



# **INSTITUTE FOR INTERNATIONAL TRADE**

## **SUBMISSION TO THE JOINT STANDING COMMITTEE ON FOREIGN AFFAIRS, DEFENCE AND TRADE OF THE AUSTRALIAN PARLIAMENT**

In the context of the

**INQUIRY INTO THE IMPLICATIONS OF THE COVID-19 PANDEMIC FOR  
AUSTRALIA'S FOREIGN AFFAIRS, DEFENCE AND TRADE**

Corresponding Author: Simon Lacey [REDACTED]

**29 JUNE 2020**

## **DISCLAIMER**

The views, ideas, and recommendations presented in this report represent those of the authors only.

## **CONTENTS**

<b>1. ABOUT THE INSTITUTE FOR INTERNATIONAL TRADE .....</b>	<b>3</b>
<b>2. OUR UNDERSTANDING OF THE TERMS OF REFERENCE.....</b>	<b>3</b>
<b>3. THE AFTERMATH OF COVID-19: A WATERSHED MOMENT .....</b>	<b>4</b>
<b>4. INCREASING SUPPLY CHAIN ROBUSTNESS .....</b>	<b>5</b>
<b>5. PREPARING FOR THE WORKPLACE OF THE FUTURE .....</b>	<b>7</b>
<b>6. TRANSITIONING TO A SMALL CARBON FOOTPRINT .....</b>	<b>8</b>
<b>7. STRENGTHENING RULES-BASED COOPERATION.....</b>	<b>10</b>
<b>8. RESTATEMENT OF RECOMMENDATIONS.....</b>	<b>11</b>
<b>REFERENCES.....</b>	<b>13</b>
<b>ANNEX: AUTHORS AND CONTRIBUTORS .....</b>	<b>15</b>

## **1. ABOUT THE INSTITUTE FOR INTERNATIONAL TRADE**

The University of Adelaide's **Institute for International Trade** (IIT or the Institute) is an interdisciplinary school within the Faculty of Professions with a focus on trade and development issues traversing economics, business and law. Since its formation in 2003, IIT has built a strong track record in:

- Design and delivery of customised trade policy and negotiation training activities
- Specialised contract research and consulting, including trade-related research, providing technical advice on trade agreements, business investment policy, and sustainable development strategies
- Delivery of academic programs focused on international trade, trade law, and economic development

Today, the IIT stands at the nexus of a number of highly relevant issues including international trade, security, technology, industrial policy, development, regulatory governance, supply chain resilience and others, providing thought leadership in a time of almost unprecedented upheaval and disruption for the rules-based multilateral trading system, but also a time of unparalleled opportunity for middle-powers such as Australia.

## **2. OUR UNDERSTANDING OF THE TERMS OF REFERENCE**

We understand that this inquiry recognises the unprecedented nature of the public-health and economic crises wrought by COVID-19 and that it seeks input from the Australian public on the strategic implications of the pandemic, particularly its economic effects and what is needed now to recover from this crisis. In seeking this input, we understand that the Joint Standing Committee on Foreign Affairs, Defence and Trade wishes to formulate recommendations to the Australian Government on what changes are now imperative with regard to:

- 1) The country's policy approaches in the areas of defence, foreign affairs and trade
- 2) The risks to the rules-based international order that these crises have revealed and what can be done in future to mitigate them
- 3) The continued protection of human rights
- 4) The resilience of Australia's supply chain linkages in areas such as health, economic and transport systems, and defence
- 5) Ensuring the country is sufficiently resilient to meet its economic and strategic objectives
- 6) Any related matters that fall within the broad remit of the Joint Standing Committee

As an organisation that harbours considerable expertise in the area of international trade, we limit our contribution primarily to this area, whereby we articulate our thinking on potential policy changes falling within the scope of **points 1), 2), 4), 5) and 6)** above.

