

PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA

Inquiry into the implications of the COVID-19 pandemic for Australia's foreign affairs, defence and trade

Joint Standing Committee on Foreign Affairs, Defence and Trade

December 2020
CANBERRA

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List of Recommendations

Recommendation 1

- 4.99 The Committee recommends that within 12 months the Australian Government define which critical national systems are essential to Australia's ability to function as a secure, prosperous, first world nation.

Recommendation 2

- 4.100 The Committee recommends that the Australian Government develop a national resilience framework to assess which elements of Australia's critical national systems are vulnerable to high-consequence supply chain disruptions.

Recommendation 3

- 5.23 The Committee recommends that the Australian Government develop specific shared objectives with allies and regional partners to increase global support for the rules-based order that underpins the global system of security, international relations and trade.

Recommendation 4

- 5.38 The Committee recommends that the Australian Government use the recent DFAT audit of Australia's engagement with UN and other international organisations to identify those that are a priority for Australia's national interest.

Recommendation 5

- 5.39 The Committee recommends that the Australian Government develop a detailed agenda of the reforms necessary in priority international organisations and an implementation plan to lead the case for change, working cooperatively with like-minded countries to restore confidence and investment in priority multilateral institutions.

Recommendation 6

- 5.50 The Committee recommends that the Prime Minister lead deliberations in the National Cabinet to produce an agreed national framework to ensure that COVID-19 related measures imposed by states and territories do not prevent the timely change-over of international maritime crews, a situation which has led to unsafe and unreasonable workplace conditions which breach Australia's ILO obligations.

Recommendation 7

- 5.51 The Committee recommends that National Cabinet develop the processes agreed as an outcome of Recommendation 6 such that Australia has an agreed framework to ensure all states and territories remain compliant with national obligations in the event of future crises that require responses falling under the authority of sub-national governments.

Recommendation 8

- 5.79 The Committee recommends that within 12 months the Australian Government identify those elements of Australia's critical national systems where supply chains are entirely or significantly dependent on companies which are likely to be subject to extrajudicial directions or coercive interference from a foreign government that place continuity of supply at risk of failure.

Recommendation 9

- 5.80 To prevent failure of critical national systems, the Committee recommends the Government, in consultation with industry, develop plans and a timeframe to move 'at risk' supply chains for critical national systems to sovereign Australian suppliers or where appropriate, to other trusted, transparent arrangements with companies in nations having a strong record of adherence to the rule of law.

Recommendation 10

- 5.81 The Committee recommends that the Australian Government initiate parallel Track-1 (Government to Government) dialogue to place an assurance framework around the establishment of commercial arrangements pertaining to supply chains for critical national systems. Where appropriate, this should include reciprocal assurances of supply by Australia to our partners' critical national systems.

Recommendation 11

- 5.82 The Committee recommends that within 6 months the Australian Government identify an initial tranche of Australia's key national strengths in the potential supply of resources, elaborately transformed manufactures and services in critical areas and assess any barriers to the scaling up and commercial sustainability of such industries that would prevent Australia becoming a trusted and transparent partner of choice for like-minded nations.

Recommendation 12

- 5.83 The Committee recommends that within 12 months the Australian Government conduct a cross portfolio review and where it supports Australia's strategic interests, develop and implement competitive processes to provide targeted support for Australian industry sectors, enabling them to become trusted suppliers to overseas consumers of critical resources, elaborately transformed manufactures and services.

Recommendation 13

- 5.106 The Committee recommends that within 24 months the Australian Government ensure that where necessary, Australia regenerates and sustains the test and certification capability to provide assurance that Australian sourced supplies and elaborately transformed manufactures for critical national systems, meet the relevant Australian/New Zealand standards (or international equivalents where applicable). This same capability must be able to verify to a suitable level of confidence that imported enablers to critical national systems are fit for purpose.

Recommendation 14

- 5.125 The Committee recommends that Australian Government support for Australian industry sectors supporting identified critical national systems move away from purely grant-based assistance to the intentional use of procurement to build and sustain sovereign capability.

Recommendation 15

- 5.126 The Committee recommends that the CPRs and Accountable Authority instructions be modified to reflect Recommendation 14 by explicitly requiring procurement authorities to consider how the generation and sustainment of sovereign industry sectors that supply to critical national systems could be facilitated by:
- Aggregation of demand across Commonwealth departments and where agreed, state government requirements; and
 - Phasing of procurement where the timeframe for delivery can be optimised to meet operational requirements and Australian industry capacity.

Recommendation 16

- 5.127 The Committee recommends that a new sub-paragraph should be added to paragraph 4.5 of the CPRs dealing with assessing value for money. The sub-paragraph should have the effect that:
- officials must give a priority weighting to the extent to which a proposed project or individual procurement contributes to the generation or sustainment of a sovereign Australian industry capability which is providing nominated supplies to a critical national system.

Members

Chair

Senator the Hon David Fawcett	LP, SA
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The Hon Dr John McVeigh MP	Groom, QLD
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Senator the Hon Arthur Sinodinos	LP, NSW

Abbreviations

AFF	Agriculture, fisheries and forestry
ABARES	Australian Bureau of Agricultural and Resource Economics and Sciences
ACIAR	Australian Centre for International Agricultural Research
ACT	Australian Capital Territory
ADF	Australian Defence Force
AFTINET	Australian Fair Trade and Investment Network
AHHA	Australian Healthcare and Hospitals Association
AIMPE/AMOU	Australian Institute of Marine and Power Engineers and Australian Maritime Officers Union
AMGC	Advanced Manufacturing Growth Centre
AMWU	Australian Manufacturing Workers Union
ANU	Australian National University
API	Active pharmaceutical ingredients
ASPI	Australian Strategic Policy Institute
CPP	Crop protection products
CEO	Chief Executive Officer
CIC	Critical Infrastructure Centre
COVID-19	Coronavirus 19
CMA	Critical minerals assessment
CMC	Critical minerals assessment

CNS	Critical national system
CPRs	Commonwealth Procurement Rules
CPTPP	Comprehensive and Progressive Trans-Pacific Partnership
DAWE	Department of Agriculture, Water and Environment
DFAT	Department of Foreign Affairs and Trade
DIPS	Defence Industry Policy Statement
DISER	Department of Industry, Science, Energy and Resources
DTC	Defence Teaming Centre
EU	European Union
FDI	Foreign direct investment
GDP	Gross domestic product
HIV	Human immune deficiency virus
HRW	Human Rights Watch
ICU	Intensive care unit
IIER	Institute of Integrated Economic Research
IIT	Institute for International Trade
ITF	International Transport Workers' Federation
ILO	International Labour Organization
ITU	International Telecommunication Union
ISR	Intelligence, surveillance and reconnaissance
ITD	Institute for Drug Technology Australia
IWDA	International Women's Development Agency
OECD	Organisation for Economic Cooperation and Development
OPEC	Organization of Petroleum Exporting Countries
OT	Operational technology
MIAL	Maritime Industry Australia Limited
MUA	Maritime Union of Australia
NATO	North Atlantic Treaty Organization
NMS	National Medical Stockpile

PHAA	Public Health Association of Australia
PICs	Pacific island countries
PGPA Act	Public Governance, Performance and Accountability Act
PLC	Pacific Labour Scheme
PNG	Papua New Guinea
PPE	Personal protective equipment
PRC	People's Republic of China
RCEP	Regional Comprehensive Economic Partnership
SARS	Severe Acute Respiratory Syndrome
SMEs	Small and medium enterprises
SWP	Seasonal Worker Programme
RACS	Royal Australasian College of Surgeons
TB	Tuberculosis
TGA	Therapeutic Goods Administration
TPP	Trans-Pacific Partnership
UK	United Kingdom
UN	United Nations
UNCLOS	United Nations Convention on the Law of the Sea
UNSC	United Nations Security Council
US	United States
UNESCO	United Nations Educational, Scientific & Cultural Organization
WHO	World Health Organization
WTO	World Trade Organization

Secretariat

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Chair's Foreword

The lessons from the COVID-19 pandemic are not primarily about health.

The behaviour of nation states in response to COVID-19 has called into question assumptions about the extent of adherence to the global rules-based order — assumptions that have underpinned many aspects of Australia's foreign affairs, defence and trade policy in recent decades.

COVID-19 has also exposed structural vulnerabilities in some of the critical national systems that enable Australia to function as a secure, prosperous first-world nation. Many of these vulnerabilities are caused by supply chains that rely on just-in-time supply from the global market. In some cases, this is exacerbated by supply coming—in whole or substantial part—from companies that are subject to extrajudicial or coercive direction from some foreign governments.

Decreased support for the norms of the rule-based order negatively affects collaboration and conflict resolution between nation states, as well as the efficacy of commercial relationships between companies throughout supply chains.

A key lesson from COVID-19 is that returning to “business as usual” is not an option if Australia is to be resilient, remaining secure and prosperous in the face of future crises.

Australia's Strategic Update 2020 highlights that another zoonotic pandemic is only one of the potential crises facing Australia and our region that would disrupt “business as usual”. Unexpected or sustained disruption due to grey-zone, coercive, or military actions are likely to substantially degrade if not disable one or more of Australia's critical national systems.

Australia must identify the supply chains that underpin critical national systems and work with industry to reduce—if not eliminate—vulnerabilities and increase resilience. This will require changes to the Commonwealth's procurement rules to specifically recognise the value for money that is inherent in partnerships with

industry that create or expand sovereign capabilities which provide identified enablers for a critical national system. It will also require more whole-of-government strategic assessment, investment and diplomatic effort to increase resilience through trusted and transparent partnerships with like-minded nations.

Australia, like much of the Indo-Pacific region has benefited from the global rules-based order which has underpinned increased security and prosperity. Poor outcomes from some key multilateral institutions has decreased engagement by some nations and there is evidence of authoritarian nation states seeking to influence global rules and standards away from the transparent, plural and democratic values that have informed global norms in recent decades. It is clearly in Australia's national interests to work with like-minded nations to ensure that reforms to key multilateral institutions are effective and consistent with democratic values and the rule of law.

COVID-19 has seen Australia respond effectively, including with novel approaches to governance—such as National Cabinet—and partnerships with industry that have placed strategic outcome over rigid adherence to established process.

Responding to the lessons of COVID-19 identified in this report will require a similar commitment to whole-of-government, outcomes-focussed assessment and timely, funded implementation of novel solutions which will challenge the status-quo.

I thank the many witnesses who made submissions and took the time to give evidence to the Committee during this inquiry to ensure that Australia learns, responds and becomes more resilient.

I commend this report and its findings to the reader and look forward to engagement by Government with the recommendations to keep Australia a secure, free and prosperous nation.

Senator the Hon David Fawcett

Chair

1. Introduction

- 1.1 On Wednesday, 13 May 2020, the Joint Standing Committee on Foreign Affairs, Defence and Trade adopted an inquiry into the implications of the COVID-19 pandemic for Australia's foreign affairs, defence and trade.

Background

- 1.2 The COVID-19 pandemic has shown how closely an inter-connected world links domestic outcomes with international events. Over the medium and long-term the pandemic will affect every aspect of Australia's global relationships.
- 1.3 The quality and security of Australia's supply chains is of critical importance to the nation's physical and economic health. Part of the responsibility of the Department of Foreign Affairs and Trade (DFAT) is to negotiate trade agreements that link multiple economies and 'help Australian businesses reduce transaction costs and better access global supply chains'¹, which in turn stimulates investment and supports one in five Australian jobs.
- 1.4 The DFAT Annual Report also highlights DFAT's role in keeping Australia safe and secure; acknowledging that '... threats are diverse and evolving, from nuclear weapons proliferation to terrorist insurgency, cyber attack and transnational crime.'² To counter these threats, DFAT reports that: 'Australia's interests are strongly served by acting with others to support an international rules-based order'.³ The commitment to a stable, rules-based

¹ Department of Foreign Affairs, Defence and Trade, *Annual Report 2018-19*, p. 42.

² Department of Foreign Affairs, Defence and Trade, *Annual Report 2018-19*, p. 54.

³ Department of Foreign Affairs, Defence and Trade, *Annual Report 2018-19*, p. 80.

global order is also a core part of Defence's strategic direction, as set out in its Annual Report.

- 1.5 Both DFAT and Defence respond to humanitarian crises and work to build resilience in our international partners. The pandemic has shown the close link between Australia's safety and the vulnerability of our near neighbours.
- 1.6 Given that many of the implications of the pandemic are not yet known, and many decisions are still to be made, the Joint Standing Committee on Foreign Affairs, Defence and Trade undertook an inquiry under the terms of reference below to better inform Australia's position.
- 1.7 The terms of reference for the inquiry are:

The Joint Standing Committee on Foreign Affairs, Defence and Trade will inquire into the strategic implications of COVID19, having particular regard to:

- Implications for Australia's Foreign Affairs, Defence and Trade policy, particularly with respect to strategic alliances and regional security;
- Threats to the global rules based order that emerged due to actions by nation states during the pandemic, and how such threats can be mitigated in the event of future crises;
- The impact on human rights;
- Supply chain integrity / assurance to critical enablers of Australian security (such as health, economic and transport systems, and defence);
- What policy and practical measures would be required to form an ongoing effective national framework to ensure the resilience required to underpin Australia's economic and strategic objectives; and
- Any related matters.

Conduct of the inquiry

- 1.8 The Committee announced the commencement of the inquiry by media release on 13 May 2020 and requested submissions from interested members of the public. Submissions were requested by 30 June 2020.
- 1.9 The Committee received 109 submissions and 16 supplementary submissions from a range of government agencies, non-government organisations, academic institutions and individuals. Submissions are listed at Appendix A and can be viewed on the inquiry website,⁴ apart from any submissions that were confidential.

⁴ <https://www.aph.gov.au/FADTpandemic>

- 1.10 The Committee held 14 hearings in Canberra. Transcripts of the hearings are available at the inquiry website.⁵ A full list of public hearings and witnesses is available at Appendix B.

Report structure

- 1.11 The report is divided into five chapters:

- Chapter 1 briefly introduces the inquiry and its context.
- Chapter 2 describes the global implications of the pandemic, including on global health systems, global economy, Indo-Pacific countries, human rights, international relationships and security, and the global rules-based order and alliances.
- Chapter 3 discusses the effects of the COVID-19 pandemic on Australia, including Australia's international relationships, the health system, the economy, scenarios for future crises, supply chain vulnerability, as well as examples of initiatives taken by Australian industries in response to the pandemic.
- Chapter 4 outlines the need for a national resilience framework to analyse the exposure of Australia's critical national systems to disruption to global supply chains.
- Chapter 5 details the lessons of the COVID-19 pandemic for a number of Australia's foreign affairs, defence and trade policies and potential responses by the Australian Government. Proposed initiatives include sustaining commitment to the global rules-based order, ensuring that multilateral institutions are fit for purpose, supporting supply resilience initiatives and making changes to Commonwealth procurement.

⁵ <https://www.aph.gov.au/FADTpandemic>

2. Implications of the COVID-19 pandemic

- 2.1 The COVID-19 pandemic has presented the greatest threat to global health, economy and society since the turn of the last century. This chapter outlines the global implications of the pandemic, as presented in evidence to the inquiry.
- 2.2 The chapter examines effects of the COVID-19 pandemic on:
- global health and health systems;
 - the global economy;
 - Indo-Pacific countries;
 - human rights;
 - international relationships and security; and
 - the global rules-based order and alliances.

Global health and health systems

- 2.3 The COVID-19 pandemic presents one of the greatest threats to global human health since the influenza pandemic of 1918. Evidence to the Committee made it clear that, in addition to the numbers of cases and deaths directly attributable to the virus, the pandemic will have a wide range of other implications for global health and health systems.
- 2.4 After the initial outbreaks of COVID-19 in China, some of the worst effects of the virus occurred in developed countries in Europe and North America. Countries such as France, Italy, Spain and UK suffered from large numbers of COVID-19 cases and, after initially appearing to control the virus through lockdowns and other measures, suffered second waves of infections. The US

became a world leader in both numbers of cases and deaths from the disease.

2.5 The highly infectious character of the virus led to its rapid spread, in the process exposing weaknesses in health systems across the world. Even in wealthy countries that were expected to have the capacity to cope with viral outbreaks, health systems came under extreme pressure. In March 2020 it was reported that health facilities and staff in northern Italy had become ‘overloaded’ in the space of just three weeks after the virus had begun to spread in the region.¹

2.6 One early casualty of the pandemic was the assurance that supplies of critical medical goods could be maintained in a global emergency. In particular, an international shortage of personal protective equipment (PPE) emerged very soon after the virus began to spread.

2.7 The Department of Foreign Affairs and Trade (DFAT) told the Committee:

In the early stages of the pandemic, a number of Australia’s major trading partners began imposing export restrictions and licensing requirements on personal protective equipment (PPE), medical products and food.²

2.8 The submission from the Royal Australasian College of Surgeons said the Organisation for Economic Cooperation and Development (OECD) had reported that, as early as January 2020, global demand for PPE had outstripped supply and:

...China had to stop its manufacturing and as a result it stopped exporting masks and imported 56 million masks in the first week of January and suddenly became reliant on donations from other countries. The demand rose to 240 million masks per day which exceeded China’s manufacturing capacity by ten times.³

2.9 PPE shortages not only affected the capacity of the authorities to limit the spread of the virus amongst the population, it had a devastating impact on the working conditions and personal safety of health care workers. The World Health Organization (WHO) reported:

...shortages are leaving doctors, nurses and other frontline workers dangerously ill-equipped to care for COVID-19 patients, due to limited access

¹ New York Times, 17 March 2020, <https://www.nytimes.com/2020/03/12/world/europe/12italy-coronavirus-health-care.html>

² Department of Foreign Affairs and Trade, *Submission 58*, p. 24.

³ Royal Australasian College of Surgeons, *Submission 86*, p. 4.

to supplies such as gloves, medical masks, respirators, goggles, face shields, gowns, and aprons.⁴

- 2.10 Action Aid informed the Committee the WHO had estimated, in May 2020, that ‘at least 90,000 healthcare workers have already been infected with COVID-19 across the world’.⁵ In the case of Italy, more than 5,000 doctors, nurses and other medical staff had contracted COVID-19 by March 2020 and more than forty deaths had been recorded.⁶
- 2.11 The weaknesses in health systems internationally were also highlighted when some countries diverted resources from other health priorities in order to deal with the pandemic, but in doing so left other important areas of healthcare under-equipped. According to International Consortium for Sexual and Reproductive Health and Rights:
- The COVID-19 pandemic has led to a rapid redirection of health services as countries prepare and respond. In healthcare we have seen resource reallocation and re-prioritisation, decision-making based on fear with minimal evidence.⁷
- 2.12 The Public Health Association of Australia cited the example of deferred health services, saying:
- ...Our programs in immunisation, cancer screening, areas of nutrition and many, many other areas have been compromised because all hands have gone to the COVID pump.⁸
- 2.13 When the pandemic has had such an impact on health systems in the first world, its effects in less developed countries were even more severe.
- 2.14 The Burnet Institute described the impact of the pandemic in already vulnerable developing countries. This included a rise in the incidence and degree of poverty, threats to food security and disruptions to health services.

⁴ World Health Organisation (WHO), 3 March 2020, ‘Shortage of personal protective equipment endangering health workers worldwide’, <https://www.who.int/news-room/detail/03-03-2020-shortage-of-personal-protective-equipment-endangering-health-workers-worldwide>, viewed 20 October 2020.

⁵ Action Aid Australia, *Submission 59*, p. 3.

⁶ ‘As if a storm hit: 33 italian health workers have died since crisis began’, *The Guardian*, 26 March 2020, <https://www.theguardian.com/world/2020/mar/26/as-if-a-storm-hit-33-italian-health-workers-have-died-since-crisis-began>, viewed 20 October 2020.

⁷ Family Planning Australia, *Submission 31*, p. 1.

⁸

The pandemic had interfered with the delivery of health care generally, including disease control programs such as for tuberculosis (TB), malaria and human immune deficiency virus (HIV) and immunisation for diseases especially prevalent in children, such as measles.⁹

- 2.15 Although the COVID-19 caseload in the Pacific has so far been very low, the Royal Australasian College of Surgeons told the Committee of its concerns that ‘if the coronavirus were to reach into the Pacific, [there would be]... potentially devastating consequences of challenged work force capacity and limited treatment options, particularly in Intensive Care Units’.¹⁰
- 2.16 Submissions by non-government organisations such as Save the Children¹¹ and Oxfam¹² argued that wealthy countries should expand their assistance to developing countries to help them deal with the conditions created by the pandemic.
- 2.17 DFAT provided details of the adjustments to Australia’s aid program the Australian Government has made in response to the pandemic:

Australia’s development response to COVID-19 is set out in the Partnerships for Recovery strategy. The strategy targets three critical areas – health security, stability and economic recovery – of most relevance to partners’ and our own prosperity and resilience. While global in scope, the strategy prioritises support to the Pacific and Southeast Asia – where Australia can have the most impact and where our interests are most directly engaged. This includes redirecting over \$280 million from the existing development program to support the critical medical and humanitarian needs of the Pacific and Southeast Asia. The strategy builds in flexibility to respond to needs in partner countries and to support global efforts. It also focuses on the most vulnerable, particularly women and girls.¹³

The global economy

- 2.18 The most immediate effect of the pandemic on the global economy came from disruptions to the movement of people and goods. COVID-19 revealed the weakness of economies dependent on long global supply chains. The Export Council of Australia explained:

⁹ Burnet Institute, *Submission 19*, pp. 6-10.

¹⁰ Royal Australasian College of Surgeons, *Submission 86*, p. 2.

¹¹ World Vision, *Submission 78*, p. 17.

¹² Oxfam, *Submission 50*, pp. 3-5.

¹³ Department of Foreign Affairs and Trade, *Submission 58*, p. 9.

...world trade fell sharply for the first half of year 2020 as the COVID-19 pandemic upended the global economy. COVID-19 has caused widespread disruptions to air and sea freight, and wreaking havoc on global supply chains across Europe, America and Asia which are critical to the supply of goods. The fall out of global supply chains has made visible the inherent weaknesses of the system, exposed a lack of resilience and brought into question the fundamentals and the integrity of global supply chains.¹⁴

2.19 Analysis from the Brookings Institution, a research institute, argued:

Decades of deep economic integration have restructured international trade and investment. In modern global value chains, production processes are often spread across dozens of firms operating in multiple countries.¹⁵

But, the analysis continued, the fragility of such economic interdependence was revealed when COVID-19 restrictions were put in place:

As quarantines shut down individual factories and travel restrictions curb the flow of people and goods, the economic disruption will spread, virus-like, through global supply chains. ...inventories are already stretched thin, and each new supply chain failure will threaten to set off a domino effect in downstream industries.¹⁶

2.20 The Perth USAsia Centre summarised the impact of restriction on the flow of goods and services from measures to control COVID-19 as follows:

- 1 Restrictions on domestic movement has constrained the supply of labour to businesses with nonessential classifications, particularly in the transport and manufacturing sectors.
- 2 Restrictions on international movement have severely constrained – and in countries with ‘hard’ border closures, entirely suspended – business-, education- and tourism-related travel.
- 3 Reduced international connections – particularly in terms of air transport – has lowered the availability and raised the cost of freight handling capacity.

¹⁴ Export Council of Australia, Submission 35, p. 7.

¹⁵ Brookings Institution, ‘The coronavirus will reveal hidden vulnerabilities in complex global supply chains’, 5 March 2020, <https://www.brookings.edu/blog/future-development/2020/03/05/the-coronavirus-will-reveal-hidden-vulnerabilities-in-complex-global-supply-chains/>, viewed 20 October 2020.

¹⁶ Brookings Institution, ‘The coronavirus will reveal hidden vulnerabilities in complex global supply chains’, 5 March 2020, <https://www.brookings.edu/blog/future-development/2020/03/05/the-coronavirus-will-reveal-hidden-vulnerabilities-in-complex-global-supply-chains/>, viewed 20 October 2020.

- 4 Enhanced customs and biosecurity procedures have slowed transit of goods through ports.¹⁷

2.21 The Committee heard extensive evidence about the implications of the pandemic on growth and investment internationally. DFAT informed the Committee:

Despite various governments' introduction of response packages cushioning employment and business impacts, the effect on economic activity in the short to medium term will still be severe. The World Bank's June 2020 Global Economic Prospects report forecast a 5.2 per cent drop in global GDP.¹⁸

2.22 On world trade, Ms Tamara Oyarce from the Export Council of Australia said:

The IMF has forecast that the global economy will contract by 4.9 per cent in 2020, and the World Trade Organization estimates that global trade will fall sharply, by 13 per cent. These concerning projections come against a backdrop of existing global trade tensions, volatility in commodity prices and an already contracting international trade sector.¹⁹

2.23 Regarding international flows of investment, DFAT presented information that:

The impact of COVID-19 is forecast to reduce global FDI [foreign direct investment] flows by 30-40 per cent in 2020-21, and likely lead to a more contested investment environment with many governments seeking to attract greater levels of FDI to enhance economic resilience and diversification.²⁰

The Perth USAsia Centre argued that the supply of capital from major capital-exporting economies in the EU (European Union) and US will 'become extremely tight' as recession hits and 'their stock markets and financial institutions come under strain'.²¹

2.24 The Lowy Institute noted that there was debate amongst economists about whether the economic impact would be temporary or permanent, but the Institute took the view that it is 'more likely that the world economy will

¹⁷ Dr Jeffrey Wilson, Perth USAsia Centre, *Submission 29*, p. 12.

¹⁸ Department of Foreign Affairs and Trade, *Submission 58*, p. 25.

¹⁹ Ms Tamara Oyarce, Export Council of Australia, *Committee Hansard*, Canberra, 16 July 2020, p. 1.

²⁰ Department of Foreign Affairs and Trade, *Submission 58*, pp. 26-27.

²¹ Dr Jeffrey Wilson, Perth USAsia Centre, *Submission 29*, p. 15.

suffer a permanent shock'.²² Firstly, even if individual countries can return to normal domestically they will still have to keep their international borders closed. Secondly, there could be a financial crisis in developing countries because they lack the capacity for fiscal and monetary stimulus to mitigate the pandemic's economic damage. Finally, global integration will suffer as 'businesses will rethink long and complex supply chains, governments will feel compelled to ensure domestic capacity ... [and] protectionists will feel empowered'.²³

- 2.25 A number of submissions to the Committee stressed that the pandemic would have serious effects on the availability of food for low-income groups. According to the Burnet Institute:

The loss of income caused by the pandemic could increase the number of people suffering acute hunger to more than quarter a billion by December, according to the World Food Programme. In the last four years, conflicts, climate change and economic instability raised the number of people suffering acute hunger ... from 80 million to 135 million people. The pandemic could drive 130 million more people into that state by December. More than a quarter of a billion people are likely to be acutely hungry in 2020.²⁴

Oxfam Australia told the Committee that existing shortages would be exacerbated:

At the end of 2019, there were already 821 million people living in chronic food insecurity. The UN World Food Programme estimates that an additional 130 million people will be pushed into food insecurity because of the secondary impact caused by restrictions to prevent coronavirus.²⁵

Indo-Pacific countries

- 2.26 The submission from the Lowy Institute noted that the 'UN Development Program estimates that income losses are expected to exceed US\$220 billion across developing countries'.²⁶ The non-government development agency, RESULTS International, told the Committee:

²² Dr Roland Rajah, Lowy Institute, *Submission 96*, p. 11.

²³ Dr Roland Rajah, Lowy Institute, *Submission 96*, pp. 11-12.

²⁴ Burnet Institute, *Submission 19*, p. 8.

²⁵ Oxfam Australia, *Submission 50*, p. 4.

²⁶ Ms Annmaree O'Keeffe, Lowy Institute, *Submission 96*, p. 21.

For countries in our region, the health, economic and social flow-on effects from COVID-19 will dramatically exceed the direct impact. For example, the Asian Development Bank estimates that, even with macroeconomic policy responses to COVID-19 announced so far, an extended containment period for COVID-19 would lead to gross domestic product being 4.7% lower in 2020 than in the base case for South-East Asia and 6% lower than the baseline for the Pacific.²⁷

- 2.27 The impacts of the pandemic in the Indo-Pacific 'are particularly consequential for Australia', as noted by DFAT.²⁸ Many of Australia's neighbours in Southeast Asia and the Pacific are developing economies and the Department observed that:

...the impacts are likely to be deeper and more prolonged in developing countries, particularly those already fragile, conflict-affected or with weak systems of government. The World Bank predicts COVID-19 could push up to 60 million people into extreme poverty – the first increase in global poverty rates since 1998.²⁹

- 2.28 The Indo-Pacific region is a focus for international concern about the impact of the pandemic on the availability of food, as highlighted by the Australian Centre for International Agricultural Research (ACIAR):

Governments and other food systems stakeholders in the Indo-Pacific region are concerned about emerging risks to food security that are a direct consequence of public and private sector responses to COVID-19. The pandemic is amplifying existing vulnerabilities and exposing new risks in food systems at local, national and regional levels. Understanding these risks will help mitigate future disruptions to food systems across the Indo-Pacific region.³⁰

- 2.29 In the case of the South Pacific the incidence of the virus has been very low, but the economic effects have been severe, as described by World Vision Australia:

For many countries COVID-19 has had far greater economic impacts than health impacts. Even in countries with relatively low caseloads, severe impacts on livelihoods and food security have been observed – for example in Pacific Island countries heavily reliant on international tourism. The drop in global

²⁷ RESULTS International (Australia), *Submission 65*, p. 2.

²⁸ Department of Foreign Affairs and Trade, *Submission 58*, p. 7.

²⁹ Department of Foreign Affairs and Trade, *Submission 58*, p. 7.

