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1 Introduction

This somewhat speculative paper which seeks to look forward in the next 8 years, 20205, can be viewed as an 8 x 7 grid. Thus, I have sought to outline 7 main points in relation to 8 broad topic areas concerning the future.

This is designed to form a foundation or springboard for each of our own thoughts.

Those topic areas are as follows:

- How we choose to enframe the future;
- The role that technology will play in all, or virtually all, that we do;
- Our changing values including the role of work and how that will fit within our lives;
- The changing nature of geopolitics;
- How our economy is changing shape;
- What these factors mean for our future tax base;
- How these elements impact on Revenue Administration; and
- The shape of the future tax function in dealing with these challenges.

I hope this paper allows you to enjoy toying with various concepts raised, but more importantly to plan deeply for the future.

2 Enframing the future

1. The future is already here, but just for a small number of us

William Gibson famously said “the future is already here – it is just not evenly distributed”. This succinctly deals with three underlying truths. The first is that we can largely envisage the future by what we see before us. Driverless cars are now in one sense. The second is that much change is grounded in society reaching certain tipping points. A society where 60 percent of the cars are driverless is quite different from one where the number is 2 percent. The third is that those of us who are better off are likely to experience the future earlier. This concerns the inequality of experience.

2. Black swans and randomness

The notion that the future is already here can blind one to the insight that there may be some events for which the probability is low, but the impact is significant. These are the black swan events, an expression coined to reflect the surprise discovery of black swans in the Swan River in 1697 by Willem de Vlamingh. We should not only expect the unexpected, but acknowledge that the world is full of randomness and uncertainty and this is part of the very fabric in which we must operate.

3. The past is no basis for predicting the future

This is commonly used as an adage for sound investment decision-making. The key insight here is a psychological one. That is, we are likely to ground our sense of the future in what has happened in the immediate past. In this sense, the past inhibits our openness to the future. This is a warning about habitual thinking.

4. Mistrust of the future

One of the reasons for this habitual thinking is our mistrust of the future. This is perfectly understandable because we can never get the future right. But that mistrust should not prevent us from thinking.

5. Boiling frogs and ostriches

Related to mistrust of the future is to be so grounded in the present that one does not adapt to changing circumstances even though they are obvious. Many would argue that this is where the world sits, in terms of the need to respond to climate change and the current structural deficit.

This is particularly acute in the tax world where reform is hard.

The past inhibits our openness to the future. This is a warning about habitual thinking.

As an aside, Karl Kruszelnicki, commonly known as Dr. Karl, has with many others pointed out that the concept that a frog will not jump out of a pot that is gradually brought to boil is simply a myth. At the conclusion of an article discussing this he (somewhat unkindly) says “but in all my reading, I couldn't find any studies where the experimenters tried to turn the heat up on consultants, motivational speakers, politicians and the like, and slowly bring them to the boil.” Fair enough. But as untrue as it may be, the boiling frog has become a metaphor. The metaphor may be true, even if the underlying fact is not.

6. What has the future ever done for us?

This is grounded in a Groucho Marx quote: "Why should I care for posterity? What has posterity ever done for me?" One of the challenges is generational inequity. In considering the future, we need to think more about the legacy we will leave the next generation compared to where we have been currently.

7. Tomorrow belongs to people who create the future

Finally, we must not forget that the future is there to be shaped and that we are one of the many shapers.

Embracing this thought is both daunting and uplifting. Neglecting this means that we are likely to be bounced around by future seas in the hope that our businesses do not become flotsam and jetsam.

The future is there to be shaped and we are one of the many shapers.

3 Technology

1. Near universal use of 'pocket' supercomputers and massive storage

Currently, about a quarter of the world's population use smartphones. Australia has a penetration rate of 77 percent, second only to South Korea at 88 percent. While the rate of growth of smartphone usage is levelling off for developed countries, it will continue to grow dramatically for developing countries. Many predict smartphone coverage of over 90 percent of the world's population by 2025, with Huawei predicting 8 billion users.

These smartphones will be very powerful and contain more computer power than the supercomputers of yesteryear. Moreover, people and businesses will have access to almost unlimited storage, which will be either free or very cheap. Approximately 90 percent of the world's data has been created in the last two years. On some estimates the amount of information created by business is doubling every 1.2 years. In 2025, we will see massive computer power with access to enormous data and substantial connectivity across the globe.

2. Linking objects and the human body to computers

The expression the 'Internet of Things' was only first used in 1999. It refers to the connectivity of physical objects to the internet. Thus, the approach of a car to the home could set-off certain heating mechanisms. A chip in a child's clothing could mean that children will no longer be lost. Sensors could monitor health in humans in an unobtrusive manner. The future may be more comfortable. This will also contribute to longer lives.

We can expect to see the creation of a substantial number of new businesses, with job losses in some areas.

3. Driverless cars, trucks and drones

One could envisage dramatic changes in logistics by 2025. The major car manufacturers are in a race to produce driverless trucks, while major mines are being operated using driverless cars by operators who are thousands of kilometres away. Amazon is developing drone technology to send books from warehouse to door in record times. On the negative side, drones raise additional security concerns as they are being used to smuggle drugs both across borders and into prisons. This revolution could create substantial health benefits from the reduction in road accidents, but also lead to significant job losses for taxi-drivers and truck drivers. It may also contribute to substantially less car ownership. The 1960s utopian vision of William Hanna and Joseph Barbera of the Jetsons may come to fruition, albeit with ground transport.

In 2025, we will see massive computer power with access to enormous data and substantial connectivity across the globe.

