



## East Asian Bureau of Economic Research

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# Bringing prosperity, security and social wellbeing together in the national interest in a messy world

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**Gordon de Brouwer**  
The Australian National University

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## Chapter 2

# Bringing prosperity, security and social wellbeing together in the national interest in a messy world

*Gordon de Brouwer<sup>1</sup>*

Over the past few years, the economic and security policy domains have become more complex and increasingly connected. To this already volatile mix has been added the COVID-19 pandemic. Not only is the pandemic the most serious social and economic disruption since World War II, with big and long-lived consequences, but also it has deepened existing stresses on the international system, such as US–China strategic competition and economic nationalism, and weakened international institutions that guide interaction between nations. The pandemic has also accelerated some underlying changes, such as the digitisation of economic and social interaction, the changing nature of work, and, perhaps, trust in government and institutions.

There is a lot at stake now in what sort of society we want to be.

It is important to think carefully and comprehensively about what is going on, and to act in ways that are genuinely strategic and deliver on the national interest. After briefly discussing the changes going on in the world and the complex challenges we face, the second part of this chapter outlines two basic principles for dealing with these challenges, and applies them to current topics such as infrastructure, foreign investment (especially in digital-heavy sectors), dual-use technology and strategies for recovery from the COVID-19 recession. To give the story away, the first principle is to assess an issue through three elements of the national interest (prosperity, security and social wellbeing), and the second is to identify risks broadly and to mitigate them in practical and effective ways. The third part of the chapter suggests some institutional changes and strategies at the national and regional level that can support implementing these principles.

## 1. Recent events, changes and challenges

At the end of 2019, the world looked a difficult and messy place. Global growth of 3.25 per cent was barely at its long-run average; there were extensive balance sheet and structural weaknesses in most economies; US–China relations had shifted to outright strategic competition; populist nationalists were leading many G20 nations and running down international frameworks; and countries were grappling with deep challenges, such as technological change, climate change and declining trust in institutions. The risks were mostly negative, big and connected to each other.

By the middle of 2020, these risks had been overwhelmed by the COVID-19 pandemic.

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<sup>1</sup> Honorary Professor and Distinguished Policy Fellow, Crawford School, The Australian National University. I thank Peter Drysdale, Shiro Armstrong, Adam Triggs, Jeff Borland and former colleagues for advice and comments, without shifting any responsibility to them. Comments welcome to [gordon@debrouwer.com.au](mailto:gordon@debrouwer.com.au).

The pandemic is a terrible event in its own right. The human impact of the pandemic is enormous and tragic. As of 10 May 2020, about 4.1 million people had been infected, a third of them in the United States, and the rate of increase remains positive. Around 284,000 deaths (Worldometer 2021) had been recorded, with around 153,000 in Europe, 107,000 in the Americas (predominantly the US), 22,000 in Asia and 2,300 in Africa. In some countries, the spread has been more or less contained and lockdowns eased; in others, especially those with inadequate health systems and governance, the spread and deaths will continue. Sadly, these numbers will be rapidly out of date, and recurrences are a real prospect. The rise in unemployment is only matched by the Great Depression.

The economic impact of the pandemic is profound. The pandemic is the worst economic event since WWII. In April 2020, the International Monetary Fund (IMF 2020) predicted that the global economy would contract by 3 per cent in 2020 and rebound by 5.8 per cent in 2021 if the pandemic was contained and policy responses were adequate. Just a month later, the IMF stated that it expected the outcome to be even worse. This may look like a V-shaped recovery, but the loss of employment, human capital and structural damage wreaked by the pandemic means that recovery will take much longer.

The pandemic has intensified some of the pre-existing challenges and accelerated some of the changes already underway. Politics has become hotter. The pandemic has intensified US–China tension, driven in part by limited transparency by the Chinese Government and a US administration on the defensive about relatively high US infections and deaths in an election year. Indeed, President Trump described COVID-19 as an attack worse than the attacks on Pearl Harbour and the World Trade Centre (BBC News 2020). The pandemic has seen nationalist responses to a global problem, shown by beggar-thy-neighbour outbursts about protective equipment. It has further weakened international bodies, exemplified by the withdrawal of US funding for the World Health Organization (WHO) and the barely visible responses of the G20 relative to what it did in London in April 2009. It remains to be seen whether the pandemic deepens peoples' distrust of governments and institutions: the pandemic might increase distrust and division in countries where the death rate is high (e.g. US and UK) but it could have the opposite effect in countries where the death rate, at least so far, is low (e.g. Australia and New Zealand). It remains to be seen whether the pandemic strengthens local communities, whether this extends to foreigners in the community, and whether public trust in domestic and international institutions changes in different circumstances.

The pandemic has sharply accelerated the digitisation of economic and social activity. With person-to-person contact so severely constrained, a lot of activity that involved interaction has shifted to digital means, from shopping and banking to meetings and personal services. Many workplaces have shifted to employees' homes, providing flexibility, supporting creativity and, in some cases, boosting productivity, but at the cost of isolation. A considerable amount of learning has shifted online. An unexpected array of government services, including many justice, health, human and community services, have been successfully delivered online. For those countries with widely accessible broadband and digital infrastructure, lockdown has been an opportunity to improvise and make positive change, with the issue being the extent to which these changes become permanent. Yet for others, the digital divide has deepened; especially for those who work in informal sectors, digital alternatives have been scarce, and economic and social inequalities have been

exacerbated, including in the quality of education. The concern remains that accelerated digital transformation opens economies and societies to even greater cyber penetration, disruption and attack by state and non-state actors, further weaponising economic and social interaction. Put into the broader context of deteriorating relations between the major powers, a bigger digital economy is yet another place where intensifying US–China strategic competition plays out.