### **3. THE AFTERMATH OF COVID-19: A WATERSHED MOMENT**

#### **Unprecedented Crisis Presents Unparalleled Opportunity**

Policymakers and political leaders need to be absolutely clear that just as the scale and impact of the hardship and disruption wrought by COVID-19 are unprecedented, so is the opportunity to remake and improve policy outcomes and thus Australia's socio-economic framework conditions for decades to come. This is a watershed moment for the country, and should not be wasted with short-term fixes for narrowly focused interest groups but should instead be harnessed to make long-term and visionary changes that will positively define the legacy of the current government for present and future generations of Australians.

#### **Different Economic Shocks Resulting From COVID-19**

Although the COVID 19 global public health pandemic and its economic consequences are far from over, with some considerable knowledge gaps still to be filled, it is nevertheless clear that in economic terms, the response many governments — including the Australian Federal and State Governments — took to stop the spread of the disease produced negative externalities of unparalleled magnitude, evidenced in 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 cashflows 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
- 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

These four economic shocks have been felt almost the entire world over and their effects will continue to work their way through the economy for several years. The emphasis of current and future policymaking should be to mitigate their most harmful effects and protect the most vulnerable.

#### **Riding the Wave of Pre-Existing Trends Accelerated by COVID-19**

At the time of writing (June 2020), as Australia and other countries in both the region and further afield slowly start to reopen their economies, it is time to examine what has changed, what is likely to return to normal, as well as what aspects of life pre COVID-19 may never totally return to normal.

With a high degree of certainty, it can be inferred that COVID-19 and the responses taken by different governments have reinforced and accelerated a number of trends, the underlying economic imperatives of which were already well established before the crises. Government policies and actions going forward should not try to resist these trends head-on or reverse them (since this would

arguably be an exercise in futility), but should endeavour to shape the ultimate outcomes these trends are leading to in ways that correspond to the country's strategic objectives and our values as a nation.

The three trends this submission focuses on (conceding there may well be others) are each discussed in the following sections:

1. A re-alignment of supply chains to better mitigate location risk, more evenly distribute sourcing dependencies, as well as enhance the resilience and robustness of cross-border production models (**Shih 2020**)
2. An increase in automation and the use of artificial intelligence solutions to replace jobs previously performed by humans, with a whole range of new jobs created to meet the needs of the future economy (**Baldwin 2019**)
3. Decarbonization in the form of a deliberate policy shift by many economies with the aim of transitioning towards a low-carbon or carbon-neutral economy (**Paterson, 2020**).

Moving beyond these trends and specific policy recommendations connected with them, Section 7 of this report discusses the need for Australia, as a middle power, to support the strengthening of the rules-based international order, while the last section (Section 8) offers a restatement of the recommendations provided under each of this submission's separate headings.

#### **4. INCREASING SUPPLY CHAIN ROBUSTNESS**

Global trade flows have come under increasing strain since the onset of the crisis in early 2020, as nations closed borders and enacted export controls on essential goods to deal with virus suppression and domestic public-health needs. The ripple effect of such policies in a highly connected global trade environment is the potential for shortages of critical goods for nations that depend on imports, as well as a self-sustaining spiral of trade restrictions, many of which were enacted for sound policy reasons but which in the long term could have a damaging impact on trade liberalization. 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. The question before us now is how governments and businesses ought to respond in order to reduce such risk.

Firms usually consider managing such risk in terms of the costs of increasing either resilience or robustness. Resilience refers to the ability to return to normal operations in an acceptable timeframe after disruption, whereas robustness refers to an ability to continue production during a disruption. Our focus is on robustness.

##### **Robustness in Essential Goods Supply Chains**

The risk of shortages of essential goods such as food and medicine have driven the supply chain risk management debate during the pandemic. Essential goods require a strategy for maintaining production during disruption, hence a robustness strategy is appropriate when seeking supply assurance. Robustness requires supplier diversification (more than one supplier) and geographic diversification (more than one country). Thus, a strategy for robustness does not necessarily lend itself to a policy of national autarky with regard to production of essential supplies. Take, for example, the 2011 Japan earthquake which severely interrupted Japan's highly concentrated domestic car



parts supply chains. The response by Japanese auto firms was to diversify their suppliers geographically. This highlights that even if costs are not prohibitive, a national strategy of reshoring production of essential goods can reduce robustness when a national disaster strikes. A strategy for robustness should not be built solely on national production.