One could envisage dramatic changes in logistics by 2025.

4. 3-D printing and bioprinting of human organs and bones

We are currently experiencing a growth in the types of materials that can be used for 3-D printing: plastic, steel and other advanced alloys, aluminium, and ceramics.

This may present a challenge for many traditional manufacturers and lead to significant entrepreneurial activity in design. Doctors are already printing 3-D vertebrae and one can envisage the printing of highly personalised body parts, including bones and teeth, but also soft tissue such as a liver.

5. Artificial intelligence and the Fourth Industrial Revolution

Robotics now account for more than 80 percent of work involved in manufacturing a car. The future will see this extend to the service industry. While we have seen ATMs become ubiquitous in the banking sector, the same could exist for dispatches from a chemist or even a fast food outlet. More than this, artificial intelligence can learn from previous situations and identify relationships and connections from databases that could provide a new level of rational decision-making. We are at the beginning of this revolution now. This is being referred to as the Fourth Industrial Revolution.

Whilst the Third Industrial Revolution is a digital revolution, the Fourth, whilst a confluence of factors is largely based on artificial intelligence and the manner in which computers can draw on massive databases in the cloud for the learning experience. Deep Learning is a form of artificial intelligence that uses complex algorithms to try to mimic the human brain through recognition of patterns in images, sounds and other data.

6. Blockchain and distributed ledger technologies

There is a wide level of disagreement about the potential for blockchain technology. While only seven years old, and widely known through Bitcoin, the key feature of blockchain is that it can generate trust without a central authority. It does this through multiple competing servers racing to solve a one-way cryptographic puzzle. The winner creates a 'block' of time-stamped data of valid transactions.

What is unique about this is that it can give nearly total confidence on the order in which certain events have occurred. In the context of Bitcoin, this solved what was known as 'the double spend problem'. Attempts to double spend or to introduce forgeries are picked up by those participating in the network itself, which makes it nearly impossible to place a false block into the chain. Blockchain has been heralded as giving rise to many new technologies – such as smart contracts – and as a potential disrupter to businesses that act as middlemen, such as financial institutions. Some of this has been criticised as hype.

A division has also arisen between the use of the technology without any central authority and circumstances where the technology has been permissioned by a particular body.

This is a very uncertain area.

7. Rise of cities with energy, traffic co-ordinated by computers

Many cities of the future will connect traffic lighting, energy, waste, water usage, parking, and street lighting to the internet, giving rise to a new level of productivity and quality of life, including a reduction in physical crime. While this may give rise to increased vulnerability to cybercrime, smart cities of the future should also give rise to increased mobility and density, and reduced air and noise pollution.

4 Changing values

1. Global city vs regional political and economic divide

There are many theories on the reasons for Brexit. Some see it as vote on the urban and regional divide. This is largely based on the fact that residents of London, Manchester, Leeds, Glasgow and Edinburgh predominantly voted to remain, whereas much of rural England voted to leave. The winners of the modern world, so the argument runs, are those in new and vibrant business centers in the cities, whereas rural and regional areas are being left behind. This would seem to be an international phenomena and can manifest in many forms. In Australia it would seem that disillusion with the major political parties is more acute in rural areas than the cities.

This urban and regional divide will grow larger by 2025. There is increased urbanisation not only in developing countries, where it is dramatic, but also in developed countries.

While technology overcomes the problem of distance, it does not deal with the need for creative people to be in close proximity to each other. This will be accentuated by the decline of the traditional breadwinner homemaker family structure. In the past only one partner needed to work in a rural setting, in a dual career household of the future, the need for both partners to find jobs will make cities even more alluring for the highly skilled. This will accentuate the current urban-rural divide in the future which may present difficulties for the political systems of many countries.

2. 'Bottom-up' rather than 'top-down' power

Networking technologies, including social media, have transformed the nature of power. There is a positive democratisation of influence arising from such technologies. Power moves away from institutions and towards ordinary people. Hierarchical structures are becoming flatter. Broadcast power, which was previously only available to elites, is now available to all and is far more global in reach.

Two major benefits are the speed at which change can occur and the wider range of voices that can influence change. On the negative side there are three items to consider. The first is that the new democratised power is not always nuanced and tolerant.

The second is that the very threat of democratised power, which challenges the status quo, will potentially invite an authoritarian response in some countries. Such a response may be conflated with the perceived need to deal with terrorist threats. The third is the need to preserve privacy and to prevent bullying.

3. In the 100 year life, work will fragment

In a work titled *The 100-year Life*, Lynda Gratton and Andrew Scott write that a child born in the West today has a 50 percent chance of reaching the age of 105. If you are now 20 years of age, you have a 50 percent chance of living to 100. If you are 40, you have a 50 percent chance of living to 95.

If you are 60 you have a 50 percent chance of living to 90. Life expectancy has increased two years for every decade in the last 200 years. There is a clear financial issue here. People are going to want to work longer or save much more throughout their lives to enjoy this extra gift of life. In the absence

of these changes, the burden on the younger members of society will start to become intolerable. That is clear to most Western countries.

Gratton and Scott note that the old three stage life of Education-Work-Retirement will become a thing of the past. The 100 year life will become multi-stage. People will have multiple careers and intermittent education experiences. People will be younger for longer. 'Settling down' will take on a different dimension. There will be greater variety in households and relationships. Indeed, four generations within the same household will not be abnormal.