The economic consequences of the pandemic will deepen existing structural and balance sheet weaknesses. Governments have significantly extended fiscal and monetary support. While this has been essential to put a floor on the economic impacts of lockdown, it will significantly and universally increase government debt at a time when the balance sheets of households, businesses and the financial sector are all weaker. This matters because weak balance sheets create a vulnerability to further shocks. In the words of the doyen of economic crisis economists, Rudi Dornbusch (2002, XX), two decades ago we had ‘good balance sheets, no crisis’. If balance sheets across the board have deteriorated, the world economy is more vulnerable to future shocks and pandemic recurrences, so the need to work together to resolve problems is even more pressing. The policy imperative is to enable sources of economic dynamism and employment, rather than not increasing debt. On top of deteriorating balance sheets, the ever-present problems remain of weak governance and market distortions in terms of market power, poor regulation and barriers to entry across developed and emerging economies alike.

As before the pandemic, security risks are high and rising. The Middle East is unstable, the Korean Peninsula is uncertain, Russia and China are assertive (especially, in China’s case, in the South China Sea), the US is volatile and unpredictable, non-state terror risks from extremist movements are continuing, global efforts to contain nuclear and chemical proliferation are weaker, and cyber risks are growing. Trust between nation states is deteriorating.

So what should countries do in this unhappy world?

This note sets out some principles to frame national responses, applies those principles in practical ways to infrastructure, foreign investment, dual-use technology and economic recovery strategies from COVID, and looks at ways to strengthen domestic, regional and global institutions.

For countries in which the relationship with the US and China both really matter – not just formal security allies of the US such as Australia and New Zealand, Japan, the Philippines, Singapore and South Korea, but others such as India, Indonesia, Malaysia, Thailand and Vietnam – these developments are sometimes stated as forcing a binary choice between economics and security, between China and the US. This framing does not help to provide countries with enduring solutions that are in their individual national interest.

In the first instance, it oversimplifies the problem.

Yes, China is assertive militarily and aggressive in its use of cyber technologies; it also uses a political language and style that sits oddly with our own. However, its interests are also served by avoiding conflict. It is politically and socially a lot more complex than some commentators assert. It has committed to core parts of the rules-based global order.

Moreover, it is a very big country in the region in which we live: China is here to stay and the rest of Asia cannot just move away. China's prosperity and stability is a bedrock of prosperity, national power and security of countries in Asia and the Pacific and beyond. The US is not just the leading global and regional military power but also an economic powerhouse of ideas, technology and innovation. It really matters to other countries. Yet the withdrawal of US leadership from global norms and institutions, trashing of the World Trade Organization (WTO), United Nations Framework Convention on Climate Change and WHO, and rejection of basic principles of openness, predictability and some element of fairness as the basis of international interaction, is shocking and counsels caution in relying on it alone or too much. Many countries would have some sympathy with some elements of US criticism of international institutions, but they generally see reform as a way to get the international system to work better, rather than undermine and weaken it for short-term national gain or because they think that international frameworks necessarily undermine national sovereignty.

Second, it is a false choice. Binary choice does *not* reduce security risks. Binary choice increases security risks because it puts us all into a corner and reduces compromise and the possibility of finding a balance. In so doing it raises the prospect of conflict. This does not mean being weak on national security. Having a highly agile, well-trained and well-resourced military, as well as offensive and defensive intelligence capabilities, is essential to the national interest.

## 2. Two principles to deliver prosperity and security, with four applications

This is not a pretty picture. But it is certainly not a cause for despair and isolation. Two principles can help guide a way through. These principles define the national interest and underline the importance of mitigating risk in light of all elements of the national interest.

Principle 1: The national interest has three components – security, prosperity and social cohesion (or social harmony, inclusion and wellbeing) – and they should always be part of framing the problem and solutions.

All three components matter. More than ever, they reinforce each other. Security underpins prosperity, prosperity pays for power and security, and social cohesion reduces economic and security risks.

It is worth noting the specific reference to three rather than two factors – that is, adding social cohesion to prosperity and security. The debate is typically framed around how to balance economic and security interests. The social dimension is not often discussed but it is essential and too often overlooked. The people-to-people component of international relations really matters (Australian Government n.d-a.). Broad-based, open and warm people-to-people links create a strong political incentive for governments to find balance in their relations with others.

At a national level, social cohesion and inclusion are important domestic policy objectives. In a country where immigration is so important, such as Australia, ensuring that all people have a sense that they belong to the nation matters. Talk of 'China as a threat' is easily personalised and Chinese Australians – about 1.2 million people or 5 per cent of the population – hear themselves being described as a threat and their loyalty questioned. Where there is concern about foreign influence, alienating key parts of the population makes the problem worse, not better, and undermines a key source of influence back to China about Australian values and priorities.

There is debate, at least in Australia, about the importance of values, rather than just interests, in foreign policy and international relations. In Australia, the values debate is often articulated as follows: free speech, equality and democracy should not be compromised just for the opportunity to export more or to avoid upsetting China's government. The fact that values are raised in this way highlights how important social cohesion and identity are as part of the national interest. However, it also shows just how murky the values debate is. Values are hard to define: how different, for example, are Australian and Chinese values? Chinese values typically relate to the importance of family, respect for parents, the power of education and the value of work – and these are certainly not alien to what many Australians would say is important to them. The real point is that the two countries' political systems are different, and part of the Australian national interest lies in protecting Australia's social and political institutions. Saying that Australian values are notably different from Chinese or, more generally, Asian values does not bear scrutiny – think of how important democracy is to people across so much of Asia – and it certainly alienates a good part of immigrant Australia.

COVID-19 has brought the importance of social wellbeing and cohesion to the fore. The costs of this crisis are deeply social as well as economic and they have exacerbated tension between the major powers. The policy responses to the pandemic were centred on limiting the health impact. The isolation and the social damage that this has caused, such as domestic violence, racial attacks, self-harm and homelessness, has been a major social challenge and a key part of public and private responses.

**Principle 2: Identify the risks to the national interest in its three dimensions and identify practical ways to mitigate them.**

Risks can affect security, prosperity and social cohesion. The optimal forms of mitigation can be identified by thinking beyond a single domain. As a general proposition, it is in a country's interest that countries that pose a security risk to it have other strong interests to balance, effectively raising the cost of conflict and creating an incentive to find an enduring solution.

