Session III Discussion Paper

How should Australia deal with PRC-US strategic technological competition?

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Australia's share of the world's population is less than half of one per cent. Yet, its share of global scientific publications – an indicator of knowledge being created in a field that drives long-term prosperity – was 4.2 per cent in 2017.

Global connectedness is what makes this possible.

Our prosperity is driven by our openness and international engagement ability, including leveraging global capital markets and attracting a substantial foreign talent pool. Collaboration with the best minds around the world and importing cutting edge technology and research, to underpin our own efforts, has been a key component of our success.

How Australia can remain open and globally connected in an increasingly complex geo-strategic environment is perhaps the nation's biggest challenge.

Our lack of scale necessitates approaches not required by other nations. The People's Republic of China (PRC) and the United States each spend annually around $500 billion on research and development (R&D). This is in excess of 30 times the amount Australia spends. Last year, the R&D budget of a single PRC technology company, Huawei, was around two-thirds of the total R&D spend by all Australian businesses, universities, government and non-profits.

The goal of successive Australian governments has been to increase the prosperity and wellbeing of our society. The PRC is no different to any other country in wanting to deliver rising living standards to its people. It needs to move up the production value chain to do so.

The PRC's plan to move up the production value chain is called "Made in China 2025". Rather than viewing this as run-of-the-mill industrial policy that has been implemented by many nations, US Vice-President Mike Pence described it last year as 'the Communist Party [setting] its sights on controlling 90% of the world's most advanced industries".

Washington is crafting policies which, if implemented effectively, will decouple the US and PRC technologically. In June, former Secretary of Defence Dennis Richardson warned: "There is a risk that we are going to move into a technological Cold War." He said that a PRC-US technological decoupling would endanger "for the first time, us not having access to the best technology". Furthermore, Australia would not be safer, and certainly not more prosperous, in a region that included an insecure or failed state of 1.4 billion people to its north.

Australia is acutely concerned by how the PRC, a one-party state, might behave as its power grows. Last month, University of Queensland Chancellor and former Secretary of the Department of Foreign Affairs and Trade, Peter Varghese put it succinctly: "A democratic China becoming the predominant power in the Indo Pacific is a very different proposition to an authoritarian China occupying this position."

Nonetheless, Varghese concluded that, "For Australia, there is no sensible alternative to engaging China … And the notion that global technology supply chains can be divided into a China-led system and a US-led system is both economic and geopolitical folly."

He's right. Australia's response to PRC-US strategic technological competition must be driven by our own long-term interests.

Any international technological collaboration introduces multiple risks, including IP theft, and uses outside of those originally intended. In particular, there is a fear of assisting an increasingly assertive PRC using its advanced technological capability to pursue an international agenda contrary to Australia's interests.

In an increasingly competitive geo-strategic environment, we need a considered but proportionate approach. The current Defence Export Controls (DEC) mechanism represents a balance between protecting appropriate know-how versus crippling Australian access to international networks or worse, stymieing our domestic innovation through diminished IP flows to Australia. We need to actively consider a more cautious approach in some areas. However, we must be mindful that the consequences of placing ill-considered or artificial demarcations around working with the PRC on the fundamental platforms that comprise the next round of industrial development (known as Industry 4.0), such as 'all Artificial Intelligence (AI)', could be ruinous for a country with limited resources like Australia.

To be clear: Australia is not replacing the US with the PRC. A July report by the Australia-China Relations Institute at the University of Technology Sydney found Australia's research links with the US and the PRC were highly complementary, orientated towards the life and physical sciences, respectively.

The challenges stemming from Industry 4.0 are many, not least of all the ethical development and uses of technologies like AI. But these challenges cannot be addressed by disengaging from one of the world's leading producers. To influence development, to protect Australia against unforeseen ethical implications, one must have a seat at the table.

There will always be areas of research endeavour that are protected due to national interest, and more consideration should be given to these in the current climate. However, it is inherently difficult to draw arbitrary boundaries or to predict connections, particularly in fundamental or platform knowledge.

Australia's challenge is to ensure appropriate connectedness in a new and complex international environment – in a manner that supports long-term technological advancement for societal prosperity.

Session III questions:

- What elements of PRC-US strategic technological competition stand to harm Australian interests the most?
- Will organisations that work with both US and PRC entities face financial and technological constraints?
- How can Australia safeguard its interests in this strategic contest?