There will also be a change in the value placed on different skills. Flexibility and agility will be critical. An ability to network and derive ideas from multiple sources will become important. Deriving ideas from others may not necessarily emanate from close strong relationships – where there is a propensity for people to think alike – but may be grounded in how one embraces weaker ties. This can lead to a substantial network of personal connectivity, needed for the multi-stage life.

Age will not be synonymous with stage. Options within the working environment will become more valuable. HR positioning by business will become age-agnostic.

People will become students, entrepreneurs, small 'gig' economy participants, and employees throughout their multi-stage life.

And they will work well into their 70s and 80s or longer. This will be a gift for many, but not for all. Those without the agility and flexibility, who crave the certainty of the past and do not have the broader social skills, may find the new world far more difficult than their parents. This is not a small concern.

4. Increased flexible work with dual career families

The traditional long-term breadwinner-homemaker model is likely to substantially diminish in 2025, although there may be many partnerships where one partner is working and the other not working for shorter periods. Likewise, the primary and secondary provider family model will not be the norm, although there will be many situations where there will be a significant differential between the short and long term earnings of each partner. The dual career model will become the norm, with those careers being multi-stage.

This will enhance the urban drift to cities as higher skilled partners need to be in close proximity to other creative minds. But there will also be even more responsibility for rearing children and greater fairness of roles in relationships. There will also be more household income volatility as each partner ramps on and off different career phases. This will require greater planning for individuals and families.

5. Entrepreneurs – creative, agile, networkers and savvy

The term 'entrepreneur' has been borrowed from the French since the 1850s and the term 'entrepreneurship' since the 1920s. It is most commonly associated with economist Joseph Schumpeter who saw entrepreneurs as giving rise to a gale of creative destruction, which is required by capitalism to progress. Schumpeter provides the intellectual roots for our notion of disruptive technologies.

While we will continue to focus on large scale entrepreneurship – the type that gives rise to Google for instance, smaller scale entrepreneurship is likely to come to the fore. This is in part due to the manner in which technology will give rise to lower barriers to entry, the proliferation of opportunities for creative ideas, the multi-stage careers many will adopt, and the flexibility that entrepreneurialism can provide. This is in part due to the status that we afford entrepreneurs, including unsuccessful ones. We will value their creativity, networking skills, street savviness, and flexibility. Many will embrace this at some stage of their life.

6. Security and privacy tension with potential State overreach

The technological and cultural changes envisaged will produce social dislocation, giving rise to job losses in many sectors and the sense that some members of the community are being left behind. This is occurring now but has the potential to be more significant in the future. This level of dislocation can generate significant fear, which in turn may lead to more authoritarian governments. This will potentially be conflated with a perceived need to deal with the threat of terrorism more decisively, broader geopolitical instability, or other 'scape-goats'.

Some might say we are experiencing this now, but the potential for a much stronger authoritarian political environment is evident. This issue should not be underestimated and we need to be vigilant in defending the rule of law and our legal institutions.

Privacy issues will also become more important. Our respect for privacy may act as a shield against greater assertiveness by governments marketing fear. Also, the substantial rise in the amount of stored data and the number of connection points with the internet will mean the chances of an individual being subject to cybercrime will be dramatically increased. Much of this will take place from foreign shores and may lead to a sense of 'resignation' from local police authorities, meaning the crimes are not properly pursued or prosecuted.

New levels of co-operation amongst police forces will be required if relatively low level cybercrime is to be prevented from thriving.

7. Rise in perception of generational inequity

Perceptions of old age, the value of older people, their power and place in society, have changed dramatically over the last 50 years. The demographic of baby boomers are now moving into older age brackets, at least in the West. There has been a stronger assertion of political and economic 'grey' power and value associated with being old. Our pensions and tax concessions for retirement incomes are significant and ballooning health expenditure largely benefits the aged. These are largely borne by younger generations.

This is exacerbated by our structural deficit which is a borrowing of the current generation from the future. The younger generations are also unlikely to experience the very substantial rise in wealth experienced by the baby boomers emanating from the increase in property values.

As a result, there is rising concern for inter-generational equity. This concern is likely to increase as the issue becomes more transparent, younger generations become more assertive and the society becomes more fair-minded.

This will feed into a broader mindset that people will want to work into their 70s and 80s in the future. Work for older people will be a large, and positive, cultural shift.

5 Changing politics

1. The Jacksonian Revolt

In the month of the inauguration of Donald Trump, Walter Russell Mead published an article in *Foreign Affairs* titled *The Jacksonian Revolt*. In it he viewed the history of US Foreign Affairs through four prisms.

The first group he called Wilsonians, based on Woodrow Wilson. Presidents Obama, George W Bush and Clinton described themselves in this manner. This group believes that the US should expand the global economic order based on democratic values.

The second group are the Hamiltonians, based on Alexander Hamilton, who was the First US Secretary of the Treasury and often referred to as the Founder of the US Financial System. This group believes the US should provide the global financial and security architecture to the world, but that it should not extend to values.

The third group are the Jeffersonians, based on Thomas Jefferson who was third President of the United States, and a political opponent of Hamilton. Jeffersonians seek to define US interests narrowly, wish to reduce costs of international involvement and focus inwards. Mead places Ted Cruz and Paul Ryan in this category.

The fourth and final group are the Jacksonians, based on the seventh President who was very much a populist. Trump supporters tend to be in this camp. Jacksonians believe that US culture and identity is under siege. They believe in citizens first and have a strong distrust in cosmopolitan elites. For many the manner in which such elites undermine traditional culture may be seen as treasonous.

It may well be argued that Jacksonian thinking is on the increase in much of the world including the United Kingdom, Eastern Europe and Russia.