The key to mitigating a security risk might lie in the economic or social domains. For example, strengthening domestic economic governance, market systems and people-to-people connections supports cooperation rather than confrontation. Many of these actions not only help mitigate security risk but also mitigate the economic and social risks outlined above and support prosperity and social wellbeing in their own right. For example, markets that are more competitive and have greater integrity are more likely to innovate in quality goods and services and be more focused on people – which, as Adam Smith pointed out in *The Wealth of Nations*, is the whole purpose of markets – which supports productivity,

improves resilience and shares prosperity across society. Indeed, greater concentration of market power over the past decade may be one reason for slower growth in productivity, investment and wages, and so policies to make it easier for new firms to enter and to limit market power and concentration are likely to have significant economic, social and indeed security benefits (IMF 2019).

Defence and security are public goods, typically provided by governments. Risk mitigation, in contrast, need not be directly provided by governments. Indeed, the actions of other parts of society – especially business and civil society – can help mitigate risk over time and can be more effective in doing so than governments. The responsibility of government is not to manage risk directly itself but to enable and create incentives for others to maximise the three elements of the national interest and mitigate risks. This is typically achieved by strong domestic laws, markets, and regulatory and integrity governance supported by effective monitoring, compliance and systems for dealing with breaches.

But what does this mean in practice? The following section discusses in detail four applied examples with strategies to implement these principles: infrastructure, foreign investment and foreign firms, dual-use technology and the recovery from the pandemic.

## 2.1 Infrastructure

There are huge infrastructure needs across Asia and the Pacific, both within economies and between them. The Asian Development Bank (ADB) estimates that developing Asia needs investment of US\$26 trillion in infrastructure to 2030 (ADB 2017), and estimates for the Asia-Pacific Economic Cooperation group (APEC) and India total as much as US\$40 trillion by 2040, mostly in roads and energy (Heathcote 2017). The impact of infrastructure on internal and external connectivity and on economic and social development is profound, and everyone is staggered by the size of the need.

Yet there is growing tension between the major powers about the strategic objectives of donors, and there is particularly concern in the security community (China Power Team 2017) that China is using the Belt and Road Initiative as a strategic play to gain leverage over governments and acquire critical infrastructure, especially in cases when countries cannot repay debt (Camba and Jia Yao 2018). It helps to frame this debate from the perspective of the recipient country. Simply refusing foreign investment deprives the recipient of what might be economic and social infrastructure important for its prosperity and social cohesion. It deprives China of the opportunity to support others' development commensurate with its economic size and power and, as a major trading country, its own deep interest in a stable and prosperous world. Moreover, framing regional infrastructure primarily through the lens of US–China strategic competition risks freezing infrastructure funding and investment from private sources and nobbling cooperation within multilateral development banks – all to the significant detriment of the recipient country.

All donor countries use aid and financial assistance as a tool of foreign policy; therefore, the interests of the recipient country are best served by engaging with a variety of donors and organisations (intermediated through a key multilateral development agency when it is a small country) so that it is not hostage to dependence on a single large donor. Meanwhile, strong governance – including objective economic and social cost-benefit analysis,

competitive, open and non-discriminatory bidding, and independent dispute resolution – is essential to secure the benefits of the investment. The standard toolkit of international and development economics can help allay security concerns, as well as help lock in economic and social benefits. Japan's approach of working case by case with China on priority infrastructure investments in Asia and the Pacific provides a practical and effective way to lift governance, manage risks and deliver outcomes.

## 2.2 Foreign investment and the role of foreign firms

There is a huge bank of empirical and analytical work on the benefits of open investment and the importance of foreign investment to domestic innovation, economic growth and jobs. Yet there are also concerns that such investment can be used against a country to gain leverage over a government. As in the debate about the Belt and Road Initiative, much of this is focused on China. The security concern is threefold. First, it is thought that foreign ownership of domestic assets renders them more liable to be used by the foreign power, including by enabling cyber attacks on those assets. Second, it is argued, China is quick to use economic assets as a political tool in its dealings with others, as shown by the fear that China would withhold crucial rare earths from Japan in 2010. Third, changes requiring Chinese firms and citizens to cooperate with Chinese intelligence agencies and to have Communist Party cells in management in private companies effectively render even private entities instruments of the state.

From this perspective, foreign investment, especially from China, is seen as potentially undermining national sovereignty, particularly as US–China strategic competition rises. Let us look at each element of the argument in light of the principles set out above. If security risks are changing, it is important to keep front of mind just how important an open investment regime and market-based economic system is to sustaining innovation, growth and development. Closing borders and markets destroys economies and the source of their power. The better approach is to identify risks and workable risk mitigation to minimise security risks and maximise opportunities for prosperity.

The idea that foreign-owned assets can be used against a country is hardly new. The beauty of foreign investment is that both countries have an incentive to make the asset work and be profitable. China has a powerful economic and political incentive not to misuse its assets, including foreign assets. Why would it want to waste its wealth and opportunity for its own broad-based economic development by creating assets that it would lose in a serious confrontation? The physical assets cannot be repatriated to China in such an event; they would be lost and China's commercial reputation destroyed. There is an overriding incentive to make the assets work. A good example in Australia of how foreign participation in a controversial sector has helped stabilise a market is the live cattle export industry. Indonesian participation in ownership of Australian cattle farms used for live exports has reduced Indonesia's incentive to impose lower quotas or import bans when Australia–Indonesia relations have been difficult. Foreign investment has made the sector more stable and both countries benefit directly from the exports and imports.

There is concern that foreign ownership increases cyber risk. Cyber risk is serious and one of the greatest risks in a digital world for business, universities, not-for-profit bodies and governments. Those risks come from both government and non-government actors. The

Chinese Government, directly or indirectly, is often mentioned in the media as one of a group of significant state players. In thinking about cyber risk in the context of foreign investment, understanding the risk matters. Ownership is not the fulcrum of cyber risk. Cyber risk matters regardless of ownership and focusing on ownership itself does not resolve cyber risk (Prevelakis and Spinellis 2007). Controlling ownership is not the primary general instrument to deal with this threat.

