



UNITED STATES
STUDIES CENTRE

JAPAN FOUNDATION
国際交流基金



A Free and Open Indo-Pacific for Japan and Australia

Report of the 2025 JADE Fellows

JULY 2026





**UNITED STATES
STUDIES CENTRE**

The United States Studies Centre at the University of Sydney is a university-based research centre, dedicated to the rigorous analysis of American foreign policy, economic security, emerging technology, politics, society and culture. The Centre is a national resource, that builds awareness of the dynamics shaping America, their implications for Australia — and critically — solutions for the Alliance.

The Centre maintains intellectual freedom and sole editorial control over Centre content, projects and research activities.

CONTACT

United States Studies Centre
Institute Building (H03)
The University of Sydney NSW 2006
ussc.media@sydney.edu.au

ussc.edu.au



THE UNIVERSITY OF
SYDNEY

**AUS
USA** American
Australian
Association



The Japan Foundation is Japan's only institution dedicated to carrying out comprehensive international cultural exchange programs. Through its three main areas of focus — arts and cultural exchange, Japanese language education overseas, and Japanese studies and global partnerships programs, the Japan Foundation creates opportunities to foster friendship, trust and mutual understanding between Japan and other countries and regions.

Table of contents

Foreword	Dr Michael J. Green and Dr Lavina Lee	2
-----------------	---------------------------------------	---

Defence and diplomacy

Preparing for a protracted war? Operationalising the Australia-Japan-US (AJUS) trilateral defence partnership	Dr Takuya Matsuda	5
Shaping powers or shaped powers? Conceptualising the Australia-Japan relationship amid a shifting power balance	David Vallance	12
Securing the blue Pacific: Japan-Australia cooperation for sustainable regional development in the Pacific	Toshiki Matsukiyo	20

Economic security

Rebuilding a free and open international economic order: Strengthening the CPTPP for free trade and a Free and Open Indo-Pacific	Ai Watanabe	29
Strengthening cooperation on economic security between Japan and Australia	James Ghushn	35
Updating trade frameworks and rules for critical minerals supply chain resilience: Japanese and Australian perspectives	Mari Shimizu	42
How Japan and Australia can deepen their collaboration on critical minerals: Countering the weaponisation of rare earths	Kotaro Abe	51

Strategic technologies

Building regional space resilience: Australia-Japan engagement in defence space	Dr Tristan Moss	61
Advancing Australia-Japan maritime security through quantum technologies in the Indo-Pacific	Pilar Cossio	67

Endnotes	76
-----------------	----

About the authors	102
--------------------------	-----

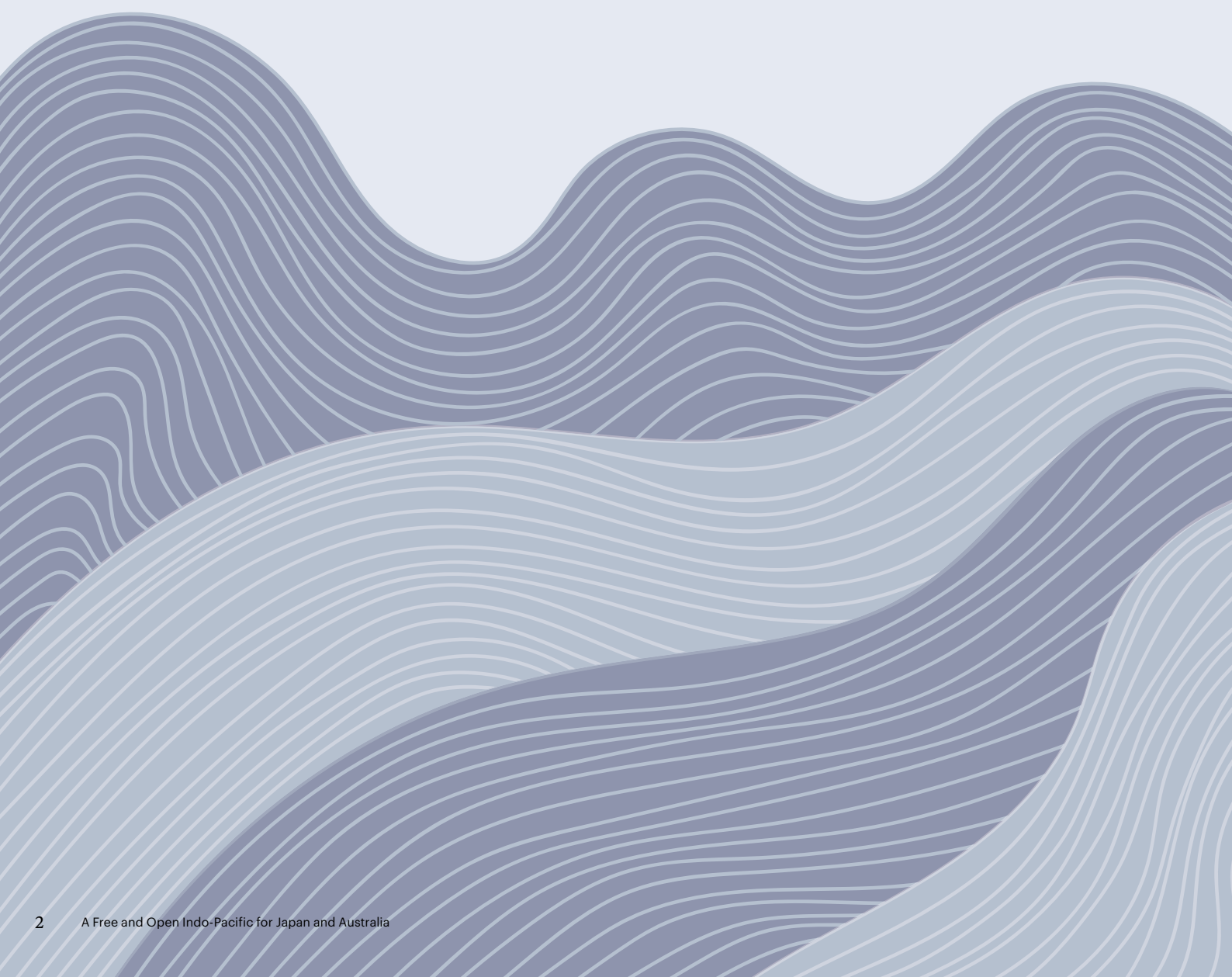
Foreword

DR MICHAEL J. GREEN

CHIEF EXECUTIVE OFFICER, UNITED STATES STUDIES CENTRE

DR LAVINA LEE

DIRECTOR, FOREIGN POLICY AND DEFENCE, UNITED STATES STUDIES CENTRE



We are pleased to present this second collection of publications under the Japan-Australia Dialogue and Exchange (JADE) for the Next Generation initiative, a collaboration between the United States Studies Centre and the Japan Foundation.

The second collection of JADE Fellow publications focused on achieving a Free and Open Indo-Pacific, exploring issues ranging from defence, diplomacy, trade, economic security and emerging technology. The authors exchanged views with government officials, experts and business leaders and developed their research ideas and policy recommendations during the study tours to Australia and Japan.

The trips to Australia and Japan coincided with key strategic moments. The Japanese authors visited Australia in August, shortly after Australia selected Japan's upgraded Mogami-class frigate. The Australian authors visited Tokyo at the same time as President Trump met with newly inaugurated Prime Minister Takaichi Sanae. The timing of the reciprocal visits reinforced the importance of strengthening intellectual and strategic exchanges between Australia and Japan.

This publication arrives in the commemorative year of Australia-Japan relations, the 50th anniversary of the Basic Treaty of Friendship and Cooperation (or NARA treaty). We will continue the JADE initiative to contribute to developing the next generation of leaders who will serve as the intellectual infrastructure that supports the elevation of bilateral relations.



The timing of the reciprocal visits reinforced the importance of strengthen intellectual and strategic exchanges between Australia and Japan.

SECTION ONE

Defence and diplomacy



Preparing for a protracted war? Operationalising the Australia-Japan-US (AJUS) trilateral defence partnership

TAKUYA MATSUDA

AOYAMA GAKUIN UNIVERSITY

Executive summary

- The Australia, Japan and the United States (AJUS) trilateral defence partnership contributes to deterrence by resilience by enabling force dispersion and facilitating maritime security cooperation, which could uniquely dissuade an opponent from resorting to the use of force by demonstrating the collective capacity to prevail in case of a protracted war in the Indo-Pacific region.
- The ongoing upgrade of the Australia and Japan defence partnership serves as a key enabler in further operationalising AJUS. The Reciprocal Access Agreement (RAA) signed in January 2022 was critical in expanding joint trilateral military exercises and will allow the three states to further discuss the scope and objectives of this trilateral defence partnership, including the division of labour among the three states.
- An increasingly institutionalised trilateral defence arrangement is a relatively new phenomenon in a region underpinned by a bilateral-based alliance structure. This brief unpacks the factors that shape this defence relationship by focusing on two key variables — convergence of threat perceptions and the provision of clear operational benefits. It illustrates how, as a partnership undermined by US allies, AJUS has the capacity to be further institutionalised while also deliberately leaving room for flexibility on when and how they will collaborate.
- However, further operationalising a highly institutionalised security partnership requires the consideration of several constraining factors such as the trade-off between military effectiveness and domestic politics. Close attention to those constraining factors is critical to better operationalise this important platform that contributes to collective deterrence, especially by improving resilience among the three states.

Key policy recommendations

To better operationalise the AJUS defence partnership, Australia, Japan and the United States should:

- Clarify the division of labour among the three states so that the AJUS Trilateral Defence Partnership can further pursue operational coordination and institutionalisation of the partnership by effectively combining their contributions to bolster collective deterrence.
- Improve AJUS collaboration in assisting Australia in hardening the defence of its Northern Territory to mitigate Canberra's concerns over entanglement by bolstering the continent's own defence as it is no longer invulnerable to PLA missile strikes despite the geographical distance.
- Acknowledge and address the constraining factors that junior allies — namely Australia and Japan — face, such as issues concerning domestic politics and risk tolerance as they integrate their armed forces to the trilateral defence partnership for improved operational coordination.



US Secretary of Defense Pete Hegseth, Australian Deputy Prime Minister and Minister for Defence Richard Marles, and Japanese Minister of Defense Shinjiro Koizumi in Singapore, 30 May 2026. Source: [instagram.com/secwar](https://www.instagram.com/secwar)

Introduction

Deterrence is the art of shaping the calculation of one's opponent, especially to dissuade them from resorting to the use of force. The most useful way to do so is to demonstrate that there is no clear pathway towards a quick and decisive victory.¹ A protracted war not only comes with an exorbitant cost but also makes it challenging to secure a clear path to victory, entailing several political and financial costs that may even undermine the survival of the aggressor itself. As such, it is crucial to make it abundantly clear that the involved states have the collective capacity to prevail in a protracted war.² A combination of an active denial strategy in the frontline that restricts the opponent's freedom of manoeuvre and deterrence by resilience that focuses on the ability to endure a war of attrition, is thus a key step to preventing a great power war from occurring in the Indo-Pacific region.³

The expanding Australia-Japan-US (AJUS) trilateral defence partnership, therefore, plays a vital role in collectively bolstering deterrence in the Indo-Pacific.⁴ It contributes to enhancing posture resilience by enabling force dispersion that is crucial for their improved survivability especially in case of a protracted war in the Indo-Pacific region.⁵ Japan and the United States will likely be at the frontline in a great power conflict in the Indo-Pacific, and hence, military bases in Northeast Asia are vulnerable to PLA missile strikes.⁶ On the other hand, Australia's distant geography offers an opportunity to improve force survivability and better prepare the three states for a protracted war. Military bases in the Northern Territory — most notably, Darwin and Tindal — serve as a key enabler for force dispersion that will enhance force survivability.⁷

While the United States serves an indispensable role in Indo-Pacific security, the growing bilateral defence partnership between Canberra and Tokyo is crucial in facilitating the division of labour, namely, how the respective states uniquely contribute to collective deterrence.⁸ The Reciprocal Access Agreement (RAA) signed between Australia and Japan in January 2022, for instance, serves as a critical foundation to further expand defence cooperation between the two nations by building on steady efforts made to expand bilateral ties since the end of the Cold War.⁹ By facilitating easier procedures when conducting cooperative activities, the RAA has, for instance, assisted in expanding trilateral joint military exercises among the AJUS states. It has thus elevated the partnership to a new level that enables the two states to have more candid discussions on the “scope, objectives and forms of enhanced operational cooperation.”¹⁰

It is useful to note that the emergence of several trilateral defence partnerships in the region is a relatively novel phenomenon in a region where the security architecture has largely been animated by bilateral alliances. This policy brief argues that the AJUS trilateral defence relationship offers both the capacity to institutionalise defence cooperation and the flexibility that will prepare the three states to bolster deterrence while consolidating a collaborative platform that could be operationalised in a future contingency. It unpacks the two key variables that shape the AJUS trilateral partnership: the convergence of threat perceptions and the provision of clear operational benefits. It also illuminates some of the underlying trade-offs that deserve attention, such as those between military effectiveness and strategic autonomy. By doing so, the brief seeks to draw implications for ways to further effectively operationalise this important platform that contributes to collective deterrence in the Indo-Pacific region, particularly by improving resilience among the involved states.

This policy brief unpacks the two key variables that shape the AJUS trilateral partnership: the convergence of threat perceptions and the provision of clear operational benefits.

Conceptualising the trilateral defence partnership

The popular image of alliances as being shaped by a sense of solidarity has produced optimistic views that the series of trilateral defence partnerships in the Indo-Pacific may culminate in a region-wide defence pact.¹¹ However, as political scientist, Alexander Lanoszka notes, “alliance politics involves the interaction of diverse military power and distinct political willingness to address common, but not necessarily identical, security concerns.”¹² While the trilateral defence relationship in question is not a military alliance based on a defence pact, Lanoszka’s observations suggest how institutionalising security cooperation is a much more ambitious undertaking than often imagined.¹³ The underlying challenges in aligning strategic priorities due to the large bodies of water that separate major powers in the Indo-Pacific is what led to the bilateral-based alliance system — often referred to as a “hub-and-spokes system.”¹⁴ As such, these peculiar factors have led to diverging threat perceptions and strategic priorities, which have hindered the emergence of a multilateral alliance structure.

The question that is then worth asking is, why are trilateral defence partnerships expanding now? A convergence of the perception of the regional strategic environment and a potential for an effective division of labour are two key variables in making trilateral security cooperation possible and efficient.¹⁵ The growing concern over a potential great power conflict in the western Pacific has been one of the main triggers across the different trilateral defence relations in the region, such as those between the United States, Japan and South Korea. Additionally, although capability aggregation and the balance of power are often the baseline assumptions when considering the role of military alliances and security partnerships in international relations, collective deterrence is not simply about aggregating capabilities among like-minded partners. It requires a concrete division of labour for deterrence to succeed. To elaborate, it needs to deliberately employ military forces in a way that restricts the opponent’s movement while also enhancing one’s own survivability.¹⁶ In other words, the trilateral defence partnership offers an indispensable platform that is unavailable

otherwise in collectively implementing deterrence by resilience, an important piece in the overall deterrence framework to dissuade Beijing from resorting to the use of force.

The unique nature of AJUS manifests itself in the wording used in the 2022 Joint Declaration on Security Cooperation between Australia and Japan that also articulated their shared intent to expand and deepen the AJUS trilateral cooperation.¹⁷ It describes the nature of their cooperation as being based on the two nations’ commitment to “consult each other on contingencies” that may influence the respective states’ “sovereignty and regional security interests.”¹⁸ While an explicit mutual defence guarantee is absent, since the trilateral defence partnerships in the region are generally among US allies, the commitment to consult makes the signatories’ intentions to seek institutionalised security cooperation sufficiently clear. At the same time, it leaves the scope, objective and degree of practical cooperation purposely vague, given that priorities and interests of the three states may overlap but not necessarily be identical. It is useful to note that written treaties that inform military alliances serve two seemingly contradictory roles: to offer clarity while also intentionally leaving room for flexibility by keeping the wording purposely vague.¹⁹ In a similar vein, AJUS is a platform that could further be institutionalised so as to be activated at the operational level in a contingency, while deliberately leaving room for flexibility on when and how they will collaborate.

The convergence of threat perceptions and the division of labour

As observers contemplate a potential great power war in the Indo-Pacific, such a consideration has been one of impetus behind the emerging trilateral defence relationships in the region. This has been the case for the trilateral defence relationship between the United States, Japan and South Korea. Growing concerns in South Korea that an armed conflict across the Taiwan Strait may result in a regional conflagration appear to be one of the key triggers that motivated Seoul to deepen security ties with Tokyo and Washington.²⁰ In parallel, the 2023 Aus-

tralian Defence Strategic Review (DSR) underscores “the prospect of major conflict in the region” that “require[s] the implementation of a new approach” to defence planning.²¹ The 2023 DSR also highlights the diminishing “warning time” for a conflict that illuminates the sense of urgency. These observations are a stark departure from Canberra’s previous embrace of ‘Indo-Pacific’ as a normative concept.²² There has been a remarkable convergence in Canberra’s, Tokyo’s and Washington’s perceptions of the regional strategic environment that a great power conflict could possibly occur despite the sheer geographical distance between the three states.²³

Australia’s unique alliance structure also contributes to Canberra’s proactive defence policy. Despite the close practical defence relationship between the United States and Australia, an explicit security guarantee such as a mutual defence clause is absent in the ANZUS treaty that underpins the US–Australia alliance.²⁴ Canberra has, therefore, sought to consolidate the United States to security commitment to Australia through constant participation in allied operations as a way to demonstrate their value to the alliance.²⁵ Australian political scientist Nick Bisley has thus argued that Australia’s strategic culture has been shaped by “the interplay of anxiety and dependence” without a concrete security guarantee from the major power partner.²⁶ The unique strategic culture informed by the confluence of Australia’s experience in the Pacific War, peculiar geographical circumstances, and alliance arrangement with the United States has shaped Australia’s evolving view of the regional strategic environment.²⁷

Based on these shared concerns over a potential major conflict, the three states could divide their labour to effectively implement deterrence by resilience. However, implementing collective deterrence is not as straightforward as it sounds on paper. First and foremost, collective action through military alliances or a coalition of forces is not always the most efficient way to generate military power as opposed to the popular expression that describes military alliances as a “force multiplier.”²⁸ Military alliances and security cooperation require deliberate and intricate coordination to function effectively in jointly generating combat power through force aggregation.²⁹ Additionally, an effective implementation of collective security requires a clear division of labour so as to enhance the overall military effectiveness of combined forces.³⁰

While the three states are geographically separated, those circumstances present an opportunity to effectively divide labour among the three states through the unique operational benefits that they bring to the table.³¹ From Washington’s perspective, the strategic value of Australian Defence Force (ADF) bases in the Northern Territory, such as Darwin and Tindal, to enhance force survivability has grown as the vulnerability of US military base assets along the First Island Chain has become more pronounced. At a glance, the division of labour among the three states is straightforward. Japan is likely to be one of the frontline states in a contingency in the western Pacific while the United States serves as a security guarantor. Australia then offers the United States and Japan a vital strategic depth that enables the three states to collectively endure and prevail in a protracted war. Nevertheless, the implementation of this seemingly clear-cut division of labour is not necessarily as simple as it sounds on paper.