³⁰ Australian Centre for International Agricultural Research, *Submission 42*, p. 1.

demand across industries from COVID-19 is estimated to slash \$250 billion from trade in the Asia-Pacific region, causing thousands to lose their incomes and livelihoods.³¹

- 2.30 Similarly, the ANU Development Policy Centre told the Committee that the Pacific had mainly been hit by restrictions on the movement of people:

Many countries of strategic importance in the Pacific are suffering as a result of reduced trade, migration, tourism, and the other policy responses to COVID. This is having a massive impact on hardship and poverty. ... Based on recent poverty estimates, even a conservative 5 per cent contraction in household consumption could result in the rate of extreme poverty increasing to anywhere between 17 and 30 per cent of the population (in Papua New Guinea, Timor-Leste, Solomon Islands and Vanuatu).³²

- 2.31 The already vulnerable state of the economy and the weakness of government services in the Pacific were revealed by interaction between the pandemic and other emergencies. The UN Pacific Regional Anti-corruption Project revealed that:

...already struggling medical services and economy were further battered by Cyclone Harold, a category five storm which affected several PICs [Pacific island countries] in April 2020, killing dozens of people, flooding towns and leaving many homeless. Tensions arose between the safety measures regarding cyclones and those in place for COVID-19. For example, it is nearly impossible to practice social distancing in evacuation centres or to swiftly bring emergency supplies while respecting quarantine restrictions.³³

Tropical Cyclone Harold was mentioned by Public Services International as an example of the extreme weather events exacerbated by climate change that 'devastated Vanuatu, Fiji, Tonga and the Solomon Islands, killing dozens, destroying homes and infrastructure and displacing tens of thousands in the midst of the COVID-19 pandemic'.³⁴ World Vision Australia concurred that 'recurring shocks and long-term stresses, whether environmental (climate change), economic or social, compound one another, eroding the capacities of households and communities'.³⁵

³¹ World Vision, *Submission 78*, p. 7.

³² ANU Development Policy Centre, *Submission 56*, p. 2.

³³ UN Pacific Regional Anti-corruption Project, *Submission 38*, p. 2.

³⁴ Public Services International, *Submission 74*, p. 17.

³⁵ World Vision Australia, *Submission 78*, p. 14.

- 2.32 The pandemic has disproportionately affected the employment prospects of young people and disrupted education in countries where secondary school retention rates are already low, especially in Pacific countries such as Papua New Guinea (PNG).³⁶ The long-term risks to security posed by such developments were stressed by Oaktree, a youth-focused non-government organisation working in the Indo-Pacific:

Large numbers of youth who are disaffected and disenfranchised through sustained unemployment and a lack of access to education, training, and avenues for self-empowerment, will culminate in serious risk to a nation's institutions, rule of law and social cohesion.³⁷

Human rights

- 2.33 Measures taken by governments across the world to deal with the COVID-19 pandemic have often severely restricted citizens' daily lives but, as the Australian Human Rights Commission told the Committee:

International human rights conventions have always recognised the right of government to limit some rights and freedoms under certain circumstances ... such as the current COVID-19 pandemic.³⁸

But as the Commission also pointed out:

...measures that limit rights and freedoms on these grounds must always be necessary and proportionate to the evaluated risk, and must respect people's dignity, human rights and fundamental freedoms. These measures should be in place for the shortest time possible and be consistent with the emergency. Ultimately, this means achieving a balance between rights and the restrictions that have been put in place to safeguard populations. That balance is not always easy to achieve.

- 2.34 The international non-government human rights advocacy organisation, Human Rights Watch (HRW), noted that 'international law is clear that even amid a public health crisis, emergency measures taken by governments that restrict basic rights must be lawful, necessary and proportionate'.³⁹ HRW described its work as monitoring whether or not the balance between rights and restrictions had been achieved across the world. The organisation

³⁶ Oaktree, *Submission 54*, p. 10.

³⁷ Oaktree, *Submission 54*, p. 7.

³⁸ Australian Human Rights Commission, *Submission 28*, p. 2.

³⁹ Human Rights Watch, *Submission 83*, p. 2.

reported that some countries have ‘ensured that states of emergency are time-limited and subject to oversight’, while others have taken on ‘unlimited powers for an indefinite duration’.⁴⁰ HRW added that ‘some states have prioritised access to information’, but others had been ‘depriving their populations accurate information on the pandemic’.⁴¹ Others had restricted medical supplies and denied transit permits to people requiring vital medical attention.⁴²

- 2.35 A worrying trend mentioned in a number of submissions was that certain states had deliberately taken advantage of the pandemic to strengthen authoritarian powers. The non-government organisation, International Women’s Development Agency (IWDA), submitted that:

Human rights groups have raised concerns that governments are using the cover of COVID-19 to erode civil liberties. For example, the arrest of a journalist in Cambodia under COVID-inspired emergency legislation for correctly quoting the Prime Minister’s own words on COVID-19 has been widely condemned, and human rights groups in Fiji have raised concerns about surveillance measures and the right to privacy.⁴³

A similar view was put by the Lowy Institute who considered that ‘authoritarianism will intensify in Southeast Asia’ as ‘criticism-shy leaders and their draconian security official are seizing the day’ to ‘ratchet up their powers’.⁴⁴ And the Griffith Asia Institute noted that the ‘pandemic has highlighted the importance of human rights protections in a crisis’ because some states have used it to exploit ‘opportunities for the consolidation of political authoritarianism’.⁴⁵

- 2.36 The Committee heard that the pandemic had had a negative effect on refugees and asylum seekers. The Kaldor Centre for International Refugee Law reported that refugees had been affected by COVID-19 related border closures which ‘have left many people trapped in dangerous or precarious situations in conflict zones and transit countries, or stranded at sea’.⁴⁶ Some

⁴⁰ Human Rights Watch, *Submission 83*, p. 2.

⁴¹ Human Rights Watch, *Submission 83*, p. 2.

⁴² Human Rights Watch, *Submission 83*, p. 2.

⁴³ International Women’s Development Agency, *Submission 53*, p. 6.

⁴⁴ Mr Ben Bland, Lowy Institute, *Submission 96*, p. 17.

⁴⁵ Griffith Asia Institute, *Submission 80*, p. 14.

⁴⁶ Kaldor Centre for International Refugee Law, *Submission 39*, p. 2.

states had carried out ‘summary deportations of asylum seekers who were already on their territory’, while the pandemic had led to ‘increased use of immigration detention’, often in unhealthy locations.⁴⁷

2.37 There was evidence that marginalised groups in some countries had been specifically targeted for human rights abuses as a result of the pandemic. The Kaldor Centre cited ‘xenophobia and anti-migrant sentiment’ and ‘rejuvenated dormant hatred and xenophobia against groups considered “outsiders” because of their religion or ethnicity, irrespective of their citizenship’.⁴⁸ There were incidents of migrant workers becoming special targets for abuse.

2.38 The RMIT University Business and Human Rights Centre told of cases where migrant workers in certain countries had been arrested during lockdowns and their accommodation targeted. In one case, migrant labourers protesting about the fact that they were stranded in a foreign country during border closures had been attacked and abused by police.⁴⁹

International relationships and security

2.39 The Committee received extensive evidence about the implications of COVID-19 for international relationships and security. There was a common view that the pandemic had heightened and magnified existing challenges in the strategic environment. For instance, Northrop Grumman Australia, a defence manufacturing contractor, made the case that:

COVID-19 has accelerated geostrategic trends that have been developing over the past few years, both in relation to regional security and the global economy. This is happening at a time when Australia’s major security partner, the United States, is addressing its own response to the virus. Amidst this landscape, Australia’s Pacific neighbours are vulnerable to the economic shock from COVID-19, raising the spectre of failed states or a reduced capacity to respond to external events such as humanitarian disasters.⁵⁰

2.40 A number of submissions mentioned that the pandemic appears to have accelerated US tendencies towards isolationism and a more sceptical view of the value of long-standing allies, the existing strategic architecture and

⁴⁷ Kaldor Centre for International Refugee Law, *Submission 39*, p. 2.

⁴⁸ Kaldor Centre for International Refugee Law, *Submission 39*, pp. 2-3.

⁴⁹ RMIT University Business and Human Rights Centre, *Submission 40*, p. 5.

⁵⁰ Northrop Grumman Australia, *Submission 23*, p. 5.

international organisations. Dr Bruce Baer Arnold of the University of Canberra cited:

...disengagement ... from international organisations such as the World Health Organization (WHO), World Trade Organization (WTO) and United Nations Educational, Scientific & Cultural Organization (UNESCO).⁵¹

- 2.41 The advent of COVID-19 has complicated the various disagreements that have arisen between the US and China in recent years. The Lowy Institute argued that 'even the race to develop a vaccine is being politicised, as both sides contend to show the world that its scientists are superior'.⁵² Each side has also accused the other of being responsible for originating the virus, as noted by Mr Rhys Thomas⁵³ and Dr Alan Dupont.⁵⁴
- 2.42 Such growing antagonism has come about in the context of the trade war between the two countries which, according to the Perth USAsia Centre 'over the course of two years [had] escalated through several cycles of tariff and counter-tariff actions to cover \$735 billion of trade between their economies'.⁵⁵
- 2.43 These developments have taken place in an environment where relationships in North Asia have been evolving in new and challenging ways. Once again, the pandemic has amplified trends that have been evident for some time.
- 2.44 China's assertiveness over its claim in the South China Sea and in relation to Hong Kong and Taiwan have been mounting in recent years but, according to the submission from the Shoal Group:

...the COVID-19 pandemic has arguably accelerated the process. China has seemingly taken the opportunity presented whilst regional countries have been otherwise diverted to put pressure on Taiwan, to take a number of the Paracel Islands from Vietnam, to further forcibly push its position around Natuna Island in northern Indonesia.⁵⁶

⁵¹ Dr Bruce Baer Arnold, University of Canberra, *Submission 72*, p. 4.

⁵² Ms Bonnie Glaser, Lowy Institute, *Submission 96*, p. 9.

⁵³ Mr Rhys Thomas, *Submission 70*, p. 5.

⁵⁴ Dr Alan Dupont, Cognoscenti Group, *Submission 6*, p. 1.

⁵⁵ Dr Jeffrey Wilson, Perth USAsia Centre, *Submission 29*, p. 18.

⁵⁶ Shoal Group, *Submission 18*, p. 2.

- 2.45 Malcolm Davis and Charlie Jones from the Australian Strategic Policy Institute (ASPI) noted that:

There's a risk that Beijing might see a window of opportunity opening up as the US struggles to manage the impact of the ongoing pandemic on its society and economy...⁵⁷

They argued that this had already been evident in China's greater assertiveness in the South China Sea and in its imposition of new security laws in Hong Kong.

- 2.46 Regarding the issue of the South China Sea, DFAT told the Committee that the Australian Government had:

...joined several other nations in publicly expressing concern about recent developments during the COVID-19 crisis, including reported efforts to disrupt other countries' resource development activities, the declaration of new 'administrative districts' over disputed features, and the sinking of a Vietnamese fishing boat, reportedly in a collision with a Chinese coast guard vessel.⁵⁸

- 2.47 In the view of Dr Andrew Dowse of Edith Cowan University and Dr Sacha Dov Bachman of the University of Canberra, 'we have seen how China is using trade and foreign investment as coercion against states questioning the pandemic origin or anything else that they interpret as criticism'.⁵⁹
- 2.48 From the same perspective, the Perth USAsia Centre argued that China is increasingly resorting to 'coercive trade diplomacy' and the use of trade-related measures as a form of 'political sanctioning' to apply pressure on other countries.⁶⁰
- 2.49 In a sign of its growing presence in Southeast Asia and the Pacific, China has also leveraged its diplomatic efforts in the region through actions in response to COVID-19. In the case of Indonesia, Mr Don Greenlees told the Committee:

⁵⁷ Mr Malcolm Davis and Mr Charlie Jones, 'After Covid, conflict in the South China Sea and over Taiwan?', in *After Covid-19 Volume 2, Australia, the region and multilateralism*, Australian Strategic Policy Institute, September 2020, p. 36.

⁵⁸ Department of Foreign Affairs and Trade, *Submission 58*, p. 20.

⁵⁹ Dr Andrew Dowse, Edith Cowan University and Dr Sacha Bachman, University of Canberra, *Submission 7*, p. 4.

⁶⁰ Dr Jeffrey Wilson, Perth USAsia Centre, *Submission 29*, p. 19.

The arrival of Chinese medical aid [in Jakarta] in late March and pledges by both governments to coordinate their response to the pandemic in global fora gave China an edge in what is increasingly seen as a zero-sum competition for influence in the region between China and Western countries. China's aid was useful as well as timely.⁶¹

'Grey zone' threats and cyber security

- 2.50 The Department of Defence, in its 2020 Security Update, drew attention to the need to respond to emerging threats from 'grey zone' activities by states during the pandemic:

Grey-zone activities are being adopted and integrated into statecraft and are being applied in ways that challenge sovereignty and habits of cooperation. ... 'Grey zone' is one of a range of terms used to describe activities designed to coerce countries in ways that seek to avoid military conflict. Examples include using para-military forces, militarisation of disputed features, exploiting influence, interference operations and the coercive use of trade and economic levers. These tactics are not new. But they are now being used in our immediate region against shared interests in security and stability. They are facilitated by technological developments including cyber warfare.⁶²

This argument was supported by Dr Adam Findlay of the Griffith Asia Institute, who submitted that:

Part of this increasingly clear agenda [of emerging threats] are numerous instances of 'grey zone' competition, 'including economic coercion, diplomatic intimidation and cyber penetration'.⁶³

- 2.51 The Committee received evidence that the spread of the COVID-19 pandemic had revealed Australia's vulnerability to such threats. For instance, Dr Dowse told a Committee hearing that there is:

...the potential — and, to some extent, the reality — that actors, including nation states, may opportunistically take advantage of the pandemic to further their own objectives through the employment of such activities. Australia must learn lessons in terms of the threats of disinformation, foreign influence, lawfare, cyber-exploitation, economic coercion, and disruption of our fragile supply chains. ...we believe that more can be done, especially in the coordination of efforts to counter hybrid threats and in mitigating the impact of disinformation from state and non-state sources, as well as assessing what

⁶¹ Mr Don Greenlees, *Submission 104*, pp. 5-6.

⁶² Department of Defence, *2020 Security Update*, Canberra, 2020, p. 12.

⁶³ Dr Adam Findlay, Griffith Asia Institute, *Submission 80*, p. 5.

can be done to increase trust in supply chains supporting critical infrastructure.⁶⁴

2.52 Evidence to the Committee particularly emphasised the growing threat of cyber attacks as businesses, governments and individuals make greater use of remote sources of information and communication in the wake of the pandemic.

2.53 This was emphasised by Sapien Cyber, who argued that ‘disruption of critical infrastructure services through attacks on underlying OT [operational technology] is a highly likely form of such grey zone warfare’.⁶⁵ There are increased cyber risks associated with the pandemic because COVID-19:

...introduced another layer of vulnerabilities when organisations across Australia transitioned into remote work from home arrangements. This rapid shift to remote operations stretched an already under resourced national cyber security capability across a newly expanded attack surface.⁶⁶

2.54 DFAT stressed the need for increased vigilance in the face of new types of threats:

We need to remain vigilant in mitigating increased threats to our security arising from the COVID-19 crisis. Impacts such as greater use of cyber technologies for remote work, increased economic hardship and uncertainty regarding accurate information sources in this challenging time are factors that play into a heightened threat environment.⁶⁷

2.55 Regarding the perspective of business, the Defence Teaming Centre told the Committee of the concerns conveyed to the Centre by small and medium enterprises (SMEs):

The recent surge in state-based cyber activity on Australian targets is of increasing concern to SMEs. When asked about supply chain integrity and cyber security, many companies respond with comments about the level of investment the business has made in firewalls. Many businesses lack response plans, audit and incident reporting procedures or monitoring services to

⁶⁴ Dr Andrew Dowse, Edith Cowan University, *Committee Hansard*, Canberra, 2 July 2020, p. 8.

⁶⁵ Sapien Cyber, *Submission 45*, p. 4.

⁶⁶ Sapien Cyber, *Submission 45*, p. 4.

⁶⁷ Department of Foreign Affairs and Trade, *Submission 58*, p. 14.

detect whether a system compromise has occurred. Most SMEs lack the resources and know-how on what needs to be implemented and how.⁶⁸

- 2.56 Similarly, the Law Society of NSW Young Lawyers contended that, in countries such as UK and US, there had been an ‘increase in attacks on critical or COVID-19 related organisations’⁶⁹ and in Australia:

...the transition to working from home has increased vulnerability to these attacks, whilst the increase of cyber attacks during the pandemic indicates that malicious actors are exploiting these vulnerabilities.⁷⁰

- 2.57 The submission by Northrop Grumman Australia maintained:

The COVID-19 pandemic has seen states act in opportunistic ways to leverage the uncertainty and employ hybrid warfare tactics to further their interests in the region. This represents a more pressing risk than perhaps was originally recognised, and requires that Australia is equipped with the capabilities – including intelligence, surveillance and reconnaissance (ISR) and cyber assets – needed to provide situational awareness to counter grey-zone tactics and other aggressive activities that fall short of our traditional understanding of conflict.⁷¹

- 2.58 Dr Dupont argued that the threat of cyber attacks is so real that governments need to take a new and different approach to telecommunications policy:

The government would be well advised to take a more holistic approach to telecommunications policy that transcends narrow commercial considerations and places a premium on risk reduction rather than cost reduction, a lesson driven home by the pandemic. Narrow, market-based calculations should be replaced by a more strategic approach that takes better account of the need for sovereign capabilities to improve national resilience, and factors in the cost of relying on systems that don’t pass the democratic values test. Australia should work towards cyber and technology standards that preserve an open, free, safe and secure internet.⁷²

The global rules-based order and alliances

⁶⁸ Defence Teaming Centre, *Submission 61*, p. 1.

⁶⁹ Law Society of NSW Young Lawyers, *Submission 97*, p. 14.

⁷⁰ Law Society of NSW Young Lawyers, *Submission 97*, p. 16.

⁷¹ Northrop Grumman Australia, *Submission 23*, p. 6.

⁷² Dr Alan Dupont, Cognoscenti Group, *Submission 6*, pp. 6-7.

- 2.59 Evidence was submitted to the Committee about the implications of the pandemic for the future of the global rules-based order. Some submissions argued that the pandemic had highlighted existing tensions in global relationships, encouraging a rise in nationalistic, protectionist and unilateral actions by governments. Other submissions revealed a range of views about the role and future of globalisation in the post-pandemic world, with calls for a reappraisal of the current balance between sovereign capabilities and reliance on global supply chains.
- 2.60 Submissions highlighted the extent of the global and regional implications of COVID-19 and stressed how much the pandemic had exacerbated prevailing international problems. According to the Griffith Asia Institute:

Aside from its devastating human impact, Covid-19 has revealed deep social, economic and political fault lines in and across the global system that threaten longer term stability and order. ...the pandemic has accelerated and amplified many of the challenges already in existence and further exposed ruptures in the international system.⁷³

- 2.61 Concerns about damage to the global rules-based caused by COVID-19 and its implications for Australia were raised by DFAT:

COVID-19 is a powerful reminder that Australia's interests are best served by a multilateral system that promotes collective responses to problems that cannot be solved by countries acting alone. Prior to the crisis, we had entered an era of sharper challenges to the rules-based international order due to shifts in global power, technological disruption and protracted global challenges. Protectionist trends, as well as coercive behaviour and threats to territorial integrity continue to pressure the rules-based international order.⁷⁴

- 2.62 Dr Dupont expressed similar views about the tendency of the pandemic to heighten existing pressures on the rules-based order:

The COVID-19 pandemic threatens to exacerbate US-China tensions, destabilise global supply chains, increase protectionist sentiment and jeopardise the relatively free and open international trade and communications systems underpinning the rules-based order.⁷⁵

Protectionist trends

⁷³ Griffith Asia Institute, *Submission 80*, p. 5.

⁷⁴ Department of Foreign Affairs and Trade, *Submission 58*, p. 17.

⁷⁵ Dr Alan Dupont, Cognoscenti Group, *Submission 6*, p. 1.

2.63 Regarding the rise of protectionism, the Perth USAsia Centre observed that:

As economic dislocation and political tensions caused by the pandemic intensify, governments will come under increasing pressure to respond with protectionist and/or coercive trade and investment policy measures. There is already evidence this has begun. Data collated by Global Trade Alert indicates governments have enacted 411 restrictive trade measures in the first five months of 2020 alone, a dramatic acceleration on even recent trends.⁷⁶

The Centre further submitted that ‘the use of trade restrictions by the Trump Administration in the US is a clear marker of this protectionist trend’⁷⁷ and that ‘coercive trade diplomacy’⁷⁸ was harmful to the world’s economies, including Australia’s. Measures taken by China to restrict certain parts of its trade relations with Australia are ‘an example of using trade for “political sanctioning”’⁷⁹. Unfortunately, concluded the Centre, ‘it is likely that the COVID-19 crisis will accelerate these protectionist trends in coming years’⁸⁰.

2.64 From a private sector perspective of the rise of protectionism, the Minerals Council of Australia told the Committee:

One impact of COVID-19 has been to accelerate protectionist sentiment in key economies, heightening the risk to sustaining higher rates of global economic growth. ... Given the rise of nationalism and protectionism and the tendency of large economies to drive political deals on trade, it has become more important for trading economies to work together to establish effective multilateral trade networks underpinned by a shared commitment to a rules-based order and an effective dispute resolution process.⁸¹

Nationalistic responses to COVID-19

2.65 In response to COVID-19, there were states that appeared to suspend previously accepted norms of cooperative and multilateral behaviour and exhibited nationalistic tendencies in the face of the pandemic.

2.66 As Quickstep Holdings observed:

⁷⁶ Perth USAsia Centre, *Submission 29*, p. 20.

⁷⁷ Perth USAsia Centre, *Submission 29*, p. 18.

⁷⁸ Perth USAsia Centre, *Submission 29*, p. 19.

⁷⁹ Perth USAsia Centre, *Submission 29*, p. 19.

⁸⁰ Perth USAsia Centre, *Submission 29*, p. 20.

⁸¹ Minerals Council of Australia, *Submission 64*, p. 18.

...throughout the pandemic, we have witnessed governments around the world impose export restrictions on critical medical supplies such as ventilators and PPE. In line with this trend, governments are signalling their intent to tighten regulations to protect vitally important sectors from future disruption. ... While COVID-19 has not triggered this protectionism, it has been utilised as proof to promote nationalistic approaches to trade and economic policies for those governments unwilling to recognise the importance of an open and free trading environment ⁸²

- 2.67 The French multinational drug company Sanofi said that export restrictions imposed by overseas governments affected the supply of medical goods and pharmaceuticals:

...increased government restrictions put in place by some countries during the pandemic have affected the flow of personal protective equipment and medicines (from raw materials to finished pharmaceutical forms). These measures have had a serious and immediate impact on the globally integrated supply chains that ensure quality, safety, innovation, and distribution of medicines and vaccines.⁸³

- 2.68 The Advanced Manufacturing Growth Centre (AMGC) described the effect on industry in Australia when countries took unilateral measures to protect their own suppliers:

Australian manufacturers struggled to manage their supply chain with full lockdowns in many countries from which raw materials are usually sourced, including China, the United Kingdom, India and parts of Europe.⁸⁴

- 2.69 In the case of the European Union, emergency regulations were passed in March 2020, placing restrictions on the export of face masks, gloves and other PPE to non-EU countries because 'existing stocks will not be sufficient to meet demand within the Union'.⁸⁵ The regulation was later eased in April to include only protective masks and then completely withdrawn at the end of May.⁸⁶ The regulation was reportedly introduced partly in response to

⁸² Quickstep Holdings, *Submission 25*, p.5.

⁸³ Sanofi, *Submission 55*, p. 2.

⁸⁴ Advanced Manufacturing Growth Centre, *Submission 46*, p. 20.

⁸⁵ Pinsent Masons, 'Coronavirus: EU export controls protective kit', 17 March 2020, <https://www.pinsentmasons.com/out-law/news/coronavirus-eu-export-controls-protective-kit>, viewed 20 October 2020.

⁸⁶ Pinsent Masons, 'EU ends restriction on PPE export', 4 June 2020, <https://www.worlddecr.com/news/eu-ends-restrictions-on-ppe-exports/>, viewed 20 October 2020.

national measures implemented by Germany and France, which not only restricted exports to third countries but also to other EU Member States.⁸⁷ For two weeks in March Germany had restricted exports of PPE, both within and outside the EU. Both France and the Czech Republic introduced state control over the sale and distribution of PPE. Poland also imposed limitations on PPE exports to EU and non-EU countries.⁸⁸

2.70 Commentary on the EU's measures at the time of their imposition contended:

The EU's Implementing Regulation is only the latest set of such restrictions to emerge in response to this public health crisis. Countries around the world are grappling with the COVID-19 outbreak, and we expect public health-based trade restrictions and controls to continue proliferating. Existing restrictions imposed in at least 50 countries vary significantly in form and include such measures as overt export restraints; burdensome paperwork or export requirements that may make exporting essentially impossible (or highly costly); restrictions on the sharing of intellectual property in a way that hinders the sale of medications abroad; and political, social or other types of pressure on local pharmaceutical producers that impose economic or other burdens if they decide to export.⁸⁹

2.71 In addition to restrictions on exports of certain types of PPE to non-member states, the open Schengen zone border arrangements were suspended, ending the previous free movement of people across internal EU borders.⁹⁰

2.72 One analysis of post-COVID responses by some states claimed that 'the rules of global trade went out the window between February and April [2020] as nations fought like cats to secure supplies of personal protective equipment

⁸⁷ Lexology, 'COVID-19: EU imposes export restrictions', 24 March 2020, <https://www.lexology.com/library/detail.aspx?g=e27eaab0-3815-4803-88b1-f71d1e294b3e>, viewed 21 October 2020.

⁸⁸ Sanction News, 'New EU and national export controls on face masks and medical protective equipment', 16 march 2020, <https://sanctionsnews.bakermckenzie.com/new-eu-and-national-export-controls-on-face-masks-and-medical-protective-equipment/>, viewed 21 October 2020.

⁸⁹ Lexology, 'COVID-19: EU imposes export restrictions', 24 March 2020, <https://www.lexology.com/library/detail.aspx?g=e27eaab0-3815-4803-88b1-f71d1e294b3e>, viewed 21 October 2020.

⁹⁰ Schengen Visa Info News, 'EU countries increase COVID-19 travel measures', 14 August 2020, <https://www.schengenvisa.info.com/news/eu-countries-increase-covid-19-travel-measures/>, viewed 21 October 2020.

(PPE).⁹¹ Trade in PPE between China, US, Russia, EU and Latin American countries was interrupted and Chinese imports were reported to have caused major increases in global prices for protective equipment.⁹²

- 2.73 The Committee heard evidence of China's pandemic-related measures. Dr Baer Arnold submitted that:

...it is notable that China in building national capacity has strongly subsidised the production and export of masks and other entry-level medical goods.⁹³

According to Mr Simon Lee, 'in the early stages of the COVID-19 pandemic in China and before its spread to other countries, the PRC [People's Republic of China] was actively buying up PPE from around the world', apparently to bolster its strong global market position.⁹⁴

- 2.74 In late May, the US government invoked the powers of the Defense Production Act giving it the power to direct companies to meet national defence needs, and in early April ordered a US manufacturer to cease exports of PPE to Canada and Latin America. The Canadian Government expressed its concerns about the ban but did not retaliate in kind.⁹⁵
- 2.75 Quickstep Holding's submission told the Committee that, in its experience as an exporter to the US, 'the disruption of Australian supply chains had far less impact on Quickstep's business than issues impacting US supply chains, as the US managed its domestic health crisis'. This had occurred in the context of 'America First' and 'Buy America' policies intended to spur local manufacturing', as well as 'moves by US defence primes to keep manufacturing work in-house'.⁹⁶

The role and future of globalisation

- 2.76 The spread of protectionist sentiment and the incidence of nationalistic responses to COVID-19 gave rise to differing views amongst witnesses to the Committee about the place of globalisation in the post-pandemic world.

⁹¹ Mr David Uren, 'How COVID-19 infected global trade', *The Strategist*, 27 May 2020, <https://www.aspistrategist.org.au/how-covid-19-infected-global-trade/>, viewed 21 October 2020.

⁹² Mr David Uren, 'How COVID-19 infected global trade', *The Strategist*, 27 May 2020, <https://www.aspistrategist.org.au/how-covid-19-infected-global-trade/>, viewed 21 October 2020.

⁹³ Dr Bruce Baer Arnold, University of Canberra, *Submission 72*, p. 4.

⁹⁴ Mr Simon Lee, *Submission 1*, p. 3.

⁹⁵

⁹⁶ Quickstep Holdings, *Submission 25*, p.6.

There was the view that globalisation has led to the erosion of sovereign production capabilities in Australia. Other assessments considered that although international economic integration is a permanent fixture of global economics, there is a need for policy adjustments to take account of supply chain problems revealed by the advent of COVID-19.

- 2.77 Globalisation was seen from some points of view as a positive and transformative series of changes that cannot be reversed. The Lowy Institute argued the benefits of globalisation since World War Two are too great and too deeply embedded to be overturned:

A billion people have been lifted out of poverty, riding the wave of international trade, which grew twice as fast as GDP for half a century. Technology interacted with globalisation to facilitate production-at-scale and efficient supply chains. Comparative advantage — countries should do the things that they do best — was taken to the nth degree. This boosted productivity and living standards surged.⁹⁷

Nevertheless, the Institute thought that the pandemic had altered the global picture in ways that are likely to be evident for some time:

This may be the end of hyper-globalisation, characterised by casual overseas holidays and over-reliance on sourcing foreign supplies instantly. However, a vaccine will be developed in time and the benefits of globalisation are so great that self-interest will see it restored, even if the scenery changes and players switch roles.⁹⁸

- 2.78 As a defence industry manufacturer, Northrop Grumman Australia proposed that the pandemic had given more attention to thinking that was already emerging:

The trend to pull back from globalisation was evident prior to COVID-19, with some multinationals questioning their reliance in the international arena and considering diversifying their supply chains and to include the repatriation of critical manufacturing requirements. The disruption to global supply chains caused by COVID-19 has highlighted significant shortcomings of the generally accepted models.⁹⁹

- 2.79 From the perspective of the pharmaceuticals industry, IDT Australia expressed concerns that:

⁹⁷ Dr Stephen Grenville, Lowy Institute, *Submission 96*, p. 13.

