
1 Vulnerable supply chains

The Commission responded to concerns about vulnerable supply chains by developing a framework for identifying vulnerable supply chains and a framework for determining whether government intervention is justified.

A distinguishing feature of the framework for identifying vulnerable supply chains is that it uses a data driven approach: it starts by casting a wide net to identify vulnerable product categories in the data. Then it identifies which of these *vulnerable* products are used to produce *essential* goods and services, and then relies on expert assessment to determine which products cannot be substituted in the production of an essential good or service (which we define to be *critical*). The data driven approach can be used to assess whether goods and services identified by industry experts are vulnerable. We expect that this data-with-experts approach will identify more goods and services as vulnerable, essential and critical than using the expert approach alone.

The Commission asserts that supply chain risks are best managed by those who have direct incentives and the information and capacity to mitigate against them. Like any firm, governments have the responsibility to manage risks in their own supply chains, where they deliver services directly (eg health care, water treatment).

There may be conditions where government intervention in private sector risk management is justified, such as where society's valuation of the supply of some good or service exceeds the private valuation. In matters of safety or national security, for example, a firm might decide to stop production, freeing resources to other potential uses, whereas society might value the maintenance of the activity.

If government were to intervene it should follow three steps.

1. Understand the problem. Governments need to identify the good or service that society cares about, including whether it is vulnerable, essential and critical.
2. Governments need to establish their role, and identify options for intervention. This includes understanding whether firms face impediments to managing risks and whether government is best placed to address those impediments. It is important to clearly identify and articulate the objectives of intervention (that is, what barrier is being addressed) and canvas widely for options that might achieve that objective.
3. Governments need to assess the costs and benefits of intervention against no government action. It is important to consider the market response during a disruption and whether government intervention will crowd out firms' investment in risk management. Governments could decide to intervene if the benefits of intervention outweigh the costs.

Why didn't we identify adblue?

In Australian trade statistics, adblue is included in the 8-digit HS Subheading described as Urea, a product aggregate. In 2016-17, the year analysed in our report, several countries supplied Australia with this product aggregate. Australia's main suppliers were Saudi Arabia and Qatar, each with market shares of around 20 per cent. Because no one country accounts for more than 80 per cent of Australia's annual supply, the product was not identified as vulnerable. The global market for this product also does not appear concentrated, many countries supply urea, none of which have a large market share.

Identifying adblue specifically would require much more detailed trade statistics – which were not available.

Global trade data are even more aggregated (6-digit), meaning that multiple products are grouped in with adblue, compounding the problem in identifying risks associated with supplier concentration.

Applying the principles for risk management and for intervention mentioned above, there is a case for industries to identify any inputs that might be critical to their production, to gain a clearer understanding of their supply chains and manage the risks along their supply chains.