While the three states are geographically separated, those circumstances present an opportunity to effectively divide labour among the three states through the unique operational benefits that they bring to the table.



Aviators from RAAF No 11 Squadron with Japan Maritime Self-Defense Force (JMSDF) 31st Fleet Air Wing and a P-3C Orion during an engagement visit at JMSDF Iwakuni Air Base in Japan. Source: Australian Department of Defence

Minding the gap: Constraining factors for AJUS

When and how a great power conflict may occur, including a Taiwan contingency, is highly path-dependent. As such, it is not the most productive exercise to ponder whether the ADF is willing to commit its boots on the ground in such a conflict. The relatively secure strategic position Australia enjoys in the region suggests that domestic politics, especially risk tolerance as concerns over a potential war grows, are some of the constraints that warrant close attention.³² Indeed, the question over the constraining factors stemming from domestic politics and risk tolerance is not exclusive to Australia. Japan also has numerous political and legal constraints on the use of force, especially when and how the Japan Self-Defense Forces could be deployed, which could complicate its contribution to Washington's war plan in case of a military conflict in the western Pacific.³³ Nevertheless, Japan's proximity to potential areas of contingency, such as the Taiwan Strait, makes Tokyo's contribution to the US war plan likely converge with Tokyo's own territorial defence. In other words, Japan's geographical circumstances will mitigate questions over domestic politics and other legal constraints in a major conflict.³⁴

On the other hand, Australia's comparative distance suggests that these dilemmas concerning domestic politics and risk tolerance will manifest themselves much more explicitly compared to other states closer to the conflict zone. As Washington seeks to enlist allied contribution in a region-wide contingency, the requested contribution from Canberra may not necessarily be directly linked to Australia's own territorial defence, such as the ADF's growing embrace of deterrence by denial as a way to bolster the continent's northern approach.³⁵

First and foremost, Australia has had a longstanding policy of self-reliance, where it has not hosted any foreign military bases on its soil (notwithstanding the presence of joint facilities and rotational US forces). Such a policy has been reasonable given that concerns over a physical invasion of the Australian continent have long remained remote. Yet, by integrating itself into a broader US war plan in case of a major conflict in the Indo-Pacific, the increasing role of Australian military bases in the Northern Territory suggests opponents could target them in times of war. As such, how Australia would respond to escalation in a major conflict is another crucial question that deserves attention.³⁶

These concerns over the extent to which policymakers in Canberra are comfortable integrating themselves into US contingency planning have become

increasingly salient.³⁷ Fostering integration among allies comes with a trade-off between military effectiveness and strategic autonomy.³⁸ For the sake of efficiency and military effectiveness, states with less military power will most likely be subordinate to stronger military powers. As Australian political scientist Andrew Carr suggests, the US-Australia alliance appears to be drifting towards the “enabling model” where Australia offers a specific high-end value role that contributes to the broader plan to bolster deterrence, which may also inform an eventual war plan.³⁹

It is arguable that Australia’s willingness to bind itself into the trilateral defence relationship is a way to mitigate the aforementioned dilemma in managing alliance relations due to the ANZUS treaty’s peculiar arrangements where a mutual defence commitment is absent.⁴⁰ However, while integrating forces among the three states could be preferable for military effectiveness, for Canberra, there is a risk of losing agency in strategic decisions in times of crisis. There will be a need to grapple with the intractable trade-off between integration and strategic autonomy, an underlying dilemma in alliance politics.⁴¹

These trade-offs suggest the need to identify possible areas of cooperation that directly enhance Australia’s own security as a useful way to manage the expectation gap and further institutionalise the trilateral defence relationship. One important agenda, therefore, is to assist Australia in hardening the defence of the Northern Territory.⁴² As recent studies suggest, the Northern Territory’s sanctuary status beyond the range of PLA’s missiles is gradually eroding due to their upgraded capabilities.⁴³ An AJUS collaboration to help fortify the Northern Territory, including but not exclusive to “a networked air and missile defence architecture,” is not only an important agenda for operationalising a division of labour among the AJUS states but also in bolstering Australia’s own defence.⁴⁴

In short, it is first important to explore the scope, roles and objectives of the trilateral defence partnership to clarify the division of labour among the three states to bolster collective deterrence. For effective operational coordination in that endeavour, it is crucial to address and mitigate some of the constraining factors that the junior allies confront so as not to exacerbate the trade-off between integration and strategic autonomy.

Conclusion: Operationalising the AJUS trilateral defence partnership

The AJUS trilateral defence partnership between Australia, Japan and the United States is a unique case where geographical separation presents numerous opportunities for the three states to divide their labour through better operational coordination. Given the importance of expanding the capacity to collectively endure a protracted conflict in bolstering deterrence, the deterrent value that this trilateral partnership holds in maintaining a peaceful and stable Indo-Pacific order by enhancing collective resilience is self-evident. The Indo-Pacific region will, therefore, benefit if AJUS pursues ambitious agendas concerning operational coordination among the three states.⁴⁵ At the same time, despite the growing compatibility in the way the states view the strategic outlook of the region, the geographical separation is a constant factor that could continue to inform the dilemmas between efficiently joining forces and the consideration of some of the political constraints.

While these underlying challenges to align priorities such as geographical factors had hindered a multilateral alliance from emerging in the western Pacific, the AJUS trilateral defence partnership reconciles both the needs for better operational coordination and the flexibility to address some of the aforementioned constraining factors. In other words, this unique format enables AJUS to make steady progress in consolidating this important defence partnership as an enduring platform for collective deterrence while leaving space for the respective states to address some of the constraining factors at the political level going forward. As the RAA between Australia and Japan suggests, this trilateral defence partnership that consists of major US allies has the capacity to be further institutionalised for effective collective deterrence.⁴⁶ On the other hand, flexibility is also crucial in addressing the several trade-offs, most notably between military effectiveness and domestic politics that loom large both in Canberra and Tokyo. This flexibility is particularly important since both the US-Japan alliance and the US-Australia alliance are going through a critical juncture where the nature and functions of the respective alliances are rapidly changing in response to the changing regional strategic environment.

Shaping powers or shaped powers? Conceptualising the Australia-Japan relationship amid a shifting power balance

DAVID VALLANCE

THE LOWY INSTITUTE

Executive summary

- Australia's and Japan's security environments are shaped by power dynamics between the United States and China. China's military modernisation and assertiveness beyond its borders is a key element of this dynamic, as it has ended an era of uncontested US primacy in the Indo-Pacific.
- Domestic issues in the United States, exacerbated by a second Trump administration, are causing deep anxieties among US allies around the world, but particularly for Japan and Australia — two countries whose defence policies are centred upon an alliance with the United States.
- Given these dynamics, Australia and Japan are increasing their strategic cooperation with one another. This should not be seen as a hedge against complete US retrenchment from the Indo-Pacific. This is not likely, nor is it desirable for Australia and Japan, and not something they want to encourage.
- This increasing alignment should be conceptualised as a partnership geared towards shaping the range of effective choices presented to both the United States and China in the region. Australia and Japan may not necessarily be able to set the agenda in the Indo-Pacific, but in aligning themselves in practical ways, they can shape what items may find their way to the top of that agenda.

Recommendations

Australia and Japan should:

- Thicken their bureaucratic linkages, institutionalising fora such as the Scopes, Objectives and Range Dialogues across as many departmental and service levels as possible
- Work towards the establishment of something akin to the US-Japan Alliance Coordination Mechanism between Japan and Australia.
- Prioritise the following initiatives:
 - Institutionalised joint planning procedures
 - A common counter-coercion strategy
 - Smooth and effective defence industrial cooperation
 - Collaboration between intelligence services

Introduction

International order has fundamentally changed over the first quarter of the 21st century. The People's Republic of China has undergone a remarkable period of economic growth⁴⁷ as well as a massive and continuing program of military expansion and modernisation.⁴⁸ The United States' relative power has diminished, and its allies around the globe have growing concerns about its reliability. Since an active US global presence coupled with its military pre-eminence has underpinned international stability since the end of the Cold War, beneficiaries of that stability are forming new strategies and making new partnerships to adapt to this new order. In the Indo-Pacific — the primary theatre for US-China competition — one result of this is a new appreciation in Japan and Australia of one another's significance as a strategic partner to the other.

How this partnership navigates changing great power dynamics will have great consequences for both countries. Notwithstanding the second Donald Trump administration's renewed focus on the western hemisphere,⁴⁹ as well as questions about the future of its transatlantic relationships, the United States is highly unlikely to divest from competition in the Indo-Pacific. Doing so would have profound negative long-term effects on its material and economic security. It is the form its interest will take that will influence how US allies in the region, like Australia and Japan, respond. Indeed, Washington will remain the most important security partner for both Tokyo and Canberra thanks to the expansion of China's People's Liberation Army (PLA), which seeks to rival the United States as the world's pre-eminent military power,⁵⁰ and questions over how Beijing intends to leverage that power in pursuit of its regional objectives.



Japan Maritime Self-Defense Force Mogami class frigate, JS Kumano departs Fleet Base East, Sydney ahead of the naval exercise component of Exercise KAKADU 2026.. Source: Australian Department of Defence

These changes require that Australia and Japan — two powers that locate their national interests within a stable international system which allows for the free flow of goods — more closely align their policies and strategies. This is already occurring. This paper, therefore, seeks to identify the most significant areas for this cooperation in the security sphere. It also seeks to conceptualise the Australia-Japan relationship as a partnership that, while it cannot replace the shortfall in military presence which would be created should a drawdown of US forces in the Indo-Pacific, would be able to shape dynamics in the region. Properly managed, this relationship can actively shape the evolving dynamics between the United States and China — through closer coordination between Canberra and Tokyo — as well as passively creating an environment which promotes continued constructive engagement in the region from Washington.

US reliability and alliance cooperation

When considering how best Australia and Japan can work together, given they count the United States as their most important security partner, it is necessary to examine how the United States is perceived in both nations.

In a 2025 poll from the United States Studies Centre, 16% of Australian respondents said that Donald Trump's second term as president was good for their country, with 56% saying the opposite; in Japan, those figures are 5% and 59% respectively.⁵¹ A recent poll by *The Yomiuri Shimbun* also found that only 22% of Japanese respondents had trust in the United States.⁵² Lowy Institute polling shows similar results, with 64% of Australians having no trust in the United States to “act responsibly in the world” and 72% having no confidence in Donald Trump to “do the right thing regarding world affairs.” Interestingly, however, 80% of Australians consider its alliance with the United States as important to its security.⁵³ Japan, too, continues to see its US alliance as fundamental to its security, noting in its most recent defence White Paper that it “has maintained its peace, security, and independence centred on the Security Arrangements with the United States, the world's preeminent military power.”⁵⁴

Thus, two key changes in the international system are driving anxieties in Australia and Japan: the structural changes that have occurred to the US-China relationship, as Beijing's economic power grows and it expands its military, and domestic changes in the United States, which produce concerns about its reliability in Asia. This situation has not caused either Canberra or Tokyo to move to reduce their reliance on Washington. Indeed, both are investing heavily in this relationship — Australia most notably with the AUKUS arrangement, and Japan with its own plans to enhance the size and readiness of the Japan Self-Defense Forces (JSDF), alongside deeper coordination with the United States.⁵⁵ These plans are accompanied by increased defence cooperation, including joint trainings, exercises, strengthening command and control systems, and deepening co-operation relating to defence industrial issues and advanced technologies.⁵⁶

However, the increased emphasis both Japan and Australia are placing on their alliances with the United States should not be perceived as a supreme vote of confidence from either capital in Washington. It should be seen in its fullest context, which sees the Japan-Australia relationship as an important part of both the United States' alliance structures in the Indo-Pacific and for regional deterrence. To succeed in the new international order, Australia and Japan should be shaping powers, working together to ensure they are not merely shaped by the actions of more powerful states.

Shaping powers

Defining Australia and Japan as middle powers is limiting. It is a designation that implies a static position in the international system, and not the actions that such powers can take. A shaping power, by contrast, is defined by the actions it takes. It is not able to exercise influence over the entirety of the international system — this is the prerogative of superpowers — but it can set and pursue agendas at lower levels which affect how said influence is exercised.

It is undeniable that there is an element of hedging in the increasing ties between Australia and Japan, though it is not a case of Australia seeking a new “great and powerful friend” to anchor its security in the face of a more inwardly-focused United States.⁵⁷

Given that both Australia and Japan count the United States as their most important security partner, that they would seek mutual reassurance is not surprising. This is not necessarily a bad thing, but conceptualising the Australia-Japan relationship in terms of hedging is as unhelpful as it is incorrect. Thinking of the two countries as shaping powers is more useful.

Given the pace of China's military build-up and the United States' response, defence spending will be a key issue for Australia and Japan, both separately and in the context of deeper cooperation. Whether at the direct request of the United States, which wants its allies to increase defence spending, or because they are concerned that a more recessed US presence in the Indo-Pacific will cause US partners to invest more in their respective militaries.⁵⁸ However, the quality of this spending will matter just as much as its quantity. This is a major area for cooperation and joint planning between Australia and Japan, and an important way in which deepening links between the two countries can shape the decision-making environment for both the United States and China. The first step of this process should be defining how Japan and Australia perceive threats, and how these differences will affect the pursuit of complementary policies.

Difference and cooperation

Examining the attitudes to China in Australian and Japanese declaratory policy is instructive here. Australia's 2024 *National Defence Strategy* states that US-China competition is the "primary feature of Australia's security environment," and that "China has employed coercive tactics in pursuit of its regional objectives." The strategy then discusses the risks posed by crises over the Taiwan Strait as well as in the East and South China Seas.⁵⁹ Japan's 2022 *National Security Strategy* is more forthright, casting Chinese actions in the South and East China Seas as "attempts to unilaterally change the status quo by force," and its foreign policy more generally as "an unprecedented and the greatest strategic challenge in ensuring the peace and security of Japan and the peace and stability of the international community."⁶⁰

Given the pace of China's military build-up and the United States' response, defence spending will be a key issue for Australia and Japan, both separately and in the context of deeper cooperation.

While these differences exist in declaratory policy, it is significant that the September 2025 Joint Statement between Australia and Japan saw Australia adopting this more strident Japanese language. The two governments "reiterated [their] strong opposition to any unilateral attempts to change the status quo by force or coercion in the East China Sea and the South China Sea."⁶¹ Australia's forthcoming National Defence Strategy may well contain similar language, reflecting a shift in Australian threat perceptions closer to those held in Japan.⁶² Changes in declaratory policy in this way should lead to tangible changes in strategic policy.

Nonetheless, this perceptual alignment can only be taken so far, for the simple fact of geography. Because of its proximity, Japan contends with China as territorial threat as well as a structural one. Despite the fact that it is within range of PLA Rocket Force weapons and PLA Air Force long-range bombers⁶³ — a trend that will increase⁶⁴ — at the edge of Asia, Australia's circumstances dictate that it will continue to primarily perceive the strategic challenge posed by China as primarily a structural one, rather an issue which will impinge on Australia's physical security.

Thus, while it is highly likely that there will be increasing alignment on certain issues between Australia and Japan, structural and geographic issues will prevent anything approaching a total alignment. There are several key areas for increased cooperation: in joint planning, counter-coercion, defence industry and intelligence. But it is necessary for the appropriate bureaucratic measures to be put in place so that activity across these areas is both sustained and coordinated.



HMAS Toowoomba sails in the Philippine Exclusive Economic Zone (EEZ) of the disputed South China Sea. Source: Getty

Bureaucratic thickness

As already noted, Australia and Japan both share the United States as their principal security partner. But their two relationships are conceptually and operationally highly distinct.

