

2020/CTI/WKSP3/003

#### **Services and Supply Chain Disruption**

Submitted by: Australia



Workshop on Building Resilient Supply Chains in APEC: Agility in Crisis 28 October 2020

# Services and supply chain disruption













NC STATE Poole College of Management Supply Chain Resource Cooperative



#### **MODERATOR**

Ms Lisa McAuley

CEO

Global Trade Professionals Alliance (GTPA)





## PANEL MEMBERS

**Dr Robert Handfield**Executive Director
Supply Chain Resource Cooperative



















## PANEL MEMBERS

**Dr Robert Handfield** 

Executive Director Supply Chain Resource Cooperative

















# Building Resilient Supply Chains in APEC: Agility in Crisis

## **Services and Supply Chain Disruption**

Simon Lacey University of Adelaide









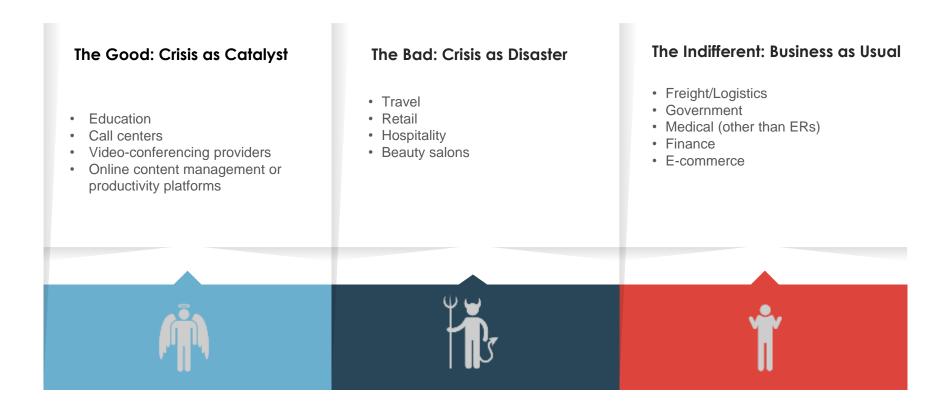








### The Good | The Bad | and the (mostly) Indifferent



















### **Lessons Learned** Technology and connectivity disparities matter Governments must be able to respond quickly Infrastructure matters. Keeping businesses alive matters for the recovery. Borders are best kept open Tracking and tracing technologies already exist and are broadly used









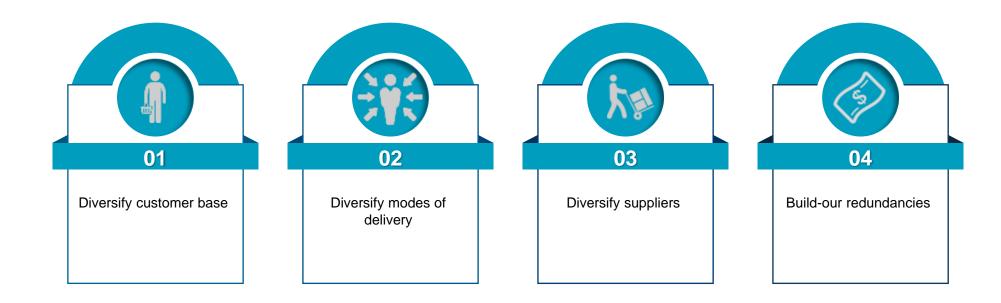








### Resilience and Robustness | The Services Angle



















### Thank you for listening

simon.lacey@adelaide.edu.au

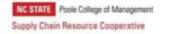
















#### **PANEL MEMBERS**

#### **Alberto Posso**

Professor of Economics and Director Centre for International Development at RMIT University