2. Perceived multi-lateral overreach

One element of the new global economic order is the perception that countries have over-reached their embrace of multilateralism. This is particularly evident in the UK's decision to leave the EU. But is also a strong text of European populism and the Trump political phenomena. There have been significant attacks on the contribution that the US makes to UN as an institution (notwithstanding that it has a budget about the same size as the New York police force with 5,000 fewer employees).

The attack on multilateralism by particular states may lead to a rise in bilateralism (likely in the case of the UK) or in non-US multilateralism in certain domains.

3. Legitimacy = Process + Policy

An important part of the international political order involves not only policy, but also the process by which political discourse takes place, how changes are negotiated, how deals which have been previously agreed are recognised, ignored or abrogated by successive governments. It is not only the policy decisions which the current US administration is making which is of concern to a number of other countries, but also the manner in which that is "publically" communicated to those other countries. This can diminish the level of international political trust and stability.

4. Trade is no longer perceived as “win-win”

There has been a sustained political attack on the benefits of trade particularly in the United States, but also in parts of Europe. Trade has been portrayed as a “win-lose” phenomena, with the Candidate Trump stating that the US has negotiated poorly in the past. This retreat from trade was evident before the election of Trump across the political spectrum. Related to attitudes to trade, an analysis of media mentions referred to in the July-August 2017 Harvard Business Review (p. 115) involved consideration of articles from major US and UK newspapers. It discerned a sharp rise in the negative sentiment and a fall in the positive sentiment associated with the use of the word “globalisation” from about 2014.

5. Potential for escalation of conflict where hyper-complexity is involved

There is another related political phenomena which involves how highly complex international political problems are addressed. The conflict over the 5 small islands and three large rocks known as the Senkaku Islands in Japan, the Daiyou Islands in China and the Daiyutai Islands in Taiwan is a nuanced problem that needs to be dealt with subtly. Here the very simplification of a highly complex problem could lead to the escalation of conflict. Similar problems exist throughout the globe. This generally leads to a less stable geo-political environment which can have substantial impacts. This instability is enhanced where a leader believes that the potential uncertainty of how a major power may respond is of itself a positive negotiating tactic.

6. Perceptions of inequality

Rising inequality has many dimensions. It impacts the shape of our economy, our values and very clearly our politics. Apart from the need to deal with increased inequality in its own right, it feeds into a populist discourse and more extreme politics on the left and the right. The reasons for increased inequality as well as its extent are contentious. Thomas Piketty in *Capital in the 21st Century* (2014) has asserted with significant empirical evidence that where the rate of growth is less than the rate of return on capital, there will be rising inequality. Others believe that the rising inequality in the US in particular is due to the success of new technologies that have been captured by a small number of businesses.

One interesting thought is that while many Trump supporters feel that they are victims of rising inequality and are very much against cosmopolitan elites, they are keen to put their trust in someone who is very wealthy and perceived to be a successful business person. They do not want to adopt the values of a more educated class, they want to maintain their own values and beliefs. They just want to own businesses that will make them rich. This is a complex phenomenon.

7. Rising illiberal political order and populism

The environment of what has become to be termed as the new illiberal democratic order is not a simple one. It concerns the rise of increased authoritarianism within the context of a democracy and less of a concern with protecting minority rights. Russia, Hungary, Poland and Turkey are provided as

examples as is the United States. The circumstances of each country is different with some having a strong nationalist sentiment, some a fear of immigration and others a religious overtone.

In the Western model, political leaders set the projects of elites in whatever guise against the general will of the people. They speak in the name of the people and have a special connection for understanding their needs, playing on social and economic insecurity. They are able to draw on the nostalgia of past generations. Commonly, they will be able to promote a feeling of disadvantage against third groups such as illegal immigrants. Such political leaders tend to employ certain linguistic techniques which are sometimes vulgar, involving personal ridicule, formulations intended to shock and with reference to their personal experience. The forthrightness of this style is misinterpreted as trust. Comments made, however, are often suggestive rather than direct and reasoning is not logical.

This provides a difficult environment in which to operate, not only at the top political level, but at senior levels of the bureaucracy. Caprice takes a greater role which is hard to manage as an expert looking for stable and sensible direction.

6 Shape of the economy

1. Social dislocation and inequality from disruption

It would seem clear that we are about to experience significant dislocation in the job market arising from the impact of technology. Some might say this is nothing new and that we have experienced this since Ned Ludd destroyed two textile stocking frames in 1779. That is true. However, the speed of change may be greater now than in the past. Moreover, in the past, we experienced movements from agriculture to manufacturing and then from manufacturing to services, whereas the change today is likely to be intra-services.

There is a concept known as 'the hollowing out of the workforce'. Data suggests that since the 1980s, at least for the US and a number of other developed countries, there has been an increase in employment for both highly skilled workers and lowly skilled workers, but a decline in the demand for medium skilled workers.

The reason, it is argued, is because technology has replaced routine jobs. These can involve both manual routine jobs, such as the use of robotics in substitution for automotive workers, and cognitive routine jobs, such as ATMs for bank tellers. For the highly skilled, technology has tended to be used as a complement to the task at hand and not a substitution for particular jobs. The income of these highly skilled workers has increased, resulting in a secondary impact on the demand for low skilled jobs in the services sector.