Cyber risk can be reduced but not eliminated (Tobar 2018). Risk mitigation is varied (Bochman 2018). Risk mitigation includes strong defences in firms, organisations and other sectors against cyber attacks. Strong internal defences against cyber attacks vary between the type of entity and sector (Sterling 2018), and typically include programs or practices that control or limit access to devices, computers and technology. They can also include regulating how technology is used: in the energy sector, for example, there is a focus on segmenting parts of the energy system to limit the spread of failure following an attack (Bochman 2018).

A more subtle consideration is that market structure, too, matters for mitigation of risks to both security and prosperity. The more participants and the more diverse the structure of the market, the lower is the risk associated with any one firm. From this perspective, policies to encourage product innovation and the creation of new firms, along with policies and laws to protect market contestability, can help mitigate security risks and improve economic outcomes. The debate about foreign ownership of 5G networks and digital security risk might be different, for example, if the 5G sector was competitive and diverse, rather than concentrated in a small number of highly integrated (Voon and Mitchell 2019). This is a good topic to explore further, including between countries interested in addressing concentration risks in the technology sector.

Effective risk mitigation also requires domestic enforcement of strong laws against cyber attacks, including those aimed at obtaining sensitive data on individuals. These laws include making cyber penetration and attacks illegal and punishable with specific consequences for the firms and individuals involved, defining digital property rights (including data about people) and protecting privacy, and constraining the use of data obtained through a privacy breach. There are concerns that foreign firms, for example, may be particularly susceptible to theft of personal data, including information about a person's health, finances or behaviour that could be used to coerce or embarrass them (Hamilton 2019).

Having a clear legal framework on data privacy creates a domestic legal structure in which foreign firms are expected to operate, and penalties and practices that apply in the case of breach. The primary risk mitigation is the cyber defence of the firm, buttressed by laws and penalties for firms that breach confidentiality or use illegally obtained data. Given that risk can only be reduced and not eliminated, risk mitigation includes having enforceable frameworks in place that address breaches and protect the privacy of the people affected, such as limiting the public naming of people and use of data obtained illegally, even when the breach is by others. A good example is not allowing insurance companies and others to use health information made public by an illegal breach of privacy (Australian Government 2020). It might also be appropriate to impose criminal penalties on the senior management, board members or owners of firms that knowingly breach privacy of individuals.

The use of cyber warfare by large state actors is also subject to the kinds of deterrence logic that govern other aspects of interstate conflict. Analogous to the nuclear arms race, the cyber capabilities of the major powers have most probably reached the stage where a cyber attack by one would lead to a cyber attack by the other. Mutually assured digital destruction changes the risk of cyber attacks between the major powers and their allies outside of explicit war. Ensuring countries' own defensive and offensive cyber capabilities are effective may create a deterrent to overt cyber attacks by state actors.

Foreign investment is sometimes seen as a source of security risk for countries, particularly when the investment comes from countries with different political systems, as is the case for China and some of its partners. But trying to leverage foreign investment for foreign policy carries risks for the country that attempts it. Rather than seeking to minimise exposure to risk by limiting trade and investment links, countries can rely to a great degree on both international and domestic institutional and legal frameworks, as well as market forces, to mitigate risk.

For example, China may be quick to use economic dependence as an instrument of foreign policy, as in the case of limiting rare earths exports to Japan in 2010 (Tabeta and Zhou 2019). China's decision was challenged successfully by the US, Japan and the European Union in the WTO (n.d.) and upheld on appeal, with China accepting and implementing the decision. While countries do include economic sanctions in their foreign policy toolkit at some tipping point, the instance offers some useful insight. The initial action by China led buyers of rare earths to diversify supply chains and innovate with technology to reduce their reliance – a classic case of how flexible markets respond to events and can help manage risk. It highlights, too, the importance of the existence and use of international legal frameworks to defend property and market rights. While China's reputation as a stable commercial partner was damaged by the initial action, and rhetoric on all sides was strong, China did apply the rule of law by following the WTO ruling.

A case in which domestic regulatory frameworks should be optimised in order to manage risk stems from the change in China's Intelligence Law and greater role of the Communist Party in the management of private firms. These changes mark the assertion of central political control in Chinese commercial life and the primacy of the state. Ultimately, their material rather than symbolic impact depends not on the laws or requirements themselves but on how they are used and applied in practice, even if this is, by its nature, a hard thing to judge. In terms of how other countries respond, it is appropriate to be clear about their own legal frameworks: that foreign firms that operate in its jurisdiction do so under domestic law; that domestic law has strong, enforceable and independent commercial and market integrity and privacy provisions; and that significant (even criminal) penalties exist for breaches of these laws. It may be appropriate to consider making it illegal under domestic law for companies to act on behalf of foreign intelligence agencies – as hard as that would be to prove in a court of law, it marks a line in the sand. Again, more fundamentally, the more diverse and competitive the structure of the domestic market, the more difficult it is for any one firm, foreign or otherwise, to exert influence for economic or other purposes.

## 2.3 Dual-use technology

The third example is applying the principles to dual-use technology. It is widely accepted among economists that, to quote Paul Krugman:

*Productivity isn't everything, but, in the long run, it is almost everything.  
A country's ability to improve its standard of living over time depends almost entirely on its ability to raise its output per worker. (Colford 2016)*

There is less agreement about what lifts productivity, but the largely agreed factors include improvements in technology, know-how and capital, employee skills and learning, and the degree of competition in markets and dynamism of firms. For economists, new, open and experimental use of technology is synonymous with economic growth. In the security world, being at the technology frontier matters enormously to defence and intelligence capability, making it possible to directly manage long-term security risk. Many elements of digital technology have security and commercial applications – so-called dual-use technology. Technology is a primary determinant of both economic and military advance and an active playground for US–China strategic competition (Nouwens and Legarda 2018).

How do countries balance their interests in technology? In terms of the principles outlined above, the first point is that countries have fundamental economic and security interests in technology. A viable and enduring solution is one that finds some balance between them and eschews solutions in either the economics-only corner or the security-only corner. Countries have grappled with dual-use technology for millennia – knives, ships and the jet engine have all had dual security and economic uses, and the balance has been found in enabling both, protecting specific military applications (including tightly protecting defence science and technology organisations) and continually innovating to compete for the lead.