Just as national concentration of suppliers decreases robustness, so too does concentration of suppliers in a single overseas territory. Currently a large proportion of global supplies of intermediate and final goods are concentrated in China. This concentration has occurred during decades of globalization, where cost efficiencies, a reasonably stable geopolitical environment, and China's vast ability to meet demand both in terms of quality and quantity, resulted in significant supply chain concentration in the country. The dangers of this outcome were highlighted early in the crisis when China's economic lockdown resulted in medical supply shortages for many countries.

### **Lack of Robustness in Australian Agricultural Inputs**

Australia is considered to have food security, due to available farmland and resources, which allow the country to produce far more food than the population needs. Australia currently exports around 70 percent of its annual agricultural output, while importing 11 percent of food consumed, largely to cater to consumer demands for variety (**ABARES 2020**). 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. In light of this supply crunch Australian agri-chemical firm Nufarm publicly stated that it "is looking at ways to reduce the supply risk posed by China being the sole source of products needed for agricultural production in Australia" (**Thomson 2020**).

This example highlights a classic case of a single supply chain point of failure in an otherwise secure production network. Inputs such as crop protection and fertiliser are essential to allow Australian farming operations. Concentration of agrochemical suppliers in China is a significant risk to Australian food supply robustness. Likewise, as we are all now acutely aware after recent Australia-China trade disputes over barley and beef linked to the country'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. China has shown a willingness to apply economic pressure in response to Australian political positions on matters that Beijing disapproves of, thus threatening the robustness of Australian supply chains reliant on China.

### **Increasing Australia's Supply Chain Robustness**

Supply chain assurance for critical enablers of Australia's security, such as food, medical and defence-related items, requires a strategy for supply chain robustness. This should include supply chains composed of more than one supplier and located in more than one national territory, meaning that concentrated domestic supply is also undesirable. A key policy approach is to devise a Federal-level supply chain risk diversification strategy. Given the extent of trade with China the Federal government should develop a China-Plus-One supply chain policy as a priority.

The logic of a 'plus-one' strategy can be generalized to all situations where Australian producers rely on a singly concentrated supplier, whether located domestically or overseas. As discussed above, reshoring of essential production may actually decrease supply chain robustness if it occurs absent a plus-one strategy. Reshoring can play a role as part of a diversification strategy where diversified offshore supply is also secured, and where domestic production is part of a policy-supported ecosystem where private enterprise can flourish and drive innovation by utilizing Australia's advanced knowledge economy advantages. This should not, however, be based on earlier unsustainable models based on protectionism.

### **Policy Recommendations**

1. Initiate a review of all current FTAs with a view to establishing whether changes should be sought to existing terms in order to increase resilience/robustness of supply-chain governance.
2. Introduce federal-level support for a China-Plus-One business supply chain diversification policy.
3. Set up a multi-stakeholder dialogue (business, government, academia, civil society) to identify a path forward for identifying and managing supply chain risks that impact critical enablers of Australian supply chain security.
4. In consultation with all relevant stakeholders, assess the feasibility and impact of a risk diversification requirement for all firms importing final or intermediate goods essential to Australian supply chain security. Absent such a requirement current market concentration that has resulted from China's overall competitiveness and capacity may result in strong inertia effects and the status-quo remaining locked-in.
5. Implement a risk diversification tax credit (or grant) to support firms with the initial upfront costs of a risk diversification requirement.