What will 2025 bring? New technologies will give rise to new goods and services and new revenue streams. They will also give rise to substantial cost-cutting technologies. Sometimes, the cost-cutting technologies themselves give rise to new markets. For example, when new cheaper methods of producing steel were invented in the 1850s, it gave rise to a whole gamut of new revenue producing technologies, such as railway travel. However, sometimes cost-cutting technologies will produce cheaper services without making a substantial impact on the demand for such services or significantly increasing the market.

The fear here is that the dislocation from technology will produce significant short-term unemployment, not only in the middle skill levels, but the lower skill levels, particularly for males. Job losses in the logistics industries from driverless cars, trucks and drones will impact semi-skilled or unskilled males. Explosive detection technology and iris identification will impact the demand for personnel in security services as an example.

If the beneficiaries of change are higher skilled workers, there will be an increased level of income inequality. This will give rise to many secondary impacts, including our taxation and social security systems, but also health, education, police and social services systems.

2. Benefits to skilled city residents with proximity to ideas

The potential winners are the better skilled. They will live in the cities in close proximity to creative hubs and lead highly 'connected' lives. They will become the new engine of the economy. They will have a global mindset and, while meeting similar people on a day-to-day basis in their local cities will be important, they will also have greater interaction with people in other creative cities and mega-city markets.

3. Asian economic power with a massive middle class

The fact that Australia has a strong and highly successful multicultural background will provide not only significant lifestyle benefits to our major city residents, with access to a vast array of Korean food outlets in the suburb of Strathfield in Sydney for instance, but also a strong platform for launching businesses into the Asian market. By 2025, the Asian middle class is expected to be over 2 billion people. This group will be spending approximately US\$22 trillion, or about one third of the world's consumption.

The Asian middle class will develop different diets and lifestyle tastes.

For some services, such as wilderness areas in Tasmania, we will have a natural advantage given the likely change in values and demand for a more authentic experience. In other areas, we will need to be clever in meeting these demands. The shape of our economy in 2025 will in part depend on how clever we are in dealing with the rising Asian middle class.

4. Sharing and 'gig' economies with lower traditional employment

The rise of the sharing economy has been much discussed. International companies such as Uber and Airbnb are generally the first to be mentioned but there are many examples. The ASX has listed its first sharing economy company, Collaborate Corp, which holds websites DriveMyCar, My Caravan and Rentoid. A couple of points should be made here. The future will need to establish new boundaries around these businesses, both from an operational perspective – can tenants provide Airbnb services? – and whether the service providers require different forms of protection. At the present time there are contractors – who are not considered employees under common law, but are considered to be entitled to superannuation and workers compensation and for whom employers are required to pay payroll tax. There may well be a drive to extend these rights to the sharing economy sector.

In addition, we have the rise of the 'gig' economy. These are people who are willing to provide services through the internet. Fiverr is the major example. It lists more than 3 million services, which include designing business cards, making short films or graphic design services. These services cost between \$US5 and \$500 per 'gig'. This business is truly international and cuts across the traditional labour market, but also international boundaries.

5. New business models

It might be argued that web-based business models, which rely on the size of the client and provider base, tend to produce winner-takes-all business models. Uber in Australia and Didi in China are examples in the ride-sharing market. Such business models tend to produce significant wealth for owners until subverted by the next disruption. In Australia's case, many of these businesses may well be foreign-owned and the value that is created here, as against overseas, will be critically important.

In addition, there will be models which involve "glocalisation" which is a portmanteau used to describe taking globally based products or supply structures and giving them local characteristics to fit with specific culture and circumstances.

Further we may see increased outsourcing models, along the lines of the Apple-Foxconn model. Foxconn, which supplies Apple, is not only the world's largest electronics supply manufacturer, but

also the second largest private employer in the world next to Walmart. It is not a household name. Different procurement models may contribute to significantly modified supply chains in the future.

6. Start-up to MNE path critical – potential emigration of ideas

There is a path for start-ups and entrepreneurial enterprises that runs something like this. During an initial ideation phase, creative individuals network with serial founders in a highly informal environment to 'concretise' certain ideas. Then comes an incubation and acceleration phase, where start-ups are formed with 'angel funding' and sometimes 'side-car funding'. Although there is a relatively high failure rate, it is hoped that the business would move onto an early commercialisation phase, which may involve micro or mid to large venture capital. Finally, there is the full commercialisation phase, which in the Australian context would be a domestic IPO, but could be an international dual listed entity. This is the vision splendid. However, for many, the path faces the 'valley of death'. The valley of death arises because the Australian start-up cannot find sufficient funding for commercialisation of the idea locally and thus moves offshore – often to the West Coast of the United States where funding is more readily available. Thus, we experience the emigration of ideas, talent and future employment projects given the production of less skilled jobs that arise from the process. The shape of the Australian economy in 2025 will in part be governed by whether we have overcome the valley of death.

7. Locally based multi-nationals rarer but important

Having Australian-based multi-nationals produces a disproportionate benefit to our local economy in terms of skills within the corporate function and insights into the geopolitical framework within which the multi-nationals operates. One fear is that we will become too insular in our policy settings to allow our own multi-nationals to thrive. If this fear is realised, 2025 will see us more like a distribution centre for other multi-nationals. This would be of concern to retention of talented people in Australia.

7 The future tax base

1. International company tax rates stabilise around 17 percent to 25 percent

Internationally, there has been significant debate about the future of company tax for the last two decades. The arguments suggesting that one may see its demise tend to focus on three factors. The first is that it is a highly inefficient tax from an economic perspective. That is, in the language of economists, it has a high excess burden compared to other taxes, such as land taxes and consumption-based taxes but also income tax on labour. This argument is linked to the view that over the long term, in a medium sized economy, the economic (as against legal) incidence of company tax falls on labour, by reducing real wages. Former Treasury Secretary Ken Henry once said that this was Public Economics 101. The second argument is that countries competing for capital would lower their rates in an effort to attract foreign capital which would create a 'race to the bottom'. The third argument is that international tax rules have not been sufficiently robust to deal with minimisation strategies, in such a manner that would preserve the base.