**Table 2.1: International payments and receipts for technology, US\$ billion current prices**

|             | 2005        |             | 2010        |              | 2015        |              |
|-------------|-------------|-------------|-------------|--------------|-------------|--------------|
|             | payments    | receipts    | payments    | receipts     | payments    | receipts     |
| Australia   | <b>3.4</b>  | 2.7         | <b>7.3</b>  | 4.6          | <b>8.0</b>  | 4.4          |
| Belgium     | 5.7         | <b>6.9</b>  | 10.0        | <b>11.8</b>  | 17.5        | <b>17.8</b>  |
| Denmark     | 3.3         | <b>4.6</b>  | 5.2         | <b>6.4</b>   | 6.0         | <b>7.7</b>   |
| Finland     | <b>4.6</b>  | 3.6         | 7.8         | <b>9.5</b>   | 5.0         | <b>10.8</b>  |
| Germany     | 29.1        | <b>31.4</b> | 45.2        | <b>58.2</b>  | 53.7        | <b>71.8</b>  |
| Japan       | 6.4         | <b>18.4</b> | 6.0         | <b>27.8</b>  | 5.0         | <b>32.6</b>  |
| Korea       | <b>4.5</b>  | 1.6         | <b>10.2</b> | 3.3          | <b>16.4</b> | 10.4         |
| Netherlands | 17.3        | <b>19.4</b> | 29.4*       | <b>40.0*</b> | 50.2        | <b>56.3</b>  |
| Sweden      | 7.3         | <b>9.8</b>  | 9.8         | <b>17.8</b>  | 10.1        | <b>28.0</b>  |
| Switzerland | <b>13.9</b> | 11.6        | <b>21.2</b> | 20.8         | <b>34.0</b> | 30.3         |
| UK          | 13.9        | <b>29.0</b> | 18.4        | <b>31.1</b>  | 21.3        | <b>41.1</b>  |
| USA         | 31.8        | <b>74.8</b> | 69.6        | <b>100.6</b> | 88.9        | <b>130.8</b> |

Bold indicates which of payment and receipt is larger; \* 2011. Source OECD (2018).

The idea that general access to technology should be limited or closed because it can be used for both commercial and military purposes is an extreme response with potentially enormous economic costs and potentially little impact on mitigating security risks.

It is worth observing just how essential access to technology and open markets are to prosperity. Australia, for example, is a small producer and a net importer of technology, while

Japan is a moderately sized producer and a net exporter (Table 2.1). In a risk-based framework, the economic premium for Australia is on enabling imports of technology and ideas, building networks, and staying open and connected; for Japan, the economic premium is on protecting intellectual property and access to overseas markets. In a risk-based framework, the security strategy for both is to restrict those technologies that have an overt defence application. Intelligent risk management, for example, tightly guards weapons and intelligence applications of quantum computing and machine learning, but not quantum computing and machine learning in general. Other countries, notably the US and China, lead these technologies, and both are important partners in technology transfer to technology importers like Australia. The notion that a technology-small country simply excludes Chinese technology across the board means that it foregoes significant opportunities for growth with no material impact on the technology-big country.

## 2.4 Recovery strategies from the COVID-19 pandemic – reliable supply chains

The pandemic has severely disrupted production and exchange processes across the globe and forced the closure of borders, particularly to the movement of people, and this is likely to be a disruption that lasts for some time. Governments and businesses have been keen to maintain the movement of goods. The core issue is how the public can be confident that supply chains work and necessary goods and services can be brought to market.

In terms of applying the two principles, it is clear that the challenge has economic, security and social dimensions. The starting point is understanding whether supply chains in fact worked, where the breakdowns and bottlenecks occurred, and how they were remedied. It is important to work off fact rather than presumption.

Each country will have examples of adaptability in markets that kept supply chains working. Consider some examples from Australia. Faced with demand exceeding supply of personal protective equipment, like face masks, gowns and sanitisers, domestic producers responded, with paper manufacturers shifting production into masks and gowns and breweries shifting production of beer into ethanol and then into sanitisers. In response to a shortage of ventilators, domestic manufacturers developed alternative devices, including adapting machines initially designed for other purposes or using 3D printers. As panic buying of items like toilet paper occurred, retail stores repackaged big packs into smaller ones, restricted the number of items that could be purchased, and reduced brands. The role of government in these circumstances was not to take over, but to facilitate, the market. There are many examples of where this was done, such as enabling fast customs clearance of key goods at the border, providing international transport for essential items, or easing limitations on the night-time movement of heavy vehicles to speed up restocking of stores.

The issue is how to manage risks to supply chains. The COVID-19 lockdowns have shown that the connections between the different parts of the economy are many and varied, and they cannot be plotted out in detail with accuracy. In a federation, supply chains can cross over state or provincial borders, so restrictions in one state can have unintended consequences for national supply chains. Supply chains become more complex the longer the time profile; while vehicle and road maintenance do not particularly matter in making

supply chains work for one day, they matter greatly in making supply chains work for several months or more. As recent events show, it is important to know broadly who produces what and how businesses are connected.

Yet, the way to manage the risks of supply disruption is not necessarily to make sure that more production is on shore or that more items are stored. That may help but it might also just increase other vulnerabilities and concentrate risks domestically. A better approach is to have flexible, innovative, and adaptable industrial sectors that understand what is going on quickly and have the technical and management skills, attributes and relationships to respond to events in practical and maybe ingenious ways, with government support to ensure legal and policy frameworks work to support adaptability (even when this means temporarily overriding existing creditor or intellectual property rights). These attributes are associated with open and competitive markets rather than closed, insular and protected ones.

Finally, there is an adding-up constraint in supply chains: we cannot all be exporters and none of us importers. If governments end up seeking to reduce reliance on other countries, this will be reciprocated and the result will be less prosperity without greater security.

### 3. Strengthening national and international institutions to support the national interest

Good institutional design does not solve the economic, security and social challenges that countries face but it can provide a structure in which to identify, assess and determine what is in a country's national interest and to advance shared interests with other countries.