⁹⁸ Dr Stephen Grenville, Lowy Institute, *Submission 96*, p. 14.

⁹⁹ Northrop Grumman Australia, *Submission 23*, p. 9.

Recent global events triggered by the COVID-19 pandemic have highlighted the challenges associated with globalisation and the resulting fragility and opacity of the world's pharmaceutical supply chain.¹⁰⁰

- 2.80 Other witnesses put forward a similar case in more forthright terms. NIOA, an Australian manufacturer of defence and sporting weapons and munitions, contended:

As a direct consequence of this crisis, a new understanding of national security is evolving – not just in terms of our traditional defence industry but also our technology, health and energy capabilities. People are realising it is time to rethink and reshape our reliance on the benefits of globalisation and restore key parts of our economic sovereignty.¹⁰¹

Mr Grant Sheard considered that:

It is abundantly clear that these globalisation policies have greatly exacerbated the economic impact of this corona virus and led to massive disruptions in supply chains.¹⁰²

- 2.81 A number of submissions called for a balanced reappraisal of current thinking and approaches.
- 2.82 The international union federation, Public Services International, decried what it called the 'false dichotomy that the only options for trade rules are either neo-liberal globalisation on the one hand, or, nationalist protectionism on the other'. The organisation argued that a 'progressive, multilateral trade policy that works in the interests of the people is the only answer to both unfair globalisation and resurgent right-wing nationalist and protectionist solutions'.¹⁰³
- 2.83 Dr Dupont submitted that:
- The US and China's determination to resolve their trade and tech disputes bilaterally reflects not just their leaders' preferences, but a global swing in sentiment away from multilateral cooperation as disillusionment with globalisation fuels the rise of nationalism and nativism. However, making the US and China great again can't be at the world's expense. Neither unilateralism, nor bilateralism, are panaceas for globalisation's shortcomings.

¹⁰⁰ IDT Australia, *Submission 4*, p. 1.

¹⁰¹ NIOA, *Submission 14*, p.2.

¹⁰² Mr Grant Sheard, *Submission 47*, p.5.

¹⁰³ Public Services International, *Submission 74*, p. 3.

International cooperation is essential to achieving equitable and enduring solutions to complex global problems.¹⁰⁴

Trends towards global bifurcation

2.84 Accompanying the debate about the future of globalisation has been a current of concern about signs of a trend towards bifurcation of global relationships. There is a danger that accelerating US-China tensions could have a long-term impact on the pattern of international relations where countries feel pressured into aligning themselves with systems and standards led by either of the two major powers.

2.85 Projecting the potential long-term implications of a US-China decoupling, Dr Dupont presented the view that:

The stronger the separation impulse, the greater the political and strategic implications, as other countries come under pressure to choose between competing US and Chinese systems of governance and technology.¹⁰⁵

There is a real possibility that the world would divide into two competing trading and geopolitical blocs, much as occurred during the Cold War, except that the bifurcation would be more fluid and diverse. ... If the geopolitical fallout of the COVID-19 virus continues to aggravate their relationship, the trade and tech wars may turn out to be only a skirmish in a bigger fight with much higher stakes and costs to both countries and the rest of the world.¹⁰⁶

2.86 Echoing these concerns, the Lowy Institute said:

The coronavirus has intensified US-China strategic competition and sent bilateral relations into a tailspin. The rivalry, which even before the virus extended to all aspects of the relationship — economic, military, diplomatic and ideological — will accelerate the decoupling of the two economies and deepen mistrust between the countries and their peoples.¹⁰⁷

2.87 The submission from the Griffith Asia Institute argued that in a world ‘in which China and the US are decoupling’ the Chinese are making every effort to use the pandemic to present itself as an alternative model:

¹⁰⁴ Dr Alan Dupont, Cognoscenti Group, *Submission 6*, p. 5.

¹⁰⁵ Dr Alan Dupont, Cognoscenti Group, *Submission 6*, p. 2.

¹⁰⁶ Dr Alan Dupont, Cognoscenti Group, *Submission 6*, p. 3.

¹⁰⁷ Ms Bonnie Glaser, Lowy Institute, *Submission 96*, p. 9.

China has used this pandemic to continue to reinforce their international agenda to undermine liberal democracies and promote their authoritarian model of government as a legitimate and alternate system.¹⁰⁸

- 2.88 Other analysis has nevertheless cautioned against unbalanced assessments. Richard Gowan of ASPI argued:

While some diplomats and journalists have speculated about a 'new Cold War' at the UN, that's premature. Despite Sino-American tensions, we have yet to see a return to the superpower stand-off and bloc politics that suffocated elements of the UN from the 1940s to the 1980s. The Security Council, which could go for a month or more at a time without meeting during the Cold War, has kept up a busy schedule of virtual sessions during the pandemic.¹⁰⁹

- 2.89 A special focus of concern has been a perceived trend towards the bifurcation of internet standards. There is evidence that China is making efforts to restructure internet systems in a way which would increase its control over flows of information. This opened up the prospect of a 'Balkanised internet' that created barriers to the free movement of information and opinion across borders. Dr Dupont explained that:

China has suggested a radical change to the way the internet functions to the International Telecommunications Union. ... Acceptance of the proposal by the ITU would realise a long-term Chinese digital foreign policy goal — to entrench Chinese standards and technology as the foundation stones of the future internet, since the new global network would be designed and built by Chinese engineers, led by telecommunications giant Huawei. ...the world could split into two separate information worlds, one led by the US and the other by China.¹¹⁰

¹⁰⁸ Griffith Asia Institute, *Submission 80*, p. 8.

¹⁰⁹ Mr Richard Gowan, 'China, United States and the future of the UN system', in *After Covid-19 Volume 2, Australia, the region and multilateralism*, Australian Strategic Policy Institute, September 2020, p. 75.

¹¹⁰ Dr Alan Dupont, Cognoscenti Group, *Submission 6*, p. 3.

3. Effects of COVID-19 on Australia

- 3.1 The COVID-19 pandemic highlighted a range of challenges for the management of Australia's international relationships and revealed weaknesses in the country's health system and vulnerability in supply chains.
- 3.2 This chapter will provide an outline of:
- challenges in the management of Australia's international relationships;
 - the effects of the pandemic on Australia's health system;
 - the effects on the Australian economy;
 - scenarios under which future crises might occur;
 - vulnerability revealed by the pandemic, particularly Australia's supply chains; and
 - initiatives taken by Australian industries in response the pandemic.

Challenges in international relationships

- 3.3 The Committee was given evidence about recent developments in international politics which have given rise to new challenges for Australian policy-makers.
- 3.4 Although the pandemic did not cause the rifts between the US and China outlined in Chapter Two, it has exacerbated tensions between the world's two leading powers. Such developments have created challenges for Australia's management of these two critical relationships.
- 3.5 Since the US and China are two of the most important economic and security relationships for Australia, the oft-cited pressure on Australia to make choices between the two partners has become even more acute in a post-pandemic world. This view was put by Ben Scott of the Lowy Institute:

Canberra faces a particularly daunting challenge. It is deeply enmeshed with the United States — its longstanding security ally — but has China as its dominant trading partner. The continuing US–China escalation could, as well as weakening international cooperation against COVID-19 and its economic impact, see China further restricting Australian access to its markets. And, though US–China military conflict is still unlikely, the risks are growing.¹

- 3.6 Professor Michael Heazle from Griffith University argued that since relations between the US and China were most likely to worsen as a result of the pandemic, Australia’s freedom of manoeuvre was being constrained:

For Australia—and other status quo states that prioritise maintaining the existing US led, liberal order—the choice of making no clear choice between its relationships with China and the US will soon disappear altogether. Therefore, the task for Australian policy makers now is to develop a way of effectively opposing China’s ongoing attempts to overturn the region’s liberal order, in cooperation with the US and its allies (in particular Japan), while limiting the economic damage as much as possible.²

- 3.7 The Institute for International Trade (IIER) at Adelaide University also highlighted the growing difficulty of managing the China relationship during the pandemic with:

...trade disputes over barley and beef linked to [Australia’s] call for a COVID-19 Inquiry through the World Health Organization, as well as Chinese government advice, absent any supporting evidence, that students should reconsider studying in Australia on safety grounds, political risk is a factor that must be integrated into the thinking around supply chain risk management in the context of the Australia-China trade relationship.³

- 3.8 Natasha Kassam, Richard McGregor and Roland Rajah of the Lowy Institute contended that ‘Australia’s relationship with China is entering a new, more difficult phase, for which there are no easy answers’. But they argued ‘the narrative of [Australia’s] dependence’ on China that had grown up was ‘unhelpful’ because the relationship was ‘mostly one of interdependence’ from which both partners stood to gain. They pointed out that:

¹ Mr Ben Scott, Lowy Institute, *Submission 96*, p. 33.

² Prof. Michael Heazle, Griffith Asia Institute, *Submission 80*, p. 10.

³ Institute for International Trade, University of Adelaide, *Submission 20*, p. 6.

The past two years have seen Australia placed in China's so-called 'diplomatic freezer'. Yet, the total value of Australia's merchandise exports rose by 30 per cent during that time. Merchandise exports to China rose by 50 per cent.⁴

3.9 The Department of Foreign Affairs and Trade (DFAT) concluded that China and Australia can maintain a constructive relationship:

Even as we recognise some clear differences between us, Australia remains committed to a constructive relationship with China that is not defined by those differences, and works in the interests of both countries. Our relations have never been more consequential, nor more complex, as we seek to navigate the bilateral and international impacts of COVID-19. We have already shown how we can work together in addressing challenges in the initial stages of the outbreak. It is in both countries' interests that our Comprehensive Strategic Partnership, including our important and mutually beneficial trade relationship, remain robust and effective throughout the critical economic recovery phase.⁵

Impact on Australia's health systems

- 3.10 The first case of COVID-19 in Australia appeared in January 2020. By November 2020 the country had recorded around 28,000 cases, with over 900 deaths. Initially, the majority of infections had occurred overseas, but due to local transmissions the number of cases acquired in Australia had reached 80 per cent of total cases by November 2020. The greatest impact was felt in Victoria, where a second wave of infections from July to October 2020 brought the state's total to more than 20,000, with over 800 lives lost. The greatest loss of life was amongst people over the age of 70, with around 840 deaths Australia-wide occurring in that age group.⁶
- 3.11 Health authorities also mentioned that the imposition of lockdowns and other restrictions were also having a range of other health effects, especially on mental health. The Australian Government's Deputy Chief Medical Officer for Mental Health noted that 'while physical distancing is helping to

⁴ Natasha Kassam, Richard McGregor and Roland Rajah, Lowy Institute, *Submission 96*, p. 31.

⁵ Department of Foreign Affairs and Trade, *Submission 58*, p. 13.

⁶ Department of Health, 'Coronavirus (COVID-19) current situation and case numbers', 30 October 2020, <https://www.health.gov.au/news/health-alerts/novel-coronavirus-2019-ncov-health-alert/coronavirus-covid-19-current-situation-and-case-numbers>, viewed 30 October 2020.

prevent people from contracting the coronavirus, it has also created other problems, including isolation, loneliness and anxiety'.⁷

3.12 While the health effects of COVID-19 in Australia have been less severe than in other comparable countries, the pandemic has drawn attention to weaknesses in the country's health system.

3.13 These weaknesses were highlighted by Mr Terry Slevin, CEO of the Public Health Association of Australia, who told the Committee about:

...the cracks in the public health infrastructure that this pandemic has created. Obviously, this has tested our system, more so than ever before ... If one conceptualises this as a war, then the resources we've brought to this fight are stretched to the absolute limit and we're showing our weaknesses. One of the ways that has manifested itself is that various other ongoing public health work that's necessary for the health and wellbeing of Australians has also been compromised. Our programs in immunisation, cancer screening, areas of nutrition and many, many other areas have been compromised because all hands have gone to the COVID pump.⁸

3.14 The pandemic created particular strains on the aged care system. Despite their tiny proportion of the wider Australian population, residents of aged care facilities made up over seven per cent of the total COVID-19 cases in the country. By November 2020, nearly one third of all deaths due to COVID-19 occurred amongst aged care residents.⁹

3.15 The great bulk of the evidence presented to the Committee about challenges to the health system was related to the level of dependence on imported medical inputs and consequent disruptions to supply.

3.16 In their submission, Dr Andrew Dowse and Dr Sascha Dov Bachmann pointed out that the pandemic has exposed vulnerability in medical and pharmaceutical supply chains:

[The pandemic has] ...highlighted vulnerabilities in our imports – that is, the critical dependencies of our supply chains on foreign sourced materials. The most obvious and direct example of this has been in medicines and medical

⁷ Department of Health, 'The mental health impact of COVID-19', 30 May 2020, <https://www.health.gov.au/news/the-mental-health-impact-of-covid-19>, viewed 21 October 2020.

⁸ Mr Terry Slevin, Chief Executive Officer, Public Health Association of Australia, *Committee Hansard*, 23 July 2020, p. 3.

⁹ Department of Health, 'COVID-19 cases in aged care services – residential care', 26 October 2020, <https://www.health.gov.au/resources/covid-19-cases-in-aged-care-services-residential-care>, viewed 26 October 2020.

equipment. If the pandemic had resulted in extended loss of supplies through interruption of sea and air lines of communication, through closure of production in foreign nations or through trade-impacting tensions, the impact on our economy and society could be significant.¹⁰

3.17 Ms Angela Bell from Ethical Clothing Australia made the point that:

Had the production of these items already been procured onshore by our government, the crisis and concern about the supply of PPE [personal protective equipment] would have been a relative non-issue, as local manufacturers can respond easily to increases in demand and/or changes in requirements.¹¹

3.18 When supplies from China and India were disrupted, Australia's ability to secure vital supplies became problematic. Australian-owned pharmaceutical company Arrotex said that factory closures, border restrictions and export bans in the early stages of the pandemic highlighted Australia's dependence on other countries for its pharmaceuticals:

The Indian government moved in February to selectively restrict API exports and then followed with some hard closures of its internal borders. While China's factories are now re-opening, there still remains *[sic]* extraordinary challenges to get much needed medicines into Australia and into the hands of our hospitals, prescribers, pharmacists and their patients. With the pandemic starting in China and hitting countries across the globe, and the resultant fallout and shortages, the need for mitigating risk has become more evident than ever.¹²

3.19 Arrotex noted that such measures resulted in shortages of common medicines in Australia:

A cursory glance at the Therapeutic Goods Administration (TGA) critical medicine shortages list in April showed that due to the global surge in demand, there loomed alarming shortages of vital medicines in Australia. The medicines at risk were intended to help Australians with diabetes and high blood pressure, patients with Lupus and other serious auto-immune diseases, those at risk of a potential heart attack and Australians with severe mental illness. All of these key medicines are currently fully imported from off-shore manufacturers.¹³

¹⁰ Dr A Dowse AO and Dr S Dov Bachmann, *Submission 7*, pp. 4-5.

¹¹ Ms Angela Bell, Ethical Clothing Australia, *Committee Hansard*, 9 July 2020, p. 7.

¹² Arrotex Pharmaceuticals, *Submission 91*, p. 11.

¹³ Arrotex Pharmaceuticals, *Submission 91*, pp. 2-3.

- 3.20 Dr David Sparling from the Institute for Drug Technology Australia Limited (IDT) Australia described the difficulties of trying to secure supplies of drugs and precursor chemicals in the early stages of the pandemic, when China went into lockdown and India implemented export restrictions:

We were looking for any supplies of the active pharmaceutical ingredients and/or the finished dose form. We were making calls to Europe late at night, making calls to our American colleagues in the morning and dealing with the subcontinent and China in the middle of the day — pretty much working around the clock. After a week of effort we still hadn't secured any of that material and the COVID-19 numbers in Australia had tripled in that particular week. That's what still resonates with us here about having some robustness in those supply chains so that we can potentially avoid those situations happening again.¹⁴

- 3.21 The IDT Australia submission described how the company has observed over many years the concentration of global suppliers of active pharmaceutical ingredients (APIs) and medicines in India and China. IDT said that:

In the U.S. over 90% of its medicines are generic products which are now imported from India and China, with India importing in excess of 80% of its APIs (to be manufactured into those generic drug products) from China. Australia also sits at the end of a very long and often opaque supply chain, importing over 90% of its medicines.¹⁵

- 3.22 While sources of imported supplies can generally be identified, the Australian and New Zealand College of Anaesthetists said in its submission that drug supply processes can be opaque. The College noted that a particular drug's country of origin may not be readily apparent, sometimes worsening supply chain disruptions:

The usual process is for an overseas supplier or manufacturer to be sponsored by a private company which has established operations in Australia in order to have a product that is manufactured overseas approved for use. Although details regarding the sponsoring company and supplying company are readily available, often the country of manufacture is not explicitly stated. This can create uncertainty and acts to constrain the ability of industry to effectively engage with government agencies and suppliers to address supply chain disruptions. This issue is further compounded at times such as COVID-19 where a manufacturer may make decisions and/or renege on orders of

¹⁴ Dr David Sparling, *Committee Hansard*, 25 June 2020, pp. 1-2.

¹⁵ IDT Australia Limited, *Submission 4*, p. 1.

products to redirect to other countries. It creates an opaque policy setting that limits supply modelling and ultimately affects the provision of anaesthetic services.¹⁶

- 3.23 Evidence to the Committee showed that the greatest supply problems occurred at the start of the pandemic and were mostly dealt with over subsequent months. Carolyn Edwards, Deputy Secretary of the Department of Health, told the Committee that:

To date, the supply chain has been reasonably robust. It's something where we use both people in posts and other departments to keep a very close eye on, including in Austrade. But, at the moment, because our modelling is so conservative, we don't see any imminent major risk to the supply chain, although obviously that's an issue. In fact, a lot of supply chains which were very limited early on have now freed up, so we're seeing a greater flow of product into the country.¹⁷

- 3.24 However, Sanofi said that in spite of the problems it faced, it has managed to maintain continuity of supply into Australia:

Despite the rapid decline in cargo capacity (both sea and air) and global logistics slowdown due to reduced accessibility to ports, shipping containers, and labour forces resulting from COVID-19, Sanofi Australia has largely been able to overcome these challenges by working across our global industrial network to ensure continuity of supply of our medicines and vaccines to Australian patients.¹⁸

- 3.25 Medicines Australia, which represents many multinational drug companies, argued that global supplies of pharmaceuticals 'stood up very well' during the pandemic, partly as a result of diversification:

Any concerns about disruptions (strategic or otherwise) to the production of active pharmaceutical ingredients and subsequent medicines in China and India were largely unfounded. China's production volumes returned as soon as they were able, while India's restrictions on exports of certain medicines were short-lived and diplomatic efforts proved valuable to mitigate specific issues as they arose, such as country bans on exports of certain products. That said, the global diversification of these sorts of production lines also assisted to mitigate major supply disruptions.¹⁹

¹⁶ Australian and New Zealand College of Anaesthetists, *Submission 36*, pp. 1-2.

¹⁷ Ms Carolyn Edwards, *Committee Hansard*, 13 August 2020, p. 9.

¹⁸ Sanofi, *Submission 55*, p. 2.

¹⁹ Medicines Australia, *Submission 22*, p. 1.

- 3.26 To dismiss concerns about supply chain resilience based on the observation that ‘China’s production volumes returned as soon as they were able’ ignores the structural vulnerabilities exposed by COVID. If the next disruption is due to coercion or conflict rather than pandemic, the effect will be sustained. Although the initial shortages were managed, the Public Health Association expressed its concerns that the ‘long-term impact of that we still don’t know’.²⁰
- 3.27 The Royal Australasian College of Surgeons (RACS) submission argued that COVID-19 revealed that overseas suppliers cannot be relied on, and that Australia must begin planning for the next crisis:

A worsening global pandemic may place great pressure upon ‘in demand’ PPE manufacturing countries like China and India and their status as sustainable and reliable suppliers for the rest of the world ... Problems associated with international PPE and ventilator supply chains have shown high producing countries like China cannot be relied upon due to the pandemic, the consequences of social isolation, and the shutdown of medical specific manufacturing industries overseas. Contingency plans in Australia need to be realised.²¹

Impact on the economy

- 3.28 Describing the economic impact of the pandemic, the Institute for International Trade (IIT) at Adelaide University said measures taken by federal and state governments to restrict the flow of people and goods to control the virus produced ‘four separate but related economic shocks’:
- 1 The supply shock as factories in affected countries have been forced to close, together with most forms of international transportation being heavily reduced
 - 2 The demand shock as social distancing and other measures imposed by governments caused an unprecedented drop in business activities in sectors such as hospitality, tourism, elective medicine, personal care services, and public entertainment
 - 3 The financial shock as cash flows of many businesses became severely constrained and the high degree of uncertainty caused financial markets to become increasingly volatile and the share prices of those companies most exposed to the above two shocks experienced precipitous drops

²⁰ Mr Terry Slevin, Chief Executive Officer, Public Health Association of Australia, *Committee Hansard*, 23 July 2020, p. 3.

²¹ Royal Australasian College of Surgeons, *Submission 86*, p. 4.

- 4 The employment shock as hundreds of thousands of workers were laid off and were unable to find alternative employment given the profound and pervasive nature of the economic downturn. The Government's 'job keeper' response has provided temporary relief for many of these laid-off workers, but this has required an unprecedented dramatic increase in the national debt.²²

3.29 The Lowy Institute submission noted that the impacts of the pandemic on the Australian economy have been less severe than initially feared. Nevertheless, it said:

...the damage is substantial, and will have lingering effect. The output loss compared to pre-COVID forecasts may well top 6 per cent of GDP. The number of unemployed will increase to over a million. With big spending programs to support employment and incomes, and government revenues falling, the record high 2019/20 budget deficit will be more than doubled for the current financial year. Business and household debt have also increased.²³

Restrictions on the movement of people

3.30 As the pandemic spread, nearly every country in the world imposed restrictions on the movement of people, limiting the number of entrants to a country, as well as implementing 'lockdowns' which restricted domestic movements.

3.31 Australia's travel restrictions and border closures were implemented in March and April 2020, and were critical to the country's comparatively successful pandemic response. Mr Terry Slevin of the Public Health Association of Australia (PHAA) said that 'Australians should be proud of the response we have made to this pandemic':

I think any objective analysis of the evidence suggests that, so far, at least, our capacity to close our borders to do the necessary public health actions—contact tracing, identifying cases, and the kinds of isolations, lockdowns and quarantining that have been practised—has been, for the large part, very successful.²⁴

3.32 The imposition of restrictions nevertheless had serious economic and human impacts.

²² Institute for International Trade, *Submission 20*, p. 4.

²³ Lowy Institute, *Submission 96*, p. 45.

²⁴ Mr Terry Slevin, *Committee Hansard*, 23 July 2020, p. 3.

- 3.33 The Australian Manufacturing Growth Centre submission said that many manufacturing businesses experienced substantial logistical challenges as a result of restrictions on the movement of people:

Domestic and international lockdowns have made it impossible for nearly half of the manufacturers that spoke to AMGC to access the staff, sites and equipment necessary for maintaining operations and filling orders.²⁵

- 3.34 In addition to the closure of international borders, states and territories also implemented border closures. Some submitters drew the Committee's attention to the problems caused by restrictions on interstate travel.

- 3.35 The Grain Growers submission said that the uncertainty created by the pandemic was worsened by inconsistent rules surrounding movement of people and goods adopted by different states and territories:

Uncertainty was further compounded by the different approaches and rules of Australia's states and territories. For grain farmers and exporters that regularly cross borders, these differences were particularly challenging.²⁶

- 3.36 Shipping Australia said that border closures between states and territories disrupted movement of specialist staff to their work:

Hard borders between states / territories are preventing specialists, e.g. specialist helicopter engineers, and some maritime workers from travelling around Australia or imposing 14-day quarantine requirements on them (sometimes consecutively in different states).²⁷

- 3.37 Of particular concern was evidence of the unfortunate fate of many seafarers during the pandemic. A number of submissions, including from Shipping Australia²⁸, the Maritime Union of Australia (MUA)²⁹ and the International Transport Workers' Federation (ITF),³⁰ said there was a 'crew change crisis' where ship crews have been unable to undertake their usual changes of shifts because of restrictions on the movement of people imposed to combat COVID-19.

²⁵ Australian Manufacturing Growth Centre, *Submission 46*, p. 28.

²⁶ Grain Growers, *Submission 92*, p. 8.

²⁷ Shipping Australia, *Submission 94*, p. 1.

²⁸ Shipping Australia, *Submission 94*, pp. 2-4.

²⁹ Maritime Union of Australia, *Submission 84*, pp.30-31.

³⁰ International Transport Workers' Federation, *Submission 85*, p. 1.

- 3.38 According to Shipping Australia, ‘seafarers normally work 11-month-long shifts at sea’, but because ‘Australian and international governments have closed borders’ there are around 300,000 seafarers in the world who have been unable to disembark and have been aboard ships for up to 17 months or more’.³¹
- 3.39 Maritime Industry Australia Limited (MIAL) pointed out that while seafarers would normally expect some shore leave while a vessel was in port during their shifts, current restrictions have prevented even this respite from time on board. Moreover, the inability of such a large number of crews to disembark after many additional months on board has meant that other seafarers have been unable to replace them, with the result that there are ‘250,000 awaiting their opportunity to work and earn a living to support their family’.³² This was also mentioned by the MUA, who referred to the thousands of ‘unemployed seafarers ... desperate to relieve these seafarers and start earning wages again’.³³
- 3.40 The MUA also drew the Committee’s attention to the reality that:
- ...the stranding of seafarers aboard is putting tremendous strain on seafarers’ mental and physical health. Fatigue, isolation, anxiety and depression is affecting a large number of these seafarers. The MUA and the ITF are concerned about seafarer wellbeing, and we suspect there has been a rise in suicides, with a number of prominent cases in recent months related to the growing desperation of crew.³⁴

On the same matter, Ports Australia gave evidence to a Committee hearing that:

...deaths on board vessels coming to and from Australia have increased 100 per cent in recent times. Sadly, as we speak this afternoon, the body of yet another unfortunate soul is being taken off a ship in Newcastle after he appears to have taken his own life.³⁵

Impact on exports

³¹ Shipping Australia, *Submission 94*, p. 2.

³² Maritime Industry Australia, *Submission 87*, p. 7.

³³ Maritime Union of Australia, *Submission 84*, p. 30.

³⁴ Maritime Union of Australia, *Submission 84*, p. 30.

³⁵ Hon. Michael Gallacher, Chief Executive Officer, Ports Australia, *Committee Hansard*, Canberra, 30 July 2020, p. 9.

- 3.41 DFAT informed the Committee that Australian merchandise exports have, overall, remained steady in spite of the disruption to overseas markets:

In broad terms, Australia's exports have held up despite the COVID-19 crisis, although some sectors were more adversely affected. The total value of Australia's goods exports hit a record high in March 2020 of \$35.3 billion. While goods export values then dropped back 11.3 per cent to \$31.4 billion in April, these levels are still relatively high by historical standards and only one per cent down on a year earlier (\$31.8 billion in April 2019), indicating a resilient overall performance. Some of this resilience was due to strong iron ore exports, while the lower Australian dollar helped offset price weaknesses for other exports such as LNG and coal.³⁶

- 3.42 But while Australia's exports of goods have fared relatively well, the export of services which depend on the movement of people have been severely affected. Evidence to the Committee showed that this was especially the case in the tourism and education sectors.

- 3.43 The consequences for tourism and international education were explained by Dr Dowse and Dr Bachmann:

An obvious implication of a pandemic is the resultant impact on the movement of people. Whereas other economic activity may resume after a period of disruption, the threat of pandemics may have longer term influences on activities that rely on travel. The biggest impacts to Australian trade of a pandemic therefore are associated with education and tourism/travel, representing the nation's third and fifth biggest exports respectively. While increased tension with other nations (such as we have seen as part of China's retaliation) may impact these aspects of the Australian economy, the much greater potential is the prospect of travel constraints due to border closures.³⁷

- 3.44 The DFAT submission also noted the impact of travel restrictions on the tourism and education sectors:

COVID-19 restrictions on people movements have had a profound effect on our international education and tourism sectors. Travel services have made up almost two-thirds of Australia's services exports in recent years. Our international education sector is worth over \$40 billion per annum to the economy and supports 250,000 Australian jobs. The tourism industry alone

³⁶ Department of Foreign Affairs and Trade, *Submission 58*, p. 25.

³⁷ Dr A Dowse AO and Dr S Dov Bachmann, *Submission 7*, p. 4.

has seen business closures, job losses and estimated revenue losses of \$10 billion per month.³⁸

3.45 The Perth USAsia Centre described the situation in stark terms:

The international tourism sector has been effectively shut-down by the closure of international borders to non-residents. International tourism contributed \$38 billion to the national economy in 2018-19, accounting for 26 per cent of the tourism sector by dollar value. The tourism industry is important as a key employer, particularly in regional areas, and pre-COVID-19 employed 5.2 per cent of the Australian labour force.

The international education sector is similarly affected by international border closures. While international students already in Australia have been able to continue studies, tertiary institutions have been unable to enrol new onshore international students. In 2018-19, international education generated \$38 billion in services exports, of which \$25 billion was in the university sector.³⁹

3.46 The Australian Capital Territory (ACT) Government submission noted that international border closures have caused significant problems for education, one of the Territory's largest industries:

Restrictions as a result of COVID-19 have had a significant impact on the ACT's tertiary education sector. Universities closed campuses and many international students were either unable to arrive in Australia, or returned to their home countries for family, health, financial or other reasons.

The tertiary education, training and research sector overall accounts for around 8 per cent of the ACT economy, or \$3.3 billion in value add, and supports 20,000 jobs.⁴⁰

3.47 The Northrop Grumman submission also noted the pandemic's impact on the education sector, and argued that it may have negative long-term consequences:

Australia's tertiary education sector has been deeply affected by the COVID-19 pandemic, with the ban on international travel impacting the revenue provided by foreign students. This has forced most organisations to cut back on staff and research budgets. This has the potential to undermine Australia's

³⁸ Department of Foreign Affairs and Trade, *Submission 58*, p. 26.