The BEPS agenda has sought to change the international tax rules to meet inappropriate tax minimisation strategies. While it remains true that company tax is a highly inefficient tax, most would think that there is a band where it is appropriate to levy a corporate tax which balances the need to raise revenue and the need to attract capital. For small to medium size economies, that band would appear to be between 17 percent and 25 percent. While it may be slightly higher for larger economies, the drive to lower company tax rates in the US are likely to move larger economies into this band.

It is likely that pressure to reduce the Australian corporate tax rate to within this band will remain, although it may not be achieved by 2025.

There may be calls for an 'alternative minimum tax', and alternative corporate tax regimes. However, we are unlikely to see these at least in the next 10 years due to political and technical difficulties of implementation. These include various forms of Cash Flow Taxation (including a Border Adjusted Tax) and an Allowance for Corporate Equity.

There seems to be minimal will in the business and political sectors to change our imputation regime. While this system has many advantages, not the least of which is that it encourages the payment of tax in Australia by our own multi-nationals, it is not without significant disadvantages as it leads to greater insularity and does not encourage Australian multinationals from investing overseas.

2. Transfer pricing complexity leads to global safe harbours

Our international transfer pricing rules have certain innate drivers to complexity. Traditionally, they have dealt with finding an arm's length price, but in more recent times, this has extended to looking at whether the transaction itself is what arm's length parties would enter into. In this regard, the scope of what is considered has grown. Within this expanded scope, the discipline of transfer pricing involves finding comparables and refining those comparables as much as possible to draw an equation between two different circumstances: to 'apple-ise' an orange. This involves both the taxpayer and revenue authority pursuing greater and greater detail adding to greater and greater complexity. There are no natural limits to that complexity in the absence of a safe-harbour. Thus, there is likely to be a pendulum swing to globally established safe-harbours in the future.

There are other additional problems. There will be a tension between China, other developing countries and most developed countries on the location of value associated with intellectual property in the future. Is the value of the trademark associated with a handbag located in Switzerland where the intellectual property is registered, or in Shanghai where the bag is sold? We have a predisposition to thinking that the value lies in Switzerland. Others take the view that the capacity to sell the handbag into the Chinese market is what gives it substantial value, and that it is located in China.

In addition, there will be a focus on planning which gives rise to locating “residual profit” of an MNE (created by various synergies) in low tax jurisdiction. This will see increased use of profit split type methodologies.

3. Consumption tax diminished, potential for transaction taxes

There are three problems with our consumption tax base. Firstly our GST base is too narrow given the exclusions for health, fresh food and education. Secondly, our GST rate is too low. And thirdly, there does not appear to be either broad political consensus or the prospect of consensus, at least in the immediate future, to change this. Sadly, it is likely that 2025 will see Australia with the same consumption tax base and rate. This will be further diminished as expenditure patterns change towards increased health, which is substantially GST-free.

By 2025, we may see the rise of taxes on financial or foreign currency transactions. Currently, a proposal of 10 countries in the EU to introduce a Financial Transaction Tax has stalled, but with Germany supporting the tax. With Brexit, one can expect this ‘stalled’ position to remain in the short term as Germany and France see potential opportunities for financial centre activity to move east from London. This position may change however in the longer term with changing power dynamics in Europe.

In March 2016, China announced that it was drafting a currency transaction tax which would have an initial rate of 0 percent. This may seem odd, but it is generally viewed as a signal to the market that China will react with a tax if speculators seek to ‘short’ the Yuan.

While many economists find financial transaction taxes inefficient, a period of high currency volatility in the future may provide the political impetus for such a tax, particularly if Europe proceeds with its current proposal.

We may also see significant increases in ‘sin taxes’ as people argue that the social costs of gambling, tobacco and alcohol should be embedded in the tax base.

4. Small scale project or ‘gig’ work from overseas threatens

Large scale business will become more global, but so will business on a small scale. In both cases, 2025 is likely to see more project work being undertaken overseas as Australian businesses interact with a highly educated group of people globally willing to provide services through the internet for lower cost. This ‘gig’ economy may diminish our personal income tax base, unless Australians can provide similar, and hopefully more highly skilled, services such as IT, engineering, architectural or energy efficiency services to an overseas market. Rules on reverse charging may protect our consumption tax base for imported services, but not our income tax base because the ‘gig’ economy work is performed overseas.

As labour becomes more mobile, the ability to maintain high taxation rates on labour income diminishes. There is likely to be a drive in the future to reduce our relatively high top marginal rate to the mid-40s from about 50 percent, but certainly not to increase it.

5. New withholding taxes such as India's Equalisation Levy

Much of the political impetus for the BEPS agenda was focused on the Digital Economy. The final report on this work stream broadly indicated that other action items would deal with this area (but left open the possibility, largely at India's request, but with the support of some other European countries) to levy a separate tax on digital supplies. On 29 February 2016, India announced a 6 percent levy on cross border business-to-business digital supplies from 1 June. This levy is deliberately structured to fall outside the current income tax treaty rules.

We may see a proliferation of these forms of taxes, both in developing countries and some European countries, which will represent a nibbling away of the current taxation order on the provision of digital services. This is not welcome.