## **5. PREPARING FOR THE WORKPLACE OF THE FUTURE**

Automation and Artificial Intelligence (AI) are two technologies set to have increasingly profound and far-reaching impacts on labour markets across the world and thus on international competition between countries (**Baldwin, 2019**). Most observers agree that the workplace transitions forced upon us by automation in the coming decade are going to be both disruptive and extremely challenging, even if under most scenarios it should be possible to achieve full employment (**Manyika et al, 2017**). The impact of AI is going to be even greater, as new and more powerful software is programmed to replicate and replace jobs currently being performed by humans at almost no additional per-unit cost - just the cost of deploying the software (**Kerr and Moloney, 2018**). The truly remarkable thing about both automation and AI is just how suddenly change will come, and how disruptive this is going to be to labour markets in both developed and developing countries (**Baldwin 2019**). Although new jobs will be created at the same time as old jobs become obsolete, the time-lag required for labour-market restructuring is likely to impose a lot of hardship on those who face redundancy.

The rapid and widescale shift to online and remote modes of work induced by the pandemic and the resilience the pandemic demonstrated of many online business models have shown the value of premium, quality (higher) education which encompasses both STEM and social sciences/arts. The

correct response here in recognizing the importance of these insights is to ramp up Australia's IT capabilities in both the infrastructure and programming spaces, as well as to ensure Australia can lead in supplying the related services industries of the future.

### **Protect Workers Not Jobs**

It is clear that over the next decade, technology is going to have a dramatic impact on the working lives and thus the economic livelihoods of millions, if not billions of people all over the world. The benefits that these technologies bring are going to make the world a better, safer, cleaner, more comfortable, and more intellectually rewarding place to live in the medium to long term (**Wardynski, 2019**). What will be difficult for workers, their families and for governments is the short-term disruption this causes (**Baldwin, 2019**). To mitigate the economic hardship of these changes, the onus will be on governments to step in, whereby they must resist the urge to try and preserve technologically redundant(?) jobs but instead enact policies that temporarily protect the people that used to occupy these jobs and support them in transitioning to their economic futures. This involves providing economic security to displaced workers and supporting the training and education infrastructure they will need in order to re-pivot towards new areas of economic activity. Governments and people both have a responsibility to prepare for this transition, which will be upon us sooner than we imagine, and which has only been accelerated by the economic impact of social-distancing and shelter at home orders (**Lacey, 2020**).

### **Policy Recommendations**

6. Ramp up spending on tertiary and vocational education institutions to help prepare for the labour market of the future, requiring a broad and versatile range of skills that include so-called "hard" disciplines (STEM), but also people equipped with knowledge from the social sciences and the creative arts.
7. Provide tax credits, tax rebates, tax holidays or other incentives to encourage greater entrepreneurship, particularly in sectors such as technology and digital and to so-called "born-global" firms that begin their economic existence with strong export performance.
8. Provide short-term income-support (up to two years) to displaced workers while they complete a program to re-skill themselves and re-enter productive economic activity (either as employees or entrepreneurs).

## **6. TRANSITIONING TO A SMALL CARBON FOOTPRINT**

The vast resources required to bring about a reboot of the economy provides an opportunity for policy makers to focus on supporting the already emerging opportunities for addressing the growing climate crisis and moving away from Australia's current carbon dependency. This move away from carbon will require a new period of bold and far-reaching economic structural reform but could lay the basis for further decades of sustainable economic growth. Whereas, simply reverting to pre-pandemic "business as usual" may solve the immediate economic crisis but miss the opportunity for fundamental economic reform.



## **Impact of Economic Shutdowns on Carbon Emissions**

The current world-wide economic shutdown has resulted in a major reduction in air pollution in China, India, northern Italy and other EU industrial pollution hot spots (**Le Quéré et al, 2020**). This has been caused by a big drop in demand for electricity which has reduced the output from coal fired (and other) power stations, shutdowns of factories using carbon fuels in their production processes, and significant reductions in road traffic. While we know that carbon stays in the environment for hundreds of years, this “COVID blip” has shown the very rapid impact on carbon generated pollution that a dramatic shift from carbon emissions can have. Economic shutdowns have also seen similar effects on air pollution in major Australian cities such as Sydney and Brisbane (**Sánchez-García and Leon, 2020**). While Australia only directly contributes about 1.5% of global emissions, its exports of coal and other carbon-based fuels contribute a further 3.3% when these exports are used by Australia's customers (**ABC Fact Check, 2020**). Given the fact that many countries have explicitly stated their preference to reduce carbon emissions (not least to comply with their commitments under the Paris Climate Change Agreement), and increasing calls by major trading partners such as the EU to impose a carbon tax, future demand for our coal exports is not assured.