# Supply chains and the new normal What may a post-COVID or living-with-COVID world look like?

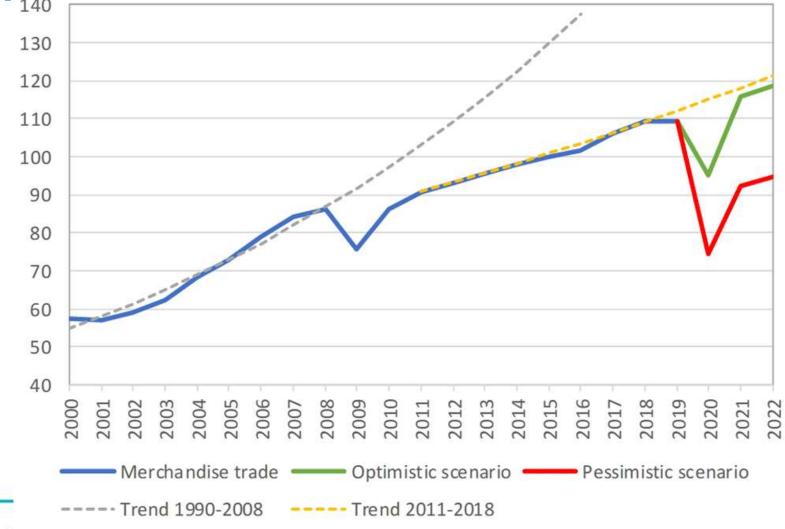
Alberto Posso of Economics

**Professor** 





### World marchandise trade volume 2000-22



















### Trade disruption affects final and intermediate goods

- Consumers around the world have been impacted by trade disruptions:
  - Shortages of field workers brought on by lockdowns and a move towards protectionism tariffs and export bans – means that some supermarket shelves in some economies look emptier.
- But not all imports are final goods, some are intermediate, and this means that making things at home can also get harder.
- Supply chains are being disrupted.







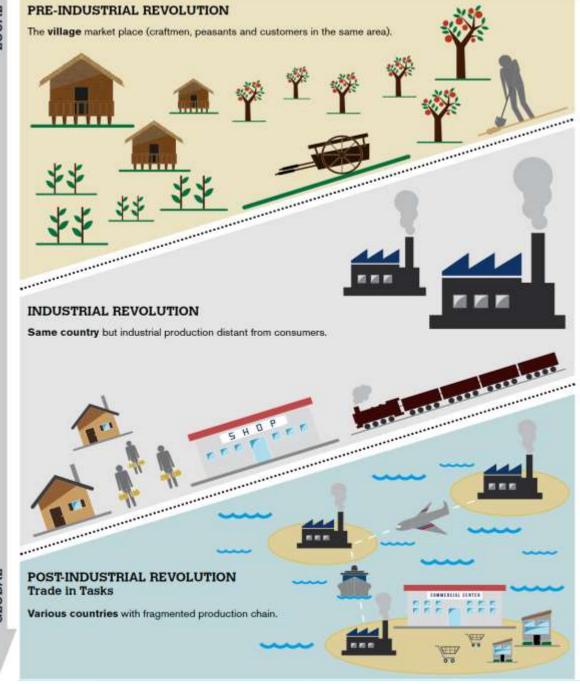












### Supply chains are now governed by international trade patterns

- Modern supply chains are made up of many firms specialised in different tasks.
- Vertical integration describes the degree to which a company owns its upstream suppliers and downstream buyers.
- For most of the 20<sup>th</sup> century, vertical integration was conducted domestically.
- Since the late 1990s, it has been internationalised.
- COVID-19 disrupts these processes.

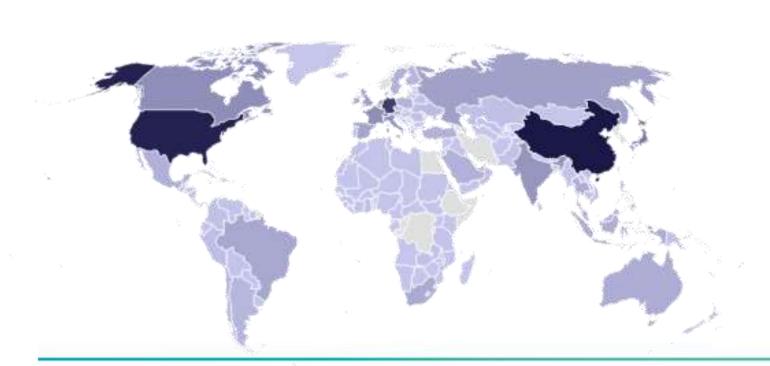








## We're all in this together: Intermediate good imports from world, 2016



Import (US\$ Thousand)

322083855.7

0.07

Most economies import intermediate goods.