Australia has many modes of cooperation with the United States: The Five Eyes intelligence partnership, regular rotations of US Marines through Darwin, the joint facility at Pine Gap, joint training and exercises and a myriad of exchanges.⁶⁵ These initiatives have helped undergird Australia's prosperity since the end of the Second World War, as it both benefited from as well as supported — with force when necessary — the US-led order.⁶⁶ However, Canberra's alliance with Washington is not institutionalised in the same way as the Japan-US alliance. Measures to improve and update coordination have occurred since the first Guidelines for US-Japan Defense Cooperation were signed in 1978, with new systems produced in 1997 and most recently in 2015.⁶⁷

The Alliance Coordination Mechanism (ACM), created in 2015, represented a major step forward in joint planning between the United States and Japan.⁶⁸ The ACM established a highly organised whole-of-government input to “seamlessly and effectively implement a well-aligned Japan-U.S. response” to address any situation that affects Japan's peace and security or any other situation that may require an Alliance response.⁶⁹ Australia has no such formal arrangement with the United States — and this paper does not suggest it should create one. Australia can and should, however, learn lessons from how Japan coordinates its alliance with the United States, and apply those lessons to the Australia-Japan relationship. For instance, the ACM has allowed for smooth planning and operational coordination in response to natural disasters, North Korean missile testing and Chinese incursions into Japanese waters around the Senkaku Islands.⁷⁰ This is a tested bureaucratic structure that Australia should seek to implement in its relations with Japan. Plans formulated by Canberra and Tokyo should be coordinated

in order to promote collective deterrence, particularly when faced with the prospect of a more recessed US presence in the region.⁷²

Granted, it would be unreasonable to aim for the same level of integration between Tokyo and Canberra as exists between Tokyo and Washington. The United States, after all, is enmeshed within Japanese defence planning and structure in a way it is not with Australia. Recent initiatives tighten their defence relationship across areas including command and control, defence industry, counter-hypersonics and artificial intelligence.⁷³ But as Australia and Japan seek to tighten their own relationship, particularly as it relates to defence, they should aim towards growing a similar kind of bureaucratic thickness. It is through these kinds of working-level connections that policy can be aligned, advantages leveraged and duplication avoided.

Joint planning and coordination

The 2025 2+2 Australia-Japan statement noted the significance of the Scope, Objectives and Forms (SOF) dialogues in “accelerating operational cooperation between Japan and Australia.”⁷⁴ Leveraging the increase in ease with which Australian and Japanese servicepeople can work alongside each other in one another’s countries as a result of the Australia-Japan Reciprocal Access Agreement (RAA), SOF dialogues could be modelled in part on the Bilateral Joint Operations Coordination Centre (BJOCC). The BJOCC exists as part of the US-Japan ACM,⁷⁵ which has been “the primary bilateral operational coordination body” between the United States and Japan since 2015.⁷⁶ This would build on established systems created by Japan to create more aligned operational plans and concepts between the ADF and JSDF.

Noting that challenges to regional stability are not purely military, or rather, involve the need to counter grey-zone tactics in the region,⁷⁷ the SOF dialogue will also require civilian representation to ensure that the full spectrum of threats and issues is considered. SOF dialogues may also supplement existing programs to deepen cooperation between Australia’s Headquarters Joint Operations Command (HQJOC) and Japan’s Joint Operations Command (JJOC). JJOC already has close links with HQJOC:

its first international military liaison, appointed in September 2025, is an Australian Defence Force (ADF) officer. The ADF’s Japanese counterpart was posted to HQJOC in November 2025.⁷⁷

Bureaucratically thick SOF dialogues would not replace other mechanisms for cooperation. Instead, if properly constituted with the correct blend of military and civilian personnel, in promoting regular mid-to-high level contact between Australians and their Japanese counterparts, it will allow for a much more efficient co-development of strategies than ministerial-level meetings can provide. The Framework for Strategic Defence Coordination (FSDC) announced in December 2025 will also further the alignment of defence policies between Australia and Japan.⁷⁸ As with the SOF dialogues, every effort should be made to institutionalise the FSDC as a joint planning forum, extending well into the bureaucratic structures of each country’s defence departments.

Defence Industry

Australia’s decision to acquire twelve upgraded *Mogami*-class frigates (the New FFM) from Japan is another development that provides scope for closer cooperation. This is not simply because the RAN will be operating vessels very similar — though not identical⁷⁹ — to the frigates which the JMSDF will also operate in the future, though this is important from an interoperability perspective.

As Australia and Japan seek to tighten their own relationship, particularly as it relates to defence, they should aim towards growing a similar kind of bureaucratic thickness.

Japan's entry into the Five Eyes may well be more fantasy than reality for the time being, but if its intelligence service does develop along lines akin to services in Australia, the United States or the United Kingdom, then Japan's participation in the intelligence sharing provision of AUKUS Pillar II will become much more likely.

Australia's domestic defence industry is too small to be able to produce many of the capabilities Canberra requires at both speed and scale.⁸⁰ Canberra and Tokyo need this program to succeed. Australia needs a to expand its surface fleet and Japan needs a proof of concept to become a major defence exporter. In order to fulfil its own military build-up plans, Japan — though it starts from a higher base than Australia — should also reinvigorate its defence industry to deal with an era of “excess demand.”⁸¹ Thus, Mitsubishi Heavy Industry will be under enormous pressure to ensure timely delivery.

This structural force cannot let Australia be complacent, however. Australia is perceived in Japan as a “difficult customer” when it comes to defence acquisitions.⁸² Canberra must work hard to ensure this moniker is not a fair descriptor as it acquires the New FFM. Regular mid-to-high level contact between relevant parts of the Australian and Japanese defence sector will allow potential problems in the acquisition process to be identified and addressed at speed.

Intelligence

Intelligence cooperation is another area in which cooperation can progress at speed and with tangible results. A commitment contained within the coalition agreement between Japan's ruling coalition the Liberal Democratic Party and Nippon Ishin no Kai (Japan Innovation Party) is the establishment of a national intelligence service.⁸³ Australia will take a keen interest in its development.

Intelligence cooperation with the United States through Five Eyes is a key way in which Australia has and continues to support regional stability and promote its own security. If Canberra wishes to develop a relationship with Tokyo capable of supporting these objectives, enhancing the Australia-Japan intelligence relationship is essential. This is, however, a more difficult task in some ways that strengthening defence industrial partnerships or operational planning. Japan's intelligence apparatus is less developed than Australia's. The Takaichi government is committed to introducing stronger espionage laws, which will ease greater intelligence sharing with countries like Australia by creating a more secure environment.⁸⁴

Japan's entry into the Five Eyes may well be more fantasy than reality for the time being, but if its intelligence service does develop along lines akin to services in Australia, the United States or the United Kingdom, then Japan's participation in the intelligence sharing provision of AUKUS Pillar II will become much more likely.

Given that enhancing the Australia-Japan intelligence relationship requires significant domestic reform on the Japanese side, this is an area for cooperation in the medium rather than the short term. But it is no less significant for that timeframe.

Counter-coercion

Chinese grey-zone activities raise the risk of direct conflict with Japan, either deliberately or through miscalculations,⁸⁵ and put broader pressure on Japan. The frequency at which Japan scrambles its aircraft to deal with Chinese incursions into the Senkaku Islands' air defence identification zone

(ADIZ), for instance, has raised concerns about wearing out its fighter fleet relative to China's.⁸⁶ Australia could assist in ameliorating this state of affairs by rotating RAAF aircraft or uncrewed systems to support Japanese surveillance efforts.⁸⁷ Australian participation in the Japan-US Bilateral Intelligence Analysis Cell (BIAC) presents an opportunity for Australia to do just this. To deepen the Australia-Japan partnership and increase its effectiveness in supporting regional deterrence and shaping power dynamics in the region, operational cooperation is fundamental.⁸⁸

These actions also steadily chip away at the resolve of nations interested in regional stability, undermining coordinated responses to Chinese activities.⁸⁹ A comprehensive counter-coercion strategy, drawing as many levers of national power as possible, would be a useful tool for regional deterrence. A starting point for developing such a strategy could be joint overflight of disputed features and the mutual embedding of Australian and Japanese sailors on vessels conducting passages through the South China Sea. Through the SOF dialogues, Japan and Australia should lead the way in drafting such a strategy, leaving paths open for other like-minded countries in the region to participate.

Conclusion

Australia and Japan share a common ally, strategic outlooks and an interest in maintaining regional stability. As the region and the common ally change, so too must the level of their cooperation.

There is a vast appetite in both countries to increase the scope of their cooperation. The key issue, therefore, is prioritising areas of cooperation where they can best complement one another.

For this to eventuate, Australia and Japan should begin by formalising cooperation mechanisms throughout their security institutions — thickening the bureaucratic links between the two countries. This will cohere all elements of the defence agenda.

If Tokyo and Canberra do this, their relationship has the capacity to be a powerful shaping force in the region.

Securing the blue Pacific: Japan-Australia cooperation for sustainable regional development in the Pacific

TOSHIKI MATSUKIYO⁹⁰

MINISTRY OF FOREIGN AFFAIRS OF JAPAN

Executive summary

The Pacific Island Countries (PICs) — long-standing partners of Japan and Australia — are confronting three major potential challenges arising from China's rapidly expanding engagement in the region, each posing significant risks both to the region and to traditional partners, including Japan and Australia: (1) erosion of democratic institutions; (2) weakening regionalism; and (3) militarisation of the Pacific region. Given the geography of the PICs and their role in linking partners and allies through critical sea lanes and airspace, these developments carry serious strategic implications for both Tokyo and Canberra. By examining the expansion of China's presence across political, economic and security domains, this paper argues Japan and Australia should commit to strengthening Pacific regionalism and sustaining well-coordinated, long-term engagement by traditional partners, in order to deter these risks and advance the free and open Indo-Pacific vision in the region while supporting sustainable development of the Blue Pacific.

Key policy recommendations

- Australia and Japan should commit to strengthening Pacific regionalism through expanded support for the Pacific Islands Forum (PIF).
- Japan should consider increasing its voluntary financial contribution to the PIF Secretariat and seconding a development cooperation expert from the Ministry of Foreign Affairs to enhance the Secretariat's capacity for project planning and management, as well as communication between Japan and PIF.
- Australia, as a PIF member, could support this process by facilitating communication and coordination with member countries and the Secretariat.

- Australia and Japan should explore new options for institutionalising stronger, long-term commitments to the region from traditional partners.
- The two countries should consider establishing mechanisms for policy coordination among partners by establishing a 'Pacific Partners Coordination Hub (PPCH)' in Fiji. This platform would enable partners — including the United States and New Zealand — to share regional assessments, jointly design assistance programs, and coordinate external messaging at the working level while maintaining close and structured communication with the PIF Secretariat.
- Japan should also consider inviting the United States and other partners to the Pacific Islands Leaders Meeting (PALM) process to strengthen trust-building and advance political-level policy coordination among PICs and traditional partners.
- Australia and Japan should explore options for greater collaboration on regional law enforcement.
- Australia should lead on multi-party law enforcement cooperation with PICs in a manner that promotes an open and inclusive framework for policy coordination and alignment among traditional partners, including Japan and the United States, in order to minimise duplications and more effectively counter and constrain Beijing's expanding engagement in this sensitive security space.



The 10th Pacific Islands Leaders Meeting (PALM10) in Tokyo, July 2024. Source: Getty

Introduction

Japan and Australia, as special strategic partners, have systematically strengthened their cooperation to advance a vision for a free and open Indo-Pacific that is inclusive and resilient.⁹¹ In this context, one of the most strategically consequential areas for such cooperation is the Pacific Island Countries (PICs),⁹² a geographical area spanning nearly 20% of the Earth's surface, linking Japan and Australia and their allies and partners, including the United States, through critical sea lanes and airspace that are vital not only for commercial purpose but also for allied defence and security operations. PICs have long been important partners for both Japan and Australia, including in the economic domain — most notably fisheries — and in the diplomatic sphere, especially in advancing shared global agendas, including cooperation within the United Nations. Reflecting their differing geographic positions within the region, Tokyo and Canberra have historically pursued distinct approaches to engagement with PICs through separate diplomatic channels. These include Japan's role as the host of the Pacific Islands Leaders Meeting (PALM) process since 1997 and Australia's long-standing membership in the Pacific Islands Forum (PIF), the region's principal institution for collective decision-making and collective action since its establishment in 1971.

However, as the security environment in the Indo-Pacific has rapidly deteriorated and the existing regional order has come under profound strain, China's rapidly expanding influence in the region has generated serious strategic challenges both for the PICs and for traditional partners, including Japan and Australia. These developments, in turn, underscore the need for Tokyo and Canberra to adopt a closer and more coordinated diplomatic approach toward PICs. This policy paper examines how the evolving regional landscape is being shaped by China's growing presence and identifies the key challenges that this poses to Australian, Japanese and broader regional interests. It then offers policy recommendations for both countries to strengthen their cooperation in the Pacific, supporting PICs in responding to those challenges and advancing their shared vision of a free and open Indo-Pacific in the region.

New regional landscape: China's expanding influence

Although Australia, New Zealand, Japan, the United States, Taiwan and several European states have traditionally served as the region's primary partners, China has steadily and successfully expanded its presence and advanced its objectives in the region in recent years. This development can be attributed to two principal factors: the PICs' willingness to engage with China, driven by their strategic preference to diversify external partnership and to manage great-power competition in the region, and China's substantial and sustained political, commercial and economic commitments to the region. China's first major engagement in the region dates back to 2006, when the inaugural China-PICs Economic Development and Cooperation Forum was held in Fiji, and its involvement has intensified since the 2010s.⁹³ Positioning itself as "a member of the Global South" and as a supportive and equal partner to the PICs, China has emphasised the importance of "South-South Cooperation," while significantly deepening its involvement across economic, diplomatic, and security domains.⁹⁴

However, this paper argues that Beijing's growing interest and involvement in the region are driven by three core strategic objectives: (1) building and sustaining geopolitical influence; (2) leveraging that influence to minimise Taiwan's diplomatic presence; and (3) establishing a security foothold. Beijing's actions and objectives ultimately pose significant risks to the region and to traditional partners, including Australia and Japan, by (1) eroding the democratic institutions of the PICs; (2) weakening regionalism; and (3) militarising the region.

Even so, it should be highlighted that PICs have generally viewed China as a positive regional partner. This perception was articulated in 2019 by then PIF Secretary General, Dame Meg Taylor, who observed that "(i)n general, forum members view China's increased actions in the region as a positive development, one that offers greater options for financing and development opportunities — both directly in partnership with China and indirectly through the increased competition in our region."⁹⁵ In essence, heightened engagement by external actors enhances the bargaining power of the PICs — whose economies remain heavily dependent on external

assistance — over other regional partners, by enabling them to leverage geopolitical competition to extract greater benefits and advance both national and regional priorities. This defining feature of the PICs' strategic posture is often described as a “friends to all” foreign policy.⁹⁶

At the same time, the PICs understand that intensifying great-power competition between the United States and China has the potential to affect the region profoundly, and view both this dynamic and how it is managed as critical to regional peace and stability. This perspective is clearly reflected in Fiji's 2024 Foreign Policy White Paper, which characterises the region's central strategic challenge as “the largest challenge facing the Indo-Pacific is the construction of a stable balance... between the US and China.”⁹⁷ Fiji's 2025-2029 National Security Strategy identifies Fiji's highest strategic priority as “to contribute to a stable Indo-Pacific region while navigating the challenges of a multipolar world.”⁹⁸

On the other hand, China's substantial and increasingly complex engagement with the region is a fact of life. In the political space, China has continuously expanded its diplomatic engagement with PICs through high-level meetings and official visits. President Xi Jinping visited the region in 2014 (Fiji) and 2018 (Papua New Guinea) and, since 2014, has reportedly held more than 30 direct meetings with leaders of the Pacific Island Countries (PICs).⁹⁹ Beyond bilateral engagement, China has also actively pursued multilateral initiatives. Most recently, in May 2025, China's Foreign Minister Wang Yi chaired the Third China–Pacific Island Countries Foreign Ministers' Meeting in China with senior representatives from 11 PICs holding diplomatic relations with China in attendance.¹⁰⁰ Through this forum, China sought to institutionalise its growing presence in the region, advance core political priorities — including opposition to Taiwan independence — and portray itself as a positive alternative to traditional partners, particularly on climate and trade.¹⁰¹ In 2023, China also appointed a special envoy for Pacific Island affairs, further institutionalising and deepening working-level engagement.¹⁰²

China has also pursued deeper commercial and economic engagement with PICs. The share of PICs' commodity trade with China increased from approximately 13% in 2012 to 29% in 2023, and China is now the largest trading partner in four PICs, including Papua New Guinea, the largest economy in

the region.¹⁰³ From China's perspective, the region is strategically important for securing access to timber, fisheries and potentially critical minerals. For example, 89% of Papua New Guinea's timber exports are destined for China,¹⁰⁴ notwithstanding concerns over illegal logging and environmental degradation involving Chinese companies.¹⁰⁵ The PICs also possess significant potential in seabed mineral resources, and China has sought preferential access, as reflected in the Memorandum of Understanding signed with the Cook Islands in February 2025.¹⁰⁶ While environmental concerns have made PICs cautious about seabed mining, it should be noted that the long-term economic and strategic implications of resource access remain considerable, especially given the global competition for securing critical minerals and establishing reliable supply chains.¹⁰⁷ China has also expanded its presence in the tourism sector — one of the pillar industries for many PICs.¹⁰⁸ In all forms of economic cooperation, China has emphasised that the PICs lie along the “southern extension” of the Belt and Road Initiative (BRI) and has maintained consistent engagement in the region on this basis.¹⁰⁹ According to the research by the Lowy Institute, between 2008 and 2023, Beijing has pledged approximately US\$6.2 billion in loans and grants and disbursed about US\$4.8 billion, making China the second-largest bilateral aid donor to the region.¹¹⁰

In all forms of economic cooperation, China has emphasised that the PICs lie along the “southern extension” of the Belt and Road Initiative and has maintained consistent engagement in the region on this basis.



Leaders of Pacific Islands nations sitting together during the Pacific Islands Forum summit in Honiara, September 2025.
Source: Getty

China's ambitions also increasingly extend into the law enforcement domain — especially policing cooperation — in ways that pose serious new challenges for the PICs.¹¹¹ China first initiated police cooperation in the region in 2011 with Fiji, a country that has experienced episodes of political instability in the past.¹¹² Since then, China's Ministry of Public Security has also established cooperative arrangements with police forces in Kiribati, the Solomon Islands and Vanuatu. Such arrangements include training and capacity-building assistance, equipment provision and deployment of Chinese police advisers.¹¹³ The research suggests that such cooperation enables China to disseminate authoritarian doctrines among local elites, centring on "internal regime security."¹¹⁴ This undermines local rule of law and democratic values and creates opportunities for activities such as intelligence collection abroad, a method officially materialised as China's Global Security Initiative (GSI) announced in 2023.¹¹⁵ These dynamics risk undermining democratic institutions and may prove detrimental to a target country's sovereignty and political autonomy, which could, in turn, undermine the basis for Japan's and Australia's cooperation with PICs.