³⁹ Perth USAsia Centre, *Submission 29*, p. 12.

⁴⁰ Australian Capital Territory Government, *Submission 89*, p. 2.

ability to retain the skills it needs to help develop critical technologies that will assist in countering external threats, be they physical or virtual.⁴¹

Impact on imports

3.48 Apart from problems with medical supplies in the early months of the pandemic, Australia has not suffered from shortages of imported goods for consumption. Container shipping has continued, warehouses have been supplied, and stores and supermarket shelves remain stocked with imported wares.

3.49 Australia is in a good position regarding food security. As the Department of Agriculture, Water and Environment (DAWE) said in its submission:

Australia has the 12th best food security rating in the world due to being a significant net exporter of food and only imports around 11 per cent of food based on taste and variety. According to ABARES (Australian Bureau of Agricultural and Resource Economics and Sciences), in 2018–19 Australia's food exports exceeded \$42 billion, more than double the value of our food imports of just under \$20 billion. Consequently, any potential disruptions to imports would be unlikely to have any impact on food security as a whole, although higher prices or limited availability of specific products may disappoint or inconvenience some consumers.⁴²

Scenarios for future crises

3.50 The cascading effects of restrictions on the domestic and international movement of people and disruptions to the supply of critical supplies drew attention to problems in Australia that were dormant and largely unnoticed. The initial disruptions to health services were overcome and Australian authorities' handling of the crisis has generally been effective by world standards. But the pandemic has raised questions about the resilience of the Australian economy and its capacity to deal with future emergencies of similar or greater magnitude given the country's dependence on imported inputs.

3.51 Possible future crises for which Australia should be prepared include:

- Future pandemics
- Security threats and military conflict
- Natural disasters

⁴¹ Northrop Grumman Australia, *Submission 23*, p. 12.

⁴² Department of Agriculture, Water and Environment, *Submission 73*, p. 7.

Future pandemics

- 3.52 Ms Alison Verhoeven, Chief Executive of the Australian Healthcare and Hospitals Association (AHHA), argued that:

Infectious diseases have been identified ... as one of the greatest risks to public health that we will face internationally over the next 10 years. This has been fuelled by globalisation, urbanisation and climate change, and we are likely to see increased incidents of pandemics like COVID-19. Therefore, we believe that it's absolutely essential that governments seek to prepare and implement strategies that ensure that systems are appropriately resourced and prepared for such events.⁴³

- 3.53 International health specialists had been warning about an 'ever-increasing risk of pandemics'⁴⁴ for some time. A specialist on epidemic diseases in Southeast Asia, Professor Sara Davies from Griffith University, affirmed that after the SARS outbreak there was 'growing consensus that an outbreak of novel infectious disease was inevitable' and indeed that 'it is likely that the 21st century will see a continued rise' in diseases emerging from zoonotic (non-human animal source) pathogens'.⁴⁵

- 3.54 The Australian Council for International Agricultural Research (ACIAR) observed that 'emerging zoonotic diseases, such as Coronavirus, are an inevitable, systemic consequence of the growing intersection between animal, human and environmental health in a highly interconnected world'.⁴⁶ In such circumstances, ACIAR concluded 'we must stop reacting to zoonotic pandemics as though they are a shock, unpredictable and random event'.⁴⁷

Security threats and potential military conflict

- 3.55 Concerns about scenarios for future conflict were outlined by DFAT, which told the Committee of its emerging priorities for responding to existing and emerging threats to regional and international security:

- Improving cyber-resilience.

⁴³ Ms Alison Verhoeven, Chief Executive, Australian Healthcare and Hospitals Association, *Committee Hansard*, Canberra, 25 June 2020, p. 5.

⁴⁴ Law Society of NSW, Young Lawyers, *Submission 97*, p.5.

⁴⁵ Professor Sara Davies, Griffith Asia Institute, *Submission 103*, p.1.

⁴⁶ Australian Council for International Agricultural Research, *Submission 42*, p. 3.

⁴⁷ Australian Council for International Agricultural Research, *Submission 42*, p. 3.

- Addressing disinformation.
- Combatting people smuggling and human trafficking.
- Countering terrorism and violent extremism.
- Countering proliferation of weapons of mass destruction.⁴⁸

3.56 The 2020 Defence Strategic Update highlighted emerging trends in Australia's security environment:

- Military modernisation in the Indo-Pacific has accelerated faster than envisaged ... [and] challenge[s] Australia's military capability edge. Expanding cyber capabilities – and the willingness of some countries and non-state actors to use them – are further complicating Australia's strategic environment.
- Confidence in the rules-based global order is being undermined by disruptions from a widening range of sources. Major power competition has intensified and the prospect of high-intensity conflict in the Indo-Pacific, while still unlikely, is less remote than in the past.
- The conduct of 'grey-zone' activities has also expanded in the Indo-Pacific.⁴⁹

3.57 Given the combination of such developments with the onset of the COVID-19 pandemic, the Strategic Update concluded that:

This security environment is markedly different from the relatively more benign one of even four years ago, with greater potential for military miscalculation. This could conceivably include state-on-state conflict...

Although the long-term impacts of the coronavirus (COVID-19) pandemic are not yet clear, it has altered the economic trajectory of the region and the world with implications for Australia's prosperity and security. ... Some countries are using the situation to seek greater influence, while countries that were expected to become more prosperous and stable may experience economic hardship and instability.⁵⁰

Natural disasters

3.58 The scenarios under which Australia could experience natural disasters appear to be growing. As the report of the National Resilience Taskforce, *Profiling Australia's Vulnerability*, concluded:

⁴⁸ Department of Foreign Affairs and Trade, *Submission 58*, p. 40.

⁴⁹ Department of Defence, *2020 Strategic Update*, Canberra, 2020, p. 5.

⁵⁰ Department of Defence, *2020 Strategic Update*, Canberra, 2020, p. 6.

There is national and international recognition that the dynamics, frequency and extremes of many natural hazards, and the resulting emergency events, are intensifying. Globally we are experiencing the confluence of trends and extremes not previously recorded, leading to events that are triggering disastrous consequences for individuals, communities, regions and nation states. ...

The cost of disasters to society and the economy are growing and it is becoming increasingly apparent we need to urgently do more than change at the margins – reducing disaster risk is critical to improving resilience.⁵¹

- 3.59 In similar terms, the National Disaster Risk Reduction Framework argued that:

Many natural hazards are becoming more frequent and intense. More people and assets are exposed and vulnerable to these hazards. The essential services we rely on – power, water, telecommunications, the internet and finance – are also exposed to these impacts. As a result, the cost of disasters is increasing for all sectors of society – governments, industry, business, not-for-profits, communities and individuals. These costs include not only direct costs but the indirect ones, including costs from all the flow-on effects that disasters have.⁵²

Vulnerability of supply chains

- 3.60 In the context of evidence about the pandemic's damage to Australia's health system and economy, and the possibility of future crises, a range of submitters told the Committee about the vulnerability of Australia's supply chains during emergencies. This included export industries' dependence on imported inputs, lack of diversity in suppliers, vulnerability to protectionism and coercive trade measures, as well as problems created by Australia's geographic position.
- 3.61 In its submission to the inquiry, the Shoal Group – a consultancy specialising in systems thinking – argued that the COVID-19 pandemic revealed weaknesses in Australia's ability to survive large disruptive events:

The current COVID-19 pandemic has exposed elements of Australian society with respect to our ability to operate, indeed survive, through a concentrated period of national disruption. Whilst the current situation originated as a health crisis, it rapidly developed into an economic crisis and highlighted the importance of understanding the nature of the relationships between elements

⁵¹ National Resilience Taskforce, *Profiling Australia's Vulnerability*, Canberra, 2018, p. 7.

⁵² National Resilience Taskforce, *National Disaster Risk Reduction Framework*, Canberra, p. 3.

of the Australian society and the associated vulnerabilities. In that sense it has also become a social crisis.⁵³

- 3.62 In many submitters' eyes, the pandemic brought into sharp focus the fragility of the international supply chains on which Australia's market economy relies. The IIER, for example, said:

The early days of the pandemic provided a graphic example of just how quickly societal cohesion can fracture when supply chains were compromised, or simply perceived to be compromised. During March 2020 Australia witnessed panic buying in the supermarkets, health professionals around the country were confronted with the reality of shortages of vital personal protective equipment (PPE) and pharmacists were struggling to fulfil prescriptions for medicines as people started stockpiling. The extensive global outsourcing of the production of pharmaceutical ingredients, medicines, PPE and other essential inputs to supply or finished products across a range of goods and services, has left many nations shocked and now saying 'never again.'⁵⁴

- 3.63 Many of Australia's export industries are vulnerable to supply chain shocks because they depend on the import of critical inputs. While primary and secondary producers have continued to export, their reliance on inputs from overseas suppliers places them in a potentially problematic position in the event of adverse developments in global conditions.

- 3.64 This situation revealed itself very early on. Speaking about the initial period of the pandemic, Dr Jeffrey Wilson from the Perth USAsia Centre said that:

Given the complexity of global value chains, Australia has faced many unexpected import supply shocks in the last three months alone:

- Some manufacturers and food processors have struggled to secure packaging materials from China and Southeast Asia.
- The farm sector may face shortages of fertiliser and pesticides due to Chinese factory shutdowns, depending on the duration and severity of value chain interruptions.⁵⁵

- 3.65 DFAT highlighted problems of reliance on inputs from overseas:

Most Australian industries rely on global supply chains as providers of commodity inputs or as importers of intermediate goods. To date, the impact

⁵³ Shoal Group, *Submission 18*, p. 4.

⁵⁴ Institute of Integrated Economic Research, *Submission 20*, p. 2

⁵⁵ Perth USAsia Centre, *Submission 29*, p. 13.

on some Australian supply chains has been significant. This reflects measures including the imposition of trade restrictions by many countries, reduced transport options and increased port loading/unloading times.⁵⁶

3.66 The Institute for International Trade pointed out that:

For countries that are highly reliant on imports for essentials such as medicine and food supplies, the dangers of this situation are obvious. Even for those only partially reliant on trade for essential goods, the COVID-19 global pandemic has accelerated the urgency to rethink the need for managing supply chain risks that had already taken hold before the crisis.⁵⁷

3.67 The Griffith Asia Institute submission emphasised the weaknesses in Australia's supply chains stemming from over-reliance on a single supplier:

The Covid-19 pandemic has exposed vulnerabilities across international supply chains, the overreliance on services of exports (e.g., tourism and international education), the hollowing out of manufacturing in the West (acutely felt in the medical supplies sector) and stark inequalities within communities. For Australia and the rest of the world, the pandemic has highlighted the need to diversify its supply chain of personal protective equipment (PPE) and basic medical supplies from major suppliers, particularly China.⁵⁸

3.68 The IIER argued that geography intensified the vulnerability of Australia's supply chains to disruption:

We are an island nation, at the end of long global trade routes, heavily reliant on just in time supply chains, with limited resilience in those chains, and low tolerance for loss and disruption. In 2018 alone there was A\$304B of imports and A\$344B of exports. Should any significant trade interruption occur, the flow on effects on the economy and our society would be significant.⁵⁹

3.69 Dr Wilson outlined four separate supply chain shocks to trade and investment:

The first is the COVID-19 pandemic itself, which, we've already seen, has interrupted supply chains. This has undermined our trade links on both the export and import sides. The second is the global recession that COVID has triggered, which is undermining our ability to attract investment from key

⁵⁶ Department of Foreign Affairs and Trade, *Submission 58*, p. 25.

⁵⁷ Institute for International Trade, *Submission 20*, p. 5.

⁵⁸ Griffith Asia Institute, *Submission 80*, p. 17.

⁵⁹ Institute for Integrated Economic Research, *Submission 13*, p. 2

partners. The third is a global turn towards protectionism, which has seen governments around the world impose trade barriers at an alarming rate. The fourth is trade warfare activities involving the US and Chinese governments, which have also threatened many of our key export sectors.⁶⁰

- 3.70 Dr Wilson argued that these shocks were compounded by a lack of diversity in Australia's trade partners:

[T]he effect of these shocks is magnified by a decided lack of diversity in our external economic ties. While Australia is a very open economy, its trade and investment relationships are also deep but narrow. Trade is concentrated on a small number of Indo-Pacific markets, especially China, and is dominated by a few sectors—minerals, agriculture, education and travel.⁶¹

- 3.71 However, the DFAT submission also noted that individual sectors vary in their ability to cope with the pandemic:

Supply chain disruptions have been uneven and have differed from sector to sector. Some supply chain issues have been resolved relatively quickly; for example, the shortage of refrigerated containers caused by congestion at ports. Some supply chain disruptions have benefited from solutions implemented by government and industry such as the International Freight Assistance Mechanism (IFAM), while others may linger for some time. Resources and energy supply chains largely remained robust – especially those relying on sea freight.⁶²

- 3.72 The following sections outline evidence to the Committee about supply chain problems in agriculture, manufacturing, defence industries, fuel supplies and shipping.

Agriculture

- 3.73 The exposure to imported inputs extends even to areas of Australia's greatest export strengths, such as agriculture.

- 3.74 The Institute for International Trade said in its submission that Australians are used to thinking of themselves as self-sufficient in agriculture, but that this view is mistaken:

Australia is considered to have food security, due to available farmland and resources, which allow the country to produce far more food than the

⁶⁰ Dr Jeffrey Wilson, *Committee Hansard*, 16 July 2020, p. 7.

⁶¹ Dr Jeffrey Wilson, *Committee Hansard*, 16 July 2020, p. 7.

⁶² Department of Foreign Affairs and Trade, *Submission 58*, p. 26.

population needs ... However, a weak point in Australia's food production supply chain became visible during March 2020. After drought-breaking rains across the country generated a spike in demand for essential farm inputs, such as chemicals for pestilence control and fertilizer, this demand was met with diminishing supply from China due to the latter's virus lockdown. A lack of these crucial inputs posed a major risk to Australian farmers seeking to plant crops.⁶³

- 3.75 The submission from DAWE also pointed out that the agriculture, fisheries and forestry (AFF) sector requires inputs from overseas, and that these supply chains may be vulnerable to disruptions:

Australia's AFF sectors rely heavily on imports of products from the oil and gas, chemicals and fertilisers, machinery and equipment, packaging and other production materials and business services sectors. This means both domestic processing and farming businesses are vulnerable to disruptions caused by a lack of imported inputs. While foreign agriculture input supplies have kept flowing into Australia during COVID-19, a number of industries have flagged the risk related to potential disruptions, though it is likely domestic workarounds will be found.⁶⁴

- 3.76 Nufarm, an Australian crop protection (i.e. herbicide, fungicide and insecticide) and seed company, argued that Australian production of critical crop protection products (CPP) is under threat, making the sector further dependent on imports which come primarily from China:

Over the past decade, major crop protection companies have withdrawn from Australian manufacturing as the economic rationale for investment has been diminished – Australia makes up only 2% of the global crop protection market. As a result, many other suppliers are focused on larger markets ...

Domestic manufacturing capacity has reduced steadily over the past decade. Nufarm is the largest manufacturer and the last company manufacturing CPP in Australia from raw materials. Nufarm has closed two manufacturing sites in the past five years and announced the closure of insecticide and fungicide formulation capacity in June 2020.⁶⁵

- 3.77 The Development Policy Centre at the Australian National University pointed to the potentially disruptive effect on Australia's food industry of border closures:

⁶³ Institute for International Trade, *Submission 20*, p. 6.

⁶⁴ Department of Agriculture, Water and Environment, *Submission 73*, p. 8.

⁶⁵ Nufarm, *Submission 95*, pp. 2-3.

Australia's horticulture industry is facing a major labour shortage for the summer harvest season unless new labour arrives. Border closures and repatriations have resulted in lower numbers of backpackers and Pacific seasonal workers, the critical mass in horticultural labour ... The rural labour shortfall could be as many as 40,000 workers, creating a major threat to the supply of fruit and vegetables for the domestic market.⁶⁶

- 3.78 In a similar vein the DAWE submission said that restrictions on the movement of people resulting from lockdowns and travel restrictions have the potential to disrupt Australia's agriculture industry and pointed out the steps that the Government had to take in response to the problem:

The pandemic has restricted the movement of people and hence labour into and within Australia during the response to COVID-19. To reduce impacts of the closure of Australia's border on the AFF workforce in wake of COVID-19, the Australian government made temporary visa changes to allow Pacific Labour Scheme (PLS) and Seasonal Worker Programme (SWP) workers and Working Holiday Makers, to continue working in agriculture and food processing until the COVID-19 crisis has passed.⁶⁷

- 3.79 Grain Growers characterised the impact of the pandemic on its industry as follows:

COVID's direct impact on the grains sector included: supply chain disruptions for inputs, such as herbicides, at a time of radically increased demand; farm input and processing business were faced with uncertainty for their ongoing operations and were required to make significant operational changes to comply with social distancing requirements; and, the constriction of export supply chains due to pressure on freight and customs processing resources.⁶⁸

Manufacturing

- 3.80 Many submissions to the inquiry drew the Committee's attention to the impact COVID-19 has had on Australia's manufacturing sector. The evidence highlighted the fact that manufacturing exporters were exposed to supply chain risks from their reliance on imported inputs.
- 3.81 A large proportion of Australian manufacturers export their products. The Export Council of Australia said in its submission that Australian

⁶⁶ Development Policy Centre, Australian National University, *Submission 56*, p. 4.

⁶⁷ Department of Agriculture, Water and Environment, *Submission 73*, p. 7.

⁶⁸ Grain Growers, *Submission 92*, p. 3.

manufacturing exporters have suffered from four main challenges during the pandemic:

- higher freight costs and problems accessing freight and logistics services due to cancellation of air freight and (to a lesser extent) sea freight;
- problems with supply chains and just-in-time inventories. In some cases these problems impacted both imports and exports;
- market access issues due to border closures and lockdowns;
- export documentation problems.⁶⁹

3.82 The Australian Manufacturing Workers Union (AMWU) said that the small size of the Australian market makes manufacturing companies dependent on imports:

Australia's lack of a 'middle market' in manufacturing means that many crucial inputs are sourced from offshore, which makes our industry particularly susceptible to disruption. When factories in China were closed down early in 2020, many local businesses struggled to find replacements for the inputs that were no longer being produced in China. This issue has persisted during the crisis, as other nations have closed down or slowed domestic production in response to the crisis.⁷⁰

3.83 The AMWU further noted that the COVID-19 pandemic highlights the vulnerability of the Australian manufacturing sector to disruption:

Many of the complex goods that we do produce here are heavily reliant on imported components. While the current crisis has been caused by interruptions to production caused by a global pandemic, there are many other conceivable scenarios in which imports to Australia may be interrupted for an extended period.⁷¹

3.84 The submission by the Australian Manufacturing Growth Centre (AMGC), a not-for-profit network of manufacturers, similarly described problems experienced by its members in securing access to inputs:

Domestic and overseas restrictions have resulted in a quarter of the businesses AMGC spoke to struggling to source supplies that are necessary for their

⁶⁹ Export Council of Australia, *Submission 45*, pp. 5-6.

⁷⁰ Australian Manufacturing Workers Union, *Submission 76*, p. 2.

⁷¹ Australian Manufacturing Workers Union, *Submission 76*, p. 2

operations. In some cases, buyers are continuing to place orders, but manufacturers do not have the means to fill them.⁷²

- 3.85 The AMGC also said that lockdowns around the world had made it significantly more difficult, and often more expensive, for manufacturers to secure supplies:

Australian manufacturers struggled to manage their supply chain with full lockdowns in many countries from which raw materials are usually sourced, including China, the United Kingdom, India and parts of Europe. In some instances, if raw material supply had become too low, this would have forced shut downs and the standing down of employees. In instances where manufacturers were able to fulfil their raw material demand, this was often at a much higher price.⁷³

- 3.86 The AMGC cited the following examples of difficulties experienced by its members:

One waste heat generation company has been unable to source compressors from India, resulting in major project delays and shrinking revenue. A manufacturing company that is already facing a 35% revenue downturn has found that its regular Chinese suppliers are increasing the price of tools and other critical supplies by 60%. Manufacturers with 'just in case' stock levels have been able to navigate the restrictions more easily than those that follow the 'just in time' principle.⁷⁴

Defence industries

- 3.87 As with manufacturing generally, the risks associated with dependence on imported inputs are evident in the case of defence industries.
- 3.88 The Defence Teaming Centre (DTC), a not-for-profit member-based defence industry association, said that its members – defence industry companies – had experienced supply issues during the pandemic largely arising from the disruption to global air freight networks:

The reports received from our members regarding supply chain integrity were largely focused around freight. The reduction in passenger airline routes resulted in many companies having to source alternate freight options, adding significant delays to project delivery. In these instances, Defence and defence primes were accommodating and supportive of industry's feedback and

⁷² Australian Manufacturing Growth Centre, *Submission 46*, p. 28.

⁷³ Australian Manufacturing Growth Centre, *Submission 46*, p. 20.

⁷⁴ Australian Manufacturing Growth Centre, *Submission 46*, p. 28

identification of delays. Freight cost blow-outs, in most cases, were accommodated and managed by Defence and defence primes, as were schedule impacts as a result of freight delays. Freight issues also created delays for the importation of input materials and supplies required to manufacture products in Australia, prompting some businesses to carry higher levels of stock than usual and challenging previous Just-In-Time inventory management thinking.⁷⁵

- 3.89 In its submission, the South Australian Government said that defence industry has shown considerable agility through the pandemic but that supply problems are foreseeable in the future:

...whilst industry has shown the agility to manufacture low complexity products at short notice, sustaining a fighting force with complex modern weapon systems and actual weapons presents significantly different challenges. Rapid adaptation, attrition in conflict and concurrent demand on a global supply chain in a crisis, all challenge the concept of supply always meeting demand in time.⁷⁶

- 3.90 The submission highlighted, by way of example, the likelihood of disruptions to global supply chains when all participants experience higher supply requirements at the same time:

Global defence supply chains such as those involved with the P-8A Poseidon and Joint Strike Fighter programs have centralised logistics using a prioritisation system, which will be pressured in times of crisis where all users will likely be drawing on the supply system simultaneously.⁷⁷

- 3.91 Along similar lines, the defence contractor Northrop Grumman Australia said in its submission that the defence industry's work to assist in the health response to the pandemic and to keep businesses open was 'a remarkable achievement'.⁷⁸ It also noted that:

The coronavirus pandemic exposed the weaknesses inherent in an over-reliance on a sole supplier and the shortcomings of just-in-time manufacturing processes.⁷⁹

⁷⁵ Defence Teaming Centre, *Submission 61*, p. 1.

⁷⁶ South Australian Government, *Submission 66*, p. 5.

⁷⁷ South Australian Government, *Submission 66*, p. 5.

⁷⁸ Northrop Grumman Australia, *Submission 23*, pp. 10.

⁷⁹ Northrop Grumman Australia, *Submission 23*, pp. 10-11.

- 3.92 Northrop Grumman also observed that restrictions on the movement of people have hampered research and development and manufacturing:

The inability of qualified and security-cleared personnel to travel to Australia from countries such as the US to assist local industry is a threat to Australia's research and development programs and manufacturing base. As such, there needs to be a greater emphasis on allowing for the transfer of technologies and intellectual property to Australia.⁸⁰

Exposure to risk from imported fuel supplies

- 3.93 The pandemic did not result in interruptions to Australia's fuel supplies, but it has drawn attention to risks flowing from the country's dependence on imported supplies and declining domestic refinery capacity.

- 3.94 The IIER described the problem in these terms:

The number of oil refineries in Australia has dropped from 7 to 4 in recent years. Three of the four remaining refineries are foreign-owned ... It would be foolhardy to expect the refinery owners to act in any way other than to look after their own business interests. That is a free market reality. We could therefore be 100 per cent dependent on foreign owned fuel imports. ... This is not reassuring, particularly when we are seeing an 'every man for themselves' pandemic panic emerge around the world, disrupting critical supply chains.⁸¹

- 3.95 The Cognoscenti Group submission also argued that our liquid fuel supply chains represent a risk to Australia:

Our dependence on global supply chains for critical commodities and manufactured goods pre-dates, and is more serious, than the shortages of medical equipment and pharmaceuticals illuminated by the pandemic. Liquid fuel is a prime example. COVID-19 has driven home Australia's dependence on overseas supplies of crude oil and a range of critical, refined products. Although the government has taken steps to reduce that dependence by establishing a sovereign petroleum reserve in the US, we are a long way from where we should be.⁸²

- 3.96 NIOA, an Australian-owned defence company that supplies weapons and munitions to the Australian Defence Force and law enforcement, argued that the Government's proposed investment in an enlarged reserve of liquid fuel

⁸⁰ Northrop Grumman Australia, *Submission 23*, p. 8.

⁸¹ Institute for Integrated Economic Research, *Submission 20*, pp. 6-7.

⁸² Cognoscenti Group, *Submission 6*, p. 7.

held in the United States is an example of ‘clear thinking’ about economic sovereignty in the wake of the pandemic:

This has been illustrated by Australia recently acting to ensure our nation has a sufficient and guaranteed supply of fuel. Energy Minister Angus Taylor announced the Federal Government would spend \$94 million on a fuel reserve in the United States to bolster the national stockpile. They would take advantage of historically low fuel prices to build a ‘strategic fuel reserve’ to ensure Australia had enough fuel in case of future global disruptions.⁸³

- 3.97 By contrast, the Australia21 submission argued that holding a national stockpile in the United States does not sufficiently reduce the risk to Australia:

The COVID19 experience has demonstrated that we cannot expect to rely on global ‘just in time’ delivery systems for the provision of goods and services for which we must be assured of continuity of supply. Fuel supplies are a particular concern. It is not evident to us that maintaining crude petroleum in underground storage in the United States enhances our fuel security, especially as we have permitted our domestic refinery capability to wither.⁸⁴

- 3.98 In his evidence to the Committee, Mr John Blackburn from the IIER was more blunt:

I can tell you one thing: buying oil stocks to stick in a cabin in America is not going to do anything for our domestic oil or fuel security.⁸⁵

Risk from lack of Australian-owned shipping

- 3.99 The vast majority of Australian imports, including imports of fuel, arrive by ship. While the shipping industry has for the most part continued to function with minimal disruptions throughout the pandemic, submitters drew the Committee’s attention to risks to Australia’s economy from foreign ownership of shipping. The AIMPE/AMOU submission pointed to the risks posed by Australia’s near-complete dependence on foreign-owned shipping:

[COVID-19] has exposed the heavy over reliance of Australia on foreign shipping operators. Australia no longer has Australian ships to service most of our international trades and our coastal shipping requirements. Instead Australia relies on foreign shipping to carry all of our imports and all of our

⁸³ NIOA, *Submission 14*, p. 2.

⁸⁴ Australia21, *Submission 9*, p. 10.

⁸⁵ Mr John Blackburn, *Committee Hansard*, 2 July 2020, p. 17.

exports, there is real community concern about Australia's near total reliance on foreign shipping to manage our national liquid fuel demands.⁸⁶

3.100 Similarly, the MUA highlighted the very small number of remaining Australian-owned or Australian-flagged shipping vessels:

The COVID-19 pandemic has revealed critical risks in Australia's supply chains that arises from the nation's almost complete dependency on the use of foreign ships, not only in international inbound and outbound trade, but in domestic coastal trade ... All of our seaborne exports and imports rely on the international ships' crew drawn from countries around the world – we only have four Australian international trading ships, all carrying LNG exports.⁸⁷

3.101 The MUA argued that unless Australia addresses this risk, its supply chains will inevitably be vulnerable to future crises:

...unless there are actions taken to address these risks, a future military conflict, natural disaster, economic crisis or pandemic that cuts or significantly impeded seaborne trade will result in catastrophic consequences for the economy.⁸⁸

3.102 MIAL also pointed to the lack of an Australian shipping fleet as a national vulnerability:

Australia now relies almost exclusively on international ships, foreign crews and international companies to maintain our international and domestic supply chain security. For an island nation, with an extraordinarily large shipping task this is an uncomfortable and regrettable circumstance to be in, and the COVID-19 global pandemic has further exposed this national vulnerability.⁸⁹

Initiatives and opportunities created by COVID-19

3.103 Amongst the evidence about Australia's exposure to risk there were encouraging signs of resilience and agility amongst Australian producers, together with the realisation that COVID-19 could even open up new opportunities. Australian industries have shown the capacity to adapt, to pivot to new kinds of production and to seek out potential new markets.

⁸⁶ Australian Institute of Marine and Power Engineers & Australian Maritime Officers Union, *Submission 88*, p. 3.

⁸⁷ Maritime Union of Australia, *Submission 84*, p. 39.

⁸⁸ Maritime Union of Australia, *Submission 84*, p. 39.

⁸⁹ Maritime Industry Australia Limited, *Submission 87*, p. 11.

- 3.104 The Advanced Manufacturing Growth Centre (AMGC) gave evidence to this effect when it told the Committee:

...as COVID-19 has evidenced, when we put the manufacturing industry to task, we were able in the shortest amount of time to make complex things onshore despite the disrupted supply chain, culminating in my view to be able to manufacture invasive ventilators 99.3 per cent Australian made. ... There's an unrecognised opportunity for Australia in manufacturing capability, but we have evidence that with the little we have, we have done very well. It would be, however, better, if we could do better.⁹⁰

- 3.105 Producers have demonstrated the capacity to pivot into new areas of production and localise the manufacture of previously imported inputs. This is especially the case if there is effective government-business cooperation and a level of assistance.

- 3.106 Mr David Williamson, Deputy Secretary of the Department of Industry, Science, Energy and Resources (DISER) told the Committee:

...it's become very stark that the capacity of Australian manufacturers to pivot to shifting supply or quickly repurpose or turn on manufacturing has in a number of instances allowed industry to work with government to meet the challenges of the pandemic as well as continue to be a source of employment and capability across the economy.⁹¹

- 3.107 The DISER submission described its cooperation with, and support to, business to overcome supply gaps:

The department worked closely with industry through the crisis to help the Department of Health procure PPE from domestic and international suppliers and manufacturers. Government and industry together addressed the most critical capability gaps.