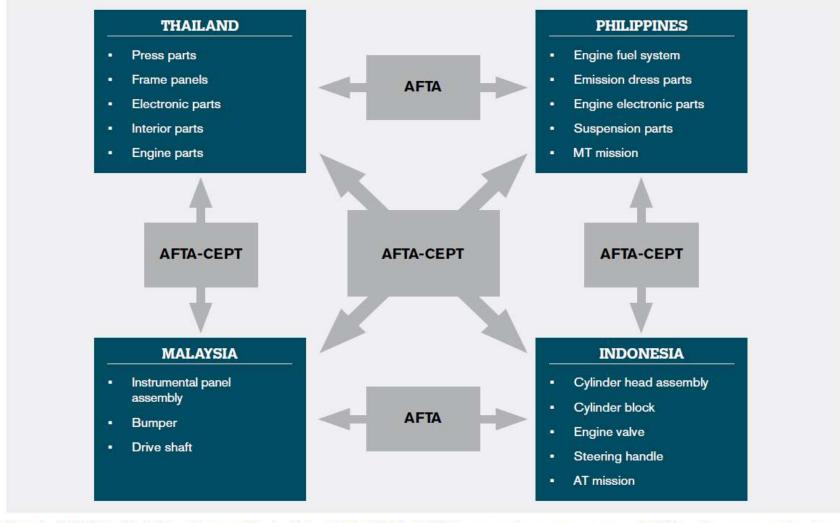








### Complementary parts supply system of an automobile assembler in ASEAN





Aust Aid

Note: the ASEAN Free Trade Area - Common Effective Preferential Tariff (AFTA-CEPT) is a cooperative arrangement among ASEAN member states to reduce intraregional tariffs and remove non-tariff barriers.

Source: Hiratsuka (2010).



### Upshot: A slow down of imports is bad for business

- Globally, about 70% of imports are intermediate goods.
- Importing cheaper intermediate goods makes production more efficient, leading to growth.
- Disruptions to imports hurt manufacturing processes, hurting domestic production.
- Global value chains are disrupted by shutdowns, lockdowns and travel disruptions.

















### Economists are not fortune tellers,

but...









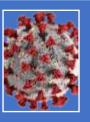












#### New normal



Vaccine



Ineffective vaccine



No vaccine (some effective treatments)

















#### **Scenario 1: Vaccine**

- Once the vaccine is widely available, firms & economies will look to re-establish precrisis patterns... to an extent.
- Firms will be scared about new viruses or other factors that can disrupt supply chains.
- Firms will look toward supply chain diversification.
- Recovery may be v-shaped or

   shaped, as new production networks, infrastructure and logistics will need to be established.
- Firms will build resilience by stockpiling some goods
- Building domestic production (when costs aren't too high):
  - In the longer run, we may see some innovation in production processes

















### Diversification of international supply chains

- Firms minimise risk of business disruptions.
- As firms increase their supply sources from 3 to 10 economies, more economies will be able
  to find new export markets and growth opportunities, aiding in their recovery.
- Supply chain diversification is governed by comparative advantage.
  - Goods are produced in the most efficient locations considering costs and endowments.

















### **Scenario 2: Ineffective vaccine**

2.1 Vaccines are produced, but do not work

2.2 Vaccines are produced, but many economies don't get access.















#### Scenario 2.1: Vaccines do not work

- People receive vaccines, but infection levels remain high.
- This leads to a prolonged crisis, hurting both consumer and investor confidence.
- Panic may lead to more protectionism.
- Consumer prices increase leading to goods scarcity in the short-run.
- This can result in increased need for supply chain diversification, but will depend on political will.
- In the longer run, we may see some innovation in production processes.

















### Scenario 2.2: Vaccines work, but some economies do not get them

- WHO is working hard to stop this from happening.
- While some economies may be hoarding vaccines, it is in their interest to ensure an
  equitable supply to avoid resurgent migration crises and other global political problems.
- Poorer economies get pushed out of production network opportunities.
  - Global inequalities are reinforced.
- Calls for supply chain diversification get reinforced.
  - Comparative advantage? Products are not (necessarily) produced in most efficient locations, leading to higher prices.
- In the longer run, we may see some innovation in production processes.

















#### Scenario 3: No vaccine, but new effective treatments

- Resurgent lockdowns and shutdowns.
- 'Bubbles' created amongst economies undertaking better healthcare practices.
- Poorer economies get pushed out of production network opportunities.
  - Global inequalities are reinforced.
- Calls for supply chain diversification get reinforced.
  - Comparative advantage? Products are not (necessarily) produced in most efficient locations, leading to higher prices.
- In the longer run, we may see some innovation in production processes.

















### **Innovation processes**

- Labour-saving technologies & automation.
- Evidence that the pandemic has accelerated these processes as firms want to get humans out of the supply chain.
- Implications for jobs are unclear:
  - Substitutes or complements?
  - Lower demand for workers, will lower wages. If wages get low enough, taking on infection-related risk may be OK.















### What can my economy do?

- Most economies do not have the capacity to make their own vaccines.
- Until a vaccine is available, economies must remember that:
  - Continued lockdowns and shutdowns are destructive.
  - Investing in health services and practices is key.
  - Dispelling rumours, conspiracy theories and misinformation.
  - Communicate health advice properly.
  - Cracking down on corruption.

















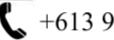
### Thank you very much.

For questions and comments please contact:

Alberto Posso Professor of Economics **RMIT University** 



alberto.posso@rmit.edu.au



+613 9925 5669



www.rmit.edu.au/cid

