China's goals: Minimising Taiwan's diplomatic presence and establishing a military foothold in the region

China has increasingly leveraged the influence generated through these deepened relationships to advance its strategic objectives — most notably reducing Taiwan's diplomatic presence and laying the groundwork for a security foothold in the region. Both trends pose significant risks of eroding regionalism and accelerating the militarisation of the Pacific Islands. As discussed below, such developments could ultimately pose significant challenges to Japan–Australia security cooperation and complicate efforts to pursue effective and consistent engagement aligned with regional initiatives collectively developed within the PIF. As a result, the PICs also risk missing important development opportunities.

In recent years, several countries have shifted diplomatic recognition from Taipei to Beijing, including Kiribati and the Solomon Islands in 2019 and Nau-

ru in 2024. As a result, only Palau, Tuvalu and the Marshall Islands continue to maintain diplomatic relations with Taiwan.¹¹⁶ These developments go well beyond the diplomatic choices of individual states and carry serious region-wide implications, notably undermining the foundations of regionalism. This was particularly evident when Solomon Islands, the host country of the PIF 2025 Leaders' Meeting, announced that it would exclude all the dialogue partners, including Japan, the United States and Taiwan, from attending the meeting.¹¹⁷ Although the Solomon Islands Prime Minister officially framed the decision as a response to delays in PIF's internal review of engagement with external partners, it has been widely analysed that behind-the-scenes pressure from China influenced PICs' positions on Taiwan's participation in the forum.¹¹⁸ Furthermore, the episode publicly exposed deep divisions among member states and underscored the risk of eroding regional unity, evidenced in Samoan Prime Minister, Fiamē Naomi Mata'afa's statement that her country might boycott the meeting if Taiwan were not invited.¹¹⁹ Subsequently, the meeting was conducted exclusively among PIF member states, including Samoa and the Solomon Islands, narrowly managing to preserve regional coherence. However, this outcome came at a significant cost. The decision deprived dialogue partners, including Japan, of opportunities to participate in substantive discussions on Pacific development, including those related to infrastructure, climate finance and technical expertise.¹²⁰ It also eliminated the valuable opportunities, such as bilateral sideline meetings with Pacific Island leaders that typically accompany the PIF Leaders' Meeting.¹²¹ In short, the decision by Solomon Islands came at the cost of losing significant opportunities for both member states and dialogue partners. Moreover, Palau — the host country for the 2026 PIF Meetings — will face the same challenge.¹²²

With respect to military presence, China has increasingly leveraged its influence to advance its strategic agenda, generating significant risks for the region by positioning it at the centre of potential military competition and conflict. One of the most consequential developments in this domain occurred in March 2022, when a leaked security agreement between China and the Solomon Islands revealed provisions reportedly allowing China to deploy military forces to the Solomon Islands.¹²³ Given the country's strategic location — approximately 2,000 km northeast of Australia and in proximity to key US military facili-

ties in the Pacific — this development would expand China's maritime strategic presence and bolster its hard power, with "far-reaching implications for the Indo-Pacific."¹²⁴ In addition, existing research indicates that China has pursued infrastructure development — including ports, airfields, and information and communications systems — nominally for civilian purposes, while incorporating dual-use capabilities that could be mobilised to support operations by the People's Liberation Army (PLA).¹²⁵

Taken together, these activities have shaped the regional strategic environment in ways directly relevant to potential future conflicts involving Japan, Australia, the United States and its partners. China's ambitions were further underscored by the PLA Navy's unprecedented live-fire exercise conducted approximately 640 km off the coast of New South Wales in 2025.¹²⁶ Reflecting these concerns, a recent US congressional report warned that even a limited Chinese military presence in the Pacific could present a "substantial strategic challenge" for the United States and its allies and partners.¹²⁷ It is self-evident that such developments would also constitute a grave threat to Japan's and Australia's ability to conduct joint security operations.

Policy recommendations

China's expanding influence has generated three major potential challenges to the PICs: potential erosion of democratic institutions, weakening of regionalism and militarisation of the region. These challenges threaten the foundation for Japan's and Australia's cooperation with PICs while also generating significant risk for Japan-Australia bilateral security cooperation. At the same time, it is important to acknowledge that China's engagement has also provided the PICs with additional opportunities and policy options. Moreover, from the perspective of many PICs, amid intensifying great-power rivalry between China and the United States, managing the regional balance of power is a priority and, to a certain extent, inevitably entails accommodating China's growing influence in the region. Accordingly, the foreign policy of traditional partners should focus not on excluding China's influence, but on managing it in a manner that is consistent with regional stability and interests of PICs. This paper argues that such an approach requires robust sovereignty and autonomy among the

PICs, grounded in healthy democratic institutions, strong regionalism and long-term commitment from traditional partners, and enhanced coordination in the provision of assistance.

In this regard, it is fair to note that Australia has assumed a far more prominent leadership role than Japan in managing regional challenges in the Pacific, reflecting both its geographic proximity to the region and its long-standing ties with the PICs. Consistent with Australian Foreign Minister Penny Wong's characterisation of the Pacific as a region of "permanent contest,"¹²⁸ Australia — as a founding member of the PIF — has made substantial contributions across economic and security domains, including as the region's largest donor and through the recent conclusion of a mutual defence agreement with Papua New Guinea (the Pukpuk Treaty).¹²⁹ However, given the potential for these challenges to have significant implications, including for Japan-Australia bilateral relations, Australia should expect further engagement from Japan, and Japan should be prepared for it. To this end, Japan and Australia should consider the following three policy recommendations:

1. Strengthening Pacific Regionalism through the PIF

Historically, Pacific states have leveraged regionalism as a means of addressing shared challenges — ranging from nuclear waste management and tuna fisheries governance to climate change — while maximising their collective bargaining power in international negotiations. The PIF has long served as the non-political and operational vehicle for this purpose. Through the forum, Pacific states have advanced a series of principles and initiatives, including the Boe Declaration on Regional Security,¹³⁰ the 2050 Strategy for the Blue Pacific Continent¹³¹ and the 2025 Blue Pacific Ocean of Peace Declaration,¹³² aimed at maintaining regional peace, stability and prosperity.

In this context, Japan should continue its support for these initiatives and explore ways to further strengthen them.¹³³ More specifically, Japan should consider increasing its voluntary financial contribution to the PIF Secretariat — which, as of 2025, accounts for approximately 0.5% of the Secretariat's

total annual budget — and consider seconding a development cooperation expert from the Ministry of Foreign Affairs.¹³⁴ These measures would enhance the Secretariat's capacity for project planning and management, while also fostering closer communication and greater policy alignment between the PIF member states, the Secretariat and the Japanese Government. Australia, as a member of the PIF, should support and facilitate Japan's enhanced contribution from within the organisation, including by assisting coordination and communication among PIF member states, the Secretariat and Japan.

2. Institutionalising strong and long-term commitment by traditional partners

Managing China's influence in the Pacific is inseparable from maintaining a strong presence and long-term, collective commitment by traditional partners — including Australia, Japan, New Zealand and the United States. In this regard, sustained engagement by the United States in the region remains indispensable. Shifts in policy posture under the second Donald Trump administration — including the decision to dismantle the United States Agency for International Development (USAID) — have contributed to growing uncertainty among PICs regarding the sustainability of the United States as a partner,¹³⁵ which China has sought to exploit through a strategic messaging campaign positioning itself as a more trustworthy partner.¹³⁶ However, detailed research by the Lowy Institute shows that even under the new US policy framework, more than 80% of US assistance to the region is expected to be preserved, and concludes that narratives suggesting a US withdrawal from the Pacific are "overstated."¹³⁷ Indeed, the Trump administration has repeatedly underscored its recognition of the region's strategic importance and its intention to remain engaged with the PICs.¹³⁸

To capitalise on this policy momentum, Japan and Australia, together with the United States and other partners, such as New Zealand, should work to institutionalise mechanisms for aid coordination. In this context, Canberra and Tokyo should take a leading role to establish a "Pacific Partners Coordination Hub (PPCH)" in Fiji, where the Secretariat of the PIF is located. The Hub would serve as a plat-

form through which working-level Pacific specialists from partner embassies, as well as visiting officials from capitals, could convene regular meetings to share regional assessments, jointly design and coordinate their assistance programs and better coordinate external messaging. It would also facilitate systematic communication between partner countries and the PIF Secretariat and enable more coherent and effective assistance planning aligned with the PIF's principles, including '2050 Strategy for the Blue Pacific Continent.'

In this context, Japan should also consider inviting the United States and other partners to the Pacific Islands Leaders Meeting (PALM), which Japan has hosted every three years since 1997.¹³⁹ PALM has been widely recognised as a cornerstone of trust and partnership between Japan and the PICs. While expanding PALM to include additional parties could entail domestic and diplomatic challenges for Japan,¹⁴⁰ such an initiative would allow Japan to contribute to strengthening trust-building and advance political-level policy coordination among PICs and traditional partners — both of which are critically needed in the current regional environment. This proposal is also consistent with recent US policy efforts, including the Partners in the Blue Pacific (PBP) initiative announced in 2022 under the Biden administration.¹⁴¹ Australia, as a PIF member, could play a key diplomatic role in supporting Japan's efforts, including by facilitating communication with the PICs and other partners.

3. Aligning policy orientation among traditional partners on law enforcement assistance

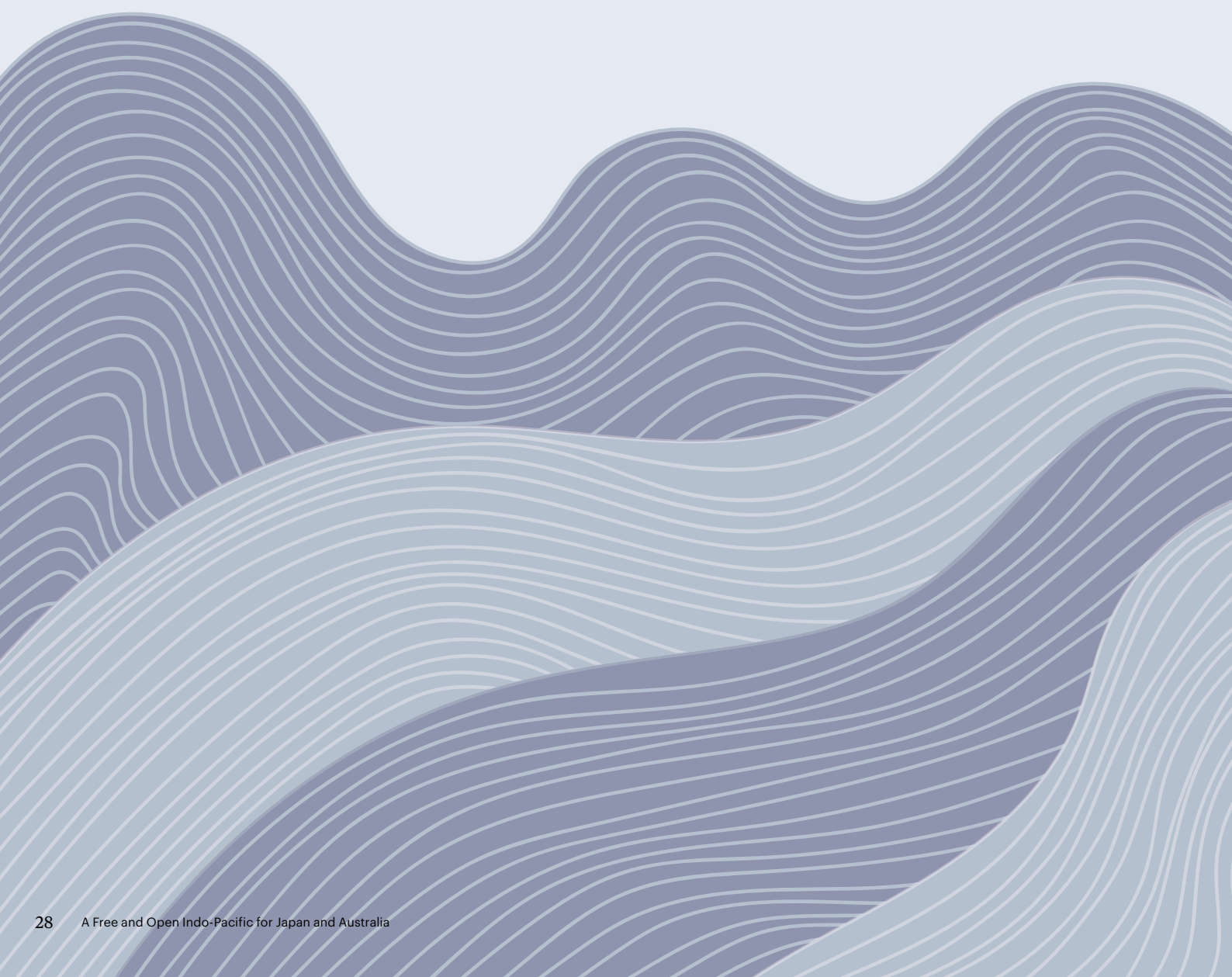
One of the most pressing challenges in managing China's growing influence and in safeguarding the democratic institutions that form the foundation of Japan's and Australia's cooperation with the PICs is establishing reliable assistance mechanisms in the increasingly salient domain of law enforcement. Traditional partners like Australia and Japan should consider accelerating and better coordinating their efforts to provide credible and reliable security-related assistance to the PICs. In this context, although Australia has already demonstrated leadership, its current approach has tended to emphasise exclusion rather than alignment with the aim of preserving

regional cohesion.¹⁴² For example, under Australian leadership, it was announced in August 2024 that the Pacific Policing Initiative (PPI) — including the establishment of training facilities and rapid-response units — would be launched under the framework of the Pacific Islands Chiefs of Police (PICP), comprising Australia, New Zealand and PICs.¹⁴³ Notably, however, no other traditional partners were invited to participate. This represents a significant missed opportunity for Australia-Japan cooperation, and existing research also indicates that the initiative requires further support from other partners, including Japan and the United States.¹⁴⁴ Japan, for instance, possesses extensive experience and expertise in international police cooperation, including long-standing support for police reform in Indonesia since 2001 through collaboration between the National Police Agency and the Japan International Cooperation Agency (JICA).¹⁴⁵

Accordingly, in the security and law-enforcement domain, Australia should consider exercising leadership that promotes an open and inclusive framework for policy coordination and alignment among traditional partners, including Japan and the United States. Such an approach would maximise collective capacity and effectiveness, while strengthening efforts to counter and constrain Beijing's expanding engagement in this sensitive security domain.

SECTION TWO

Economic security



Rebuilding a free and open international economic order: Strengthening the CPTPP for free trade and a Free and Open Indo-Pacific

AI WATANABE

KEIDANREN (JAPAN BUSINESS FEDERATION)

Executive summary

- The rules-based, free and open international economic order currently faces a crisis due to growing protectionism globally. Developments such as Russia's aggression in Ukraine, unilateral tariff measures by the United States and economic coercion by China are aggravating the situation.
- Yet as larger powers like the United States and China move away from a global free trade system, other like-minded regional partners can play an important role in maintaining and strengthening an international economic order based on rules and standards. Against this background, strengthening the Comprehensive and Progressive Trans-Pacific Partnership (CPTPP) is an effective pathway for preserving key elements of an open international economic order. As regional middle powers and founding members of the framework, Japan and Australia should take the lead in modernising the CPTPP, including exploring new membership options.

Key policy recommendations

To accelerate CPTPP expansion while safeguarding high standards, Australia and Japan should:

- Prioritise accession negotiations with key Asian economies (South Korea, Indonesia, Thailand, the Philippines).
- Engage India strategically, balancing its value as a Quad member against a careful assessment of its track record in WTO rule-making.
- Prioritise and accelerate EU accession, leveraging the United Kingdom's recent membership.
- Maintain strict adherence to CPTPP accession principles when evaluating China's application.
- Keep the door open for a future US return, recognising the strategic and economic value of renewed US participation.



