Ong, Agnes
 Palad, Reina
 Palma, Rae Angelica
 Pamaylaon, Mariecielo
 Panchalingam, Thuvarahayini
 Pangau, Billy Ruland
 Pantinople, Michelle Joy
 Parikh, Darshan
 Patankar, Ajay
 Perlas, Rosunnie
 Pinos, Barbara
 Prahesta, Adhitya Latif
 Prasepda, Angga Mulya
 Prasetyo, Sarah Theophilia
 Premasiri, Nilochanie
 Primadani, Nurul
 Putri Woentoro, Arlina
 Putri, Febry Restiana

Rabara, Princess Joy
 Raharja, Aditya Yulid Sriyadi
 Rahmawati, Silvia
 Ramadhan, Imza
 Ramos, Marco Steffan Freddie
 Ranatunga, Sameera B
 Ridyanto, Muhammad
 Risqirana, Vinkania Ekni
 Rivaldo, M. Davit
 Rizki Pusparini, Wifa
 Rodrigo, Dilan
 Rohana, Sinar
 Rohmatullah, Beta Rindu
 Roychana, Hafida
 Rubico, Ric Steven
 Rubio, Mark Florence
 Sabila, Adlina Dinan
 Sabila, Savina Farah
 Sabilla, Gervy
 Sahib, Nazmun
 Santos, Vanessa Camille
 Santoso, Salma
 Saraswati, Ika Putri
 Sari, Adella
 Sari, Ravena
 Sauma, Hiba
 Sebayang, Fancha
 Sekli, Agressa
 Septyharsono, Dony
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 Silkana, Violen
 Sinaga, David
 Sinaga, Jeffrey Edson
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 Sitaresmi Nazilatul R.W., Rr. Resqiana
 Subekti, Hardini
 Sukmawati Dewi, Ayu
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Supriadi, Adi
 Suprihandoko, Budi
 Susilowati, Niken
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 Syafrie, Rifky
 Syifa, Queena
 Tanwar, Niraj
 Taoingan, Gem Mari
 Ticoalu, Pingkan Reinne
 Tjandra, Rudy
 Tse, Hoi Yi
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 Villanueva, Marjon Mae
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 Viñas, Chilsey
 Viola, Maria Cristina
 Vo, Khanh Huyen
 Wang, Qiuyan
 Wei, Huang
 Wibowo, Antonio
 Widodo, Satrio Afif
 Wiguna, A. Muh Fadhil
 Wijaya, Firman
 Wijaya, Willy
 Wijiyu Mukti, Wiwid
 Wiratunga, Sharon
 Wulan Pratama, Stella
 Wulan, Nevia Christie
 Wulandari, Herliana Ayu
 Wun, Yee See
 Xu, Chen
 Yabut, Tamara Paula
 Yiu, Ka Chi
 Yusti, Aditya
 Zahra Rahmadi, Silla

CPD OPPORTUNITIES

Registration link: <https://cmaaustralia.edu.au/ontarget/>

Webinars (Free for members)

March 25, 2021, Prof Janek Ratnatunga “Money Laundering: Traditional vs. Digital Key Lessons for Bankers and Finance Professionals”

April 15, 2021, Prof Brendan O’Connell “How Accounting and Finance Professionals Can Help in Climate Action”

May 13, 2021, Dr Chris D’Souza “Project Management in a Post-Covid World”

Online CPDs

Business Valuation

Enterprise Risk Analysis

International Business Analysis

Project Finance Analysis

Project Management Analysis

(Special Promotion Members get 90% off for a limited time)

CMA EVENTS CALENDAR

- **Jan 16-18, 2021** Certificate of Proficiency in Strategic Cost Management, SMU Academy, Singapore (5th Intake). (Online).
- **Jan 29-31& Feb 1, 2021** Certificate of Proficiency in Strategic Business Analysis, SMU Academy, Singapore (5th Intake). (Online).
- **March 6, 2021** CMA Intensive Program Over Zoom – March 2021
- **March 25, 2021** Prof Janek Ratnatunga “Money Laundering: Traditional vs. Digital: Key Lessons for Bankers and Finance Professionals” (Webinar)
- **April 15, 2021** Prof Brendan O’Connell “How Accounting and Finance Professionals Can Help in Climate Action (Webinar)
- **May 13, 2021** Dr Chris D’Souza “Project Management in a Post-Covid World” (Webinar)
- **July 10, 2021** Certificate of Proficiency in Strategic Cost Management, SMU Academy, Singapore (6th Intake). (Online).
- **July 23, 2021** Certificate of Proficiency in Strategic Business Analysis, SMU Academy, Singapore (6th Intake). (Online).

Private Providers

[Wharton Institute of Technology and Science \(WITS\), Australia](#)

[Syme Business School, Australia](#)

[Academy of Finance, Sri Lanka](#)

[IPMI \(Indonesian Institute for Management Development\), Indonesia](#)

[Singapore Management University Academy \(SMU Academy\)](#)

[Business Sense, Inc. , Philippines](#)

[HBS for Certification and Training, Lebanon](#)

[SMART Education Group, UAE](#)

[Institute of Professional and Executive Management, Hong Kong](#)

[AFA Research and Education, Vietnam](#)

[Segal Training Institute, Iran](#)

[PT Angka Bisnis Indonesia \(Business Number Consulting\), Indonesia](#)

[Inspire Consulting, Indonesia](#)

[ManAcc Consulting, New Zealand](#)

[STRACC Learning LLP, India](#)

[Workplace Skills Development Academy \(WSDA\), Bangladesh](#)

[Ra-Kahng Associates Ltd, Thailand](#)

[Academy of Management Accountancy, Nepal](#)

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Certified
Management
Accountants