6. Increased land taxes, but estate taxes resisted

Economists find the taxation of land to be most efficient. It is not mobile, it is a relatively stable tax base and is not easily avoided. Australia introduced land taxes in the late nineteenth century at the state level and in 1910 at the Federal level, largely as an efficiency drive to break-up large holdings with large tracts of unused land. It was abolished at the Federal level in 1952 as the base had narrowed significantly due to primary production and other concessions.

It has remained at a state level with a relatively narrow base. States rely on stamp duty for a significant portion of their revenue. These are considered to be highly inefficient taxes as they act as an impediment to the transfer of land to its most efficient user. Thus it inhibits people from down-sizing when they no longer need a five bedroom house or selling in one place to move to another where the job prospects are greater. There have been significant calls for a switch from stamp duty to land tax in recent times. There are three tricky issues with doing so. Firstly, people like to pay tax when they have access to cash. If they are buying a house they can incorporate the stamp duty into the mortgage. Land tax would require annual or periodic payments. It is also much harder for older people who are not earning a salary to pay a land tax rather than stamp duty. A scheme for dealing with this would need to be put in place. Secondly, there is a transitional problem on converting from a transaction-based tax to a land-based tax. Long transitional measures will be required to ensure there is minimal double taxation.

The ACT has commenced the journey of transition to land-based taxation. By 2025, one would expect that many other states would also have pursued this path.

On the other hand, it is likely that Australia will resist calls for wealth and estate duties taxes. While these are relatively common in Europe, they tend to raise little revenue and are borne mostly by those of the upper middle class who do not avail themselves of planning techniques to minimise such taxation.

7. Increased user-charges rather than increased taxation

Where is the major change to our tax base going to come from in the future? There are probably two sources. Firstly, there is likely to be a drive to user-charges as a source of revenue rather than through taxation. Congestion charging based on mass-location-time-distance using GPS technology is a major example of this. This is a highly efficient form of raising revenue and, to the extent that it is effective in changing people's behaviour, can lead to a reduced need for infrastructure expenditure.

Singapore presents an interesting comparison to Australia. It has low corporate taxes, personal income taxes and indirect taxes compared to Australia. But nearly half, 48 percent, of its revenue base is in the form of user-charges outside the three traditional tax bases. For Australia the equivalent amount is about 3 percent. Moving to a system of greater user charges will not be without its political challenges, but technology may assist in ensuring that such charges are efficiently collected.

The second area of increased taxation is likely to focus on the environment. Whether Australia will join in the various international emissions trading schemes or whether we will seek to adopt more direct approaches for the reduction in our carbon emissions is difficult to predict. What would seem to be clear is that our current plans will not result in meeting our promised 2020 climate targets, let alone longer term targets. This will need to be addressed well before 2025 and it is likely that we will see either direct carbon taxation, or indirect taxation through an emissions trading scheme or the use of renewable energy targets.

8 Administration of tax

1. Smaller developed country Tax Administrations, but more targeted

The future is likely to see a reduction in the size of most developed country revenue authorities. The technological changes enunciated in this paper are likely to mean few mid-skilled jobs will be required. That said, Revenue Authorities are likely to become far more precise in their targeting and enforcement. They will be able to have direct access to the General Ledger and to run various mechanistic and cognitive intelligence-based analyses to test systems controls and precisely target tax risk. This will arise from a relatively deep and long term understanding of business taxation combined with new technology tools.

2. Larger developing country Tax Administrations, but scatter-gun

On the other hand, we are likely to see a rapid rise in the size of developing country Revenue Authorities. This will in part arise from those that are now outside the tax system being drawn into the fold. Currently, there are those operations that may be illicit or they may be part of the agricultural or minor service economy. Also there is likely to be a rapid rise in Revenue Authority employees focused on large businesses. This group will have less experience than their equivalents in developed countries and are likely to be less targeted in their approach, at least initially. They will have access to substantial information as a result of certain BEPS initiatives including Country-by-Country Reporting.

3. Audits with direct access to General Ledgers

Developing country Revenue Authorities are also likely to have direct computer access to the General Ledgers of multi-national entities (MNEs). Many developing countries will be more technologically savvy than they are tax savvy, which will result in a proliferation of queries to MNEs. This process of education, which will involve considerable resources for MNEs, has commenced now and is likely to peak in 2025, when developing country Revenue Authorities are likely to move into a far more targeted phase as their capability grows.

4. Rise of multi-Revenue Authority audits

We are likely to see the proliferation of multi-Revenue Authority audits in the future. This may be a slow process and is likely to be most evident either where there are strong similarities in systems or culture (say Australia, Canada, New Zealand, UK and USA) or where a particular country has chosen to directly assist another revenue authority.

There will be a variety of issues to be overcome, including the different time frames in which different Revenue Authorities like to audit (with Australia focused on current, real-time auditing) and different levels of aggressiveness in dealing with taxpayers. There will also be tricky issues where different Revenue Authorities are competing for the same piece of the 'pie'. That said, cooperation is likely to be at its greatest when dealing with more aggressive planning or where there is a dual narrative.

The era of multi-revenue authority audits may be of benefit to business in some cases, as it should provide an avenue for minimising double taxation which arises when two revenue authorities claim to tax the same profits.