The economic shutdown has led to demand contractions of 8% for coal and 5% for oil globally compared to the same period last year (**The Economist, 2020**). The International Energy Agency estimates that overall energy demand may be down by 6% compared to 2019 – the biggest drop on record (**The Economist, 2020**). This will make many coal-fired power-stations even less economically viable than they were before the current crisis.

## **Moving to Renewables**

According to the government's own figures, in 2018 nineteen percent of Australia's electricity was generated by renewables (hydro 7%, wind 6%, solar 5%, other 1%), natural gas 19%, with 60% derived from coal fired plants (**Australian Department of the Environment and Energy, 2019**). Industry observers point out that even in the absence of a dedicated decarbonization policy, renewable energy sources will comprise 75 percent of the national energy market by 2040 based on current trends (**Reputex Energy, 2020**). Other industry experts predict that, over the same time frame, if Australia were to accelerate its transition to renewables, this would boost the country's GDP by \$15 billion and increase the collective purchasing power of Australian families by \$11 billion (**PriceWaterhouseCoopers, 2019**).

The most significant sources of renewable energy in Australia include hydropower (dams plus tidal), wind, solar and bioenergy. All of these are proven technologies, and as uptake increases, unit costs will inevitably fall. Investment in new renewable energy capacity continues to grow in Australia (**Clean Energy Regulator, 2019**), and provides the potential for Australia to become a world leader in innovation in this sector (**PriceWaterhouseCoopers, 2019**).

## **Policy Recommendations**

9. Prepare for disruption in the Australian coal sector by mitigating the impact on the most vulnerable including coal workers and rural communities.
10. Prepare for a decline in global coal prices and the impact this will have on Australia's balance of payments by initiating a targeted export drive in services and other high value exports with a long-term future.

11. Adopt a clear national energy policy that reflects the government's commitment to phasing out coal generated electricity pursuant to a clearly defined roadmap.

## **7. STRENGTHENING RULES-BASED COOPERATION**

### **The Rules-Based Order under Unprecedented Strain**

The multilateral trading system and the system of alliances established after the Second World War is under unprecedented strain. This is owing to a variety of factors but predominantly because of a reluctance on the part of the United States to continue playing its traditional leadership role, with the many costs this involved (**Adams, 2018**). Another factor at the heart of the crisis besetting the international order is the rise of China, which, as an emerging regional hegemon, is also seeking to recast the system underlying the rules-based international order to better reflect its own values and interests (**Gokhale, 2020**). These two trends have been disruptive for many countries, but Australia faces unique challenges given our position as both a close military and geopolitical ally of the United States, while at the same time being closely linked with China, given its importance as Australia's largest trading partner. No country arguably has a more difficult tightrope to walk than Australia, and our reliance on a rules-based system that is able to constrain the unilateralist urges of both an established global hegemon and an emerging regional hegemon has never been greater.

### **Using the WTO and Regional Initiatives to Strengthen the Rules**

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). However, both the CPTPP and RCEP have severe deficiencies in terms of their ability to constrain either hegemon since neither the United States nor China is currently a member of the CPTPP, and RCEP's ability to constrain China is as yet unproven given that it has not entered into force and India has yet to join.

### **Rejecting Unilateralism**

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.