World Trade Organization Director General Ngozi Okonjo-Iweala and Japanese Minister of Economy, Trade and Industry Ryosei Akazawa at talks in Tokyo, May 2026. Source: Japan Ministry of Economy, Trade and Industry

Introduction

Since the inauguration of the second Donald Trump administration in January 2025, the United States has strengthened its ‘America First’ economic policies, including embracing a more protectionist trade agenda. This has included additional tariff measures against various countries, including close allies like Australia and Japan. Governments and companies around the world have been scrambling to respond, forced to change policies and business plans at short notice, while target countries have frequently cast these tariff measures as potentially violating World Trade Organization (WTO) agreements.¹⁴⁶

This trend compounds with China’s own problematic trade policies. Indeed, Beijing’s market-distorting industrial subsidies are contributing to an uneven global economic playing field, with China’s industries experiencing significant growth over the past 30 years. According to the OECD Tiva database,¹⁴⁷ between 1995 and 2020, Japan’s manufacturing value added grew 80%, the United States 180%, the European Union 150% and India 610% in nominal dollar terms. In contrast, China’s manufacturing value-added stands at 1850%, revealing an overwhelmingly dominant level. Such trends are likely to have serious global economic impacts. For instance, global real GDP is projected by the World Trade Organisation to decline by approximately 7% by 2040 based on tariffs, export controls and increased policy uncertainty.¹⁴⁸ The decline in global governance institutions is also becoming apparent. This includes the WTO, which has led the creation of free trade rules, and is also suffering from dysfunction in its decision-making and dispute resolution functions.¹⁴⁹

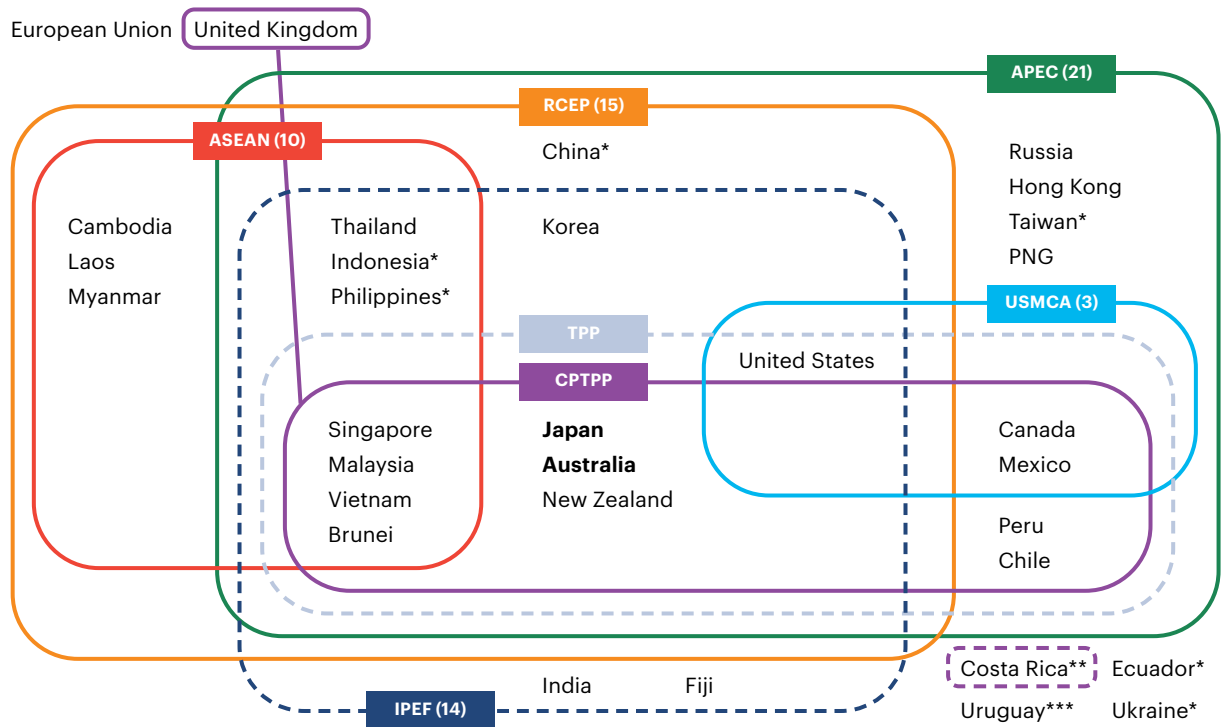
The significance of CPTPP

As international organisations such as the United Nations and the WTO become dysfunctional and as global protectionism rises, the role of the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) is growing increasingly important as a bulwark of open trade. The CPTPP is an economic partnership agreement that promotes not only tariff elimination on goods but also the liberalisation of services and investment, while establishing high-standard, new common rules across a wide range of areas such as intellectual property, financial services and e-commerce, and disciplines on state-owned enterprises.¹⁵⁰ Even after the United States withdrew from the agreement in January 2017 — having initially joined in February 2016 — Japan and Australia assumed leadership of finalising negotiations, seeing the CPTPP enter into force for the remaining members in December 2018.¹⁵¹ Since then, trade volume among the member countries has steadily increased.¹⁵² For instance, Japan’s exports increased by 34% while imports rose by 51% between 2018 and 2024.¹⁵³ Also, Japan’s agricultural, forestry and fishery exports during the same period increased by 55% to the global market and by 103% to CPTPP member countries.¹⁵⁴

Given these points, the CPTPP figures as a useful free trade framework in the current situation when free trade is facing a crisis. In fact, global interest in the CPTPP has been growing in recent years, and many countries have expressed their interest in joining the framework.¹⁵⁵ Compared with similar institutions like the Regional Comprehensive Economic Partnership (RCEP), CPTPP is widely regarded as the highest-standard economic framework given its comprehensive and stringent rules covering tariffs, intellectual property, state-owned enterprises, labour, environmental protections and electronic commerce. Considering the above, this paper seeks to explore options for Australia and Japan to further strengthen the framework as a bastion of free trade, including new rules and standards that may be necessary to modernise the agreement.

Figure 1.

International economic frameworks in the Indo-Pacific region



* Economies requesting to join the CPTPP; ** Established a taskforce; *** Start accession process

Source: Based on MOFA website https://www.mofa.go.jp/policy/other/bluebook/2023/en_html/chapter3/c030302.html

The role of Japan and Australia in strengthening the CPTPP

Japan and Australia have a crucial role to play in strengthening the CPTPP. Following the US withdrawal from the Trans-Pacific Partnership (TPP) in 2017, Japan and Australia have led negotiations over the Agreement's rules and steadily increased the number of participating countries. Former Japanese Prime Minister Shinzo Abe is said to have worked to persuade US President Donald Trump to stay in TPP, but after US withdrawal from the framework, Japan led the negotiation in rulemaking, convincing other member countries to conclude the agreement in the absence of the United States under the new banner of the Comprehensive and Progressive Trans-Pacific Partnership (CPTPP).¹⁵⁶ Australia also served as a "key driver" in progressing negotiations by actively facilitating consensus-building among member countries and sustaining momentum at critical stages of the talks.¹⁵⁷ After the CPTPP entered into force in 2018, both Japan and Australia have served as gatekeepers in the accession process, making the framework high-level.¹⁵⁸

Nevertheless, there is room for both countries to strengthen the CPTPP further. Japan and Australia are leading Indo-Pacific powers with an interest in enhancing regional free trade and are uniquely positioned as US security allies and major trading partners with China. As the US presence in the Indo-Pacific region diminishes and China's influence increases, the role of Japan and Australia is becoming more important than ever. China's influence on ASEAN countries has recently been getting stronger (e.g. Vietnam is heavily dependent on China, as it provides roughly half of all inputs used by Vietnamese manufacturers, making economic decoupling extremely difficult).¹⁵⁹ In order to discuss measures for economic coercion by China and de-risking from China, Australia and Japan also have an interest in encouraging other like-minded countries to support a rules-based free and open global economy through measures like the CPTPP. As founding members of CPTPP and "trustworthy" countries for their commitment to multilateralism and high-level rules, and trade matters,¹⁶⁰ Japan and Australia should work more to take the lead in CPTPP expansion and reform efforts.

Recommendations

1. Accelerating negotiations for new membership in the CPTPP

a. Asian countries

In order to strengthen CPTPP, the participation of major Asian countries such as South Korea, Indonesia, Thailand and the Philippines is essential. South Korea already meets high-standard rules for its comprehensive FTAs with the European Union,¹⁶¹ ASEAN,¹⁶² Australia¹⁶³ and other partners, which contain high-standard provisions equivalent to or exceeding those of the CPTPP, and the South Korean Government has also demonstrated both the willingness and the capacity to implement them.¹⁶⁴ Participation of key ASEAN countries such as Indonesia, Thailand and the Philippines is also crucial, given their high economic growth projections and geopolitical importance in the Indo-Pacific region.¹⁶⁵ However, it may take some time because submitting an application for accession requires alignment with domestic policies,¹⁶⁶ and even after the application is submitted, the unanimous approval of all existing member countries is necessary.¹⁶⁷

The future participation of India is also an important consideration. India is a member of the Quad (which includes Japan, the United States, Australia and India), a grouping that is increasingly central to Australian and Japanese regional economic strategy. The accession of India also complements the Indo-Pacific Economic Framework (IPEF), since IPEF does not provide market access and only focuses on rules (supply chains, clean economy, taxation and anti-corruption), while CPTPP provides market access (ie lowering tariff rates), and is effective in realising the development of high-quality infrastructure and other goals advocated by the Quad.¹⁶⁸ However, given the fact that India has exercised its veto power during consensus-building in WTO rule-making on several occasions to protect its own benefits (e.g. during debates over Investment Facilitation for Development),¹⁶⁹ India's accession must be carefully considered against the rules and norms of the CPTPP.

Nevertheless, the future accession of these countries is necessary, given the fact that many of them are major trading partners and investment destina-

tions for both Japan and Australia.¹⁷⁰ Strategically integrating them into the CPTPP is essential for maintaining and strengthening the rules-based international economic order in the region.

b. European Union (EU)

As part of the European Union's efforts to establish a free trade system without the United States in response to tariff measures,¹⁷¹ European Commission President Ursula von der Leyen expressed interest in joining the CPTPP in June 2025.¹⁷² This followed on from the joint statement from the CPTPP Ministerial Meeting held in South Korea in May 2025 that flagged ongoing work to establish dialogue between the CPTPP and the European Union.¹⁷³ The first of these dialogues was held during the CPTPP ministerial meeting in Australia in November 2025, signalling all parties' intention to strengthen cooperation on free trade matters.¹⁷⁴

Seizing this opportunity as momentum, it is crucial for Australia and Japan to accelerate dialogue toward the European Union's accession to the CPTPP. First of all, the European Union seeks fair, rules-based free trade, which is the fundamental value of CPTPP and of Australian and Japanese approaches to global trade. Second, the European Union is also well-positioned to lead future rule-making, given its already high standards, proven regulatory leadership and experience with economic integration.¹⁷⁵ Third, with 27 member states, the European Union is the world's second-largest economic bloc, accounting for approximately one-sixth of the global economy and representing a market of 450 million people.¹⁷⁶

Securing EU participation in the CPTPP framework would dramatically expand the economic and geographical area covered by the agreement. Indeed, the European Union already possesses sufficiently high standards to meet the Auckland Principles,¹⁷⁷ the criteria for reviewing new accession to the CPTPP: a) the implementation of high-standard rules, b) compliance with international commitments on trade and investment, and c) the consensus of participating countries. Though decision-making within EU member states is expected to take considerable time, the ascension of the United Kingdom to the CPTPP in 2024 is a promising indicator of future European participation.¹⁷⁸

c. Addressing the participation of China

When it comes to assessing China's application to join the CPTPP, Australia and Japan will need to tread carefully.¹⁷⁹ China formally applied to join the CPTPP in September 2021, yet several commentaries have suggested that China's reasons for joining are primarily about strategically enhancing its voice in shaping the global economic order in the absence of US from key agreements and institutions,¹⁸⁰ and expanding its national interests within the international community.¹⁸¹ Such commentators posit that China is not prioritising rules and standards in the interests of fair and open trade.

As such, it is essential to determine whether China's current trade practices meet the standards of the Auckland Principles. At present, this is not the case because China has not yet implemented provisions under the RCEP agreement that align with those found in the CPTPP, including the prohibition of export restrictions, the prohibition of performance requirements in the investment sector, the free flow of data, and the prohibition of data localisation requirements, and has been often pointed out by the OECD and WTO.¹⁸² Also, opinions among member states are divided regarding China's application for membership; Malaysia, Singapore, and Vietnam have expressed support for Chinese membership, but Japan and Australia both have expressed a cautious stance.¹⁸³ Moreover, in a recent Joint Ministerial Statement of CPTPP-EU Trade and Investment Dialogue 2025, participating countries shared concerns about market-distorting practices that result in overproduction and about economic coercion, implicitly referring to China.¹⁸⁴ Since the consensus of member countries is necessary for new members to join, it would be difficult for China to participate in the short term.

d. Return of the United States to the CPTPP

On the other hand, it is necessary to leave room for the United States to rejoin the CPTPP in the future. Granted, it is unlikely that the United States will return to the framework in the near future due to strong domestic political resistance to Free Trade Agreements (FTAs).¹⁸⁵ However, this could disadvantage the United States in the medium to long term, given its growing isolation from the free trade system and the fact that many CPTPP member

countries are already discussing further liberalisation efforts — including tariff elimination — that could leave Washington increasingly absent from formal arrangements on these matters. Washington also stands to suffer material losses, with some analysis suggesting that the United States is missing out on approximately US\$100 billion per year in real consumption gains, productivity gains, export gains and allocative efficiency by declining to join CPTPP.¹⁸⁶

The potential return of the United States to the CPTPP would be highly significant for the existing member countries, too. Several studies estimate that the United States rejoining would increase real GDP by +0.35% on average among current members, reflecting the scale effects and deeper market integration generated by the expanded framework.¹⁸⁷ For Japan and Australia in particular, securing a US return to the framework would bring not only positive economic impacts, but also important strategic and rule-making benefits, reinforce their ability to shape high-standard trade and digital rules in the Indo-Pacific region in concert with a common ally, and would further strengthen and complement their broader strategies aligned with the Free and Open Indo-Pacific (FOIP) vision.¹⁸⁸

Conclusion

As large countries shift from a free trade system, like-minded countries need to maintain and strengthen the existing international economic order based on rules and standards. In this context, the CPTPP — one of the highest-standard international economic frameworks — will play a significant role. Japan and Australia should seize the momentum to reinforce the framework by accelerating negotiations for the accession of like minded countries in order to preserve the rules based free trade system. As middle powers in the Indo-Pacific region and as founding members of the framework, Japan and Australia will play a crucial role in strengthening the CPTPP.

Strengthening cooperation on economic security between Japan and Australia

JAMES GHUSN

Mandala

Executive summary

- The concept and practice of economic security policy has emerged in response to supply chain disruptions, the weaponisation of trade and investment policies, and domestic political pressure linked to deindustrialisation in local economies.
- Japan and Australia have responded to this trend with their own domestic economic security agendas, albeit with different objectives. While Japan aims to protect its downstream industries from supply chain shocks and economic coercion, Australia pursues economic security as part of a broader strategy to build new industries, support regional jobs and strengthen resilience through access to international markets.
- Japan and Australia are actively cooperating on economic security matters. Bilaterally, this has focused on critical minerals and rare earths, yielding successful joint ventures between Japanese and Australian companies and public agencies. Multilaterally, both countries have continued to advocate for the rules-based trading system as a supporting strategy for strengthening economic security. This has included support for their portfolio of regional trade agreements, as well as participation in the World Trade Organization's (WTO) Multi-Party Interim Appeal Arbitration Arrangement (MPIA).
- Against the backdrop of an increasingly disrupted international trading system, Japan and Australia should continue to coordinate and expand their cooperation on economic security. Bilaterally, both countries should look to bolster their commitments to joint critical minerals projects, bring in new international partners and extend their cooperation to other industries such as alternative fuels. At the multilateral level, Japan and Australia should continue to engage in pragmatic improvements to institutions and international rules notwithstanding questions over the future of these arrangements. Preserving access to international markets and rules-based trade through these coalitions is itself a source of supply chain resilience. Japan benefited in 2015 from a WTO ruling against Chinese export restrictions on rare earths, while Australia was insulated from the effect of Chinese tariffs in 2020 by global access to alternative markets.

Key policy recommendations

Australia and Japan should:

- Strengthen the Critical Minerals Partnership by jointly committing to specific price floors for a subset of minerals to stabilise prices and incentivise new producers.
- Expand the Japan–Australia model of critical minerals cooperation to include other international partners, such as a trilateral partnership with the United States (US).
- Develop frameworks to apply the successful model of Japan–Australia critical minerals development to other industries critical to economic security, such as green hydrogen and ammonia. This can leverage the annual Economic Security Dialogue to identify emerging industries that are both critical for economic security and suitable candidates for patient, public capital to support early-stage commercial ventures.
- Advocate for MPIA participation amongst WTO members, both publicly and on the sidelines of multilateral forums such as the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) and the Association of Southeast Asian Nations (ASEAN) meetings.
- Expand and strengthen CPTPP as a platform for countries seeking a credible anchor for rules-based trade. This includes active and coordinated contributions to the agreement’s review and modernisation processes, including updating the e-commerce chapter for the digital economy.



Japan's Prime Minister Sanae Takaichi and Australia's Prime Minister Anthony Albanese following a signing ceremony for a joint declaration of economic security cooperation, Canberra, 4 May 2026. Source: Getty

Introduction

Economic security has become a government priority around the world, spurring an increase in restrictive trade and investment policies.¹⁸⁹ The emergence of this priority is due to numerous factors, including heightened awareness of risks associated with concentrated supply chains, strategic competition between hegemonic powers that increasingly pivots on tools of economic coercion, and domestic political pressure arising from the deindustrialisation of local economies.¹⁹⁰

Japan and Australia have responded to this trend with domestic economic security agendas, each pursuing different objectives. Japan strives to use policy to protect its downstream industries from supply chain disruptions, whereas Australia aims to secure a strategic industrial future, filling supply chain gaps for its international partners while fulfilling a broader goal of building new industries and supporting regional jobs.

As the rules-based international system continues to deteriorate, the risk of economic shocks arising from either supply chain disruptions or direct coercion will grow. This paper outlines how Japan and Australia can manage these risks through two primary channels. First, the two countries should expand their existing bilateral economic security relationship by deepening cooperation on critical minerals, broadening initiatives to include new partners and exploring models of collaboration in new domains such as alternative fuels. Second, the two countries should continue to advocate for pragmatic improvements to multilateral trade institutions and regional agreements, to maintain the insulation against economic shocks and coercion that the open, rules-based trading system has historically afforded to each.

Japanese economic security policy

Motivations and objectives

Japan's economic security awakening originates from a 2010 dispute with China following a maritime incident near the Senkaku Islands, in which a Chinese fishing trawler collided with Japanese Coast Guard vessels and its captain was detained by Japanese authorities. In response, China was widely reported to have suspended rare earth exports to Japan, which at the time accounted for 90% of Japan's supply.¹⁹¹ This was particularly detrimental to the Japanese automobile sector, which relied heavily on Chinese rare earths and experienced disruptions to production.¹⁹² The fallout from this dispute motivated Japan to develop policy to mitigate the risk of such disruptions to key industries.