5. Large demand for certainty but softer rule of law lines

One difficult area for MNEs in the future will be the increased softness of the lines within the rule of law. While countries heavily involved in the BEPS project, and in particular the United States, has been very cognisant of the need to preserve clear lines in any changes to the international tax rules, inevitably there will be some very different interpretations on how rules will operate. Thus it may be the case that Australia, China and Singapore all sign-up to the proposed 'black letter' law changes to Article 5 of the OECD Model Convention on the definition of a permanent establishment. However, the real issue for the future is not simply how the three Revenue Authorities will interpret those rules, but also how officers in regional areas in China will understand them, which may differ from each other and Beijing. This will present significant challenges for Revenue Authorities and businesses alike. The problem is exacerbated in the transfer pricing domain, which have very soft lines as a starting point, but may become softer. This softening of the rule of law has the potential to damage investment.

To deal with this, we may see the rise of local tax agreements in some developing countries to embed or fix future tax costs of certain projects irrespective of their profitability.

6. Drive to simplicity. Only higher value-add tax agents remain

On the domestic level, the tax agent market is likely to shrink dramatically. This will occur largely because of the additional effort that the Australian Tax Office (ATO) will put into the preparation and lodgement of personal income tax returns through ATO pre-filling, and lodgement through smartphone applications. Businesses and more complex individuals will still require tax agents, but their survival will be based on providing significant value add.

7. Lower marginal positioning, greater focus on economic gain

Tax administration of the future is likely to be less tolerant of the marginal technical position and more embracing of the right economic outcome. It is somewhat surprising that currently, the first question often asked by a revenue administrator is not necessarily 'what is the right economic position?' That is, is there an untaxed, double taxed or properly taxed gain from an economic perspective? This is changing, sometimes to the chagrin of certain revenue officers, taxpayers and tax lawyers, but there is a clear drift to finding an interpretation that fits the economic position. This is positive.

9 The tax function

1. Tax function requires multiple new skills

The tax function of the future will be stretched in many directions. Of primary concern will be preservation of the company's reputation in the media, with civil society and investment analysts. This requires a clear and articulate narrative. While the corporate tax function might deal through the media and investor relations departments, it will need strong communication skillsets that can effectively present the company's tax narrative.

The tax function will also require skills in data analytics and technology. One can expect many medium size tax functions to have a dedicated IT specialist.

As transfer pricing becomes more complex, the future tax function may well require skills in economic analysis.

It will also require negotiation skills and proficiency in managing disputes in a wider variety of jurisdictions and cultures. Some of these disputes will be simple single issue disputes, but many will be complex and based on their interaction with other jurisdictions, taxes and operational flow-on impacts. A major skillset of the future will involve sorting through the noise and complexity to a clear solution.

2. Rise of Artificial Intelligence and automation for compliance

Tax in 2025 may well see the application of artificial intelligence to the preparation of tax returns. This is beyond complex automation which would involve picking up items in the General Ledger and mechanistically using that data in the tax return. Rather artificial intelligence may be used to discern whether an item is likely to be an improvement or a repair within a high range of certainty, based on learning experiences from previous analyses.

It is likely that the efficiencies from the use of artificial intelligence and automation will lead to greater outsourcing of the compliance function. This will free-up personnel for greater value-added activities and also provide deeper comfort in an environment of higher scrutiny.

3. Tax function faces multiple judgement dilemmas

Tax has always been an art rather than a science, but it will be more so in the future. It will involve a greater number of dilemmas, require balancing a larger number of stakeholders, and in an environment of more substantial technical complexities. An essential feature of being a good tax leader in the future is good judgment. One must also remember that a tax leader and advisor must be able to discern not only the options and consequences in the current environment, but how they will be judged in five years' time. This will be as true in 2025 as it is now.

4. High level of tax transparency with intense community focus

Transparency will give rise to many different demands of a tax function. It will need to provide relatively clear and simple answers to complex issues, often in an antagonistic environment where the questioner fails to appreciate nuances and is ready to draw inappropriate conclusions. An investment

through a low tax jurisdiction, for instance, will need to be explained in detail even though it is fully justified on commercial grounds.

Because there will be a high level of transparency, stakeholders will be able to draw comparisons between different investment structures. Thus if one superfund invests into Kenya through Luxembourg and another through Singapore, this will become part of the public discourse on taxation.

5. Greater number of taxable foreign country touch points

There is also likely to be a proliferation of presences that MNEs will have in different jurisdictions. This will arise in part from the expanded concept of a permanent establishment which is being recommended by the OECD, in part by the potential rise of new taxes such as the Indian Equalisation Levy and in part by the increasingly global nature of the role of business.

These will need to be managed in a cost effective manner. Specialist outsourcing services may arise to assist in this.

6. Data analytics provide substantial insights

One of the major changes for the tax function in 2025 will be the ready availability of relatively sophisticated methods of data analysis. Such tools will be useful for mitigating the risk of errors, providing a framework for thinking about the challenge from revenue authorities and strategies for optimisation of supply chains, debt and equity funding, and ensuring that cash moves from the place where it is generated to where it is needed in the most efficient way possible.

At the present time, tax data for a large MNE contains a significant level of noise. Technology can be used to bring the relevant data to the fore so that it can be seen beyond the clamour and clatter. This will become a major source of value. Tax data will produce deep insights.

7. Rise of tax as a path for broad commercial insights

One aspect of the manner in which tax analytics can produce real insights does not concern tax itself, but how improvements can be made in non-tax business arrangements, including operational and financial areas.

The future of the tax function is one in which it provides greater value to the business, not just by dealing with tax itself, but by providing broader non-tax insights. This might seem strange to the tax function of today.

But it fits well with the skillsets of the best tax professionals, which is to ask the question: 'what if things were different?'

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