We identified businesses with existing production capacity and relevant capabilities that could quickly pivot to produce what was needed. This involved supporting a number of domestic manufacturers to retool or scale up their production for a number of critical products. We supported industry through a mix of targeted support and general facilitation to minimize barriers to market entry. For example, the department worked with ResMed, an Australian manufacturer of technical medical equipment and ICU equipment,

⁹⁰ Dr Jens Goennemann, Managing Director, Advanced Manufacturing Growth Centre Ltd, *Committee Hansard*, 9 July 2020, p. 1.

⁹¹ Mr David Williamson, Department of Industry, Science, Energy and Resources (DISER), *Committee Hansard*, 1 September 2020, p. 2.

to supply 7000 invasive and non-invasive ventilators to the National Medical Stockpile (NMS). The Government provided a grant of almost \$4 million to Med- Con, a Shepparton-based surgical mask manufacturer, to scale up their production capacity and supply masks to the NMS.⁹²

3.108 The AMGC detailed its activities to support manufacturing initiatives to meet the challenges of the pandemic:

AMGC has introduced a portal for Australian manufacturing, component suppliers and skilled design, engineering and manufacturing staff to register their interest and core competencies in support of the national response to COVID-19. Within 48 hours, over 600 entities had registered their interest. This register has been devised to capture expressions of interest from Australian based manufacturers and individuals looking to assist with supply of goods, services or knowledge in tackling the current COVID-19 outbreak in Australia.⁹³

3.109 From the industry side, the Detmold Group – a paper and board product manufacturer – provided an example to the Committee of its response to shortages of PPE.

3.110 Detmold explained how it overcame problems of supply disruption and limited technical capacity and has localised production of certain inputs:

In the initial stages, when the project was scoped, many international borders were shut, and so you couldn't procure PPE raw material or equipment that made PPE. Once the border in China was open we had significant issues in procuring equipment. Fundamentally, we paid two times the price...

There were not a lot of people in Australia that understood how to manufacture a mask of each type. So it was really up to us as a business to make linkages back into Kimberly-Clark in the US. We actually had some technical sessions with them, and they gave us an indication on how to manufacture product. We've learnt quickly but, at this point in time, the raw material still remains one of the greatest risks, and we would have an issue especially if we went into a second wave of COVID and some international borders did shut. We have localised melt blown with someone in New South Wales to ensure we remove the risk.⁹⁴

3.111 Another initiative was described by the health services company, Sterequip:

⁹² Department of Industry, Science, Energy and Resources (DISER), *Submission 106*, p. 19.

⁹³ Advanced Manufacturing Growth Centre (AMGC), *Submission 46*, p. 25.

⁹⁴ Detmold Group, *Committee Hansard*, Canberra, 25 June 2020, p. 10.

Reusable PPE can be used in the order of 50-plus times before it needs to be disposed of and does not have an expiry date, like disposables. It must, however, be reprocessed on occasion, i.e. annually to remain valid. If Australia were to move to reusable PPE, it would provide greater security of supply for the national pandemic stockpiles due to the longer lifespan and not incur the high replacement costs of expired disposable PPE.

Sterequip is building Australia's first complete outsourced sterilisation reprocessing facility compliant to AS/NZS 4187 for reusable medical devices and has the capability and capacity to sterilise critical reusable PPE.⁹⁵

- 3.112 From the perspective of health providers, the Australian Healthcare and Hospitals Association outlined the operational changes and government-industry coordination that had been introduced as a result of COVID-19:

...one of the things that we've managed to do during the last couple of months is to have a greater understanding of the resources that are available right across the public and the private system, so what capacity there is. An example of that is actually in intensive care. For the first time we now have a data collection which shows what intensive care beds are available and what intensive care staffing is available across the country in both the public and the private sector, whereas previously that information has been held by state governments, so it's been at state level and it hasn't generally included the private system. That one database relates to intensive care units, but there are many other ways that we could look, for example, at inventory in the system and run national registers around inventory. So I think those are opportunities which I hope the Australian Health Protection Principal Committee will see the wisdom of pursuing in the future.⁹⁶

- 3.113 The Committee received a number of submissions from defence industry organisations. Amongst their evidence was mention of their role in responding to both problems and opportunities generated by the pandemic.
- 3.114 The South Australian Government emphasised the capacity of defence industries to respond in an agile fashion:

The defence industry has also shown an ability to adapt and produce critical medical supplies at short notice, because of their inherent high quality

⁹⁵ Sterequip, *Submission 100*, p. 3.

⁹⁶ Ms Alison Verhoeven, Australian Healthcare and Hospitals Association, *Committee Hansard*, Canberra, 25 June 2020, p. 8.

standards, advanced manufacturing technology and trusted relationship with the Australian Government.⁹⁷

- 3.115 Quickstep Holdings, an Australian aerospace composite manufacturer, added that the defence industry has supported the health sector and the economy more broadly through the pandemic, calling the sector's performance 'a considerable achievement'. Their submission said:

From the outset of the coronavirus pandemic, Australian defence industry pivoted to support Australia's health response, by assisting with the manufacture of critical health equipment like ventilators and personal protective equipment (PPE). During the crisis, Quickstep was proud to support our industry partner Micro-X increase their X-ray production to detect COVID-19 in patients, through the supply of our composite components.⁹⁸

- 3.116 The Naval Shipbuilders' submission noted that defence industry provides a buffer against economic shocks like COVID-19:

Defence Primes have worked proactively to ensure that critical supply chains have continued in the wake of COVID-19, working flexibly and supportively to resolve any issues that may have arisen. In the post COVID-19 era, our programs will also help revitalise the manufacturing sector. ... Defence industry has proven itself a very resilient sector and one that can support sectors that are prone to or unduly effected by 'shocks' like COVID-19. Both in terms of helping them pivot into a new supply chain, but also by bringing on and advancing existing skills and workforces that are unfortunately affected by these shocks.⁹⁹

- 3.117 The Committee was informed of opportunities emerging from COVID-19 to develop relationships with trusted international suppliers in order to help surmount supply chain risks exposed by the pandemic.

- 3.118 One submission suggested that current strains in relations in the Asia-Pacific region could create openings for Australian producers to develop business partnerships with counterparts in the US. Quickstep Holdings, an exporter to the US, reasoned that:

Australia's geographic position in the Indo-Pacific and the ongoing friction between the US and China present an opportunity for Australia to advocate for the amendment of existing US trade policies, given the Trump

⁹⁷ SA Government, *Submission 66*, p. 4.

⁹⁸ Quickstep Holdings, *Submission 25*, p. 4.

⁹⁹ Naval Shipbuilding, *Submission 81*, p. 2.

administration will likely encourage companies to cut their ties to dominant suppliers in country like China. This could include the outsourcing of greater volumes of US defence manufacturing contracts to world-leading Australian businesses.¹⁰⁰

- 3.119 Amaero International, an aerospace and defence products manufacturer, told the Committee of its concerns that ‘the coronavirus outbreak has highlighted the vulnerability of the Australian defence industry and the manufacturing industry in general to disruptions in the supply chain’.¹⁰¹ But the company highlighted what it saw as an opportunity for Australia to develop a processing and export industry for the critical mineral titanium. This would benefit Australian economically and break down the current domination of the global critical minerals markets by Russia, China and Kazakhstan, thus providing secure supplies to countries with close relationships with Australia. Amaero’s submission went on to recommend that Australia ‘establish and secure a sovereign facility to process titanium alloy powder and supply the local additive manufacturing sector’¹⁰², a proposal that is discussed in more detail in Chapter Five.

¹⁰⁰ Quickstep Holdings, *Submission 25*, p. 9.

¹⁰¹ Amaero International, *Submission 62*, p. 1.

¹⁰² Amaero International, *Submission 62*, p. 2.

4. Need for a national resilience framework

4.1 The COVID-19 pandemic revealed problems with the resilience of the supply chains that provide critical inputs into the provision of goods and services in Australia. The extent of the vulnerability laid bare by a health emergency also raised the prospect that Australia's critical national systems as a whole – the key assets and industries that underpin our national sovereignty – could be exposed to risk in other types of emergencies, such as a threat to national security. This reality has shown the need for a methodology to assess risk more broadly and identify where vulnerability exists. This chapter discusses the need for a national sovereign resilience analytical framework to provide a basis on which to make decisions about areas of vulnerability in critical national systems as a whole.

4.2 The chapter discusses:

- the need for analysis of vulnerability in Australia's critical national systems;
- existing analysis on vulnerability and critical needs; and
- the need for an expanded whole-of-government analytical framework for future crises that:
 - defines critical inputs;
 - defines categories of risk in the economy;
 - identifies areas needing sovereign capability; and
 - identifies areas needing trusted supply chains.

Need for analysis of vulnerability in Australia's critical national systems

- 4.3 The Committee received broad-ranging evidence attesting to the fact that there is limited knowledge about where Australia's critical national systems are exposed to the risk of supply chain disruption.
- 4.4 Not only did the COVID-19 pandemic reveal vulnerability, but problems in the supply of goods and services were often unanticipated. Many witnesses argued that COVID-19 had exposed a need for both public and private sector organisations to develop a better understanding of their supply chains in order to make the economy more resilient in the event of disruptions to supply.
- 4.5 The Institute for Integrated Economic Research (IIER) put the view that 'resilience needs to be addressed by individuals, communities, businesses and at all levels of Government'.¹
- 4.6 In relation to small and medium enterprises (SMEs), the Export Council of Australia submitted that 'there is limited understanding of the participation of Australian SMEs in global supply chains and their involvement in international linkages'.²
- 4.7 The Commission for the Human Future submitted that 'the sudden onset of the pandemic crisis demonstrated that for critically needed supplies, reliance cannot be placed upon international 'just-in-time' delivery systems' and that Australia's trading partners would be examining ways to modify their supplies. The submission proposed that 'we would urge that such an examination take place from the viewpoint of Australia's future resilience...'³
- 4.8 DMTC, a not-for-profit company operating in the defence field, drew the following conclusion:
- ...one lesson from the COVID-19 experience is the need for more comprehensive understanding and mapping of supply chains, with a focus on lower tiers of supply chains and even the supply of raw materials - in order to achieve the dual aims of supply chain assurance and resilience.⁴
- 4.9 Similarly, the Defence Teaming Centre (DTC) argued:

¹ Institute for Integrated Economic Research, *Submission 13*, p. 2.

² Export Council of Australia, *Submission 35*, p. 4.

³ Commission for the Human Future, *Submission 10*, p. 9.

⁴ DMTC, *Submission 71*, p. 2.

COVID-19 has highlighted Australia's dependency and exposure to overseas markets and events. The collated risk of this dependency has never been contemplated by industry or governments, prompting significant reactions and fast-thinking during the COVID-19 isolation period. Supply chain analysis, management and interrogation will need to become critical activities for Australian industry, changing the way industry have traditionally approached and managed supply chains to date.⁵

Existing analysis on vulnerability and critical needs

- 4.10 Evidence to the Committee showed that some analytical work has been undertaken to give rigour to basic concepts—such as criticality—and how to apply them to supply chains within Australia's domestic economic structure and as part of international relationships.
- 4.11 Work to date has focused on particular sectors of the economy and in relation to specific vulnerabilities, including critical minerals, critical infrastructure, disaster management and defence industries. These are discussed further below.

Critical minerals

- 4.12 The Critical Minerals Consortium told the Committee a critical mineral is 'one for which the supply risk and the impact of a supply disruption are both high'.⁶ The Consortium reported that a 'critical minerals assessment (CMA) is concerned with the mineral inputs to a system, the risks of a disruption of supply occurring, and the impacts that such a disruption would have'.⁷

The Consortium's submission noted that CMAs had been conducted by the governments of 'U.S. Japan, U.K. and other countries', and recommended the Australian Government 'conduct a scoping study to determine the need for CMA from an Australian economic (import) perspective'.⁸

- 4.13 In 2013 Geoscience Australia produced a report on critical minerals in Australia. The objective of the report was not to survey the risks to the supply chains for critical minerals for the Australian economy, but to present an 'appraisal of the resource potential for critical commodities in

⁵ Defence Teaming Centre, *Submission 61*, p. 3.

⁶ Critical Minerals Consortium, *Submission 26*, p. 3.

⁷ Critical Minerals Consortium, *Submission 26*, p. 3.

⁸ Critical Minerals Consortium, *Submission 26*, p. 1.

Australia’.⁹ The report was designed to attract investment by detailing critical mineral resources in Australia and their potential to supply global demand. It did not aim to provide an assessment of how those resources related to the sovereign resilience of the economy as a whole.

- 4.14 The report noted that ‘the terminology and use of ‘critical’ in the context of raw materials, chemical elements, and minerals is problematic’¹⁰, but referred to two broadly accepted definitions. Firstly, the US National Academy of Sciences:

...proposed that ‘a mineral can be regarded as critical only if it performs an essential function for which few or no satisfactory substitutes exist’, and ‘in addition, a mineral can be regarded as critical only if an assessment also indicates a high probability that its supply may become restricted, leading either to physical unavailability or to significantly higher prices for that mineral in key applications.’¹¹

Secondly, the EU Commission put forward the definition that ‘a raw material is labelled critical when the risks of supply shortage and their impacts on the economy are higher than for most of the other raw materials’.¹²

Critical infrastructure

- 4.15 The submission from Dr Andrew Dowse from Edith Cowan University and Dr Sascha Dov Bachmann from the University of Canberra recommended that the Committee:

...examine our supply chains in more detail, to identify those supplies that are associated with critical capabilities, both economically and societally. The concept of critical infrastructure should be expanded to encompass such

⁹ Geoscience Australia, *Critical commodities for a high-tech world: Australia’s potential to supply global demand*, Canberra, 2013, p. 3.

¹⁰ Geoscience Australia, *Critical commodities for a high-tech world: Australia’s potential to supply global demand*, Canberra, 2013, p. 4.

¹¹ Geoscience Australia, *Critical commodities for a high-tech world: Australia’s potential to supply global demand*, Canberra, 2013, p. 4.

¹² Geoscience Australia, *Critical commodities for a high-tech world: Australia’s potential to supply global demand*, Canberra, 2013, p. 4.

supply chains, and the dependencies on foreign supplies should be analysed to determine the level of risk...¹³

- 4.16 The IIER drew the Committee's attention to the report by the Henry Jackson Society into the dependency of 'Five-Eyes' nations on China. The report begins with a definition of strategic industries:

... 'strategic industries' are those that support critical infrastructure including communications, energy, healthcare / public health, transportation systems and water. The report also identifies areas that should be afforded protection; these include artificial intelligence, autonomous robotics, computing hardware, cryptographic technology, materials and manufacturing science, nanotechnologies, networking and data communication, quantum technology and synthetic biology.¹⁴

- 4.17 The Australian Government is currently introducing a range of activities with the objective of protecting Australia's critical infrastructure from threats from foreign sources, to be achieved by obliging:

...an uplift in security and resilience in all critical infrastructure sectors, combined with better identification of threats in order to make Australia's critical infrastructure – whether industry or government owned and operated – more resilient and secure.¹⁵

- 4.18 In 2015, the Critical Infrastructure Resilience Strategy was published, consisting of a Policy Statement and Plan. The Policy Statement defined the aim of the Strategy as the:

...continued operation of critical infrastructure in the face of all hazards. More resilient critical infrastructure will also help to support the continued provision of essential services (provided by critical infrastructure) to businesses, governments and the community, as well as to other critical infrastructure sectors.¹⁶

¹³ Dr Andrew Dowse, Edith Cowan University and Dr Sascha Dov Bachmann, University of Canberra, *Submission 7*, p. 5.

¹⁴ Institute for Integrated Economic Research, *Submission 13*, p. 4.

¹⁵ Critical Infrastructure Centre, *Protecting critical infrastructure and systems of national influence: Consultation paper*, Canberra, August 2020. <https://www.homeaffairs.gov.au/reports-and-pubs/files/protecting-critical-infrastructure-systems-consultation-paper.pdf>

¹⁶ Australian Government, *Critical Infrastructure Resilience Strategy: Policy Statement*, Canberra, 2015. <https://cicentre.gov.au/document/P50S023>, viewed 15 October 2020.

The Plan ‘outlined the core activities that will [be] undertaken at a national level in pursuit of these objectives’.¹⁷

- 4.19 To this end, the Critical Infrastructure Centre (CIC) was established in January 2017 to ‘safeguard Australia’s critical infrastructure from the increasingly complex national security risks of sabotage, espionage and coercion’.¹⁸
- 4.20 The Centre is designed to enhance cooperation and information-sharing on risk assessment and risk management between all levels of government and the owners and operators of critical infrastructure. The Centre’s key functions include:
- identifying Australia’s most critical infrastructure;
 - conducting national security risk assessments;
 - developing risk management strategies; and
 - supporting compliance.¹⁹
- 4.21 One of the functions of the CIC is to administer the Security of Critical Infrastructure Act 2018 whose role is ‘to provide a risk-based regulatory framework to manage national security risks from foreign involvement in Australia’s critical infrastructure’.²⁰ The Act requires owners and operators of critical infrastructure ‘to ensure they have a more detailed understanding of the national security risks posed by foreign involvement in critical infrastructure.’²¹ This includes reporting information about their relevant assets to the Register of Critical Infrastructure Assets²² ‘to build a clearer picture of critical infrastructure ownership and control in high-risk sectors, and support more proactive management of the risks these assets face’.²³
- 4.22 The Centre describes its focus as:

¹⁷ Australian Government, *Critical Infrastructure Resilience Strategy: Plan*, Canberra, 2015. <https://cicentre.gov.au/document/P50S021>, viewed 15 October 2020.

¹⁸ <https://cicentre.gov.au/>.

¹⁹ Security of Critical Infrastructure Act (2017), *Explanatory memorandum*, p. 3.

²⁰ Security of Critical Infrastructure Act (2017), *Explanatory memorandum*, p. 15.

²¹ Security of Critical Infrastructure Act (2017), *Explanatory memorandum*, p. 3.

²² Critical Infrastructure Centre, *Requirements for reporting entities under the Act*, Canberra <https://cicentre.gov.au/document/P50S015>, viewed 15 October 2020.

²³ <https://www.homeaffairs.gov.au/about-us/our-portfolios/national-security/security-coordination/security-of-critical-infrastructure-act-2018>, viewed 15 October 2020.

...helping owners and operators better understand and manage risk, and build resilience. The Centre does this by conducting risk assessments and providing advice to reduce the potential for malicious actors to gain access to, and control of, Australia's critical infrastructure through ownership, offshoring, outsourcing and supply chain arrangements.²⁴

4.23 The risk assessments conducted by CIC 'identify and outline ways to manage national security risks from foreign involvement in Australia's critical infrastructure, to ensure its security and continuity'.²⁵

4.24 The Centre's definition of critical infrastructure is:

Those physical facilities, supply chains, information technologies and communication networks which, if destroyed, degraded or rendered unavailable for an extended period, would significantly impact the social or economic wellbeing of the nation or affect Australia's ability to conduct national defence and ensure national security.²⁶

4.25 Beyond the above general definition, the Centre does not elaborate a methodology for determining which infrastructure assets fit the criteria of criticality. To establish what a critical asset is for the purposes of reporting to the Register of Critical Infrastructure Assets, the Act describes the physical specifications of certain assets in the electricity, gas, ports and water sectors. For example, in the electricity sector, generations stations of particular megawatt thresholds (one separate threshold for each of the six states and the Northern Territory) are named as critical assets.²⁷

Modern manufacturing strategy

4.26 On 6 October 2020, the Australian Government announced the Modern Manufacturing Strategy, designed to 'help Australian manufacturers to scale up, improve competitiveness and build more resilient supply chains'.²⁸

²⁴ <https://cicentre.gov.au/document/P50S010>, viewed 15 October 2020.

²⁵ <https://cicentre.gov.au/document/P50S012>, viewed 15 October 2020.

²⁶ <https://cicentre.gov.au/document/P50S010>, viewed 15 October 2020.

²⁷ <https://www.homeaffairs.gov.au/nat-security/files/cic-factsheet-coverage-of-security-of-critical-infrastructure-act-2018.pdf>, viewed 15 October 2020.

²⁸ <https://www.industry.gov.au/news-media/manufacturing-a-new-future-for-australia>, viewed 16 October 2020.

4.27 One element of the strategy is the Supply Chain Resilience Initiative, with the objective of enhancing ‘understanding supply chains’.²⁹ The Department of Industry, Science, Energy and Resources (DISER) announced that:

To build a comprehensive understanding of critical supply chains, the government will work with industry to:

- identify the essential goods and services critical to Australians at times of crisis
- map industry supply chains and Australia’s manufacturing capabilities
- evaluate supply chain resilience under normal circumstances and in possible crisis situations
- We will work with industry to identify supply options to address vulnerabilities in domestic and international supply chains for identified critical products. The outcomes of this work will be published in Sovereign Manufacturing Capability Plans.³⁰

4.28 Having identified domestic and international supply vulnerabilities, the Government ‘will work with industry to identify supply options for critical products to address vulnerabilities’.³¹

4.29 At the time of writing, the Government has not provided a definition of critical supply chains or a methodology to determine which supply chains would be classified as critical.

Disaster risk management

4.30 The National Resilience Taskforce, part of the Home Affairs portfolio, has conducted analytical work on Australia’s vulnerability to disaster. The 2018 Taskforce report *Profiling Australia’s Vulnerability*, assesses the ‘interconnected causes and cascading effects of systemic disaster risk’.³² The report notes:

²⁹ <https://www.industry.gov.au/news-media/meeting-our-needs-in-times-of-crisis>, viewed 16 October 2020.

³⁰ <https://www.industry.gov.au/news-media/meeting-our-needs-in-times-of-crisis>, viewed 16 October 2020.

³¹ <https://www.industry.gov.au/news-media/meeting-our-needs-in-times-of-crisis>, viewed 16 October 2020.

³² National Resilience Taskforce, *Profiling Australia’s Vulnerability*, Canberra, 2018, p.1.

Disruption to one part of a system can trigger cascading effects across society, testing the limits of highly integrated supply chains and exposing vulnerabilities and inequities throughout society.³³

4.31 The Report points out that:

...if we stop to consider the consequences for society if we were to lose access to any one or more of these critical services (like the ability to use electricity, buy food or fuel, flush the toilet or communicate with family members), we immediately become aware of our vulnerability... Critical to making progress on this is building understanding of these complex systems so that we are able to identify points of leverage that can be targeted to increase resilience. ... To understand these complex systems requires us to distil complexity into something which people are able to engage with. Mapping the elements of a system (i.e. the people and organisations and how they are connected), and the flow between these elements, provides a way to critically diagnose the causes and effects of vulnerability and identify key points of intervention.³⁴

4.32 The report's emphasis on the connections between different parts of society was commended to the Committee by Mr John Blackburn from the IIER, who commented that the report:

...talks about the biggest vulnerabilities in our society, the intersections and interdependencies between systems that support us. So it goes beyond the stovepipe and looks at the connections. It actually says that unfortunately a series of decisions we've made over years have actually made us more vulnerable.³⁵

4.33 In 2018–19, the National Resilience Taskforce led national reforms to reduce the impact of natural hazards on Australian communities and the economy. The Taskforce engaged with stakeholders to develop national disaster risk information capability, progress guidance on disaster risk assessment and management, and explore options for targeted investment in reducing disaster risk and vulnerabilities. As a result, the Taskforce released the National Disaster Risk Reduction Framework on 5 April 2019.³⁶

4.34 The work of the Taskforce has been focused on surveying disaster vulnerability and responses to risk. Its assessments have not extended to

³³ National Resilience Taskforce, *Profiling Australia's Vulnerability*, Canberra, 2018, p. 21.

³⁴ National Resilience Taskforce, *Profiling Australia's Vulnerability*, Canberra, 2018, pp. 15-17.

³⁵ Mr John Blackburn, *Committee Hansard*, 2 July 2020, p. 14.

³⁶ Department of Home Affairs, *Annual Report 2018-19*, p. 36.

developing methodologies to apply definitions of criticality or to consider the implications for other sectors.

Defence industry sovereign capability

4.35 The most extensive investigation into defining sovereign capability has been conducted under the Defence portfolio in relation to defence industries.

4.36 In 2016, the Defence Industry Policy Statement (DIPS) was published, drawing on the 2015 report of this committee *Principles and Practice - Australian Defence Industry and Exports*, in parallel with the production of the Defence White Paper of the same year. The objective of the policy is to:

...deliver the Defence capability necessary to achieve the strategy set out in the Defence White Paper, supported by an internationally competitive and innovative Australian defence industrial base.³⁷

4.37 Having observed that some capabilities are so essential that they should be supported 'as sovereign industrial capabilities',³⁸ the Statement announced that a Sovereign Industrial Capability Framework has been developed to provide:

...a repeatable methodology to identify and manage the industrial capabilities that are critical to Australian Defence missions. These industrial capabilities have been identified as those that must be developed and supported by Australian industry because overseas sources do not provide the required security or assurances.³⁹

The Framework will 'improve the identification and management of the sovereign industrial capabilities that develop and support our ADF [Australian Defence Force] capabilities'.⁴⁰

4.38 The Framework identifies six assessment criteria as a starting point to identify sovereign industrial capabilities:

- Protection of intent: in employing military capability without divulging military intent;
- Independence of action: in unimpeded use of military capability for the purpose of achieving a strategic objective;

³⁷ Department of Defence, 2016 *Defence Industry Policy Statement*, Canberra, 2016, p. 10.

³⁸ Department of Defence, 2016 *Defence Industry Policy Statement*, Canberra, 2016, p. 23.

³⁹ Department of Defence, 2018 *Defence Industrial Capability Plan*, Canberra, 2018, p. 29.

⁴⁰ Department of Defence, 2016 *Defence Industry Policy Statement*, Canberra, 2016, p. 23.

- Interoperability limits and benefits: in the conduct of missions with and alongside allies and coalition forces;
- Assurance of supply: in access to industrial capability without unacceptable risks to security or guarantees of supply;
- Essential skills retention: in terms of skills that are core to delivering industrial capability and that must be resident in-country for reasons of security and supply assurance;
- Leveraging competitive advantage: acknowledging that while Defence is the priority customer, a company with a competitive advantage offers scales in production that can be leveraged locally and globally, and potentially for both defence and civil application.⁴¹

4.39 The Framework has been taken forward and applied in the 2018 Defence Industrial Capability Plan. The Plan focuses on ten Sovereign Industrial Capability Priorities:

- Collins Class submarine maintenance and technology.
- Land combat vehicle and technology upgrade.
- Enhanced active and passive phased array radar capability.
- Combat clothing survivability and signature reduction technologies.
- Advanced signal processing capability in electronic warfare, cyber and information security, and signature management technologies and operations.
- Surveillance and intelligence data collection, analysis, dissemination and complex systems integration.
- Test, evaluation, certification and systems assurance.
- Munitions and small arms research, design, development and manufacture.
- Aerospace platform deep maintenance.⁴²

4.40 Northrup Grumman expressed the view that the 'Australian government's identification of 10 sovereign industrial capability priorities within the defence sector is an important first step in building local industry capacity'.⁴³

A whole of government framework for future crises

4.41 The analytical work cited above on supply chain vulnerability and critical inputs in critical minerals, disaster management, critical infrastructure,

⁴¹ Department of Defence, 2018 *Defence Industrial Capability Plan*, Canberra, 2018, p. 31.

⁴² Department of Defence, 2018 *Defence Industrial Capability Plan*, Canberra, 2018, pp. 39-40.

⁴³ Northrup Grumman, *Submission 23*, p. 11.

manufacturing and defence industries has focused on a range of individual sectors. But there has yet to be a comprehensive identification of the areas of risk and resilience across the Australian economy as a whole and how to assess them.

- 4.42 Dr Jeffrey Wilson of the Perth USAsia Centre proposed that the Australian Government should undertake research to survey future risks to the full range of critical inputs to which the country is exposed:

...interruptions to global value chains can expose Australia to shortages of critical inputs. Given the complexity of these value chains, there is very little data on where such risks could originate in future. The Australian Government should undertake or commission research to better understand the geography of value chains for critical inputs, identify potential risks, and develop policy to build resilience in areas where identified risks are found to be significant.⁴⁴

- 4.43 Dr Wilson highlighted the fact that any research into supply chain risks and resilience must first identify the critical areas where resilient sovereign Australia capability is most important. He told the Committee:

...the careful consideration will be to focus on that which is critical. ...a way to functionally operationalise that concept of 'critical' ... is the piece of work that we really need to focus on much more. Indeed, the COVID crisis has drawn all our attention to this quite clearly.⁴⁵

- 4.44 There is a need for an analytical framework that can go beyond sectoral analysis and be applied to all sectors of the economy in anticipation of future risk.
- 4.45 The analytical thinking conducted by Defence on defence industries was designed to be 'repeatable'⁴⁶ in the sense that it could be carried out on multiple occasions in the future and could be applied to all aspects of defence industrial capability. This approach can be expanded beyond defence industries and applied to the various sectors of the Australian economy in its entirety.
- 4.46 The Department of Foreign Affairs and Trade (DFAT) emphasised the need for a cross-sectoral and whole-of-government approach:

⁴⁴ Dr Jeffrey Wilson, Perth USAsia Centre, University of Western Australia, *Submission 29*, p. 22.

⁴⁵ Dr Jeffrey Wilson, Perth USAsia Centre, University of Western Australia, *Committee Hansard*, 16 July 2020, Canberra, p. 9.

⁴⁶ Department of Defence, *2018 Defence Industrial Capability Plan*, Canberra, 2018, p. 29.