Policies

By 2020, Japan had established an economic security agenda built around the concepts of "strategic autonomy" and "strategic indispensability."¹⁹³ Strategic autonomy emphasises the ability to maintain living standards during economic shocks without overreliance on other countries. Strategic indispensability focuses on developing globally significant industries to strengthen Japan's leverage in critical supply chains.¹⁹⁴ This agenda culminated in the Economic Security Promotion Act (ESPA) in 2022, which focused government economic security policy around diversifying supply chains, enhancing regulation of essential infrastructure, funding to accelerate the development of critical technologies and restrictions on intellectual property. Other key initiatives included reforms to the Foreign Exchange and Trade Control Law, and formalisation of the critical minerals stockpiling system through the Japan Oil, Gas and Metals National Corporation (JOGMEC).¹⁹⁵

Fiscally, the most significant interventions have been incentives for supply chain diversification and public investment in domestic semiconductor manufacturing. For instance, the Ministry of Economy, Trade and Industry (METI) subsidised 439 onshoring projects between May 2020 and March 2022, while the Japan External Trade Organization

approved 104 nearshoring projects. These incentives covered a range of sectors deemed important to Japan's strategic autonomy, including medical equipment, auto parts and electronics.¹⁹⁶ This included the provision of ¥1.2 trillion and ¥920 billion in subsidies to high-profile domestic semiconductor projects led by Taiwan Semiconductor Manufacturing Co. (TSMC) and Japanese firm Rapidus, respectively.¹⁹⁷

Australian economic security policy

Motivations and objectives

Unlike Japan, Australia lacks an explicit, overarching objective for its economic security policy, though it has been invoked as a justification for the Australian Government's Future Made in Australia (FMIA) agenda.¹⁹⁸ FMIA is primarily an industrial and economic development agenda, aimed at using public support to accelerate development in sectors where Australia could conceivably build enduring comparative advantage, particularly in the net-zero economy, while also supporting jobs in regional Australia. However, the Australian Government has also sought to integrate economic security within the FMIA National Interest Framework through its Economic Resilience and Security Stream, which channels investment into sectors where domestic capacity addresses priorities like vulnerable supply chains or national security risks.¹⁹⁹

Policies

Under the FMIA umbrella, Australia's economic security investments echo Japan's concepts of strategic autonomy and indispensability. For instance, the Australian Government's investments in Psi-Quantum's quantum computing project (A\$970 million between the Australian and Queensland governments) and the Solar SunShot program (A\$1 billion) aim to place Australia at the frontier of major technologies, supporting strategic indispensability.²⁰⁰ Meanwhile, the financial support offered to struggling smelters in 2025 — such as Whyalla Steelworks, the Mount Isa Copper Smelter and Nyrstar Port Pirie smelter — reflects a view that Australia

should retain strategic autonomy in downstream metals processing.²⁰¹ Building on FMIA, the Australian Government also announced a A\$1.2 billion Critical Minerals Strategic Reserve (CMSR) ahead of the 2025 election, due to become operational in the second half of 2026.²⁰² This will provide financial support for antimony, gallium and rare earths projects, aiming to reduce uncertainty for producers and enable new projects to come online.²⁰³ This puts critical minerals at the forefront of Australia's economic security priorities.

Bilateral cooperation between Japan and Australia and broader international engagement

Economic security initiatives at a bilateral level

To date, the most substantive of Japan's and Australia's joint initiatives on economic security have been on the issue of critical minerals. In 2022, both nations signed the Critical Minerals Partnership to establish a framework for building secure supply chains.²⁰⁴ This partnership involves identifying vulnerabilities, coordinating industrial planning to address gaps and providing public finance to accelerate new sources of supply.²⁰⁵ Since then, several joint ventures between Japanese and Australian industry or public agencies have been signed. For example, Japan's Idemitsu invested in a majority ownership of Australian mining start-up Veeco Group in 2024, with the goal of mining and extracting vanadium.²⁰⁶ Both countries also cite JOGMEC's investments in Australian critical minerals projects as an example of cooperation on economic security.²⁰⁷ In 2025, the first Australia-Japan Economic Security Dialogue was held to share information on economic and strategic risks and find practical areas of cooperation. The media release outlined a shared commitment to free and open markets and rules-based trade and investment, as well as a discussion of overarching areas of cooperation. However, critical minerals were the only priority specifically highlighted, reinforcing the notion that bilateral initiatives have been centred around this domain to date.²⁰⁸

Engagement through multilateral institutions

Alongside their domestic and bilateral agendas, Japan and Australia both continue to advocate for rules-based trade and multilateralism as part of their economic security strategy. For example, ministers in the 2023 Australia-Japan Ministerial Economic Dialogue noted that free and open markets and rules-based trade and investment remained the best means to mitigate supply chain disruption risks.²⁰⁹ Both countries also publicly supported the growth and ongoing maintenance of the CPTPP, which itself is an instrument for supporting an open, rules-based system.²¹⁰ These statements reflect a shared recognition that, despite growing vulnerabilities in the global trading system, the institutional frameworks underpinning international trade continue to support economic security by broadening access to markets, enabling diversification and preserving predictable rules for cross-border commerce.

Since the paralysis of the WTO's Appellate Body in 2019, which has prevented the organisation's dispute settlement system from issuing binding appeal rulings, Japan and Australia joined the Multi-Party Interim Appeal Arbitration Arrangement (MPIA). The MPIA allows participating WTO members to voluntarily pursue appeals in trade disputes that would otherwise be left unresolved. This has helped to maintain a functioning, rules-based mechanism for resolving disputes among participating economies.

Despite criticisms of the WTO's enforcement of industrial subsidy rules, there are meaningful examples where a functioning WTO or the multilateral trading system has supported the economic security of Australia and Japan.²¹¹ Japan successfully challenged China through the WTO following the 2010 Senkaku Islands dispute.²¹² After the ruling, China dropped the disputed export quotas and export taxes on rare earth minerals in 2015.²¹³ When Australia was the subject of Chinese tariffs in 2020, global access to alternative markets insulated the domestic economy, as sellers of affected products like cotton, coal, and barley rerouted their exports to new destinations.²¹⁴ Furthermore, the WTO provided a neutral forum for Australia to lodge formal disputes, such as in the case of barley and wine, which eventually provided an offramp for China to review its policy and unwind the majority of tariffs by mid-2023.²¹⁵

Maintaining and strengthening the multilateral trading system through pragmatic mechanisms remains a key component of both Japan and Australia's economic security strategies.

Consequently, while their domestic policies reckon with vulnerabilities in the global trading system, both Japan and Australia recognise that continued degradation of the system further undermines their economic security. As such, maintaining and strengthening the multilateral trading system through pragmatic mechanisms remains a key component of each country's economic security strategy.

Opportunities to strengthen cooperation on economic security

Differences in Japan's and Australia's domestic objectives

Despite similarities in Japan and Australia's adoption of industrial policies, each country is designing economic security policy for fundamentally different reasons.

On one hand, Japan has a direct interest in protecting against shocks to its downstream industries and domestic economy. Export restrictions on rare earths can have direct, negative impacts for Japan's large automotive and electronics sectors, by either driving up prices or creating production bottlenecks. Japan's energy and food security is also highly dependent on imports from international markets.²¹⁶

On the other hand, Australia is embedding economic security policy within a broader economic development strategy. It sees an opportunity to use industrial policy to develop new industries, and in some instances, capitalise on global supply chain anxieties to embed itself in new value chains.²¹⁷ In other words, while Japan deploys policies to minimise its exposure to supply chain vulnerabilities, Australia seeks to capture some of the economic opportunity enabled by a reshuffle in global supply chains.

A complementarity emerges from these differences, exemplified by the bilateral effort to mitigate Japan's overreliance on Chinese critical minerals and rare earths through coordinating investment in Australian producers.²¹⁸ This complementarity forms the foundation of Japan and Australia's bilateral economic security agenda, providing a strong basis for expanding collaboration.

Building on the successful template of critical minerals cooperation

Japan and Australia's cooperation on critical minerals policy has already generated success through Australia-based ventures involving either Japanese companies or public finance. Both countries should build on this foundation by strengthening their commitments and bringing in new partners.

Recommendation 1: Strengthen the Critical Minerals Partnership by jointly committing to specific price floors for a subset of key minerals

The Critical Minerals Partnership has been effective at strengthening bilateral dialogue on supply chain vulnerabilities and industrial planning to accelerate new projects. One challenge that still weighs on the sector is the vulnerability of some minerals to volatile price swings.²¹⁹ The CMSR aims to address this uncertainty for a subset of minerals through mechanisms such as forward offtake agreements, demand and supply aggregation, stockpiling and contracts for difference.²²⁰ These efforts to combat price volatility will be strengthened if financial commitments can be coordinated across like-minded countries, providing further fiscal firepower. For instance, the United States–Australia Framework for Securing of Supply in the Mining and Processing of Critical

Minerals and Rare Earths outlined a commitment to explore bilaterally coordinated price floors.²²¹ Incorporating a similar framework between Japan and Australia would strengthen these efforts to stabilise prices and support new producers.

Recommendation 2: Expand Japan–Australia critical minerals cooperation to include other partners

Addressing vulnerable mineral supply chains requires levels of investment beyond what Japan and Australia can deliver alone. Expanding the Japan–Australia model to include other partners is a logical step towards stronger international coordination on critical minerals. A natural first candidate would be the United States, which already has existing bilateral agreements with both countries.²²² A trilateral arrangement to identify priority minerals and new projects, and coordinate financial support would accelerate efforts to bring new producers online by aggregating offtake demand across major Japanese, US and Australian buyers and facilitating greater risk sharing across public balance sheets.

Recommendation 3: Apply the successful Japan–Australia critical minerals model to other industries

JOGMEC's long-term investments in Australian mining company Lynas Rare Earths alongside private Japanese conglomerate Sojitz are a commonly cited example of how deploying patient public capital can develop a reliable, alternative supplier of refined rare earths.²²³ This approach has been central to Japan–Australia cooperation on critical minerals and has been referenced directly by both governments as a success story.²²⁴ It should serve as a template for cooperation in other industries important to economic security.

One example is alternative fuels such as hydrogen and ammonia, which are important to Japan's decarbonisation plans and long-term energy security.²²⁵ Japan and Australia already collaborate through the Japan–Australia Partnership on Decarbonisation through Technology and the Hydrogen Energy Supply Chain Pilot Project.²²⁶ However, if production costs for alternative fuels continue to fall over time, Japan and Australia can jointly deploy patient,

public capital to support new commercial ventures, mirroring the model used for Lynas Rare Earths. As such, Japan and Australia should leverage their annual Economic Security Dialogue to identify emerging industries that are both critical for economic security and potential candidates for future public investment.

Pragmatically advocating for multilateral institutions and rules-based trade

As the international system enters a period of rupture, middle powers have a shared interest in safeguarding the core elements of the rules-based order. Despite its shortcomings, the multilateral trading system has provided a degree of effective insurance against economic coercion for both Japan and Australia. Notwithstanding shortcomings in these regimes, both countries should continue to advocate for progress on institutional reform and international rulemaking as a component of their economic security agendas.

Recommendation 4: Continue to advocate for MPIA participation amongst WTO members

CPTPP Ministers, including Japan and Australia, have publicly encouraged greater participation in the MPIA as a means of strengthening the rules-based trading system.²²⁷ As influential middle powers with credibility grounded in long-term adherence to international rules, Japan and Australia should continue to advocate for the MPIA through public statements and on the sidelines of multilateral forums such as CPTPP and ASEAN meetings. Despite its limitations as a stopgap, the MPIA provides a means for like-minded economies to preserve enforceable rules, reduce uncertainty and prevent further erosion of WTO dispute settlement. This serves the economic security interests of both countries. For Japan, it helps maintain a rules-based avenue for responding to discriminatory trade measures that could disrupt critical inputs for its downstream industries. For Australia, it reinforces the institutional frameworks that support access to international markets and the resilience derived from diversified trade relationships.

Recommendation 5: Expand and strengthen the CPTPP

Japan and Australia should continue to advocate for the expansion and strengthening of the CPTPP as a platform for countries seeking a credible anchor for rules-based trade. This includes contributing to the agreement's review and modernisation processes to ensure it remains fit for purpose amid evolving economic and technological conditions. This would serve the economic security interests of both countries by widening access to markets under shared rules and reducing vulnerability to disruptive trade practices. It would also help strengthen a trade architecture that supports diversification, resilience and predictability in an increasingly fragmented international environment. A priority is updating the e-commerce chapter to better reflect the digital economy, including clearer and more interoperable rules on cloud computing, cross-border data flows, digital services and emerging issues such as governance for artificial intelligence.²²⁸

Updating trade frameworks and rules for critical minerals supply chain resilience: Japanese and Australian perspectives

MARI SHIMIZU

THE UNIVERSITY OF OSAKA; ANDERSON MORI & TOMOTSUNE

Executive summary

- Amid growing concerns about the weaponisation of critical minerals supply, the scale and urgency of new investments that states must make in critical mineral supply chains to prepare for disruption cannot be realised through market dynamics alone, given the high costs associated with establishing alternative sources and products at short notice.
- In 2023, Australia and Japan refreshed their respective critical minerals strategies to accelerate the development of strategic projects, including necessary investment and financing. The two countries' strategies complement each other; Japan's focus on downstream manufacturing complements Australia's strengths in upstream extraction, both wanting to develop new processing capacity.
- Japan and Australia's primary focus in their domestic policies and international initiatives has been to support private businesses in setting up commercial operations. However, their strategies are evolving to include greater market intervention. New bilateral agreements with the United States and G7 initiatives (endorsed by Australia) in 2025 contain ideas for a standards-based market and price mechanisms, which may include floor prices, that are aimed at proactively excluding imports from current chokepoints, such as China.
- However, some of these initiatives could breach WTO rules: some forms of risk capital provision could be considered subsidies, while certain standards and/or floor prices could be considered import-restrictive/discriminatory measures. This suggests that aspects of WTO rules and their interpretation need updating to allow the measures that are legitimately required to ensure supply chain resilience in light of present supply chain vulnerabilities.
- Australia and Japan are ideal partners to lead these updates, given the minimal competition between their relevant industries, their track record of constructive collaboration in rules-based international forums and common alliance relationships with the United States.

Key policy recommendations

Japan and Australia should work together to identify specific updates to multilateral trade rules that appropriately balance between protecting valid measures to ensure supply chain resilience for critical minerals and preventing excessive market/trade distortion. The candidate issues are:

- Reconsideration of the scope of WTO-inconsistent subsidies so that financial support with valid positive spillover effects, such as ensuring a necessary degree of supply chain resilience for critical minerals, is excluded. This could be achieved by: (i) redefining the elements and requirements for a measure to be regarded as a subsidy or an actionable subsidy, such as “benefit” and “adverse effects”; or (ii) clarifying that the general and security exceptions of the GATT also apply to the Subsidy Agreement.
- Whether and how transnational subsidies are disciplined under the Subsidy Agreement.
- Guidelines on standards based on considerations of environmental, social and governance (ESG) performance, so that they will be justified under the general exceptions.



Japan's Prime Minister Sanae Takaichi and Australia's Prime Minister Anthony Albanese speak to the press at Parliament House in Canberra, 4 May 2026. Source: Getty

Introduction

When it comes to strategic goods such as critical minerals, a limited number of supply countries with a dominant share of the global market would be ‘chokepoints’ in the supply chain and could exploit their advantageous position as a weapon to leverage other needs, whether economic or not. Indeed, concerns about the weaponisation of the critical minerals supply have been heightened again by China’s recent moves to strengthen export controls on rare earths. These steps include gradual expansion of critical minerals covered under export controls starting from August 2023, some United States-specific measures in December 2024 and April 2025, and most recently, a Japan-specific measure in January 2026.²²⁹ While the Japan-specific measure was ostensibly a response to the Japanese Prime Minister’s statement regarding a potential Taiwanese emergency, some other measures could be seen as responses to export control measures introduced and tightened by the United States regarding semiconductors and related products being shipped to China since 2022 or reciprocal tariffs initiated by the United States in April 2025.²³⁰

The risk of similar supply suspensions for other strategic goods is likely to persist in the medium to long term. While the risk for weaponisation of critical minerals by chokepoint countries is growing, different countries have taken different approaches to addressing that challenge. Japan has taken steps to reduce its use of rare earths and to diversify its import sources by encouraging investment in Australia, following China’s suspension of rare earths exports to Japan in 2010 after a confrontation over the Senkaku Islands.²³¹ On the other hand, until recently, Australia had not introduced government measures equivalent to Japan’s to ensure the production or procurement of critical minerals.²³² Even without such measures, Australia, a resource-rich country, was a top five producer of 15 mineral commodities, including lithium (52%), cobalt (3%) and rare earths (5%) in 2022.²³³ According to the International Energy Agency, Australia is the fourth-largest magnet rare earths miner in 2024, with a 4.3% global share (compared to China’s 61%), projected to increase to 13% in 2030 (compared to China’s 51%). However, as of 2024, Australia’s share of the magnet rare earths refining sector is negligible, while China continues

to dominate 91% of the market.²³⁴ Most of the rare earth minerals extracted in Australia are exported for refining in China, largely because the process is environmentally damaging, expensive and politically unpopular domestically.²³⁵ Australia’s supply potential has not prevented China from becoming a chokepoint in the processing stage of the rare earth supply chain.