### **Policy Recommendations**

12. Encourage the United States to join the CPTPP and promote the expansion of the agreement's membership, including to the UK and other like-minded potential partners, to be as inclusive as possible

13. Promote the rapid ratification of RCEP and continue to encourage India to join
14. Support a new candidate for Director General of the WTO who has the political clout with the major trading powers, the support of the many developing countries whose voices are crucial to ensuring progress in the WTO, as well as the technical knowledge to restore the organization to its former centrality
15. Support the re-constitution of the WTO Appellate Body, subject to palatable reforms that address US concerns, at the earliest possible date
16. Work with like-minded trading partners to visibly object to any actions, omissions or statements by either the United States or China that weaken the centrality and authority of the WTO and the rule of law in international economic relations

## **8. RESTATEMENT OF RECOMMENDATIONS**

For the sake of improving this submission's impact, we have provided a restatement of our combined policy recommendations below. We remain at the disposal of the Joint Committee in the event it should require further elucidation of any of the points or recommendations made herein.

1. Initiate a review of all current FTAs with a view to establishing whether changes should be sought to existing terms in order to increase resilience/robustness of supply-chain governance.
2. Introduce federal-level support for a China-Plus-One business supply chain diversification policy.
3. Set up a government-business dialogue to identify a path forward for identifying and managing supply chain risks that impact critical enablers of Australian security.
4. In consultation with businesses, assess the feasibility and impact of a risk diversification requirement for all firms importing final or intermediate goods essential to Australian security. Absent such a requirement current market concentration that has resulted from China's overall competitiveness and capacity may result in strong inertia effects and the status-quo remaining locked-in.
5. Implement a risk diversification tax credit (or grant) to support firms with the initial upfront costs of a risk diversification requirement.
6. Ramp up spending on tertiary and vocation education institutions to help prepare for the labour market of the future, requiring a broad and versatile range of skills that include so-called "hard" disciplines (STEM), but also people equipped with knowledge from the social sciences and the creative arts.
7. Provide tax credits, tax rebates, tax holidays or other incentives to encourage greater entrepreneurship, particularly in sectors such as technology and digital and particularly to so-called "born-global" firms that begin their economic existence with strong export performance.

8. Provide short-term income-support (up to two years) to displaced workers while they complete a program to re-skill themselves and re-enter productive economic activity (either as employees or entrepreneurs).
9. Prepare for disruption in the Australian coal sector by mitigating the impact on the most vulnerable including coal workers and rural communities.
10. Prepare for a decline in global coal prices and the impact this will have on Australia's balance of payments by initiating a targeted export drive in services and other high value exports with a long-term future.
11. Adopt a clear national energy policy that reflects the government's commitment to phasing out coal generated electricity pursuant to a clearly defined roadmap.
12. Encourage the United States to join the CPTPP and promote the expansion of the agreement's membership, including to the UK and other like-minded potential partners, to be as inclusive as possible.
13. Promote the rapid ratification of RCEP and continue to encourage India to join.
14. Support a new candidate for Director General of the WTO who has the political clout with the major trading powers, the support of the many developing countries whose voices are crucial to ensuring progress in the WTO, as well as the technical knowledge to restore the organization to its former centrality.
15. Support the re-constitution of the WTO Appellate Body, subject to palatable reforms that address US concerns, at the earliest possible date.
16. Work with like-minded trading partners to visibly object to any actions, omissions or statements by either the United States or China that weaken the centrality and authority of the WTO and the rule of law in international economic relations.