The crisis has underscored the nexus between foreign, security, development and trade policy-related activities and the importance of a cohesive whole-of-government approach in managing a crisis of this magnitude.⁴⁷

4.47 In relation to the report on natural disasters prepared by the National Resilience Taskforce and discussed above, Mr Blackburn proposed that the methodology used in that report should be replicated in other areas:

...the terms of reference of that particular study were limited to natural disasters. So what we're saying is: let's add on this idea of unnatural disasters, whether it's a pandemic or a cyberattack, something intentional happening to us or a mere accident. If that framework were applied, it is our view that that model—which is in existence but needs to be adapted—would have helped us to identify where these interdependencies and risks were and may have left us in a position to be better prepared.⁴⁸

4.48 The Institute informed the Committee it is working on a:

National Resilience Project ... to offer constructive suggestions on where we, as a nation, need to head when we emerge from the pandemic crisis and face the challenge of building the next generation economy, more resilient societal systems and thus improved sovereignty and security.

Key themes emerging from the project include the need to:

- Conduct a comprehensive risk and vulnerabilities analysis using an expanded version of the framework produced by the Home Affairs report, *Profiling Australia's Vulnerability*. This should include:
 - The sovereign capabilities, knowledge and skills on which we must be self-reliant in times of crisis and where it is prudent to guarantee domestic supply.
 - The critical supply chains which must be trusted, i.e. transparent and verifiable.
 - Those capabilities, services and goods for which open, global supply chains should be maintained and encouraged.
- Develop an integrated national sovereignty / resilience framework, strategy and action plan, based on the risk and vulnerabilities analysis, that address what is critical to the Australian way of life and the functioning of our society, and then determines how to build such a sovereign capability.

⁴⁷ Department of Foreign Affairs and Trade, *Submission 58*, p. 36.

⁴⁸ Mr John Blackburn, *Committee Hansard*, 2 July 2020, p. 14.

- Implement the plan utilising an integrated team model; i.e. collaboration across all levels of government, industry, public and private sector enterprises and community organisations.⁴⁹

Key elements of a national resilience framework

4.49 The purpose of a national resilience framework is twofold:

- To establish a mechanism to identify and map national level systems that are essential to Australia's ability to function as a secure, prosperous, first-world nation; and
- To categorise how parts of each mapped critical national system (CNS) should be classified according to its degree of vulnerability to, and consequence of, supply chain disruption.

4.50 The key elements of a framework should:

- Define critical national systems (CNS);
- Assess levels of risk to Australian CNS;
- Identify CNS enablers requiring sovereign capability; and
- Identify CNS enablers that can be sourced from trusted supply chains.

4.51 The following sections discuss each of these elements in turn.

Define critical national systems

4.52 Submissions to the Committee made the case that there needs to be a methodology to determine what systems of services, infrastructure and supply Australia needs to function as an independent first-world nation, and which inputs to those systems are critical.

4.53 Dr Wilson described a line of reasoning to define whether or not a particular element of supply is critical:

In general, criticality means measuring two different aspects. One is the economic importance of a particular product and the other is the supply risk of that product. So there are things that would be economically important that are not under particular supply risk and things that might be under a lot of supply risk but not particularly economically important.⁵⁰

4.54 Dr Wilson elaborated on this point in a supplementary submission:

⁴⁹ Institute for Integrated Economic Research, *Submission 13*, pp. 4-5.

⁵⁰ Dr Jeffrey Wilson, Perth USAsia Centre, University of Western Australia, *Committee Hansard*, 26 July 2020, p. 9.

Conceptually speaking, 'critical' has a specific definition when it comes to economic sectors. It refers to a product, service or asset that has two features:

- 1 It is of significant if not essential economic importance; and
- 2 It is subject to some form of 'supply' or 'accessibility' risk.

Importantly, for something to be critical it has to satisfy both conditions. Providing an illustration:

- Medical supplies are critical for Australia. They are essential for society, and recent months have revealed them to be subject to supply risk.
- Food supplies are not critical for Australia. They are economically essential, but not subject to supply risk in aggregate (as we are a net food exporter).
- Jewellery diamonds are not critical for Australia. They are arguably subject to supply risk, but are not economically essential.⁵¹

- 4.55 In a study focusing on critical minerals, but which has general applicability, Dr Wilson added:

Many factors affect whether a particular material should be classified as 'critical' or not. In terms of economic importance, this includes whether a material is essential for the industries that use it, the existence of substitutes with similar or near-similar properties, and the extent to which resulting products are used across the industrial ecosystem. For supply risk, factors include whether a material is locally-produced or imported from abroad, the extent to which it is subject to monopoly or oligopoly by a small number of producers, and the prospect of political conflicts leading to an interruption of supply.⁵²

- 4.56 For products, services or assets which are not economically essential, where there is no consequence of national significance to supply chain disruption, market-based solutions are fully adequate. The supply chain might be entirely domestic or there might be a mixture of domestic and international suppliers – the mix can largely be determined by market conditions.
- 4.57 In the case of products, services or assets which are both economically essential and subject to supply risks, and thus classified as critical, there is an argument for at least some degree of sovereign domestic capability. In most circumstances this would require government involvement, whether in

⁵¹ Perth USAsia Centre, *Submission 29.2*, p.1.

⁵² Dr Jeffrey Wilson, *Critical Minerals for the 21st Century Indo-Pacific*, Perth USAsia Centre, May 2019, p. 8.

the form of direct or indirect support to sovereign capability, or some form of government oversight or regulatory control.

- 4.58 The main material for the analysis of vulnerability and resilience by a national resilience framework would therefore be products, services or assets that combine the features of being economically essential and subject to supply risk.

Defining risk in Australian critical national systems

- 4.59 Dr Dowse put the view that the areas of criticality facing Australia can be classified into three types. Dr Dowse argued:

I think we should have a framework in which we understand the level of risks and consequences and are able to classify that in terms of things that absolutely need to be sovereign for whatever reason—which I think would be a small list—and, secondly, those things that are really not that critical and can remain part of a global supply chain, through which we seek efficiencies. The third area, which is the critical one, is where we make certain elements either trusted or sovereign. In some cases, there may be just small elements that need to be sovereign or some sort of oversight that needs to be sovereign. I think that that's the area that we need to focus on.⁵³

- 4.60 The IIER told the Committee that the National Resilience Project being led by his Institute saw a need to 'conduct a comprehensive risk and vulnerabilities analysis', focusing on a distinction between:

- The sovereign capabilities, knowledge and skills on which we must be self-reliant in times of crisis and where it is prudent to guarantee domestic supply.
- The critical supply chains which must be trusted, i.e. transparent and verifiable.
- Those capabilities, services and goods for which open, global supply chains should be maintained and encouraged.⁵⁴

- 4.61 Using this three-category approach, an economy-wide, whole-of-government national resilience framework would, first of all, explain the rationale for categorising the supply chains for products, services and assets into the three types.

⁵³ Dr Andrew Dowse, Edith Cowan University, *Committee Hansard*, 2 July 2020, p. 8.

⁵⁴ Institute for Integrated Economic Research, *Submission 13*, p. 4.

- 4.62 This would then provide a logical foundation for arguing that the framework would probably not concern itself with those areas where ‘open global supply chains should be maintained and encouraged’.⁵⁵ It would concentrate instead on the two other categories:
- the small number of areas that ‘absolutely need to be sovereign’⁵⁶, and
 - the larger category of things where supply chains, or key elements of them, need to be ‘either trusted or sovereign’.⁵⁷
- 4.63 The key concept for the final category mentioned above is that of trusted supply chains and trusted sources. It may be safe to have a critical element of a market supplied by a non-sovereign source, but only if the source can be trusted to maintain supply. The supplier should not be subject to major commercial or financial risk or the risk of supply interruptions due to factors such as political insecurity, armed conflict, corruption, administrative malpractice, government intervention, arbitrary policy or regulatory enforcement or vulnerability to natural and environmental disasters.
- 4.64 The next step would be to establish a range of criteria and features of supply chains to determine whether a particular product, service or asset should be classified as requiring sovereign capability or needing trusted suppliers.

Identify areas needing sovereign capability

- 4.65 The framework would identify which areas are sufficiently critical to require the creation and maintenance of sovereign capability. To borrow from DIPS:
- The industrial capabilities have been identified as those that must be developed and supported by Australian industry because overseas sources do not provide the required security or assurances.⁵⁸
- 4.66 Defence industry is the place where the strongest case can be made for such capability. Not all aspects of defence supply need sovereign capability, but resilient capacity to respond to threats to national security is essential in certain areas such as engineering, advanced manufacturing, cybersecurity and information technology.
- 4.67 Quickstep Holdings, an aerospace-grade advanced composite manufacturer, submitted that:

⁵⁵ Institute for Integrated Economic Research, *Submission 13*, p. 4.

⁵⁶ Dr Andrew Dowse, Edith Cowan University, *Committee Hansard*, 2 July 2020, p. 8.

⁵⁷ Dr Andrew Dowse, Edith Cowan University, *Committee Hansard*, 2 July 2020, p. 8.

⁵⁸ Department of Defence, *2016 Defence Industry Policy Statement*, Canberra, 2016, p. 23.

The pandemic has also seen a push to develop national security and resilience frameworks that support critical infrastructure and sectors to ensure these can continue to operate amid a global crisis. As these frameworks are developed, Australia's defence industry should be considered a strategic national asset and central pillar to any resilience strategy, allowing it to continue to function smoothly and contribute to national resilience during a time of crisis.⁵⁹

4.68 The South Australian Government argued:

The equipment required by the ADF must be capable against the contemporary threat, available when required, sustainable during a time of crisis and affordable over the equipment's lifetime. Sovereign industry capability is that which must exist in Australia to meet this intent, including design expertise, rights to technical data as well as production capability with the ability to increase capacity in times of a crisis. Defining what activities constitute sovereign industry capability is both a complicated and complex issue.⁶⁰

4.69 A similar case was put to the Committee by NIOA, a defence equipment manufacturer:

Sovereignty will become critical as Australia's defence interests are shaped by COVID-19. Australia's national interests are always best served when such important projects for our national security are done in a way in which the programs are controlled within this country. The ownership, the intellectual property, the company's headquarters, the jobs, the investments, the taxes, the profits and the control remain within Australia.⁶¹

Identify areas needing trusted supply chains

4.70 The Committee heard evidence about other inputs to critical national systems where the required security or assurances can be provided and where supply chains are vulnerable to interruptions by the actions of foreign suppliers and state actors.

4.71 The focus for this analysis of resilience would be on:

- the characteristics of the global market for a particular product and its potential for supply disruption; and

⁵⁹ Quickstep Holdings, *Submission 25*, p. 4.

⁶⁰ Government of South Australia, *Submission 66*, p. 4.

⁶¹ NIOA, *Submission 14*, p. 2.

- Australia's exposure to such disruption, including the exposure of the proposed supplier to extrajudicial or coercive measures by a foreign government.

Global markets with disruption potential

4.72 One the greatest drivers of supply disruption is dominance of global markets by a small number of suppliers. Dr Wilson told the Committee:

As a general rule, the areas where you would have the greatest degree of risk would be industries where there is a dominant supply globally. One I would certainly look at would be electronics and advanced manufacturing equipment, particularly around telecommunication sectors. ... Another issue that has been prominent given its significance in the Australian economy is the infrastructure and construction sector, where a number of critical inputs typically come from China. In the early days of the pandemic as a natural disaster, we saw a number of Australian projects having trouble sourcing construction materials. ...in a construction build, if you require windows or a certain component, the rest of the build can't go on until they turn up. We've also had some issues in the agriculture sector, where our ability to grow products, separate from the climatic conditions that we face, also depends on imports, particularly fertiliser and agricultural chemical products. There is a pressing need to study these kinds of things further.⁶²

Critical minerals

4.73 A prominent instance of a market with potential for disruption is critical minerals, which constitute a very small, but essential, part of an increasingly large number of advanced production processes. There are certain countries which have a monopoly or a dominant position in the market for particular minerals. In addition, some minerals are sourced from countries where political instability and poor local governance put supplies at risk. This was highlighted by the Perth USAsia Centre publication on the subject:

Critical materials are already an essential component of contemporary economies, and will continue to grow in importance as new digital and clean energy technologies diffuse around the world. Yet existing value chains are not up to the task. Political risks mean they do not provide the supply security needed by consumers in the technology sector; while social and environmental

⁶² Dr Jeffrey Wilson, University of Western Australia, *Committee Hansard*, 26 July 2020, p. 8.

challenges mean they are failing to deliver developmental benefits for governments and communities in producing countries.⁶³

Defence industry

- 4.74 The global trade in defence equipment and materiel is highly politicised, where governments closely guard their own sources of supply and where subsidies and other special assistance to local production and exports are powerful shapers of the global market.
- 4.75 The South Australian Government considered that ‘because of the COVID-19 pandemic, there will be increased pressure on international primes from their own foreign governments to preference their sovereign industry in the supply chain’.⁶⁴
- 4.76 In its submission, Quickstep Holdings illustrated this situation to the Committee:

US President Donald Trump’s comments about making all F-35 JSF components in the US exemplify this protectionist approach. While impractical, the remarks revealed the internal contradiction at the heart of calls to mitigate supply chain vulnerabilities by bringing production back onshore. Other examples include moves by US defence primes to keep manufacturing work in-house, instead of distributing to Australian suppliers like Quickstep, in order to maintain higher levels of production in the US.⁶⁵

Medical supplies

- 4.77 The pandemic also revealed the extent to which the global market for PPE, pharmaceuticals and other medical supplies were exposed to disruptions. This was partly due to decisions by government to restrict exports and partly caused by other problems such as interruptions to movement of air cargo.
- 4.78 The nationalistic measures by governments across many parts of the world to protect local supplies of PPE during the pandemic were discussed in detail in Chapter Two of this report.
- 4.79 The Royal Australasian College of Surgeons expressed its concerns about the surety of the international supply of medical equipment:

⁶³ Dr Jeffrey Wilson, *Critical Minerals for the 21st Century Indo-Pacific*, Perth USAsia Centre, May 2019, p. 22.

⁶⁴ Government of South Australia, *Submission 66*, p. 10.

⁶⁵ Quickstep Holdings, *Submission 25*, p. 6.

Problems associated with international PPE and ventilator supply chains have shown high producing countries like China cannot be relied upon due to the pandemic, the consequences of social isolation, and the shutdown of medical specific manufacturing industries overseas. Contingency plans in Australia need to be realised.⁶⁶

4.80 Evidence to the Committee from the IIER told of the state of the global medicines market and its implications for Australia:

Australia imports over 90% of medicines and is at the end of a very long global supply chain making the nation vulnerable to supply chain disruptions. The Therapeutic Goods Administration (TGA), in 2019 discussion paper, noted that Australia is particularly vulnerable to medicine shortages arising from factors outside our control. They stated that these factors could include manufacturing problems, difficulties in procurement, political instability, pandemics, another global economic crisis and a range of natural disasters.⁶⁷

Fuel supplies

4.81 Oil for transport, industrial production and defence are highly sensitive because of their critical role in the global economy. Attempts to obtain, protect and dominate sources of fuel have been a constant of global politics since the beginning of the 20th century and have been a root cause of successive wars and overthrow of governments. The efforts by of the Organization of Petroleum Exporting Countries (OPEC), the oil-producers cartel, to control international supplies and to use them for diplomatic purposes during the 1970s and onwards is a well-known story.

4.82 The volatility of the international oil market was explored in a report for the NRMA by John Blackburn, which explained:

...there is a clear relationship between major global events and pump prices.
 ... The history of petrol price movements in Australia since the 1970s shows that crude oil price spikes are translated into higher prices at the pump within 7 to 10 working days. The price rises are passed on through the entire transport logistics chain, resulting in higher prices for all goods and services.
 ... Fuel vulnerability in the current global environment could be easily heightened by a similar chain of events.⁶⁸

⁶⁶ Royal Australasian College of Surgeons, *Submission 86*, p. 4.

⁶⁷ Institute for Integrated Economics, *Submission 13*, p. 8.

⁶⁸ Mr John Blackburn, *Australia's liquid fuel security: A report for NRMA motoring and services*, 2013, p. 12.

Australia's exposure to risk

- 4.83 Australia has varying degrees of exposure to supply risk from global markets. A production process in Australia can be located in a variety of places along long and complex domestic and global value chains in ways that are not always obvious to producers, consumers and governments. All of these elements should be part of the methodology for analysis employed by a national resilience framework.

Dependence on single supply sources

- 4.84 The pandemic has thrown a spotlight on the fact that many Australian industries have developed a growing dependence on a single source of supply. Mr David Williamson, Deputy Secretary of DISER, told the Committee of concerns expressed by businesses:

I think the pandemic has highlighted areas where our supply chains can be subject to some strain and need careful and deliberate attention. I think in particular it's shown the importance of looking at vulnerabilities flowing from systems that focus on single sources and highlighted the opportunity, or the need indeed, for governments, businesses and communities to work together on those sorts of issues. Many businesses have told us that this has all forced them to look more closely at their full supply chain related to the supply risk.⁶⁹

- 4.85 The submission from the Perth USAsia Centre provided the Committee with rich detail about Australia's exposure to trade risks, noting:

Many of Australia's current economic relationships are 'deep but narrow' – large in gross size, but narrowly concentrated on a small range of countries and/or industrial sectors. When an external shock hits a trade or investment relationship that lacks diversity, the effects of that shock on Australia's economy are magnified.⁷⁰

- 4.86 In a similar vein, the Griffith Asia Institute submission used the example of medical supplies to emphasise the weaknesses in Australia's supply chains stemming from over-reliance on a single supplier:

⁶⁹ Mr David Williamson, Deputy Secretary, Department of Industry, Science, Energy and Resources, *Committee Hansard*, 1 September 2020, p. 2.

⁷⁰ Perth USAsia Centre, *Submission 29*, p. 3.

For Australia and the rest of the world, the pandemic has highlighted the need to diversify its supply chain of personal protective equipment (PPE) and basic medical supplies from major suppliers, particularly China.⁷¹

- 4.87 In the case of agriculture, the Institute for International Trade cited what it called a ‘lack of robustness’⁷² in supply chains for farming inputs. The Institute told the Committee:

This example highlights a classic case of a single supply chain point of failure in an otherwise secure production network. ... Concentration of agrochemical suppliers in China is a significant risk to Australian food supply robustness.⁷³

Single components in a supply chain

- 4.88 Global supply chain vulnerabilities can relate to just one or two key components of a production process in Australia. The Maritime Union of Australia (MUA) cited the example of off-shoring of specialised functions and the associated supply problems revealed during the pandemic:

The Darwin port leased to the Chinese company is in the news, but we’re also seeing discussion of offshoring of port access control and some port functions because it’s cheaper to put the remote control functions in the Philippines. So we’re seeing economic decisions without understanding the security and resilience areas. We’ve seen during the pandemic Telstra call centres impacted when the Indian and Philippines governments closed businesses overnight. We know of banks whose call centres have been impacted.⁷⁴

Export industries dependent on imports

- 4.89 Supply chains for Australia’s import and exports are not distinct from each other but are intertwined. The Export Council of Australia, a peak body for small and medium exporters (SMEs), informed the Committee that ‘a core number of SME exporters also import a key number of components from overseas, hence supply chain issues impacted both their exports and imports’.⁷⁵ The Council mentioned that, during the pandemic, its members have been affected by ‘problems with sourcing, challenges managing the

⁷¹ Griffith Asia Institute, *Submission 80*, p. 17.

⁷² Institute for International Trade, *Submission 20*, p. 6.

⁷³ Institute for International Trade, *Submission 20*, p. 6.

⁷⁴ Maritime Union of Australia, *Submission 84.1*, p.11.

⁷⁵ Export Council of Australia, *Submission 35*, p. 6.

just-in-time system, cancellation of contracts, constant delays, blank sailings to name some of the issues that SME exporters faced'.⁷⁶

- 4.90 Like all trading countries, Australia can be exposed to potential supply disruption where it produces one early input into a process but imports the finished product. The Australian Manufacturing Workers' Union (AMWU) noted that 'many of the complex goods that we do produce here are heavily reliant on imported components'.⁷⁷ One example is in the production of medical supplies, as Mr Blackburn mentioned to the Committee:

In the work we've been doing, we came across something fairly astounding: we produce a third of the world's supply of four opiates. These are pretty important. What happens is that we produce the active pharmaceutical ingredient and ship it overseas for final formulation and packaging, and it is sent back to us in, for example, morphine ampoules that are used for critical medical needs. However, if those ampoules are in short supply, or the supply chain to get it back is not there, we've got something we produce that we can't use.⁷⁸

- 4.91 The similar example of lithium was cited by the Critical Minerals Consortium:

In the case of lithium, Australia is a significant global supplier, and it imports batteries containing lithium. In this case, batteries (containing lithium) may be critical raw materials to Australia, but not lithium.⁷⁹

Dependence on long opaque supply chains

- 4.92 A national resilience framework also needs to consider complex supply chains where suppliers to Australia obtain inputs from third or fourth country sources. In this regard, the pharmaceuticals company IDT Australia made the point that Australia 'sits at the end of a very long and often opaque supply chain' and that the company's sources of supply had moved over time and involved extended chains:

Over the course of IDT's history, the Company has witnessed firsthand the movement of the manufacture of active pharmaceutical ingredients, closely followed by finished drug products, from countries such as Australia and the

⁷⁶ Export Council of Australia, *Submission 35*, p. 6.

⁷⁷ Australian Manufacturing Workers' Union, *Submission 76*, p. 2.

⁷⁸ Mr John Blackburn, Institute for Integrated Economic Research, *Committee Hansard*, 2 July 2020, p. 15.

⁷⁹ Critical Minerals Consortium, *Submission 26*, p. 8.

United States of America (U.S.), to India and China. In the U.S. over 90% of its medicines are generic products which are now imported from India and China, with India importing in excess of 80% of its APIs (to be manufactured into those generic drug products) from China.⁸⁰

Medicines Australia, the peak body for medicine researchers and manufacturers, made a similar point:

...while China might make the majority of the world's active pharmaceutical ingredients (APIs) that go into making many medicines, it is still heavily reliant on other countries for the importation of the finished products.⁸¹

Markets subject to protectionism

- 4.93 Australia's openness to world trade and integration into global supply chains has underscored associated risks to our industries when foreign governments resort to protectionist measures. Dr Peter McCawley from the Australian National University contended that:

A mood of protectionism stalks the world. The current environment for working with our Asian neighbours is suddenly more difficult than at any other time since World War Two.⁸²

- 4.94 The Cognoscenti Group noted in its submission:

The American political class is becoming increasingly disillusioned with the World Trade Organization. Many believe that it has been a disaster for US interests. COVID-19's exposure of the vulnerability of global supply chains has fed into American frustration with hyperglobalisation, China's perceived 'economic imperialism' and a broken world trading system fuelling demands for a withdrawal from the WTO. ... If this were to occur, trade dependent countries like Australia would be exposed.⁸³

Committee comment

- 4.95 The Committee considers that Australia currently lacks a clear definition of the critical national systems that underpin the capacity to protect the country's security and prosperity.

⁸⁰ IDT Australia, *Submission 4*, p. 1.

⁸¹ Medicines Australia, *Submission 22*, p. 6.

⁸² Dr Peter McCawley, Australian National University, *Submission 99*, p. 4.

⁸³ Cognoscenti Group, *Submission 6*, pp. 3-4.

- 4.96 Analytical work has been undertaken to give rigour to basic concepts such as criticality and how to apply them to the analysis of domestic supply chains and international relationships. Analysis has focused on critical minerals, critical infrastructure, manufacturing strategy, disaster risk management and defence sovereign capability.
- 4.97 The Committee has observed, however, that this analytical work has the important limitation of being confined to specific sectors. There is a need to broaden the focus of analysis to the economy as a whole and on a whole-of-government basis to develop a national resilience framework.
- 4.98 A national resilience framework would provide a repeatable methodology which could be applied to any element of Australia's critical national systems to assess which areas are exposed to risks of supply chain disruption and where the potential damage from such risks is high.

Recommendation 1

- 4.99 The Committee recommends that within 12 months the Australian Government define which critical national systems are essential to Australia's ability to function as a secure, prosperous, first world nation.**

Recommendation 2

- 4.100 The Committee recommends that the Australian Government develop a national resilience framework to assess which elements of Australia's critical national systems are vulnerable to high-consequence supply chain disruptions.**

5. Implications for Australia's foreign affairs, defence and trade policies

- 5.1 This chapter considers the implications of the COVID-19 pandemic for Australia's foreign affairs, defence and trade policies.
- 5.2 The chapter discusses the lessons of the COVID-19 pandemic for Australia's policy-makers and ways in which the Australian Government can respond to new realities about the global rules-based order revealed by the pandemic.

Lessons of the pandemic

- 5.3 The COVID-19 pandemic produced signs of a break-down in trust of the global rules-based order leading to frictions in bilateral trading relationships and rising scepticism and criticism about international institutions.
- 5.4 As discussed in earlier chapters of this report, international trade and the respect for international norms and agreements were disrupted by unilateral actions by a number of states. Many states arbitrarily blocked legitimate exports in response to domestic pressures, and evidence was put to the Committee (Chapter 2) that some nations took unilateral geostrategic actions against international norms and law under the cover of the pandemic. One example cited was Beijing breaching the terms of the Sino-British Joint Declaration regarding Hong Kong, lodged under the authority of the UN in 1984. There is also evidence to suggest that some nations are engaged in a sustained process to influence and change the nature of multilateral bodies including standards setting agencies to suit their unilateral approach to international relations and are challenging previously 'universal' values

such as human rights. The Committee heard evidence (Chapter 2) of the growing concern about a bifurcation of the internet as authoritarian states push for standards that will allow greater censorship of information.

- 5.5 The effectiveness of international agencies was also brought into question. The WHO became a target for criticism about its handling of the COVID-19 outbreak, leading to the US government terminating its funding to the organisation. The climate of censure regarding multilateral institutions flowed through to existing criticism of the WTO and the need for reform if it is to be an effective framework for the facilitation of international trade into the future.
- 5.6 In Australia, as in many other countries, there has been an assumption that bilateral and multilateral trade agreements, operating within a framework of rules and institutions, could be relied upon to deliver value for money in a timely manner. The common view has been that just-in-time supply chains and single-source supply arrangements were largely protected by the support of foreign governments for these agreements and the international norms that underpin them.
- 5.7 These assumptions have been challenged by the pandemic and the subsequent behaviour of state actors. Even for sectors not directly affected by the pandemic, 2020 has revealed structural weaknesses in the supply chains that support critical national systems.
- 5.8 Evidence to the Committee demonstrated a range of possible scenarios which threaten Australia's ability to function as a secure, prosperous first-world nation due to supply chain failure. These include cyber-attack, grey-zone or coercive actions by a state actor, regional conflict, economic crisis, natural disaster or future pandemics.
- 5.9 The Australian Manufacturing Workers' Union (AMWU) noted that:
- COVID-19 has been somewhat disruptive of defence supply chains ... as it has across the entire manufacturing industry. Changes in geopolitics threaten to increase such disruption, either because supply lines may be cut in times of crisis (as e.g. during or in the lead up to a regional or global conflict) and/or supplies from particular counties or regions become unavailable (due to any number of foreseeable reasons – internal or regional crises, natural disasters, domestic political decisions, trade wars, etc.¹
- 5.10 In relation to defence capability, Northrop Grumman told the Committee:

¹ Australian Manufacturing Workers' Union, *Submission 76*, p. 5.

Securing a degree of sovereign capability and supply chain resilience is particularly critical in the defence industry, where global disrupters like natural disasters, pandemics, cyber-attacks and conflict can significantly impact our ability to rely on our global partners and their supporting industry.²

Committee Comment

- 5.11 The Committee recognises that the COVID-19 pandemic has challenged the viability of assumptions about global rules and institutions, including bilateral and multilateral trade arrangements, and the capacity of the global, just-in-time market to maintain assured supply chains.
- 5.12 The lessons from COVID-19 are not principally about the impact of the virus itself. The lessons are broader and relate to concerns about the vulnerability of critical national systems to external risk factors. The pandemic gave rise to previously unexpected behaviour amongst some state actors that, if replicated in a more serious situation, could have grave implications for Australia.
- 5.13 If the spread of a virus can so rapidly and comprehensively disrupt the status quo, serious attention must also be given to dealing with the effects of possible scenarios where powerful states embark on conscious efforts to inflict loss on other states through interference in vulnerable, often opaque supply chains that support critical nation systems.
- 5.14 Australia must conduct a failure mode analysis of its critical systems and take positive steps to decrease the probability of failure and to minimise the consequences of disruption. Reducing the structural vulnerabilities will also require Australia to work cooperatively with allies and like-minded countries to develop mutually-supportive agreements within a framework of robust multilateralism. Specific measures are discussed in the remainder of this chapter.

How can the Australian Government respond?

- 5.15 The following sections examine a range of ways in which the Australian Government can respond to new realities about the nature of the global rules-based order revealed by the COVID-19 pandemic.
- 5.16 The Committee considered priority measures Australia can take to address concerns regarding the need for:

² Northrup Grumman, *Submission 23*, p. 12.

- international support for the global rules-based order;
- ensuring multilateral institutions are fit for purpose;
- compliance with international obligations; and
- substantive, collaborative action to increase supply chain resilience.

Commitment to the global rules-based order

5.17 Australia's prosperity has been greatly enhanced by a liberal rules-based order that has largely underpinned a secure environment and enabled an effective global trading system and increased movement of goods, services, capital and people over recent decades. And, as highlighted by the submission from DFAT:

...Australia's interests are best served by a multilateral system that promotes collective responses to problems that cannot be solved by countries acting alone.

5.18 It is therefore not in Australia's interest to retreat from global engagement or to submit to what the development economist Dr Peter McCawley called the 'siren song of protectionism'.³ Dr McCawley noted that 'the economic walls that have been erected since coronavirus emerged as a threat earlier this year are remarkable', but that 'if Australia's economic policies become inward-looking, and if we fall into the trap of protectionism, we will pay the price for decades to come'.⁴

5.19 Similarly, Mr John Blackburn from the Institute for Integrated Economic Research (IIER) argued although there is a 'need to redesign critical components of our supply chains'⁵, this does not mean reverting to old models and approaches or reversing progress towards free trade:

We're not talking about socialism or nationalisation of sectors of the economy. When commentators say that we're either completely open or completely closed, that's pretty facile.⁶

5.20 The 2020 Strategic Update confirmed that confidence in the rules-based global order is being undermined, that major power competition has

³ Dr Peter McCawley, *Submission 99*, p. 4.