As such, although Japan, as a significant downstream user and Australia, as a significant upstream supplier, are both seeking supply chain diversification, but face challenges in doing so. This can be explained mainly by the high investment risk and the high price of refined rare earths from new investments. Specifically, significant time and financial investments are required before commercial refining operations can begin. A complex regulatory environment and unstable geopolitical situation can also exacerbate the risk of new investments. Even after operations begin, high production costs in certain locations, such as Australia, for inputs like electricity, and for compliance with environmental and/or labour regulations, would make the price of products higher than competing products from other existing sources. Moreover, for some types of critical minerals, due to their relatively small market size, high price volatility can be manipulated by dominant competitors for geopolitical ends.

In order to ensure the resilience of the supply chain for critical minerals through domestic policies and international frameworks, Japan and Australia are developing solutions, including: (i) encouraging investment in strategic projects by making financial support available, some of which may be considered as subsidies under international trade law; and (ii) discussing potential standards for valuing products that cover environmental and/or labour protection costs, as well as price mechanism including floor prices. However, these solutions have certain trade-restrictive effects and are subject to multilateral trade rules regarding subsidies and import restriction/discrimination. Thus, to ensure the long-term stability of the measures taken by the two countries, they need to collaborate on establishing a basis for updating multilateral trade rules.

Existing domestic, bilateral and mini/multi-lateral solutions in Australia and Japan

The scale and urgency of new critical mineral supply chain investments cannot be realised if the investment is left to the market alone, especially if preventive measures taken for economic security reasons are unlikely to be commercially efficient, at least in the short term. From a commercial perspective, it makes more sense for downstream producers to continue procuring existing dominant products at lower prices. Yet sustainable operations of critical mineral businesses require long-term profitability, which depends on constant large-scale private demand. Ideally, government measures should enable new businesses to start operating by identifying potential priority projects and providing risk capital, among others, and allowing them to be driven primarily by private demand.

Both Japan and Australia have developed initiatives to secure the supply of critical minerals, trying to strike this difficult balance between government intervention and private market forces. This section provides an overview of the relevant domestic policies and bilateral or mini-lateral international cooperations pursued by Japan and Australia.

Domestic policies

Both Australia and Japan have outlined strategic frameworks for addressing challenges in the supply chain of critical minerals, with the common objective of accelerating the development of strategic projects, as well as the required investment and financing. That said, these frameworks differ based on each country's position in the supply chain, whether 'upstream' or 'downstream'.

According to the "Policy for Ensuring Stable Supply of Critical Minerals" set by Japan's Ministry of Economy Trade and Industry (METI) under the Economic Security Promotion Act, Japan's domestic policies for ensuring stable supply of critical minerals can be characterised under three pillars: (i) securing its rights to overseas resources through "resource diplomacy" and subsidies via the Japan Organization for Metals and Energy Security (JOGMEC), includ-

ing exploration and risk capital provision; (ii) stockpiling by JOGMEC; and (iii) developing resource efficiencies, new technologies, alternative seabed resources, and recycling.²³⁶ As a state with advanced downstream industries lacking domestic natural resources, Japan inevitably requires constant procurement of "overseas resources," through measures like offtake rights.²³⁷ Also, while Japan and Australia have similar critical mineral lists,²³⁸ Japan's particular focus is on the minerals required by its key downstream industries, such as the automotive and semiconductor sectors: i.e., battery metals (lithium, nickel, manganese, cobalt and graphite), rare earths, uranium, and gallium and germanium.²³⁹ METI's policy refers to environment and human rights protection as one of the criteria for project selection. It states that the expectation of significant compliance costs will be taken into account as exceptional circumstances for particular projects that require grants. Such projects do not meet the economic viability criteria for investment of the applicant companies and cannot be initiated or continued under the existing JOGMEC investment scheme.²⁴⁰

Both Japan and Australia have developed initiatives to secure the supply of critical minerals, trying to strike this difficult balance between government intervention and private market forces.



Headquarters of the World Trade Organization in Geneva. Source: Getty

By comparison, Australia’s “Critical Mineral Strategy 2023-2030” sets out six priorities: (i) developing strategically important projects; (ii) attracting investment and building international partnerships; (iii) First Nations engagement and benefit sharing; (iv) promoting Australia as a world leader in ESG (environmental, social and governance) performance; (v) unlocking investment in enabling infrastructure and services; and (vi) growing a skilled workforce.²⁴¹ Given its position “upstream” in the supply chain, Australia prioritises attracting foreign investment in critical minerals projects located in Australia, especially in downstream processing.²⁴² The strategy also emphasises the importance of addressing ESG considerations, including the effects of mining and refining on local communities. These differences suggest that the two countries’ strategies complement each other in attracting investment from Japan to Australia’s downstream processing industries, which need to bear ESG costs, allowing Japanese investors to secure the offtake rights.

Lastly, the stockpiling of selected critical minerals is a key part of both countries’ strategies. Even Australia, which has easy access to the minerals due to its upstream position, benefits from stockpiling, as it helps to stabilise market prices and mitigate price manipulation by competitors. While JOGMEC has been operating a rare earths stockpiling program since 2012, Australia announced the establishment of the Critical Minerals Strategic Reserve (CMSR) to “maximise the strategic value of Australia’s critical minerals” in April 2025.²⁴³ A taskforce was established in July 2025 to conduct consultations and to design relevant policies, and the CMSR is expected to be operational in the second half of 2026. The CMSR aims to support strategically important critical minerals projects where private finance is not available due to volatile markets, so that the supply of select critical minerals can be secured for Australia and its key international partners. The CMSR’s financial tools include physical stockpiling, as well as offtake agreements with fixed or floating prices, trading in

forward offtake contracts, intermediary demand and supply aggregation, and contracts-for-difference (price floors and ceilings).²⁴⁴

Bilateral cooperation initiatives

Australia and Japan are also pursuing international cooperation initiatives to offset their respective challenges in the critical mineral supply chain. In October 2022, Japan and Australia agreed on the “Partnership Concerning Critical Minerals,”²⁴⁵ which focused on continued information sharing and consultations to facilitate private projects with no obligations regarding specific targets or market interventions. These sorts of government-to-government agreements on critical minerals generally serve to “build investor confidence and help private sector partnerships develop and scale up quickly.”²⁴⁶

However, in October 2025, each state signed a new bilateral agreement with the United States, the terms of which indicate a shift towards concrete obligations and stronger market intervention. On 20 October 2025, Australia and the United States announced the Australia-US Framework for Securing of Supply in the Mining and Processing of Critical Minerals and Rare Earths,²⁴⁷ clarifying their intention to make new domestic mining and processing capacity in these minerals available in 2026. Alongside traditional matters such as streamlining administrative processes, cooperation will cover more concrete and potentially trade-restrictive matters including: (i) investment support, e.g., joint project selection and financial support of at least US\$1 billion within 6 months for projects located in either party; (ii) a “*standards based system* in which those who adopt the standards can trade freely and within a pricing framework including *price floors* or similar measures,” to protect domestic markets from non-market policies and unfair trade practices; and (iii) tools to review and deter relevant asset sales on national security grounds.²⁴⁸

Then, on 28 October 2025, Japan and the United States announced the “Japan-US Framework for Securing Supply of Critical Minerals and Rare Earths through Mining and Processing.”²⁴⁹ While it largely mirrors the Australian agreement, there are some differences in the paragraph concerning “price/pricing mechanisms.” Specifically, (i) the “standards based system” in the Australian agree-

ment is replaced with “high-standard marketplaces that reflect the real costs of responsible extraction, processing and trade of critical minerals and rare earths” in the Japanese agreement, and (ii) a “pricing framework including price floors” in the Australian agreement is replaced with “pricing measures to support alternative projects and such high-standard markets, in line with their respective policy tools” in the Japanese agreement. Arguably, this could simply mean that the Japanese agreement elaborated on concepts used in the preceding Australian agreement.

Although these new agreements are bilateral with the United States, both explicitly state that the parties will work with other international partners, who are very likely to include Japan and Australia, respectively. Therefore, these new agreements may indicate a forthcoming multilateral framework involving all three countries.

Mini/multi-Lateral cooperation initiatives

There are several mini/multilateral initiatives focused on critical minerals involving Japan and/or Australia, with varying levels of ambition. For example, in July 2025, the Quadrilateral Security Dialogue (Quad), comprising Australia, India, Japan and the United States, announced the “Quad Critical Minerals Initiative,”²⁵⁰ although little has been published so far. Meanwhile, in November 2023, members of the Indo-Pacific Economic Framework for Prosperity (IPEF) announced the IPEF Supply Chain Agreement.²⁵¹ This highly institutionalised framework establishes bodies such as the Supply Chain Council, the Supply Chain Crisis Response Network and the Labor Rights Advisory Board.²⁵² These bodies may theoretically enable systematic and prompt cooperative action in response to actual supply chain disruptions. Notably, in October 2025, IPEF members conducted a supply chain crisis exercise focused on critical minerals under the Crisis Response Network,²⁵³ while it was reported that the United States did not participate.²⁵⁴

Furthermore, in June 2025, the G7 agreed on the ‘Critical Minerals Action Plan.’ This plan has three pillars: (i) building standards-based markets, (ii) mobilising capital and investing in partnerships, and (iii) promoting innovation.²⁵⁵ Under pillar one,

in October 2025, the G7 published the “Roadmap to Promote Standards-based Markets for Critical Minerals.”²⁵⁶ The roadmap clarifies that performance-based criteria for a standards-based market will include, at a minimum, the following: (a) international labour and human rights standards and local consultation, (b) rule-of-law and anti-bribery and corruption measures, and (c) protections against negative externalities, including pollution and land degradation. The roadmap also states that, to reduce and eventually eliminate dependence on critical minerals supply chains dominated by non-market policies and practices, the G7 is committed to using the tools at their disposal, which may include price floors, as well as tax, investment policies and trade measures.²⁵⁷ Australia endorsed both the Action Plan and the Roadmap. Price floors were reportedly discussed again at an expanded G7 ministers meeting in the United States in January 2026. Under pillar two, export credit agencies and development finance institutions were encouraged to identify more opportunities for collaboration, while multilateral development banks were encouraged to make further capital available, including through “innovative financing.”²⁵⁸ “Lastly, under pillar three, the G7 pledged to intensify collaboration to fill targeted innovation gaps in critical minerals research and development (R&D)”²⁵⁹ etc. No further details of pillar three were provided in the Plan or the Roadmap.

A similar but more expanded framework was the Minerals Security Partnership (MSP), which launched in 2022 and comprised the G7 countries, Australia, South Korea, India among others.²⁶⁰ Given the overlap in membership and the fact that the G7 Action Plan specifically states that interested G7 members will support the MSP, matters agreed upon in the G7 critical minerals initiative are likely to expand to the MSP. For example, in September 2025, MSP partners established a finance network for critical minerals supply chains comprising their export credit agencies and development banks, in line with the guidance set out in the G7 Action Plan.²⁶¹ At the Critical Minerals Ministerial in February 2026, the United States Secretary of State announced the creation of the Forum on Resource Geostrategic Engagement (FORGE) as the successor of MSP.²⁶² This reaffirms the United States’ leading role in the relevant frameworks, although limited details about FORGE have been published to this date.

As with bilateral initiatives, mini/multilateral cooperation has focused on cooperation without market intervention such as information sharing and the facilitation of administrative procedures. However, as geopolitical tensions continue to rise, there has been a gradual shift towards more concrete cooperation in terms of the selection of investment projects, the manner and amount of financial arrangements, the standards setting and price floors to protect domestic markets from non-market products.

Clearly, these actions and/or measures involve greater market intervention. So far, the core objectives of new initiatives have been to ensure production by allied countries and to reduce or exclude products of non-allied countries, reflecting power-based tensions between allies and non-allies. Despite its potential to contribute to long-term stability, there has been little substantial discussion on rule-making, except for standards targeted at non-market economies.

Issues with present World Trade Organization rules, and possible solutions

The nation-based solutions examined above include (i) subsidies (e.g. grants, loans, investments, loan/investment guarantees) and (ii) measures that may have restrictive effects on imports from current chokepoints, e.g. (a) ESG standards and (b) price floors. Due to their (potential) negative effects on trade, these types of measures involving market intervention are subject to multilateral trade rules, such as the World Trade Organization (WTO) Agreement.

Notwithstanding their evident economic security value, excessive subsidies or restrictive import measures can distort the market and heighten the risk of subsidy wars between states competing for dominance in certain strategic industries, including for critical minerals and even between allied countries. Multilateral trade rules have an indispensable value in preventing (or at least in helping to address) such problems. For long-term stability, measures taken by any state to secure critical minerals supply should be consistent with the rules, or otherwise, the rules should be updated to allow for legitimate measures.

Subsidies

The WTO Agreement on Subsidies and Countervailing Measures (the Subsidy Agreement) provides that subsidies are inconsistent with the Agreement if they cause adverse effects to the interests of other members, classifying them as “actionable subsidies.”²⁶³ Under this rule, subsidies to ensure supply chain resilience are likely to be WTO-inconsistent, as they specifically aim to decrease the existing sources’ share of the global market.²⁶⁴ Considering the crucial role of subsidies in ensuring the resilience of critical minerals, the scope of WTO-inconsistent subsidies needs to be redefined to exclude financial support with valid positive spillover effects, such as a necessary degree of supply chain resilience for critical minerals. This could be achieved by redefining the elements and requirements for a measure to be a subsidy (defined as a financial contribution by a government conferring a benefit to recipients)²⁶⁵ or an actionable subsidy (i.e., a subsidy causing adverse effects to the interests of other members), such as ‘benefit’ and ‘adverse effects’, or clarifying whether and how justifications apply to violations of the Subsidy Agreement. The required analysis may differentiate between types of subsidies, i.e. whether they are for R&D, assistance for an infant industry, or production enhancement, since the latter has a more distorting effect.²⁶⁶

Restrictive or discriminatory import measures

First, with regard to ESG standards, standards that have a discriminatory effect on imports can be *de facto* illegal, but can also be justified under the general exceptions in the WTO rules. The general exceptions provide that public morals, human, animal, plant life or health, and the conservation of natural resources are policy objectives to be protected (Article XX(a), (b) and (g) of the General Agreement on Tariffs and Trade 1994 (GATT)). Therefore, the rules already have a basis allowing for standards-based ESG considerations. However, measures with restrictive or discriminatory aspects that are not sufficiently linked to the alleged objectives will not be justified. Whether a standard genuinely links to the protected policy objectives or is a disguised form of protectionism is a common issue in trade disputes. States that would likely be excluded from the stan-

dards-based market for critical minerals are likely to raise this issue. Thus, guidelines on the possible structure and elements of legitimate ESG standards in the critical minerals sector will be helpful.

Turning to price floors, the details discussed at the G7 were unclear. A minimum price guarantee for products made within the allied countries will be a subsidy discussed in Section (1) above. However, when price floors are imposed proactively to exclude imports below the minimum price at the border, they constitute an explicit import restriction or discrimination.²⁶⁷ A price threshold is difficult to explain under ESG considerations, as its essential objective is to ensure supply chain resilience directly by proactively reducing the existing dominant imports and/or stabilising prices so that new projects can operate commercially.

The problem is that, unlike ESG considerations, the objective of ensuring supply chain resilience is not explicitly included in the general exceptions. The security exception, i.e. Article XXI of the GATT, is also not suited to address supply chain resilience measures, and panels in the WTO dispute settlement procedures have rejected the total self-judging approach of the security exception.²⁶⁸ Accordingly, subparagraphs (b)(i)-(iii) of the security exception, which provide for specific circumstances to be covered, are subject to judicial review and do not prescribe permanent preventive measures, except for military-relevant transactions and any measure regarding nuclear materials.

Nevertheless, the objective of supply chain resilience is undoubtedly valid in today’s unstable global circumstances. Therefore, the crucial issue is how to incorporate this objective into WTO law. Whatever the approach — whether through the interpretation of the existing general exceptions or security exception, or the amendment thereof — there must be a substantial likelihood of supply shortages, and the potential impact of these shortages must be serious, for measures taken to ensure supply chain resilience to be justifiable.²⁶⁹ In light of the increased use of measures aimed at ensuring supply chain resilience, there is a growing need for discussions on potential updates to the rules.

How to update international trade rules: The role of Japan and Australia

Japan and Australia are expected to begin jointly discussing practical ideas for elements of rules on subsidies and standards (including price mechanisms), involving the private sectors of both countries' mining, processing and core downstream industries. For the new rules to strike a sensitive balance between government intervention and market forces, the interested parties at core stages of the international supply chain should be substantially involved. Although businesses are generally reluctant to share sensitive information about their supply chains, the governments' strong commitment to creating new rules that would contribute to a more stable business environment may ease their concerns to some extent.

That said, where and how to hold discussions on the rules with other states is another issue. Considering that WTO members adversely affected by other members' initiatives on critical minerals may raise issues, the WTO, with its periodical discussion forums and various committees, may be a good place for Japan and Australia to circulate proposals or non-papers and try out some ideas with other members. Having said that, currently, it is extremely difficult to resolve issues involving significant divergence between the United States and China within any multilateral forum that includes both parties, including the WTO.²⁷⁰ A practical incremental approach would be to start with a bilateral or mini-lateral forum, while making use of the WTO as appropriate, and then ex-

pand the outcome to broader frameworks that do not include the United States and China. In this regard, while the Comprehensive and Progressive Agreement for the Indo-Pacific (CPTPP) does not cover the discussed issues such as subsidies and standards on critical minerals or supply chain resilience, it may be an ideal intermediate forum. Taking this approach may make it more feasible to construct 'fair' rules that would benefit all states in the long term, thereby encouraging participation.