## REFERENCES

1. ABC Fact Check. (2019). *Do Australia's greenhouse gas emissions account for more than 5 per cent of the global total once exports are included as Mike Cannon-Brookes says?* Retrieved from <https://www.abc.net.au/news/2019-11-20/fact-check-australia-carbon-emissions-fossil-fuel-exports/11645670>
2. Adams, G. (2018). *A new world is dawning, and the US will no longer lead it*. "The Conversation". Retrieved from <https://theconversation.com/a-new-world-is-dawning-and-the-us-will-no-longer-lead-it-98362>
3. Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES). (2020). *Analysis of Australian food security and the COVID-19 pandemic*. Retrieved from Canberra: [https://daff.ent.sirsidynix.net.au/client/en\\_AU/search/asset/1030201/0](https://daff.ent.sirsidynix.net.au/client/en_AU/search/asset/1030201/0)
4. Australian Department of the Environment and Energy. (2019). *Australian Energy Update 2019*. Retrieved from Canberra (ACT): <https://www.energy.gov.au/publications/australian-energy-update-2019>
5. Baldwin, R. (2019). *The Globotics Upheaval: Globalization, Robotics and the Future of Work*. New York (NY): Oxford University Press.
6. Braue, D. (2020). *Call centre chaos as COVID-19 spreads*. "Information Age". Retrieved from <https://ia.acs.org.au/article/2020/call-centre-chaos-as-covid-19-spreads.html>
7. Clean Energy Regulator (2019). *2020 Large-scale Renewable Energy Target capacity achieved*. Retrieved from <http://www.cleanenergyregulator.gov.au/Infohub/Media-Centre/Pages/Media%20updates/NewsItem.aspx?ListId=19b4efbb-6f5d-4637-94c4-121c1f96cfe&ItemId=683>
8. The Economist. (2020). *Can Covid help flatten the climate curve*. Retrieved from <https://www.economist.com/briefing/2020/05/21/can-covid-help-flatten-the-climate-curve>
9. Gokhale, V. (2020). *China Doesn't Want a New World Order. It Wants This One*. "New York Times". Retrieved from <https://www.nytimes.com/2020/06/04/opinion/china-america-united-nations.html>
10. Kerr, W. R., & Moloney, E. (2018). *Vodafone: Managing Advanced Technologies and Artificial Intelligence*. Retrieved from <https://store.hbr.org/product/vodafone-managing-advanced-technologies-and-artificial-intelligence/318109>
11. Lacey, S. (2020). *COVID-19: Offering us a Glimpse into the Future of Work, the Global Economy and Technology*. Retrieved from <https://iit.adelaide.edu.au/news/list/2020/04/03/covid-19-offering-us-a-glimpse-into-the-future-of-work-the-global-economy-and>
12. Manyika, J., Lund, S., Chui, M., Bughin, J., Woetzel, J., Batra, P., . . . Sanghvi, S. (2017). *Jobs Lost, Jobs Gained: Workforce Transitions in a Time of Automation*. Retrieved from <https://www.mckinsey.com/featured-insights/future-of-work/jobs-lost-jobs-gained-what-the-future-of-work-will-mean-for-jobs-skills-and-wages>
13. Paterson, S. (2020). *Four trade trends post COVID-19 and how they will affect growth*. Retrieved from <https://www.hinrichfoundation.com/research/article/sustainable-trade/trade-trends-post-covid-19/>
14. PriceWaterhouseCoopers. (2019). *The Future of Energy: Australia's Energy Choice*. Retrieved from <https://www.pwc.com.au/power-utilities/future-of-energy/future-of-energy.pdf>
15. Quéré, C. L., Jackson, R. B., Jones, M. W., Smith, A. J. P., Abernethy, S., Andrew, R. M., . . . Peters, G. P. (2020). *Temporary reduction in daily global CO2 emissions during the Covid 19 forced confinement*. Retrieved from



<https://www.globalcarbonproject.org/news/TemporaryReductionInCO2EmissionsDuringCOVID-19.html>

16. Reputex Energy (2020). *OUTLOOK: NEM wholesale electricity and LGC price forecast 2020-40 (Q3 FY20)*. Retrieved from <https://www.reputex.com/research-insights/outlook-wholesale-electricity-and-lgc-price-forecast-for-the-nem-2020-40-q3-fy19-20/>
17. Sánchez-García, E., & Leon, J. (2020). *These 5 images show how air pollution changed over Australia's major cities before and after lockdown*. Retrieved from <https://theconversation.com/these-5-images-show-how-air-pollution-changed-over-australias-major-cities-before-and-after-lockdown-136723>
18. Shih, W. (2020). *Is It Time to Rethink Globalized Supply Chains?* "MIT Sloan Management Review" (Summer). Retrieved from <https://sloanreview.mit.edu/article/is-it-time-to-rethink-globalized-supply-chains/>
19. Thompson, B. (2020). *Nufarm warns of China's supply stranglehold*. "Australian Financial Review". Retrieved from <https://www.afr.com/companies/agriculture/nufarm-warning-on-china-s-supply-stranglehold-20200429-p54o8o>
20. Wardynski, D. (2019). *Technology and Society: How Technology Changed Our Lives*. Retrieved from <https://www.brainspire.com/blog/technology-and-society-how-technology-changed-our-lives>