There are two components to thinking about strengthening national institutions. The first is ensuring that government has all the perspectives in mind, enables contestability of views, and ultimately brings the economic, security and social dimensions together coherently and effectively in forming its assessment, strategy and actions. The heart of Australian, Japanese and Singaporean government decision-making is the cabinet, led by the prime minister and supported by specialist cabinet committees of a subset of ministers and independent and expert advice from the public service led by the prime minister's department. All these elements are important and essential.

It is worthwhile asking whether the habits of thinking and traditional support structures are still fit for purpose. The tradition in these countries has been largely to separate security, economic and social considerations in separate cabinet committees and administrative and bureaucratic structures, often with their own culture and language, priorities and view of the world.

In Australia, for example, security has been the domain of the National Security Committee, with – rightly – tightly controlled secrecy and membership dominated by the defence, intelligence and foreign relations departments and agencies (noting that the treasurer and the head of the Treasury department are present). It is timely to ask whether the wider national interest, with broader ministerial and administrative membership, is better suited to address issues that require a more integrated strategic approach. This could include a

Strategic Oversight Cabinet Committee of senior security, economic and social policy ministers, led by the prime minister, looking, for example, at the issues outlined above on infrastructure, foreign investment, dual-use technology and supply chains. The National Security Committee should retain responsibility for specific military, security and intelligence strategies and decisions. At the very least, submissions to the National Security Committee that have deep economic and social dimensions should be required to properly address these and seek coordination comments from relevant departments of state.

The cabinet could be better supported by bureaucratic arrangements that focus on bringing views together and exploring integrated solutions to be considered by the government. At the very least, the role of the Department of the Prime Minister and Cabinet could be strengthened by creating an integrated strategy office or unit in that department to authoritatively bring together afresh and on an equal basis the various perspectives and where solutions may lie. It is not enough to just add a security unit in the Department of the Treasury or an economic unit in security or external affairs departments: these units do help their departments understand issues but they typically reflect the culture and insight of the home department and are not effective in finding integrated solutions.

For example, the risk of a security unit in Treasury is that security is just an economic externality for someone else to fix; the risk of an economics unit in foreign and home affairs departments is that economics becomes geonomics, a tool of statecraft and how to use markets as a weapon (which ultimately undermines prosperity). Public servants should be encouraged to move between the security, economic and social policy domains to gain a broader sense of the nation's interests and to have extensive contacts and networks across the bureaucracy and beyond, with business, academia and the not-for-profit sector.

It is worth asking whether the tools of analysis can be improved in informing integrated strategy. Scenario analysis with a wide range of participants is a useful way to frame risk and look for solutions. Singapore stands out as an example of a country that uses scenario analysis well in informing integrated strategic policy by its cabinet. These exercises bring insights into the global interplay of forces in the domains of the economy (technological change and the impact of data and digitisation, productivity and economic inclusion), security (the multipolar order, non-conforming nations and proliferation) and society (trust in institutions, belonging and social media). This analytical framework challenges conventional habits of thinking, strengthens connections and relationships between the different domains, and supports integrated strategic thinking.

Consider now how international institutions and frameworks can be strengthened. International cooperation is not an act of national weakness. Speaking from my own experience in G20 and APEC from the Asian financial crisis to the aftermath of the global financial crisis, no country or economy has ever approached those forums with anything but their own national interest and objectives at the heart of everything decided in each forum. What has been apparent in times of international economic and financial stress is that collective action and cooperation is a common interest of countries, and that the individual interest of countries has been served by frameworks, rules and institutions that support well-regulated, transparent and open markets and business. Finding the shared common interest among countries is not an easy exercise.

What does this mean for countries at a time of rising nationalist populism, US–China strategic competition, and the imperative of integrating economic, security and social dimensions of the national interest?

From the outset, it is important for countries that value international rules, frameworks and institutions to structure interaction between countries; and for countries that value open, transparent and competitive markets as the basis of exchange between countries to state and implement their views. There are some great examples of this. Australia (Coorey 2019) has formally reaffirmed the importance of the Bretton Woods institutions. There has been great collective action and leadership by countries across Asia and the Pacific to reform and open up their trade and investment, despite the withdrawal of the US from the Trans-Pacific Partnership in January 2017. These include the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP, see Australian Government n.d.-b) signed by 11 countries in December 2018, and the Regional Comprehensive Partnership (RCEP, see Australian Government n.d.-c) agreed by 15 countries in November 2019 for signature into law in 2020. The CPTPP is open to the US (and others), and the RCEP is open to India to join if and when it sees fit. The creation of an interim alternative appellate body (Lordi n.d.) to that of the WTO, with membership from the European Union, China, Indonesia, Canada, Australia (Sampson 2020) and a few others is an important step in supporting rules-based approaches.

These developments are positive and instructive. They show that countries can determine their own destiny, even when circumstances are difficult or change. While the changes in US posture on economic and security relations and the rise in US–China strategic competition really do complicate life, they do not have to stop other countries from doing what they can to strengthen economic rules, open their own markets and broaden their relationship with China. Indonesia, Japan and Australia, among others, are providing leadership in Asia and the Pacific.

These developments provide a good basis to go further and more strategically use regional forums and institutions that include both the US and China. APEC offers some real opportunities.

As mentioned earlier, infrastructure needs across the region are massive but action is floundering. APEC is a good place for members to set out their individual priority infrastructure needs, commit to (not just note) key guiding principles around transparency and governance, commit to reforming domestic obstacles to infrastructure investment, engage directly with private investors and multilateral lenders, and lift domestic capacity of developing economies. This agenda addresses a core economic weakness in the region and helps mitigate both economic and security risks.

Think too about the deteriorating global financial safety net, in which financial crisis prevention and mitigation arrangements have not kept pace with rising capital flows and growing economies; liquidity arrangements (such as central bank swaps) have narrowed; and a key supplementary support mechanism, the New Arrangements to Borrow, is set to expire in November 2022 and should be both extended and increased. The key Asian regional mechanism, the ASEAN+3 Chiang Mai Initiative Multilateralization, is too small and difficult to use, and indeed has never been used. A strong safety net is a good idea in its

own right, but it also helps ease some of the concerns, whether founded or not, around ‘debt trap diplomacy’. With a strong safety net comprising well-governed and representative institutions, countries that have borrowed unsustainably need not fear losing strategic assets.