⁴ Dr Peter McCawley, *Submission 99*, p. 4.

⁵ Mr John Blackburn, Institute for Integrated Economic Research (IIER), *Committee Hansard*, Canberra, 2 July 2020, p. 13.

⁶ Mr John Blackburn, Institute for Integrated Economic Research (IIER), *Committee Hansard*, Canberra, 2 July 2020, p. 13.

intensified and the prospect of high-intensity conflict in the Indo-Pacific, while still unlikely, is less remote than in the past.

Committee Comment

- 5.21 The Committee affirms that view that Australia's national interests are best served by a commitment to a multilateral, rules-based global system where problems are resolved collectively and through multilateral settlement of disputes.
- 5.22 The emergence of unilateralist trends internationally, such as subversion of international agreements, moves towards protectionism and the imposition of trade restrictions by some countries during the pandemic, present serious challenges to confidence in the future of multilateral approaches. In the event of a future emergency such as a regional confrontation, there is a real possibility that states will resort to even more aggressive unilateral actions. Such developments would seriously disadvantage a middle power like Australia and harm the welfare of all people in the Indo-Pacific region.

Recommendation 3

- 5.23 The Committee recommends that the Australian Government develop specific shared objectives with allies and regional partners to increase global support for the rules-based order that underpins the global system of security, international relations and trade.**

Multilateral institutions: fit for purpose and internationally supported

- 5.24 Multilateral institutions have come under considerable pressure as a result of the pandemic, a trend that was already evident in preceding years. For example, there has been discussion about the performance of the World Health Organization (WHO) during the pandemic, while the oversight of trade standards by the World Trade Organization (WTO) has long been an area of contention for a number of nations.
- 5.25 Evidence to the Committee emphasised the importance of a rules-based order for a middle power such as Australia, including the role of the UN Security Council (UNSC), standards setting bodies and the WTO as mechanism to oversee trade rules and settle disputes. The submission by the Institute for International Trade (IIT) said Australia should work in cooperation with similar countries to support the WTO:

Although the future of the WTO as a system of existing rules and as a place to negotiate new rules is far from certain, it remains the only real place for a middle power like Australia to work with other middle powers in order to achieve outcomes that both strengthen a rules-based order and constrain big powers from their worst unilateralist urges. Australia has a strong interest in seeing the WTO restored to its former central role, as well as in the forging of other strong rule frameworks such as the Comprehensive and Progressive Trans-Pacific Partnership (CPTPP) and the Regional Comprehensive Economic Partnership (RCEP).

Australia's political leadership and its diplomats need to be at the forefront of visibly rejecting any acts, omissions or statements by any major economy that weaken the centrality and authority of the WTO and the rule of law in international economic relations. Alliance-building with like-minded middle powers is essential and will be increasingly central to Australia's multilateral diplomacy. Moving in alliances rather than standing alone will minimise the chances that Australia is seen by the big trading powers as picking sides against it and is rather making principle stands in support of deepening the rules-based order.⁷

- 5.26 This view was echoed by the Perth USAsia Centre which argued the WTO's Dispute Settlement Mechanism is 'a key instrument by which Australia protects its trade interests in the global trading system'⁸ and that:

As a medium-sized and open economy, Australia depends on a rules-based global trading system to safeguard its external relationships. With protectionism rising around the world, and both the US and China deploying coercive trade diplomacy, the need to re-invest in a rules-based trading system is higher than ever.⁹

- 5.27 Regarding the UN Convention on the Law of the Sea (UNCLOS), DFAT presented both the Australian Government's commitment to the convention as an instrument of international law, and the Government's concern about events in the South China Sea:

Australia is a prominent advocate of adherence to international law to support peace, trade and our common prosperity. We have a substantial interest in stability in the South China Sea – a crucial international waterway – and the norms and laws that govern its use, in particular the UN Convention on the Law of the Sea (UNCLOS). The Government joined several other nations in

⁷ Institute for International Trade (IIT), *Submission 20*, p. 10.

⁸ Perth USAsia Centre, *Submission 29*, p. 19.

⁹ Perth USAsia Centre, *Submission 29*, p. 25.

publicly expressing concern about recent developments during the COVID-19 crisis, including reported efforts to disrupt other countries' resource development activities, the declaration of new 'administrative districts' over disputed features, and the sinking of a Vietnamese fishing boat, reportedly in a collision with a Chinese coast guard vessel.¹⁰

- 5.28 A number of other submitters also made the case that Australia, in concert with like-minded countries, should build on efforts, firstly, to strengthen the WTO and other multilateral agencies and, secondly, to bring about necessary reforms in these bodies. For instance, the Export Council took the view that:

The post-pandemic recovery period provides a unique opportunity for global cooperation to rebuild the international order, including in the field of international trade. We need Australian leadership in rebuilding the global trading system and in restoring faith in the WTO and the international rules-based order that has benefited our country for nearly eight decades.¹¹

- 5.29 The organisation representing Australia's grain farmers, Grain Growers, also said:

The Australian Government should lead efforts in the WTO or other appropriate forums (eg. G20) to secure an agreement that provides certainty for producers and exporters regarding how international markets will operate as COVID continues and for future pandemics.¹²

- 5.30 The Australian Government has expressed its commitment to the strengthening and reform of multilateral agencies. In its submission, DFAT told the Committee:

COVID-19 has provided another catalyst for reform. Modernising the WTO rulebook, strengthening its monitoring of trade measures and enhancing its dispute settlement system will help lift business confidence and expand commercial opportunities.¹³

- 5.31 The DFAT submission added:

We are advocating for continued adherence to the principles of free and open trade, as part of the global rules-based order. This entails transparency and

¹⁰ Department of Foreign Affairs and Trade (DFAT), *Submission 58*, p. 20.

¹¹ Export Council of Australia, *Submission 35*, p. 13.

¹² Grain Growers, *Submission 92*, p. 7.

¹³ Department of Foreign Affairs and Trade (DFAT), *Submission 58*, p. 19.

predictability, non-discrimination, and open, stable and competitive markets. This requires continued work with like-mindeds through mechanisms such as the WTO, APEC, and G20 to build consensus and deliver strong, consistent messages in favour of the rules-based order.¹⁴

- 5.32 The Australian Government commissioned an audit of Australia's engagement with the UN and other international organisations in October 2019. DFAT explained that the audit:

...affirmed that UN agencies, especially international standard-setting bodies, are vital to Australia's interests, values and prosperity. When working effectively, multilateral institutions underpin global rules and norms, ensure a level playing field and support international cooperation. The audit also found that multilateral institutions are under unprecedented strain, including from shifts in global power and emerging challenges. On occasion, these institutions' performance has been mixed. Reform is needed to ensure they remain relevant and continue to support our values and strategic objectives.¹⁵

Committee comment

- 5.33 The Committee supports the view that many multilateral agencies such as the UNSC, standards setting bodies, WHO and WTO are a crucial part of the architecture of the rules-based order and critical to the health, prosperity and security of the global community.
- 5.34 The reputation of multilateral organisations has suffered in recent years, with their operational effectiveness and efficiency coming under criticism and the very rationale for their existence coming into question. This trend has been exacerbated by the impact of the COVID-19 pandemic. The global health crisis exposed the WHO to especially sharp criticism.
- 5.35 The Committee considers that Australia should have a clear-headed view of those multilateral organisations that are of the greatest significance for Australia's interests, and assess the weaknesses and reform needed by these institutions.
- 5.36 The Committee commends the Australian Government for undertaking the audit of Australia's engagement with the UN and other international organisations. The Committee supports the audit's conclusion that there is scope for reform amongst multilateral agencies in order to improve the

¹⁴ Department of Foreign Affairs and Trade (DFAT), *Submission 58*, p. 32.

¹⁵ Department of Foreign Affairs and Trade (DFAT), *Submission 58*, p. 17.

effectiveness of their operations and ensure adherence to the universal values that have underpinned the global order since World War Two.

- 5.37 Australia should play a leading role, in coalition with like-minded countries, to support constructive change and improvement in multilateral bodies that is consistent with a liberal, democratic world order.

Recommendation 4

- 5.38 **The Committee recommends that the Australian Government use the recent DFAT audit of Australia's engagement with UN and other international organisations to identify those that are a priority for Australia's national interest.**

Recommendation 5

- 5.39 **The Committee recommends that the Australian Government develop a detailed agenda of the reforms necessary in priority international organisations and an implementation plan to lead the case for change, working cooperatively with like-minded countries to restore confidence and investment in priority multilateral institutions.**

International obligations

- 5.40 Chapter Three discussed the 'crew change crisis' caused by restrictions on the movement of seafarers on and off ships and its impact on their personal well-being and human rights.
- 5.41 The Committee received evidence that this issue was manifesting itself in Australia because of a lack of uniformity in the rules being applied by different Australian governments, thus putting Australia's compliance with its international obligations at risk.
- 5.42 Ports Australia's submission reported that:
- ...in response to COVID-19, the states and territories placed varied restrictions on shore leave and crew changes. This included some jurisdictions prohibiting all shore leave and crew changes, whilst others have allowed shore leave and crew changes under certain circumstances.¹⁶
- 5.43 The Australian Institute of Marine and Power Engineers & Australian Maritime Officers Union (AIMPE/AMOU) submission noted that even

¹⁶ Ports Australia, *Submission 75*, p. 3.

though maritime personnel were recognised as critical personnel by National Cabinet, border restrictions by state and territory governments caused difficulty for workers in the maritime industry:

WA insisted on a hard border closure from early April and required 14-day quarantine for those who were permitted to enter the State. In addition, other States required quarantining for international seafarers flying into Australia to join their vessels. Subsequently, the second wave of contagion in Victoria has caused more restrictions to be imposed. International flight availability has been drastically reduced to stop the spread of the virus which has compounded the problems for international seafarers.¹⁷

5.44 The Maritime Union of Australia (MUA) argued that the situation violated seafarers' 'rights as provided in International Conventions of the International Labour Organization (ILO) and International Maritime Organisation'.¹⁸

5.45 The Ports Australia submission indicated, however, that the actions of the Queensland Government showed it was possible to deal with the situation in a manner that protected both the Australian public and the rights of the seafarers involved, thus upholding Australia's international obligations:

...in Queensland crew changes are allowed to occur and for this to occur in a safe manner, Maritime Safety Queensland with Queensland Health developed and implemented a strict step by step protocol on how to conduct crew changeovers in the State and a number of crew changeovers have now successfully occurred in Queensland.¹⁹

5.46 Ports Australia elaborated on this point during a public hearing:

I respect the states around the country taking a policy protocol that protects their people, but it is making it incredibly difficult to have consistency in relation to crews. The Queensland model is quite commendable, in fact. The crew flying into the country—provided they can get a spot on the plane coming in, because the caps make it very difficult—arrive in Brisbane and they're immediately picked up in a sanitised bus and are taken from the airport of Brisbane to the port, and from there they jump onto the ship and

¹⁷ Australian Institute of Marine and Power Engineers & Australian Maritime Officers Union, *Submission 88*, p. 4.

¹⁸ Maritime Union of Australia (MUA), *Submission 84*, p. 6.

¹⁹ Ports Australia, *Submission 75*, p. 3.

leave. ... There's no model anywhere else in the country like that. We have a real difference in models right around the country. It makes it very difficult.²⁰

Committee comment

- 5.47 The Committee notes with concern that COVID-19 related measures by some states and territories are preventing the timely change-over of international maritime crews, forcing seafarers to spend unreasonable lengths of time working on board (up to 17 months without a break in some instances). This puts mariners and consequently the safety of Australia's ports at risk due to fatigue and poor mental health. It also leaves the Commonwealth Government in the position of not complying with international obligations to seafarers under ILO and IMO conventions.
- 5.48 The arrangements put in place by the Queensland Government demonstrate that the issue can be managed in a way that protects the Australian community, the workplace conditions of seafarers and which complies with international conventions. This approach can form the basis of a national standard.
- 5.49 The Committee takes the view that the National Cabinet is an appropriate mechanism through which the states and territories can develop an agreed uniform approach to managing crew changes in a way that is both COVID-safe and compliant with Australia's obligations under ILO conventions. This would then provide a mechanism through which states and territories can comply with Australia's international obligations in the future.

Recommendation 6

- 5.50 The Committee recommends that the Prime Minister lead deliberations in the National Cabinet to produce an agreed national framework to ensure that COVID-19 related measures imposed by states and territories do not prevent the timely change-over of international maritime crews, a situation which has led to unsafe and unreasonable workplace conditions which breach Australia's ILO obligations.**

Recommendation 7

- 5.51 The Committee recommends that National Cabinet develop the processes agreed as an outcome of Recommendation 6 such that Australia has an**

²⁰ Hon. Michael Gallacher, Chief Executive Officer, Ports Australia, *Committee Hansard*, Canberra, 30 July 2020, p. 8.

agreed framework to ensure all states and territories remain compliant with national obligations in the event of future crises that require responses falling under the authority of sub-national governments.

Support supply chain resilience initiatives

- 5.52 Chapter Four outlined the case for the development of a national resilience framework to analyse the risks to the supply chains in particular sectors of the Australian economy. The framework would provide a methodology to define critical national systems and to categorise sectors which are exposed to risk.
- 5.53 Chapter Four also detailed the evidence in support of the view that supply chain risks for critical national systems can be placed into three main categories, as described by the IIER:
- 1 where market solutions are sufficient and ‘open global supply chains should be maintained and encouraged’²¹,
 - 2 where ‘supply chains which must be trusted, i.e. transparent and verifiable’²² and
 - 3 where ‘sovereign capabilities, knowledge and skills’ are required in times of crisis to guarantee domestic supply.²³
- 5.54 In the case of the first category where the goods and services concerned are not essential – fashion shoes, for example – international markets can be relied upon to meet demand at the lowest price for consumers and there is no national consequence of note if retailers are exposed to supply disruption.
- 5.55 The following section discusses the latter two categories where measures need to be considered to ameliorate exposure to supply chain risk and ensure resilient capability. The discussion also highlights that there are opportunities for Australia to develop new areas of production and, in the process, to develop broader economic and strategic relationships with trusted partners internationally.

Trusted supply chains

²¹ Institute for Integrated Economic Research, *Submission 13*, p. 4.

²² Institute for Integrated Economic Research, *Submission 13*, p. 4.

²³ Institute for Integrated Economic Research, *Submission 13*, p. 4.

- 5.56 In the case of category two, where trusted supply chains are needed, examples include:
- High value, low volume sophisticated manufactured goods where Australia does not have the scale or business case to create and sustain a manufacturing capability; and
 - Essential components imported as an input to an item produced in Australia.

As well as production for domestic use, Chapter Four also outlined the areas where Australian exporters are dependent on the import of critical items in their supply chains.

- 5.57 For a supply chain to be trusted and transparent, it is essential that Australian producers have international suppliers operating within a framework where transparency and the rule of law is respected by the relevant government, as discussed in Chapter Four.
- 5.58 Importantly, evidence to the Committee was that Australia does not merely seek to be an importer from trusted foreign suppliers – it is itself a trusted supplier in overseas export markets. Australia has a reputation as a stable, reliable and high-quality supplier, as it has been proved in major long-standing markets such as Europe, Japan and South Korea.
- 5.59 There are prospects for further developing Australian capacity to become a trusted supplier to other export markets and to use expanded economic interchange with countries to enhance strategic relationships.
- 5.60 The Committee received evidence of prominent examples of such opportunities in the area of critical minerals. The Perth USAsia Centre made the point that:

Critical minerals – such as lithium, rare earths and cobalt – are a major new economic opportunity for Australia. These minerals are essential for the digital, clean energy, battery and defence sectors, but value chains currently face several security and sustainability challenges. Australia's strong geological endowment and trusted investment environment make it an ideal new supplier across many critical mineral subsectors. Its technological capabilities also offer opportunities for developing 'mid-stream' processing industries in the fast-growing battery sector. Japan and Korea are ideal partners for these efforts, given their position as major world producers of technology products containing critical minerals. Australia's longstanding and

trusted economic partnerships with Japan and Korea provide a political and institutional foundation to jointly develop these new industries.²⁴

- 5.61 In the case of the critical mineral titanium, the Committee was informed that major openings are available for Australia. Titanium is essential in high technology manufacturing, including the production of pigments, carbides, specialty engineering, medical devices and defence applications.²⁵ Australia has amongst the world's largest reserves of the mineral,²⁶ with one estimate calculating that Australia has 19 per cent of the world's commercially exploitable resources.²⁷
- 5.62 Apart from possessing such a large share of exploitable resources of titanium, 'Australia's value proposition as a critical minerals supplier extends well beyond its in-ground resources' because of its crucial advantages of world-class technical capacity, stable political environment, legal certainty and a reputation as a reliable supplier.²⁸ This is in contrast to other potential supplies of titanium, much of which are located in 'corrupt or fragile' states.²⁹
- 5.63 As one of a number of Australian companies seeking to develop this market, Amaero International, an additive manufacturing equipment producer, told the Committee that:

The current titanium alloy market is dominated by China and Russia. Strategically, this dominance gives these countries increasing leverage over the defence and aerospace industries around the world.

Already, Boeing has been forced to set up manufacturing facilities in Russia to guarantee its supply of titanium. Therefore, it is not inconceivable that countries such as Australia and the US could see their titanium supply – and their additive manufacturing capacity – compromised in times of conflict or diplomatic tension.

Defence companies, including Amaero clients in the US defence industry, reluctantly purchase from these non-allied sources because there is little

²⁴ Perth USAsia Centre, *Submission 29*, p. 24.

²⁵ Perth USAsia Centre, *Critical minerals for the 21st century Indo-Pacific*, Perth, May 2019, p. 9.

²⁶ Amaero International, *Submission 62*, p. 2.

²⁷ Perth USAsia Centre, *Critical minerals for the 21st century Indo-Pacific*, Perth, May 2019, p. 29.

²⁸ Perth USAsia Centre, *Critical minerals for the 21st century Indo-Pacific*, Perth, May 2019, p. 29.

²⁹ Perth USAsia Centre, *Critical minerals for the 21st century Indo-Pacific*, Perth, May 2019, p. 19

production of titanium alloy feedstocks within the allied or 'Five Eyes' nations for many large format applications.³⁰

5.64 In these circumstances, Amaero International concluded that Australia 'has an opportunity to make itself the supply base for titanium alloy and titanium alloy powder'.³¹ The company recommended that Australia move to 'establish and secure a sovereign facility to process titanium alloy powder and supply the local additive manufacturing sector'.³²

5.65 Beyond its immediate economic benefit, the implications of such an initiative would extend to the strengthening of Australia's international security arrangements. Amaero International emphasised the role it could play in the 'Five Eyes' intelligence-sharing agreement with the US, UK, Canada and New Zealand:

With this capacity, Australia could reliably supply not only local defence suppliers but also our defence partners within the Five Eyes network. ... Amaero has identified key partners in the local supply chain and locally developed world-leading technology to enable the production of alloy from Australian titanium ore and the subsequent transformation into rod, wire and powder to facilitate a 'Five Eyes' supply of Ti alloy. ... the US defence industry would be highly attracted to the prospect of securing a guaranteed supply of titanium alloy powder to satisfy its burgeoning additive manufacturing capacity.³³

5.66 Such a proposal would be in accord with the partnership agreement between Australia and the US on developing both nations' critical mineral assets. The partnership between Geoscience Australia and the US Geological Survey, signed in November 2019:

...paves the way for both nations to work more closely on understanding each country's geological resource potential for critical minerals, including rare earth elements, and developing a pathway to supply arrangements.³⁴

³⁰ Amaero International, *Submission 62*, pp. 1-2.

³¹ Amaero International, *Submission 62*, p. 2.

³² Amaero International, *Submission 62*, p. 2.

³³ Amaero International, *Submission 62*, p. 2.

³⁴ 'Australia, US partnership on critical minerals formalised', Department of Industry, Science, Energy and Resources, <https://www.minister.industry.gov.au/ministers/canavan/media-releases/australia-us-partnership-critical-minerals-formalised>, viewed 6 November 2020.

5.67 The Department of Industry, Science, Energy and Resources (DISER) explained:

The knowledge gained from this collaboration will:

- Improve both countries' understanding of their geological resource potential for critical minerals, including rare earth elements, and contribute to a robust evidence base for global supply potential;
- Better identify and close critical minerals knowledge gaps in Australia's critical minerals understanding;
- Help Australia understand future trends and match resource potential to international demand; and
- Fast track innovation in the critical minerals sector, including development of online decision support tools with full data and decision process transparency.³⁵

Committee Comment

5.68 The Committee notes that COVID-19 has highlighted that elements of Australia's critical national systems are exposed to supply chain disruption.

5.69 The pandemic has shown that the assumptions made in recent decades regarding adherence by nations to global norms as it pertains to supply chain risk must now be placed under greater scrutiny. The unilateral nationalistic responses by states during health or security crises along with increasing coercive measures must be factored into the assessment of supply chain risks.

5.70 The Committee observes that the pandemic has seen a growing trend for states to use formal and informal restrictions on trade as an instrument of coercive diplomacy. Along with a number of other nations, Australia has experienced such political sanctioning by Beijing with some intensity during 2020 since Australia called for an international inquiry into the origins of the COVID-19 pandemic.

5.71 Vulnerability is especially acute where related supply chains for a critical national system are concentrated in whole or large part on companies which are exposed to extrajudicial and coercive actions by another nation state. There is a need for Australia to develop plans to move elements of critical national systems away from such sources of risk.

³⁵ 'Australia, US partnership on critical minerals formalised', Department of Industry, Science, Energy and Resources, <https://www.minister.industry.gov.au/ministers/canavan/media-releases/australia-us-partnership-critical-minerals-formalised>, viewed 6 November 2020.

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- 5.72 Australia as an open trade-exposed middle power, however, is not in a position to develop responses in isolation. We must identify like-minded countries with transparent systems of governance based on the rule of law with whom Australia can develop mutually supportive arrangements to establish and strengthen assured lines of supply.
- 5.73 Many vulnerabilities should be viewed as opportunities as much as problems. There are prospects for Australia to develop new economic relationships that would contribute to secure supply chains for Australia, while strengthening the country's role as a trusted global supplier of critical inputs.
- 5.74 Evidence to the committee highlighted that Government to Government agreements are beneficial to enabling commercial arrangements to be effective. Examples include the intense intervention by Australian diplomatic missions during the pandemic to effect the delivery of critical materials from other nations. These were essential inputs to manufacturing that had been legitimately contracted by Australian firms during the pandemic but were then subject to export bans by foreign governments.
- 5.75 The committee supports the view that early negotiation of agreements with like-minded countries characterised by transparency and the rule of law can provide for the mutual surety of supply for critical products. The Australia-US agreement on critical minerals provides an example of this approach.
- 5.76 There are countries where Australia has existing trade agreements which could provide a framework for such agreements, while in others it would be necessary to negotiate individual agreements for specific products or services.
- 5.77 A prerequisite for successful initiatives to develop international partnerships for Australia is improved knowledge of Australia's strengths in the potential supply of strategically important resources, elaborately transformed manufactures and services. This includes identifying the potential challenges that Australian companies face in developing productive capacity of specific products or services at a sufficient scale to be commercially viable in domestic and export markets.
- 5.78 The Committee is of the view that there is a strong case for Government support for some industry sectors involved in the supply of critical national systems. This could take the form of a process whereby Australian companies in a sector of strategic importance compete for targeted assistance to assist them to commercialise or scale a capability.

Recommendation 8

- 5.79 The Committee recommends that within 12 months the Australian Government identify those elements of Australia's critical national systems where supply chains are entirely or significantly dependent on companies which are likely to be subject to extrajudicial directions or coercive interference from a foreign government that place continuity of supply at risk of failure.

Recommendation 9

- 5.80 To prevent failure of critical national systems, the Committee recommends the Government, in consultation with industry, develop plans and a timeframe to move 'at risk' supply chains for critical national systems to sovereign Australian suppliers or where appropriate, to other trusted, transparent arrangements with companies in nations having a strong record of adherence to the rule of law.

Recommendation 10

- 5.81 The Committee recommends that the Australian Government initiate parallel Track-1 (Government to Government) dialogue to place an assurance framework around the establishment of commercial arrangements pertaining to supply chains for critical national systems. Where appropriate, this should include reciprocal assurances of supply by Australia to our partners' critical national systems.

Recommendation 11

- 5.82 The Committee recommends that within 6 months the Australian Government identify an initial tranche of Australia's key national strengths in the potential supply of resources, elaborately transformed manufactures and services in critical areas and assess any barriers to the scaling up and commercial sustainability of such industries that would prevent Australia becoming a trusted and transparent partner of choice for like-minded nations.

Recommendation 12

- 5.83 The Committee recommends that within 12 months the Australian Government conduct a cross portfolio review and where it supports Australia's strategic interests, develop and implement competitive

processes to provide targeted support for Australian industry sectors, enabling them to become trusted suppliers to overseas consumers of critical resources, elaborately transformed manufactures and services.

Sovereign capability

- 5.84 In relation to sovereign capability, the 2016 Defence Industry Policy Statement (DIPS) observed that:

There are some capabilities that are so important to Australian Defence missions that they must be developed or supported by Australian industry because overseas sources do not provide the required security or assurances we need. As such, it is critical that the industry base associated with these capabilities is maintained and supported by Defence as sovereign industrial capabilities.³⁶

- 5.85 A similar view was expressed by the South Australian Government:

The equipment required by the ADF must be capable against the contemporary threat, available when required, sustainable during a time of crisis and affordable over the equipment's lifetime. Sovereign industry capability is that which must exist in Australia to meet this intent, including design expertise, rights to technical data as well as production capability with the ability to increase capacity in times of a crisis.³⁷

- 5.86 In the case of critical medical supplies, Arrotex Pharmaceuticals observed the 'alarming shortages of vital medicines in Australia'³⁸ at the onset of the pandemic and said:

All of these key medicines are currently fully imported from off-shore manufacturers. As a wealthy first-world nation, we can do better. Australian patients and their families need us to ensure uninterrupted access in all circumstances. To reduce our over-reliance on China and India for our medicines; Australia needs to now build our own sovereign medicine development and manufacturing capability.³⁹

- 5.87 A similar argument was put to the Committee by pharmaceutical manufacturer IDT Australia:

³⁶ Department of Defence, *2016 Defence Industry Policy Statement*, Canberra, 2016, p. 23.

³⁷ Government of South Australia, *Submission 66*, p. 4.

³⁸ Arrotex Pharmaceuticals, *Submission 91*, p. 2.

³⁹ Arrotex Pharmaceuticals, *Submission 91*, pp. 2-3.

The recent disruption to pharmaceutical supply chains highlights a fundamental sovereign risk associated with the outsourcing of Australia's drug manufacturing to other countries. In the same way a country needs to be able to defend its borders and feed its people, IDT believes that access to medicine is of sovereign importance.⁴⁰

- 5.88 The CEO of IDT Australia added that Australia needs 'sovereign manufacturing capability in key medicines, not only the finished dosage forms but also the key starting materials and the active pharmaceutical ingredients from which those medicines are made.'⁴¹
- 5.89 Dr Andrew Dowse made the point that entire production processes do not necessarily need to be sovereign because 'there may be just small elements that need to be sovereign or some sort of oversight that needs to be sovereign'.⁴²
- 5.90 The Committee received evidence about methods by which the development of sovereign capability can be encouraged by governments. The method traditionally favoured by the Australian Government has been one-off grants (normally relatively small, with a range of conditions) to encourage innovation or to develop particular capability. These are normally effective for a specific period of time and are limited to particular products or processes.
- 5.91 Procurement contracts, on the other hand, provide cashflow and confidence for the business to make ongoing investments in research, staff and capacity. These measures are crucial for sovereign products to be globally competitive with respect to quality, effectiveness and cost – both acquisition and sustainment.
- 5.92 The Committee saw evidence that without a deliberate shift in policy, the crisis investments by the Australian Government during the pandemic are likely to be wasted capital as international supply chains resume 'business as usual' and Government departments return to their established supply arrangements, citing 'value for money'.
- 5.93 Australian industry gave evidence, however, that with scale and certainty, they can match imported products in many cases with respect to both price and quality. The Committee was given extensive evidence of the importance

⁴⁰ IDT Australia, *Submission 4*, p. 1.

⁴¹ Dr David Sparling, Chief Executive Officer, *Committee Hansard*, Canberra, 25 June 2020, p. 2.

⁴² Dr Andrew Dowse, Edith Cowan University, *Committee Hansard*, Canberra, 2 July 2020, p. 8.

of offtake agreements, providing an assured level of demand, as an enabler of developing and sustaining a competitive sovereign industry capability in priority areas.

- 5.94 With offtake agreements that protect the taxpayers' legitimate value for money interests, Australian industry sectors can supply part, or all, of the current market demand and can sustain a level of capability and capacity that can be up-scaled when demand spikes in circumstances such as an emergency. This was affirmed by Aspen Medical who said that support from an Australian government:

...would ensure that local capabilities are maintained during stable periods, with the ability to quickly scale up if needed in the future in response to another pandemic or other external factors. This policy would also support Australian businesses to be perceived as credible exporters in the international arena.⁴³

- 5.95 The Advanced Manufacturing Growth Centre explained how important offtake agreements can be in providing the necessary demand for long-term sustained capability that exists after the immediate needs of an emergency have passed:

Without that demand, there will be no ongoing supply. The fund spent on the crisis were for a crisis. ... But if we have something that will be viable to have in the future, the demand needs to be declared. The best thing for a country to have is a vibrant manufacturing capability, because ... We don't know whether the next crisis is the virus, a bacteria, a fire, a storm or a flood. The best thing is to have a manufacturing industry that is larger and to scale. That is better for any crisis there will be.⁴⁴

- 5.96 The Department of Health mentioned that, in order to ensure that Australia has 'ongoing domestic production of [medical] masks' in the post-pandemic environment, the Department had:

...entered into agreements with a number of local producers, including an offtake agreement for some years with one producer. Assuming that requirements for masks will be more like they have been in previous years, as

⁴³ Mr Bruce Armstrong, CEO Aspen Medical, *Committee Hansard*, Canberra, 23 July 2020, p. 2.