## **ANNEX: AUTHORS AND CONTRIBUTORS**

### **PROFESSOR PETER DRAPER (IIT EXECUTIVE DIRECTOR)**

Peter is Executive Director of the Institute for International Trade in the Faculty of the Professions, University of Adelaide, Australia. He is a member of the Board of Trustees of the International Chamber of Commerce's Research Foundation; non-resident senior fellow of the Brussels-based European Centre for International Political Economy; Associated Researcher at the German Development Institute (DIE); and a Board member of the Australian Services Roundtable. In 2020 he is co-chair of the Saudi Arabia-led Think 20's Task Force 1 on Trade and Investment. He is a recipient of an honorary Doctorate degree from the Friedrich-Schiller-University in Jena, Germany. For ten years he was, respectively, member, chair, vice chair, and co-chair of the World Economic Forum's Global Future Council on the Global Trade and FDI system. He was also Senior Research Fellow at the South African Institute of International Affairs. Previously, he worked in South Africa's national Department of Trade and Industry in bilateral economic relations (East Asia and Mercosur), and as head of the economic analysis and research unit in the Department's International Trade and Economic Development Division.

### **SIMON LACEY (CORRESPONDING AUTHOR)**

Simon is currently a Senior Lecturer within the University of Adelaide's Institute for International Trade. Formerly, Simon was Vice-President, Trade Facilitation and Market Access at Huawei Technologies in Shenzhen China. Before that he spent 4 years in Indonesia in various roles advising both the government and private sector on trade policy and international economic law issues.

With degrees in law from the University of Fribourg (Switzerland) and the Georgetown University Law Center (United States), Simon has worked in almost thirty countries, advising and training trade policymakers in Africa, Eastern Europe, the Middle East, Central Asia, East Asia and the Pacific.

### **DR NAOISE MCDONOUGH (CONTRIBUTOR)**

Dr. Naoise McDonagh is an expert in international political economy, institutional economics, development and comparative capitalism. He has a BA in political science and philosophy, and an MA in international development, both from the National University of Ireland, Galway. Naoise has a PhD degree from the University of Auckland, specializing in institutional economics and the evolution of economic systems.

In the tertiary sector he has extensive experience teaching, conference speaking and publishing original research. He has experience collaborating with international organisations such as the UNDP on development issues, as well as working in the private sector as an economic consultant.

### **MIKE HUMPHREY (CONTRIBUTOR)**

Mike Humphrey is the Senior Trade Advisor at IIT. He has over 30 years working experience in the areas of regional integration policy and capacity building, regional and international trade negotiations and trade promotion. He has designed, evaluated or implemented programs in various countries for most of the major donors supporting trade issues including AusAID/DFAT, DANIDA, DfID, EU, GIZ, NORAD, SIDA and USAID. He ran the EU support program for the seven SADC countries negotiating an Economic Partnership Agreement with the EU for over 5 years, was a full-time trade advisor to the Government of Swaziland during 2009 and 2010, has been actively involved in supporting both the African Tripartite and the Continental Free Trade Area trade negotiations, and has provided capacity building support to the AU, COMESA, EAC, and SADC Secretariats.

He has a BA (honours) degree from the University of the Witwatersrand, a BSc (honours) Degree in Economics from the University of Zimbabwe, and a master's degree from the University of London. He has worked as a trade and development advisor to most governments in Eastern and Southern Africa, and with a number of private-sector organisations and their members. He also ran a series of workshops on the EU rules of origin for the private sector in six South Asian countries.