Every irresponsible borrower has an irresponsible lender, and a well-functioning safety net would recognise that, giving a haircut to the lender and liquidity support to the borrower to allow debt financing to continue sustainably. A well-functioning safety net makes debt trap diplomacy an uneconomical proposition. Historically, APEC finance ministers have not focused on the regional and global safety net but it is time now to do so, given that the imperative Asia faces is to persuade the US to restore and build the global financial safety net and ensure that regional and global mechanisms work together smoothly. Having a serious conversation in APEC about financial safety nets would be a break from the past and show that Asia is agile and strategic in its use of forums, informed by the past but not bound by the habits of the past.

Drawing on its informal connections with business (ABAC) and universities (PECC, ERIA and ABER) and its own informal style, APEC is a good place for ministers and officials to focus explicitly on ways to deliver prosperity, security and social wellbeing.

## Conclusion

The world has changed. The challenge is to think broadly about all the dimensions of the national interest, being explicit about economic, security and social interests, and to identify the range of risks and think creatively, strategically and practically about how to mitigate risk. Siloes do not help in thinking about and addressing challenges in a genuinely strategic way. The real art of contemporary public policy is finding ways that deliver the most for prosperity, security and social wellbeing rather than treating them as competing alternatives to be traded off against each other. COVID-19 has only made this approach more compelling and urgent.

In terms of domestic institutional design, it may help to refashion the way executive government approaches the complex problems it faces, with better integrated strategic advice from the administrative parts of government.

In terms of international relations, this is the time for countries to engage rather than withdraw, as the region has done so well in the CPTPP and RCEP trade and investment agreements and in establishing an alternative appellate body for trade disputes. Countries should look for opportunities to work together and with others in the region, and to engage directly and positively with the US and China. The focus here is on practical and mutually beneficial steps to mitigate, rather than exacerbate, US–China strategic competition. There is a lot still to be gained by active bilateral and multilateral engagement.

## References

Asian Development Bank. 2017. *Meeting Asia's Infrastructure Needs*. Phillipines: ADB. doi.org/10.22617/FLS168388-2.

- Australian Government. 2020. 'Chapter 6: Civil Penalties – Serious or Repeated Interference with Privacy and Other Penalty Provisions'. Office of the Australian Information Commissioner. [www.oaic.gov.au/about-us/our-regulatory-approach/guide-to-privacy-regulatory-action/chapter-6-civil-penalties/](http://www.oaic.gov.au/about-us/our-regulatory-approach/guide-to-privacy-regulatory-action/chapter-6-civil-penalties/).
- Australian Government. n.d-a. 'Chapter 9: Deeper and Broader Relationships'. Accessed 6 August 2021, [webarchive.nla.gov.au/awa/20130913173253/http://pandora.nla.gov.au/pan/133850/20130914-0122/asiancentury.dpmc.gov.au/white-paper/chapter-9.html](http://webarchive.nla.gov.au/awa/20130913173253/http://pandora.nla.gov.au/pan/133850/20130914-0122/asiancentury.dpmc.gov.au/white-paper/chapter-9.html).
- Australian Government. n.d-b. 'Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP)'. Department of Foreign Affairs and Trade. Accessed 8 August 2021. [www.dfat.gov.au/trade/agreements/in-force/cptpp/comprehensive-and-progressive-agreement-for-trans-pacific-partnership](http://www.dfat.gov.au/trade/agreements/in-force/cptpp/comprehensive-and-progressive-agreement-for-trans-pacific-partnership).
- Australian Government. n.d-c. 'Regional Comprehensive Economic Partnership'. Department of Foreign Affairs and Trade. Accessed 8 August 2021. [www.dfat.gov.au/trade/agreements/not-yet-in-force/rcep](http://www.dfat.gov.au/trade/agreements/not-yet-in-force/rcep).
- BBC News. 2020. 'Trump Says Coronavirus Worse "Attack" Than Pearl Harbor'. 7 May 2020. <https://www.bbc.com/news/world-us-canada-52568405?xtor=AL-72-%5Bpartner%5D-%5Bbbc.news.twitter%5D-%5Bheadline%5D-%5Bnews%5D-%5Bbizdev%5D-%5Bisapi%5D&>.
- Bochman, Andy. 2018. 'Internet Insecurity'. *Harvard Business Review*, 15 May 2018. [hbr.org/cover-story/2018/05/internet-insecurity](http://hbr.org/cover-story/2018/05/internet-insecurity).
- Camba, Alvin A. and Kuek Jia Yao. 2018. 'China's Belt and Road Initiative Paved with Risk and Red Herrings'. *East Asia Forum*, 26 June 2018. [www.eastasiaforum.org/2018/06/26/chinas-belt-and-road-initiative-paved-with-risk-and-red-herrings/](http://www.eastasiaforum.org/2018/06/26/chinas-belt-and-road-initiative-paved-with-risk-and-red-herrings/).
- China Power Team. 2017. 'How Will the Belt and Road Initiative Advance China's Interests?' 8 May 2017. [chinapower.csis.org/china-belt-and-road-initiative/](http://chinapower.csis.org/china-belt-and-road-initiative/).
- Colford, Christopher. 2016. 'Productivity for Prosperity: "In the Long Run, It Is Almost Everything"'. *World Bank Blogs*, 15 November 2016. [blogs.worldbank.org/psd/productivity-prosperity-long-run-it-almost-everything](http://blogs.worldbank.org/psd/productivity-prosperity-long-run-it-almost-everything).
- Coorey, Phillip. 2019. 'Unsteady World Must Re-Embrace Bretton-Woods: Frydenberg'. *Financial Review*, 11 November 2019. [www.afr.com/politics/federal/unsteady-world-must-re-embrace-bretton-woods-frydenberg-20191111-p539cn](http://www.afr.com/politics/federal/unsteady-world-must-re-embrace-bretton-woods-frydenberg-20191111-p539cn).
- Dornbusch, Rudi. 2002. 'A Primer on Emerging-Market Crises'. In *Preventing Currency Crises in Emerging Markets*, edited by Sebastian Edwards and Jeffrey A. Frankel, 743–54. Chicago: University of Chicago Press.
- Hamilton, Clive. 2019. 'China Has a Very Unhealthy Interest in Our Medical Data'. *Financial Review*, 13 January 2019. [www.afr.com/opinion/china-has-a-very-unhealthy-interest-in-our-medical-data-20190113-h1a0c7](http://www.afr.com/opinion/china-has-a-very-unhealthy-interest-in-our-medical-data-20190113-h1a0c7).
- Heathcote, Chris. 2017. 'Forecasting Infrastructure Investment Needs for 50 Countries, 7 Sectors Through 2040'. *World Bank Blogs*, 10 August 2017. [blogs.worldbank.org/ppps/forecasting-infrastructure-investment-needs-50-countries-7-sectors-through-2040](http://blogs.worldbank.org/ppps/forecasting-infrastructure-investment-needs-50-countries-7-sectors-through-2040).
- International Monetary Fund. 2019. *World Economic Outlook, April 2019: Growth Slowdown, Precarious Recovery*. International Monetary Fund. doi.org/10.5089/9781484397480.081.