⁴⁴ Dr Jens Goennemann, Advanced Manufacturing Growth Centre (AMGC), *Committee Hansard*, Canberra, 9 July 2020, p. 3.

opposed to this year, most of that expected consumption and purchase will be covered by the local production of those products into the future.⁴⁵

- 5.97 The Committee heard from the Detmold Group – a paper and board product manufacturer – about agreements with the Government of South Australia and other Australian governments that have enabled the company to invest in capability for the manufacture of medical masks:

...we were asked by SA Health to start a mask project. ... We currently have two major contracts: one with the Commonwealth for 100 million masks, and one for SA Health for 45 million masks. We're also in discussions with Queensland, Tasmania, the ACT and Victoria. SA Health originally committed \$1.5 million of capital to the Detmold Group. The group has committed in excess of \$20 million to commercialise the facility. As of today, we have two products that have TGA approval, we've commissioned our own in-house testing facility and we've also been instrumental in setting up two testing facilities with the University of South Australia and Flinders University for independent testing. We have also worked very closely with CSIRO in various aspects.⁴⁶

- 5.98 The Committee also received instructive insight from an example of an Australian enterprise that is unable to be launched because of the absence of an offtake agreement. A deposit of rare earths in central west New South Wales has been left unexploited:

Because of the low prices for the rare earths on the world market, they have not actually built the mine. So, if there were an order tomorrow for rare earths from an Australian purchaser, they wouldn't be able to supply it. But my understanding is that if there was a guaranteed offtake agreement from an Australian purchaser then they would then be in a position to construct the mine, operate it and provide product. The problem has been that these guaranteed offtake arrangements have not been in place.⁴⁷

- 5.99 A final, pivotal aspect of resilience sovereign capability is the capacity to ensure compliance with Australia's regulatory standards. Evidence to the Committee was that in some circumstances, Australia has lost the capability to test and certify compliance with its own standards, whether products are

⁴⁵ Mr Travis Haslam, Assistant Secretary, Office of Health Protection and Response Division, Department of Health, *Committee Hansard*, Canberra, 13 August 2020, p. 4.

⁴⁶ Detmold Group, *Committee Hansard*, Canberra, 25 June 2020, p. 10.

⁴⁷ Mr Steven Macintosh, Australian Nuclear Science and Technology Organisation, *Committee Hansard*, 11 August 2020, p. 6.

locally made or imported. There is no point making something in Australia if the nation cannot ensure that products meet our requirements and specifications for quality and function.

- 5.100 Detmold Holdings gave the Committee an example from their experience during the pandemic where finding an Australian organisation able and accredited to certify a P2 respirator was problematic. Commonwealth and State Departments rightly required certification before they would purchase and use the product, but the process also raised concerns with evidence that some imported PPE did not actually meet the standard for the intended purpose:

I think one of the challenges we've got around product that's being imported is that our current system in Australia through the TGA is a self-certification process—there is no independent testing done on any products that are coming into Australia—and it relies solely on the importer making a declaration that the product is compliant against a particular standard. ...but there is no laboratory within Australia that is certified to test against those standards. We can do some testing and get some indicative results, but we actually don't have laboratories that are completely NATA approved or independently approved to provide certification of products.⁴⁸

- 5.101 In the area of cybersecurity, Sapien Cyber suggested that:

Government needs to give clear identification of the minimum cyber security standards and/or legislation that critical infrastructure operators must comply with. Additionally, Government needs to be clear as to which aspects of national infrastructure are most important to our society and economy, and what it will do if those systems are affected. Finally, there needs to be clear parameters under which fines/penalties, of sufficient level, are enforced to act as an incentive to comply.⁴⁹

Committee comment

- 5.102 The Committee considers that to support some critical national systems, Australia must develop and maintain the sovereign capability to design, manufacture and certify enabling components of the system. This may take the form of an industry sector providing all of Australia's requirements in a particular element of a critical national system, or the standing capability to provide an agreed level of supply that can be scaled up if demand increases

⁴⁸ Detmold Holdings, *Committee Hansard*, 25 June 2020, p. 11.

⁴⁹ Sapien Cyber, *Submission 45*, p. 10.

due to special circumstances such as a health or security emergency or natural disaster.

- 5.103 The Committee is struck by the non sequitur around Government procurement and the notion of value for money. Using PPE as an example, despite chasing marginal cost savings during 'normal' times, the structural weaknesses in the supply chain for surgical masks and P2 respirators led to large amounts of tax payer funds being outlaid to rapidly establish sovereign capability in the middle of the pandemic and the willingness to pay well above 'business as usual' prices for what product was still available in the global market. In net terms, the Australian taxpayer has almost certainly not had value for money and our health workforce was unnecessarily placed at risk for periods due to shortages of respirators that were correctly sized for the workforce.
- 5.104 This lack of capital productivity will continue if Commonwealth and state procurement of surgical masks and respirators reverts to international suppliers when circumstances return to a pre-pandemic normal. It is therefore important that the Australian Government adopt whole-of-government measures to assist the establishment or sustainment of critical sovereign capability. These measures largely deal with how the Commonwealth assesses value for money in procurement and will require changes to the Commonwealth Procurement Rules discussed in the remainder of this chapter.
- 5.105 The Committee considers that the maintenance of an independent capability to test and certify products for supply of critical national systems is an essential element of the protection of Australia's resilient capability.

Recommendation 13

- 5.106 **The Committee recommends that within 24 months the Australian Government ensure that where necessary, Australia regenerates and sustains the test and certification capability to provide assurance that Australian sourced supplies and elaborately transformed manufactures for critical national systems, meet the relevant Australian/New Zealand standards (or international equivalents where applicable). This same capability must be able to verify to a suitable level of confidence that imported enablers to critical national systems are fit for purpose.**

Commonwealth procurement

- 5.107 Paragraph 2.6 of the Commonwealth Procurement Rules (CPR) provides options for Government entities to choose not to comply with the rules for reasons such as the protection of essential security interests. In practice, the circumstances in which domestic suppliers can be favoured in Commonwealth purchases are quite limited, which restricts the ability to use procurement to generate and sustain sovereign capability – despite policies such as the 2016 Defence Industry Policy Statement specifically mandating that approach.
- 5.108 COVID-19 has highlighted the need for reform of the CPR and the Accountable Authority Instructions that flow from them and are used by Government entities to guide procurement officials.
- 5.109 Paragraph 4.5 of the CPRs states that ‘price is not the sole factor when assessing value for money’.⁵⁰ Paragraph 4.7 says:

In addition to the value for money considerations ... for procurements above \$4 million (or \$7.5 million for construction services) ... officials are required to consider the economic benefit of the procurement to the Australian economy.⁵¹

- 5.110 The submission from the Department of Finance informed the Committee that:

The Commonwealth Procurement Framework provides significant flexibility for Accountable Authorities to conduct procurement in a manner that meets their obligations under the Public Governance, Performance and Accountability Act 2013 (PGPA Act), delivers on their business objectives, and balances a broad range of policy objectives, including broader benefits to the Australian economy and environmental sustainability.

The Commonwealth Procurement Rules (CPRs) allow entities to consider issues including those relating to strategic alliances, human rights, quality, security of supply chains and regional security, including in those circumstances where an entity has a need to urgently acquire goods and services, for example due to unforeseen events such as those experienced due to the COVID-19 pandemic.⁵²

- 5.111 The Department of Finance explained that the CPRs ‘incorporate procurement commitment from Australia’s Free Trade Agreements’ which ‘provide access for Australian suppliers to the government procurement

⁵⁰ Department of Finance, *Commonwealth Procurement Rules 20 April 2019*, Canberra, p. 11.

⁵¹ Department of Finance, *Commonwealth Procurement Rules 20 April 2019*, Canberra, p. 12.

⁵² Department of Finance, *Submission 43*, p. 2.

markets of other countries, while also placing obligations on the Australian Government to open up access to its procurement market’.⁵³

5.112 The Department went on to emphasise that ‘these commitments limit the extent to which the Australian Government can preference local suppliers’.⁵⁴

5.113 Questions about the practical effect of the current CPRs in actually providing opportunities for the development of Australian industry capability have been the subject of attention for some time.

5.114 The issue was examined by the 2017 inquiry by the Joint Select Committee on Government Procurement. The Committee noted that value for money was the principal objective of the CPRs, but that the rules allowed purchasing authorities to also give consideration to special cases where opting for a domestic rather than a foreign supplier would bring ‘economic benefit to Australia’. But the inquiry found that, in practice, the guidelines for the implementation of the rules designed to support Australian capability ‘have the potential to undermine the intent’ of the CPRs by lack of clarity in implementation.⁵⁵ The Committee recommended a series of changes to existing Department of Finance guidelines, such as to ‘explicitly define what constitutes economic benefit’:⁵⁶

The Committee feels strongly that any guidelines introduced should define economic benefit as broadly as possible without contravening Australia’s international trade agreements. At a minimum, the Committee believes economic benefits should encompass: social benefits; regional, state and the national economic impact; potential tax revenue; employment and innovation opportunities; workforce training; and building Australian industry capability.⁵⁷

5.115 The practical effectiveness of the CPRs’ provisions to allow exceptions to purely value of money considerations was also questioned by the submission from the Australian Fair Trade and Investment Network (AFTINET), who contended:

⁵³ Department of Finance, *Submission 43*, p. 2.

⁵⁴ Department of Finance, *Submission 43*, p. 2.

⁵⁵ Joint Select Committee on Government Procurement, *Buying into our future: Review of amendments to the Commonwealth Procurement Rules*, June 2017, p. 137

⁵⁶ Joint Select Committee on Government Procurement, *Buying into our future: Review of amendments to the Commonwealth Procurement Rules*, June 2017, pp. iv-v.

⁵⁷ Joint Select Committee on Government Procurement, *Buying into our future: Review of amendments to the Commonwealth Procurement Rules*, June 2017, p. 132.

One of the barriers to this happening in practice is that these exceptions are not implemented by Commonwealth departments.⁵⁸

5.116 AFTINET argued that the government should:

...give greater weighting to the criteria of Economic Benefit to Australia in the Commonwealth Procurement Rules so that the benefits of local employment can be fully valued and used to improve opportunities for local firms, and that Commonwealth purchasing officers' training and procedures reflect this priority.⁵⁹

5.117 In the case of defence industry procurement, the conundrum is highlighted by the contradiction between the 2016 DIPS and the 2019 Policy for Industry Participation. The 2016 policy highlights that there are some capabilities that are so important to Australian Defence missions that they must be developed or supported by Australian industry and that the industry base associated with these capabilities is maintained and supported by Defence as sovereign industrial capabilities. The 2019 policy however, in attempting to comply with the CPR, implements this by describing the circumstances under which benefits to the Australian economy might result from a particular defence procurement but then specifies that:

Defence will not preference Australian industry at a local or national level. The focus is on maximising opportunity to compete for work.⁶⁰

5.118 Evidence to the Committee about the impacts of COVID has highlighted that essential security for the nation relies on more than just military systems. It has highlighted that for procurement officials to act differently, the CPR requires a specific recognition that Australia's essential security depends on a sovereign industry base to support elements of a range of critical national systems. The CPR must clearly articulate the link between long-term value for money and the role that procurement plays in generating and sustaining this sovereign industry base.

Committee comment

5.119 The Committee considers that procurement systems can be an effective mechanism to provide support for the resilience of Australia's critical national systems by ensuring the level of demand necessary to establish or

⁵⁸ Australian Fair Trade and Investment Network (AFTINET), *Submission 60*, p. 12.

⁵⁹ Australian Fair Trade and Investment Network (AFTINET), *Submission 60*, p. 12.

⁶⁰ Department of Defence, *Defence Policy for Industry Participation*, Canberra, 2019, p. 42.

sustain an Australian producer in areas where sovereign capability is required.

- 5.120 The requirements of individual Commonwealth agencies may be limited at times, but if whole-of-government procurement decisions are made, the Commonwealth can act as a major source of demand. Coordinated purchases for state and territory purposes can increase this still further. Using PPE as an example, the Commonwealth demand includes the Health Department (National Stockpile), Defence, DFAT (foreign aid) and others. State Health departments running major hospitals are major users of PPE. Aggregation of demand across Commonwealth departments and where agreed, state departments, would provide potential for offtake agreements that would sustain the sovereign industry base for PPE.
- 5.121 Evidence to the committee in the 2015 inquiry into defence procurement and exports highlighted that there are contracting models (as used by the UK for the Complex Weapons and surface shipbuilding programs) that protect the taxpayers interests by driving innovation, productivity, lower costs and higher quality.
- 5.122 The Commonwealth can also phase a procurement over a given contract period such that the timeframe for delivery can be optimised to meet operational requirements while maximising Australian industry's capacity to provide at a competitive price.
- 5.123 The Committee considers that the existing CPRs are inadequate as a mechanism to provide support for the resilience of Australia's critical national systems. Although the CPRs do contain provisions to allow purchasing authorities to consider the economic benefit of Australia from a particular purchase, the circumstances in which the provisions can apply are limited and thus the incentive to apply the provisions is weak. In practice, the rules do not link the concept of the long-term value of sovereign industry supporting critical national systems and have had little practical effect on procurement behaviour or on the creation of sovereign capability.
- 5.124 There is currently no provision in the CPRs for a purchasing authority to consider whether a particular purchase would contribute to the generation or sustainment of an Australian sovereign capability to supply a critical national system.

Recommendation 14

5.125 The Committee recommends that Australian Government support for Australian industry sectors supporting identified critical national systems move away from purely grant-based assistance to the intentional use of procurement to build and sustain sovereign capability.

Recommendation 15

5.126 The Committee recommends that the CPRs and Accountable Authority instructions be modified to reflect Recommendation 14 by explicitly requiring procurement authorities to consider how the generation and sustainment of sovereign industry sectors that supply to critical national systems could be facilitated by:

- Aggregation of demand across Commonwealth departments and where agreed, state government requirements; and
- Phasing of procurement where the timeframe for delivery can be optimised to meet operational requirements and Australian industry capacity.

Recommendation 16

5.127 The Committee recommends that a new sub-paragraph should be added to paragraph 4.5 of the CPRs dealing with assessing value for money. The sub-paragraph should have the effect that:

- officials must give a priority weighting to the extent to which a proposed project or individual procurement contributes to the generation or sustainment of a sovereign Australian industry capability which is providing nominated supplies to a critical national system.

Senator the Hon David Fawcett

Chair

Joint Standing Committee on Foreign Affairs, Defence and Trade

December 2020

A. Submissions

- 1 Mr Simon Lee
- 2 Mr Andrew Farran
- 3 Mrs Bronwen Davis
- 4 IDT Australia Limited
- 5 Mr Benjamin Cronshaw
- 6 Cognoscenti Group
- 7 University of Canberra / Edith Cowan University
- 8 Australians for War Powers Reform
- 9 Australia21 Ltd
- 10 Commission for the Human Future
- 11 Department of Home Affairs
 - 11.1 Supplementary to submission 11
- 12 Homeworker Code Committee, trading as Ethical Clothing Australia
 - 12.1 Supplementary to submission 12
- 13 Institute for Integrated Economic Research - Australia
- 14 NIOA
- 15 Australian Institute of Marine Science (AIMS)
- 16 Embassy of the United States of America
- 17 Australian Nuclear Science and Technology Organisation
 - 17.1 Supplementary to submission 17

- 18 Shoal Group
- 19 Burnet Institute
- 20 Institute for International Trade, University of Adelaide
- 21 Public Health Association of Australia
 - 21.1 Supplementary to submission 21
- 22 Medicines Australia
- 23 Northrop Grumman Australia
- 24 Mr Rick Howell
- 25 Quickstep Holdings Ltd.
- 26 Critical Minerals Consortium
- 27 ASHM
- 28 Australian Human Rights Commission
- 29 Perth USAsia Centre
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- 30 Freight & Trade Alliance (FTA) and the Australian Peak Shippers (APSA)
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- 31 International Consortium for Sexual and Reproductive Health and Rights
- 32 Palladium
- 33 Woolworths Group Limited
- 34 Australian Disability and Development Consortium
- 35 Export Council of Australia
- 36 Australian and New Zealand College of Anaesthetists
- 37 CBM Australia
- 38 United National Pacific Regional Anti-Corruption (UN-PRAC) Project
- 39 Kaldor Centre for International Refugee Law
- 40 RMIT Business and Human Rights Centre
- 41 Civil Liberties Australia (CLA)
- 42 Australian Centre for International Agricultural Research

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- 43 Department of Finance
- 43.1 Supplementary to submission 43
- 44 Mr Paul Barratt
- 45 Sapient Cyber
- 46 Advanced Manufacturing Growth Centre
- 47 *Name Withheld*
- 48 Australian Food and Grocery Council
- 49 *Confidential*
- 49.1 Confidential
- 50 Oxfam Australia
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- 52 Medical Association for Prevention of War
- 53 International Women's Development Agency (IWDA)
- 54 Oaktree
- 55 Sanofi ANZ
- 56 Development Policy Centre, ANU
- 58 Department of Foreign Affairs and Trade (DFAT)
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- 59 ActionAid Australia
- 60 Australian Fair Trade and Investment Network (AFTINET)
- 61 The Defence Teaming Centre (DTC)
- 62 Amaero International
- 63 Save the Children Australia
- 64 Minerals Council of Australia
- 65 RESULTS International Australia
- 66 South Australian Government
- 67 Commonwealth Scientific and Industrial Research Organisation (CSIRO)

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 - Attachment 3
- 69 *Confidential*
- 70 Rhys Thomas
- 71 DMTC Limited
- 72 Dr Bruce Baer Arnold
- 73 Department of Agriculture, Water and the Environment
- 74 Public Services International
- 75 Ports Australia
- 76 Australian Manufacturing Workers' Union
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 - Attachment 2
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- 77 NSW Nurses and Midwives Association
- 78 World Vision Australia
- 79 Matt Mushalik
- 80 Griffith Asia Institute (GAI), Griffith University
- 81 Naval Shipbuilding Industry
- 82 European Australian Business Council
- 83 Human Rights Watch
- 84 Maritime Union of Australia
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- 85 ITF Australia
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- 86 Royal Australasian College of Surgeons
- 87 Maritime Industry Australia Ltd
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- 88 Australian Institute of Marine and Power Engineers and Australian Maritime Officers Union
- 89 Australian Capital Territory Government
- 90 Australian National University
- 91 Arrotex Pharmaceuticals
- 92 Grain Growers
- 93 Patrick Terminals
- 94 Shipping Australia Limited
- 95 Nufarm
- 96 Lowy Institute
- 97 NSW Young Lawyers - The Law Society of New South Wales
- 98 *Confidential*
- 99 Associate Professor Peter McCawley
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- 102 Northern Territory Government
- 103 Professor Sara Davies
- 104 Dr. Donald Greenlees
- 105 Australian Trade and Investment Commission (Austrade)
- 106 Department of Industry, Science, Energy and Resources
- 107 Associate Professor Shumi Akhtar
- 108 Department of Defence
- 109 Big Start

B. Public Hearings

Thursday, 25 June 2020

Teleconference

Committee Room 2R1, Parliament House, Canberra

IDT Australia Limited

- Dr David Sparling, Chief Executive Officer

Australian Healthcare and Hospitals Association

- Ms Alison Verhoeven, Chief Executive

Detmold Medical Group

- Mr Alfonzo Ianniello, Chief Executive Officer
- Mr Les Lewis, Project Leader and General Manager

Thursday, 2 July 2020

Teleconference

Committee Room 1R4, Parliament House, Canberra

Cognoscenti Group

- Dr Alan Dupont AO, CEO

University of Canberra

- Dr Sascha Dov Bachmann, Professor in Law

Edith Cowan University

- Dr Andrew Dowse AO, Director of Defence Research and Research Leader

Institute for Integrated Economic Research (IIER) Australia Ltd

- Mr John Blackburn AO, Board Chair

Thursday, 9 July 2020

Teleconference

Committee Room 1R4, Parliament House, Canberra

Advanced Manufacturing Growth Centre

- Dr Jens Goennemann, Managing Director

Ethical Clothing Australia

- Ms Angela Bell, National Manager
- Mr Gary Campbell, Homeworker Code Committee member
- Ms Jenny Kruschel, Homeworker Code Committee member

Thursday, 16 July 2020

Teleconference

Committee Room 1R4, Parliament House, Canberra

Export Council of Australia

- Ms Tamara Oyarce, National Trade Policy and Research Manager

Export Council of Australia

- Mr Arnold Jorge, Executive Director, Eca Edge

Export Council of Australia

- Ms Dianne Tipping, Chair

Perth USAsia Centre

- Dr Jeffrey Wilson, Research Director

Thursday, 23 July 2020

Teleconference

Committee Room 1R4, Parliament House, Canberra

Aspen Medical

- Bruce Armstrong, Group Chief Executive Officer

Aspen Medical

- Andrew Parnell, Director Government and Strategic Relationships

Public Health Association of Australia

- Terry Slevin, CEO
- Deborah Gleeson, Co-Convenor, Political Economy of Health Special Interest Group

Thursday, 30 July 2020

Teleconference

Committee Room 1R4, Parliament House, Canberra

Freight & Trade Alliance (FTA) and the Australian Peak Shippers (APSA)

- Mr Paul Zalai, Director and Co-Founder
- Mr David Scott, Member Representative - Sea Freight

Ports Australia

- Ms Margaret Barbouttis, Policy and Operations Director
- The Honourable Mike Gallacher, Chief Executive Officer

Tuesday, 4 August 2020

Teleconference

Committee Room 1R1, Parliament House, Canberra

CSIRO

- Ms Judith Zielke, Chief Operating Officer
- Dr Simon Barry, Deputy Director, CSIRO Data61

Thursday, 6 August 2020

Teleconference

Committee Room 1R4, Parliament House, Canberra

Department of Home Affairs

- Mr Samuel Grunhard, First Assistant Secretary, Critical Infrastructure Security Division
- Mr David Wilden, First Assistant Secretary, International Policy Division

Tuesday, 11 August 2020

Teleconference

Committee Room 1R1, Parliament House, Canberra

Australian Nuclear Science and Technology Organisation

- Mr John Edge, Chief Operating Officer
- Mr Steven McIntosh, Senior Manager, Government and International Affairs

Thursday, 13 August 2020

Teleconference

Committee Room 1R4, Parliament House, Canberra

Department of Health

- Ms Caroline Edwards, Associate Secretary
- Mr Travis Haslam, Assistant Secretary, Office of Health Protection and Response Division
- Ms Emma Wood, Assistant Secretary, Portfolio Strategies Division

Tuesday, 25 August 2020

Committee Room 1R1

Parliament House, Canberra, Department of Finance

Tuesday, 1 September 2020

Committee Room 1R1, Parliament House, Canberra,

Department of Industry, Science, Energy and Resources

- Mr Wayne Calder, General Manager, Business Environment
- Mr Russ Campbell, Acting Deputy Secretary
- Mr Shane Gaddes, Acting Head, Energy Security and Efficiency
- Mrs Donna Looney, General Manager, Advanced Technology
- Mr David Purcell, Manager, Resource Economics, Office of the Chief Economist
- Mr Dwayne Purdy, Acting General Manager, Response and Coordination, Energy Security and Efficiency Division
- Ms Jessica Robinson, General Manager, Critical Minerals Facilitation Office, Resources Division
- Mr Paul Trotman, Head, Resources
- Mrs Jane Urquhart, Joint Lead, COVID Response Taskforce
- Mr David Williamson, Deputy Secretary

- Mr Bruce Wilson, Head, Industry Growth

Wednesday, 2 September 2020

Committee Room 1R1, Parliament House, Canberra

Department of Foreign Affairs and Trade

- Ms Frances Adamson, Secretary
- Ms Mary Balzary, First Assistant Secretary, Soft Power Communications and Scholarships Division
- Mr James Baxter, First Assistant Secretary, Office of Trade Negotiations,
- Mr Craig Chittick, First Assistant Secretary, US and Indo-Pacific Strategy
- Mr Tom Connor, First Assistant Secretary, Southeast Asia Division
- Mr Paul Foley, Ambassador for Counter-Terrorism
- Dr Jennifer Gordon, First Assistant Secretary, Office of the Chief Economist
- Ms Amanda Gorely, First Assistant Secretary, International Security Division
- Ms Julie-Ann Guivarra, Ambassador for Gender Equality
- Ms Danielle Heinecke, First Assistant Secretary, Pacific Operations and Development Division
- Mr Jamie Isbister, Ambassador for the Environment
- Ms Elly Lawson, First Assistant Secretary, North Asia Division
- Mr Justin Lee, First Assistant Secretary, Multilateral Policy Division
- Ms Kate Logan, Assistant Secretary, Chief of Protocol, Protocol Branch
- Mr Ben Milton, Assistant Secretary, Corporate Law Branch
- Mr Simon Newnham, Chief Legal Officer
- Ms Elizabeth Peak, First Assistant Secretary, Human Development and Governance Division
- Ms Cathy Raper, First Assistant Secretary, COVID-19 Coordination Unit
- Mr Daniel Sloper, Chief People Officer
- Mr Gerald Thomson, First Assistant Secretary, Pacific Bilateral Division
- Mr Murali Venugopal, Chief Finance Officer
- Mrs Elizabeth Ward, First Assistant Secretary, Trade, Investment and Business Engagement Division
- Dr Fiona Webster, First Assistant Secretary, Consular and Crisis Management Division
- Dr Stephanie Williams, Ambassador for Regional Health Security

Tuesday, 15 September 2020

Committee Room 2R1, Parliament House, Canberra

Department of Defence

- Mr Tony Dalton, Deputy Secretary National Naval Shipbuilding
- Mr Tony Fraser AO, CSC, Deputy Secretary
- Mr Martin Halloran, Office of DEPSEC CASG
- Vice Adm. David Johnston, Vice Chief of the Defence Force
- Mr Peter Sawczak, First Assistant Secretary Defence Industry Policy
- Mr Peter Tesch, Deputy Secretary Strategic Policy and Intelligence

Lowy Institute

- Mr Herve Lemahieu, Director, Power and Diplomacy Program
- Mr Jonathan Pryke, Director, Pacific Islands Program
- Mr Roland Rajah, Lead Economist

Critical Minerals Consortium, Monash University

- Dr Gavin Mudd, Co-founder
- Dr David Whittle, Co-founder
- Dr Mohan Yellishetty, Co-founder

Defence Teaming Centre

- Ms Audra McCarthy, Chief Executive Officer

Maritime Industry Australia Limited

- Vice Admiral Timothy Barrett (Retired), Non-Executive Director (Board Member)
- Ms Sarah Cerche, Director, Workplace Relations—Domestic and International
- Ms Teresa Lloyd, Chief Executive Officer

Maritime Union of Australia & International Transport Federation

- Mr Padraig Crumlin, National Secretary, Maritime Union of Australia; and President, International Transport Workers Federation
- Mr Dean Summers, ITF National Coordinator, International Transport Workers Federation

Wednesday, 16 September 2020

Committee Room 1R3, Parliament House, Canberra

Department of Foreign Affairs and Trade

- Mr Craig Chittick, First Assistant Secretary, US and Indo-Pacific Strategy Division

- Mr Tom Connor, Acting First Assistant Secretary, Southeast Asia Division
- Mr Robin Davies, Head of Indo-Pacific Centre for Health Security
- Mrs Beth Delany, First Assistant Secretary, Contracting and Aid Management Division
- Mr James Gilling, First Assistant Secretary, Humanitarian, NGO and Partnerships Division
- Dr Jenny Gordon, Chief Economist
- Ms Julie-Ann Guivarra, Ambassador for Gender Equality
- Ms Danielle Heinecke, First Assistant Secretary, Pacific Operations and Development
- Mr Jamie Isbister, Ambassador for the Environment, and First Assistant Secretary, Economic Growth and Sustainability Division
- Ms Kathy Klugman, Deputy Secretary, Global Cooperation, Development and Partnerships Group
- Ms Elly Lawson, First Assistant Secretary North Asia Division
- Dr Justin Lee, First Assistant Secretary, Multilateral Policy Division
- Dr Angela Macdonald, First Assistant Secretary, Middle East and Africa Division
- Ms Julia Niblett, Acting First Assistant Secretary, South and West Asia Division
- Ms Elizabeth Peak, First Assistant Secretary, Human Development and Governance Division
- Ms Cathy Raper, First Assistant Secretary, COVID-19 Coordination Unit
- Mr Gerald Thomson, First Assistant Secretary, Pacific Bilateral Division
- Mr Murali Venugopal, Chief Finance Officer
- Dr Stephanie Williams, Ambassador for Regional Health Security

Griffith Asia Institute

- Professor Caitlin Byrne, Director

Oxfam Australia

- Ms Emma Bull, Head of Political Engagement
- Mr Josh Hallwright, Humanitarian Lead
- Ms Lyn Morgan, Chief Executive

Development Policy Centre, Australian National University

- CURTAIN, Dr Richard Curtain, Research Fellow
- EDWARDS, Dr Ryan Edwards, Deputy Director and Senior Policy Fellow

Save the Children

- Mr Gerry Dyer, Regional Director, Pacific
- Mr Luke Ebbs, Country Director, Vanuatu
- Mr Simon Henderson, Head of Policy
- Dr Amrita Mahli, Senior Adviser, Geoeconomics
- Mr Joe Rafalowicz, Policy Adviser
- Mr Mat Tinkler, Deputy Chief Executive Officer

Australian Council for International Agricultural Research (ACIAR) and Australasian Society for HIV, Viral Hepatitis and Sexual Health Medicine (ASHM)

- Professor Andrew Campbell, Chief Executive Officer, Australian Centre for International Agricultural Research
- Mr Scott McGill, Deputy Chief Executive Officer, Australasian Society for HIV, Viral Hepatitis and Sexual Health Medicine
- Dr Nicholas Medland, President Elect, and Chair, Blood Borne Virus, Sexual Health and COVID-19 Regional Advisory Group, Australasian Society for HIV, Viral Hepatitis and Sexual Health Medicine