- International Monetary Fund. 2020. 'World Economic Outlook. April 2020: The Great Lockdown'. [www.imf.org/en/Publications/WEO/Issues/2020/04/14/weo-april-2020](http://www.imf.org/en/Publications/WEO/Issues/2020/04/14/weo-april-2020).
- Krugman, Paul R. 1997. *The Age of Diminished Expectations: US Economic Policy in the 1990s* (3rd edn). Cambridge: MIT Press.
- Lordi, Joseph. n.d. 'Appeal by Other Means: The European Union and Other WTO Members Search for Alternatives to the Organization's Paralyzed Appellate Body'. *Michigan Journal of International Law*. Accessed 8 August 2021. [www.mjilonline.org/appeal-by-other-means-the-european-union-and-other-wto-members-search-for-alternatives-to-the-organizations-paralyzed-appellate-body/](http://www.mjilonline.org/appeal-by-other-means-the-european-union-and-other-wto-members-search-for-alternatives-to-the-organizations-paralyzed-appellate-body/).
- Nouwens, Meia and Helena Legarda. 2018. 'China's Pursuit of Advanced Dual-Use Technologies'. International Institute for Strategic Studies, 18 December 2018. [www.iiss.org/blogs/research-paper/2018/12/emerging-technology-dominance](http://www.iiss.org/blogs/research-paper/2018/12/emerging-technology-dominance).
- OECD. 2018. 'Main Science and Technology Indicators, Volume 2018 Issue 1'. Accessed 8 August 2021. [read.oecd-ilibrary.org/science-and-technology/main-science-and-technology-indicators/volume-2018/issue-1\\_msti-v2018-1-en#page87](http://read.oecd-ilibrary.org/science-and-technology/main-science-and-technology-indicators/volume-2018/issue-1_msti-v2018-1-en#page87).
- Prevelakis, Vassilis and Diomidis Spinellis. 2007. 'The Athens Affair: How Some Extremely Smart Hackers Pulled Off the Most Audacious Cell-Network Break-In Ever'. *IEEE Spectrum*, 29 June 2007. [spectrum.ieee.org/telecom/security/the-athens-affair](http://spectrum.ieee.org/telecom/security/the-athens-affair).
- Sampson, Gary. 2020. 'Bypassing Trump's Fake Complaints Paves Way for WTO Renewal'. *Financial Review*, 6 May 2020. [www.afr.com/policy/economy/bypassing-trump-s-fake-complaints-paves-way-for-wto-renewal-20200506-p54q6q](http://www.afr.com/policy/economy/bypassing-trump-s-fake-complaints-paves-way-for-wto-renewal-20200506-p54q6q).
- Sterling, Bruce. 2018. 'Estonian Cyber Security'. *Wired*, 1 September 2018. [www.wired.com/beyond-the-beyond/2018/01/estonian-cyber-security/](http://www.wired.com/beyond-the-beyond/2018/01/estonian-cyber-security/).
- Tabeta, Shunsuke and Marrian Zhou. 2019. 'China Moves to Shut Spigot on Rare Earths for First Time in 5 Years'. *Nikkei Asia*, 5 June 2019. [asia.nikkei.com/Economy/Trade-war/China-moves-to-shut-spigot-on-rare-earths-for-first-time-in-5-years](http://asia.nikkei.com/Economy/Trade-war/China-moves-to-shut-spigot-on-rare-earths-for-first-time-in-5-years).
- Tobar, David. 2018. '7 Considerations for Cyber Risk Management'. Software Engineering Institute, 9 February 2018. [insights.sei.cmu.edu/insider-threat/2018/02/7-considerations-for-cyber-risk-management.html](http://insights.sei.cmu.edu/insider-threat/2018/02/7-considerations-for-cyber-risk-management.html).
- Voon, Tania and Andrew Mitchell. 2019. 'Australia's Huawei Ban Raises Difficult Questions for the WTO'. *East Asia Forum*, 22 April 2019. [www.eastasiaforum.org/2019/04/22/australias-huawei-ban-raises-difficult-questions-for-the-wto/](http://www.eastasiaforum.org/2019/04/22/australias-huawei-ban-raises-difficult-questions-for-the-wto/).
- Worldometer. 2021. 'COVID-19 Coronavirus Pandemic'. Accessed 8 August 2021. [www.worldometers.info/coronavirus/#countries](http://www.worldometers.info/coronavirus/#countries).
- WTO. n.d. 'DS431: China – Measures Related to the Exportation of Rare Earths, Tungsten and Molybdenum'. Accessed 8 August 2021. [www.wto.org/english/tratop\\_e/dispu\\_e/cases\\_e/ds431\\_e.htm](http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds431_e.htm).