In this regard, Australia and Japan are ideal partners for constructing the foundation for the proposed updates to the rules, taking into account the needs of supply chain resilience for critical minerals. As discussed, both countries' roles are primarily allocated to the 'upstream' and 'downstream' manufacturing sides, meaning that they compete with each other relatively little. Additionally, they both have stable financial and political systems and share a rule-based approach in international forums, which fosters stable discussions and maintains required trust. Furthermore, their similar position amidst the tension between the United States and China creates certain common interests. While the G7, among others, is already discussing how to address China's non-market practices in the critical minerals sector, the two states may also commonly need consistent and persuasive logic to negotiate with the United States when it makes excessive requests. Such persuasive logic would contain elements for the basis of updated rules. In this era of power-based negotiations, stable discussions between these two rule-based powers, seeking long-term bilateral, mini-lateral and multilateral benefits, have become increasingly vital.²⁷¹

Australia and Japan are ideal partners for constructing the foundation for the proposed updates to the rules, taking into account the needs of supply chain resilience for critical minerals.

How Japan and Australia can deepen their collaboration on critical minerals: Countering the weaponisation of rare earths

KOTARO ABE

Japan Bank for International Cooperation

Executive summary

- Since the 2020s, the critical minerals sector has become a major arena for China's economic coercion against Western countries, particularly the United States.²⁷² Rare earths stand out because their primary end products, permanent magnets, are indispensable for high-performance motors and are dual-use, with growing global demand and limited substitutability. Dependence on China remains high across the value chain — from mining and refining through to magnet manufacturing — and the relatively small market size makes price disruption and market control by a dominant player possible. Western countries have accelerated efforts to build supply chains that do not rely on a single country, yet scalable success stories remain limited.
- The Lynas rare-earths project — expanded after government agency Japan Organization for Metals and Energy Security (JOGMEC) and trading house Sojitz joined in 2011 — remains the most prominent Japan–Australia example of supply diversification at scale, reducing Japan's dependence on Chinese rare-earth imports from 85% (2009) to 58% (2020).²⁷³ However, replication of this success has proven difficult: rare-earth markets are small and volatile, cost competitiveness is hard to sustain outside China, and purely commercial models struggle to attract patient capital without some form of revenue stabilisation, including long-term offtake and price support mechanisms.
- To materialise “Lynas 2.0,” Japan and Australia must move beyond principle-based cooperation toward operational, project-oriented coordination that combines policy tools more effectively. Both countries have expanded their toolkits in recent years, yet policy priorities differ, and end-user demand is often concentrated outside Australia, making alignment on needs, volumes, and prioritisation of certain minerals (projects) essential. This requires identifying a short list of priority projects, aligning demand (including through end-user participation) and coordinating financial support to ensure project bankability.

Key policy recommendations

This report proposes a practical package of institutional, commercial and technological recommendations to enable a second wave of Japan–Australia projects that can counter weaponised economic dependence.

Institutional

- Japan and Australia should deepen their communications under the existing working group of the 2022 Japan–Australia Critical Minerals Partnership into an operation-oriented dialogue. It should: (i) define a small set of priority minerals and vulnerable value-chain segments; (ii) identify a short list of priority projects eligible for coordinated support; (iii) consider inviting end-user companies or resilient portfolio companies, who can stabilise those identified projects as investors and/or long-term off-takers; and (iv) align procurement volumes that meaningfully strengthen strategic economic autonomy. Rare-earth cooperation should prioritise strengthening capacities for processing and magnet manufacturing and securing heavy rare-earth supply.
- Australia's planned Critical Minerals Strategic Reserve (CMSR) can be a meaningful tool, but its design must reflect the reality that domestic demand is limited; reserve policies should therefore be calibrated to partner-country needs and credible offtake pathways. Coordination with JOGMEC's rare-metal stockpiling should be explored to avoid duplication and to improve collective resilience. It may also become necessary to establish information-handling protocols based on mutually recognised security clearances, as a prerequisite for sharing sensitive supply chain vulnerabilities, including stockpile levels.

Commercial

- Japan and Australia should establish joint instruments that reduce revenue uncertainty for priority projects: pooled or coordinated long-term offtake frameworks, floor-price mechanisms for narrowly defined strategic volumes, and coordinated debt/equity support through organisations such as JOGMEC and Export Finance Australia.
- For minerals with larger market sizes, government support alone is fiscally constrained; policy should therefore incentivise the participation of magnet manufacturers with long-term feedstock demand visibility or portfolio players capable of absorbing commodity risk and embedding critical-minerals exposure into diversified earnings.

Technological

- Permitting and environmental risks are major drivers of cost overruns and missed windows of opportunity. It is necessary to continue efforts to streamline approval pathways in Australia for strategically designated facilities while preserving environmental integrity.
- Japan and Australia should jointly invest in technologies that reduce long-term dependence on China in critical mineral supply chains: recycling and heavy-rare-earth-saving magnet designs in case of rare earths.

Introduction: Weaponised economic dependence and critical minerals

The weaponisation of economic interdependence has become a defining feature of today's international strategic environment. In the United States Studies Centre's 2024 report "Economic Security in a Turbulent World," then-Australian Treasury Secretary Steven Kennedy observed that a more multipolar global order has intensified geostrategic competition and encouraged states to deploy economic and financial instruments more aggressively in pursuit of national interests.²⁷⁴ Economic coercion now spans semiconductors, agriculture, energy, finance, and critical minerals. China's recent actions have underscored how critical minerals — indispensable for defence, energy and automotive industries — can be leveraged as instruments of coercion. In April 2025, China's Ministry of Commerce imposed export restrictions on seven rare earth elements and magnets for dual-use purposes in response to US tariff increases on Chinese products.²⁷⁵ This move forms part of a systematic approach grounded in institutional frameworks, including the 2020 Export Control Law, enabling rapid and selective export controls under national-security justifications.²⁷⁶ Such is China's leverage over these supply lines — and such is their importance to the United States — that Beijing's actions reportedly contributed to US decisions to ease certain elements of semiconductor export controls in July 2025.²⁷⁷

The weaponisation of interdependence is not new. In his 2023 paper "Collective Resilience: Deterring China's Weaponization of Economic Interdependence," Victor Cha depicted how China had leveraged economic dependence to achieve political objectives since at least the 2010s, including coercive actions against US allies such as Australia and Japan.²⁷⁸ For Japan, the suspension of Chinese rare-earth exports during the 2010 Senkaku Islands crisis served as a particular wake-up call, culminating in a cooperative project among the Japan Organization for Metals and Energy Security (JOGMEC), Japanese trading house Sojitz, and Australia's Lynas Rare Earths. The project is internationally recognised as a "friend-shoring" case that successfully built an alternative supply chain outside of China.

Yet despite Lynas's success, Japan and Australia have not generated a sustained pipeline of new joint

rare-earth projects or equivalent mechanisms necessary to deter coercion. China's continued dominance across rare-earth value chains and its weaponisation including new controls on the export of dual-use rare-earth materials to Japan, introduced in January 2026, should prompt deeper bilateral coordination.²⁷⁹ This report assesses current market conditions and China's advantages in the critical mineral market, discusses lessons from the Lynas case, and explores recent Japan–Australia rare earth policy initiatives, before examining how concrete cooperation beyond Lynas can be realised through a range of institutional, commercial and technological pathways.

China's advantages in critical mineral markets

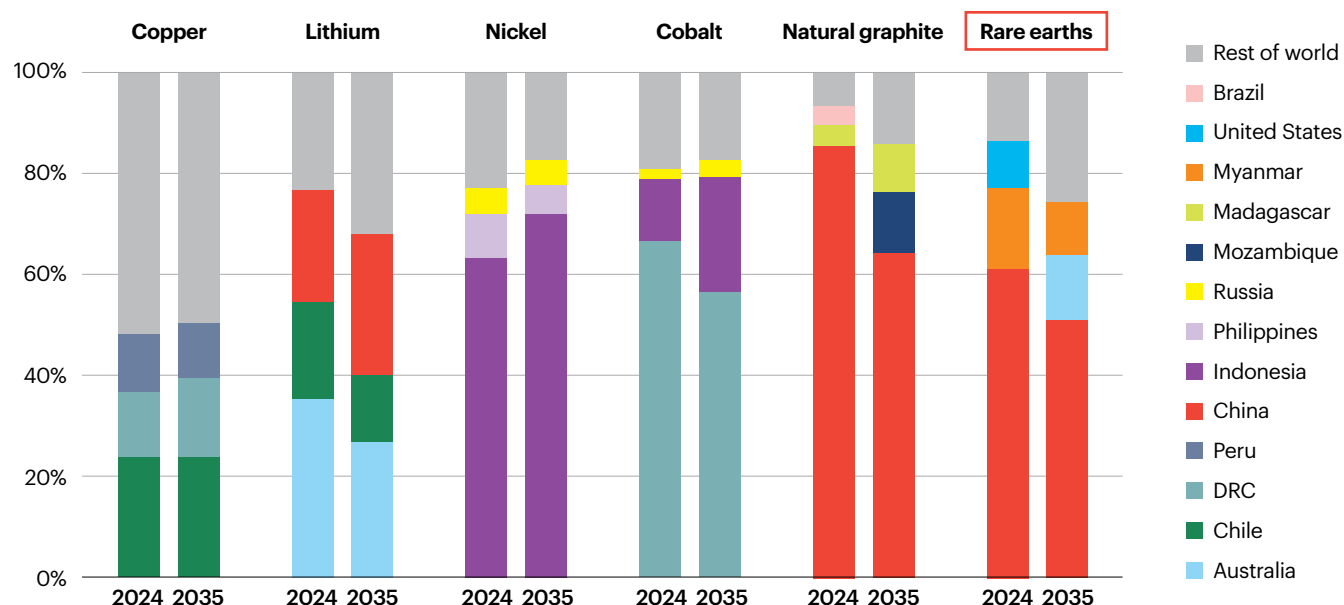
Victor Cha characterises China's coercion as measures such as sudden trade stoppages, tourism restrictions, consumer boycotts, export embargoes, and non-tariff barriers — generally aimed at political rather than economic goals. He argues that targeted countries can coordinate with like-minded partners to identify goods that can serve as deterrent leverage when those goods have strategic value and low substitutability for China.²⁸⁰ As the United States increasingly uses tariffs and embargoes as tools of coercive economic statecraft, China appears to have identified its own source of leverage over the United States: rare earths. The strategic value of rare earths stems from their use as permanent magnets in high-performance motors and dual-use systems. Supply concentration is severe across stages: mining and refining are concentrated in China (see Figure 2 and 3),²⁸¹ and magnet manufacturing is similarly dominated by Chinese firms.²⁸²

Even setting aside direct interventions — export controls or subsidy-enabled price suppression — China benefits from a structural advantage: its ability to operate the entire value chain domestically from mining and refining through to magnet manufacturing. Combined with lower labour and energy costs and lower environmental compliance requirements, this integrated structure gives Chinese firms a pronounced edge in total magnet-production cost competitiveness. This structural edge is particularly consequential because rare-earth markets are small and easily affected by a dominant player's behaviour (see Figure 4).²⁸³

Figure 2.

Geographical concentration of mining phase of critical minerals

Mining of critical minerals is set to become more concentrated for copper, nickel and cobalt while more diversified for lithium, graphite and rare earth elements

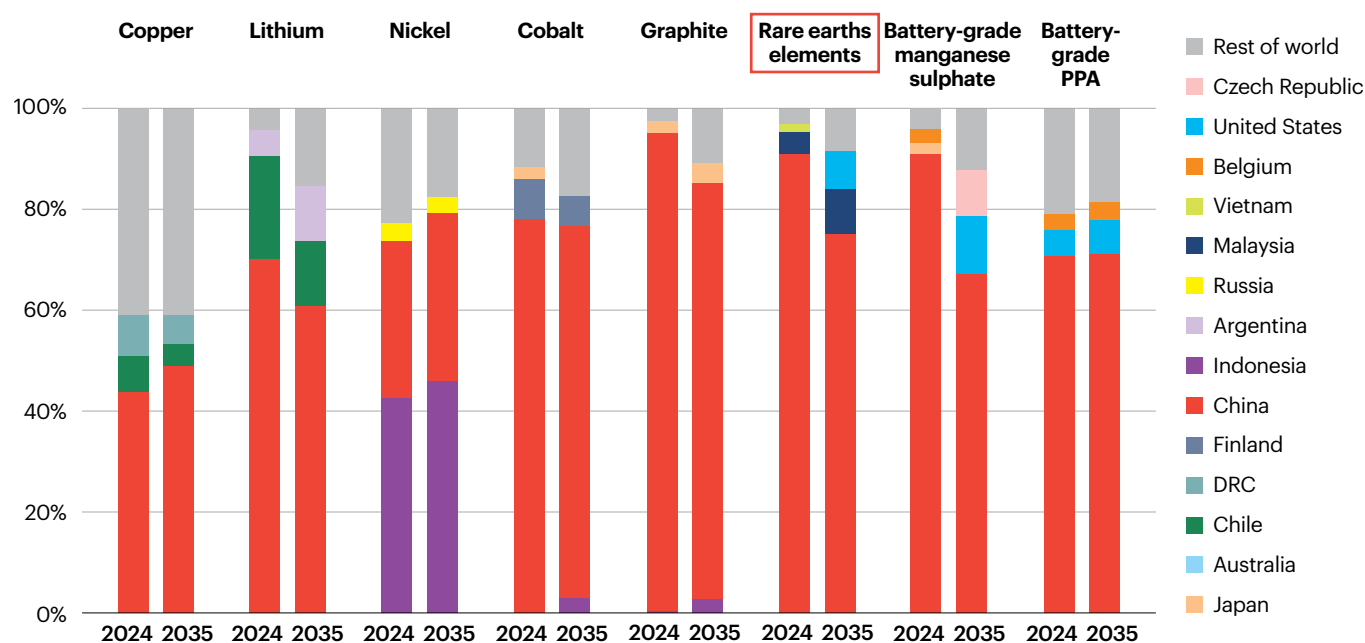


Notes: Graphite extraction is for natural flake graphite. The figures for rare earth elements are for magnet rare earth elements only. The figure depicts the value of the top three producing countries in a given year. Source: IEA

Figure 3.

Geographical concentration of refining phase of critical minerals

Refined material production is also set to remain highly concentrated in a few countries

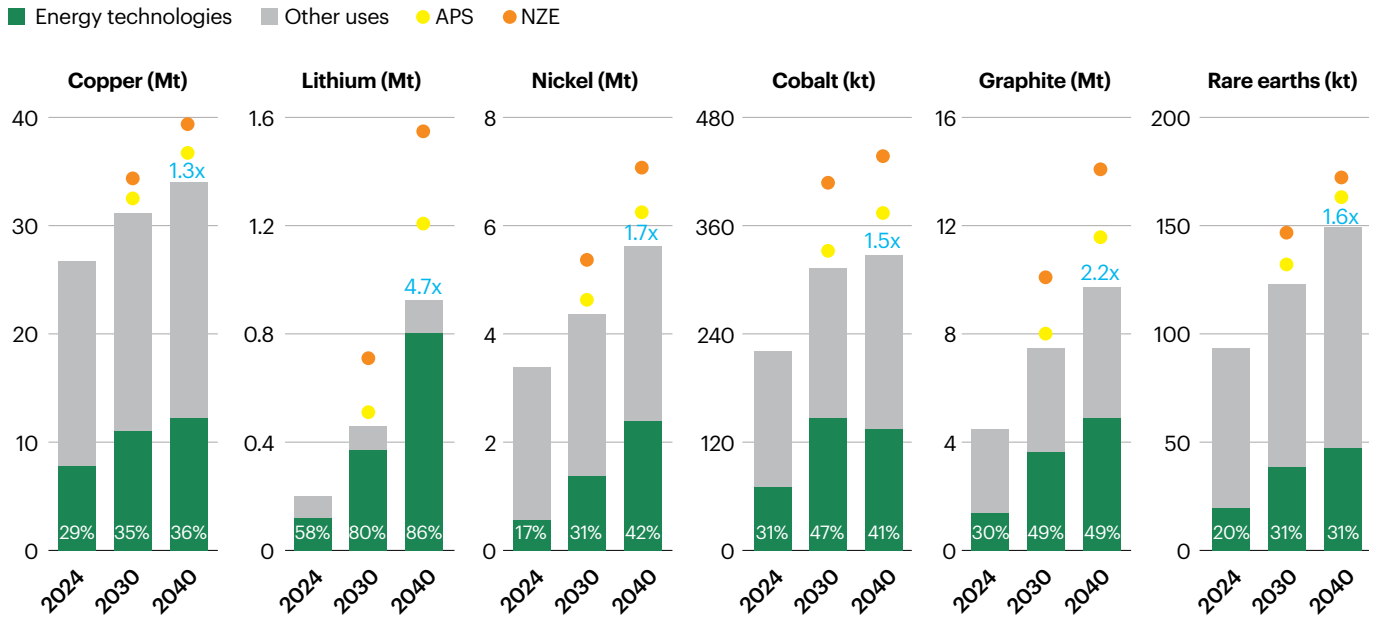


Notes: The figures for graphite are based on battery-grade including spherical graphite and synthetic graphite. The figures for rare earth elements are for magnet rare earth elements only. The figure depicts the value of the top three producing countries in a given year. Source: IEA

Figure 4.

Demand market size of critical minerals (rare earths: 90kt in 2024)

Global critical minerals demand in the STEPS



Notes: STEPS = Stated Policies Scenario; Mt = million tonnes; kt = million tonnes; APS = Announced Pledges Scenario; NZE = Net Zero Emissions by 2050 Scenario. The figures for copper are based on refined copper (excluding direct-use scrap). Those for rare earth elements are for magnet rare earth elements only. Growth rates (in blue) are between 2024 and 2040. Source: IEA

China has also constructed a sophisticated export-control regime to reinforce these advantages. The 2020 Export Control Law created a broad legal basis for controls on dual-use items. Subsequent years saw expanded controls affecting minerals including rare earths and technologies linked to processing.²⁸⁴ These measures should be understood as an effort to sharpen China's ability to calibrate access to critical goods — especially where small market size amplifies price and supply shocks. Because of these dynamics, purely commercial approaches are exceptionally difficult in rare earths. The next section therefore turns to the Lynas case, where strong Japanese government and policy support helped mitigate dependence on China.

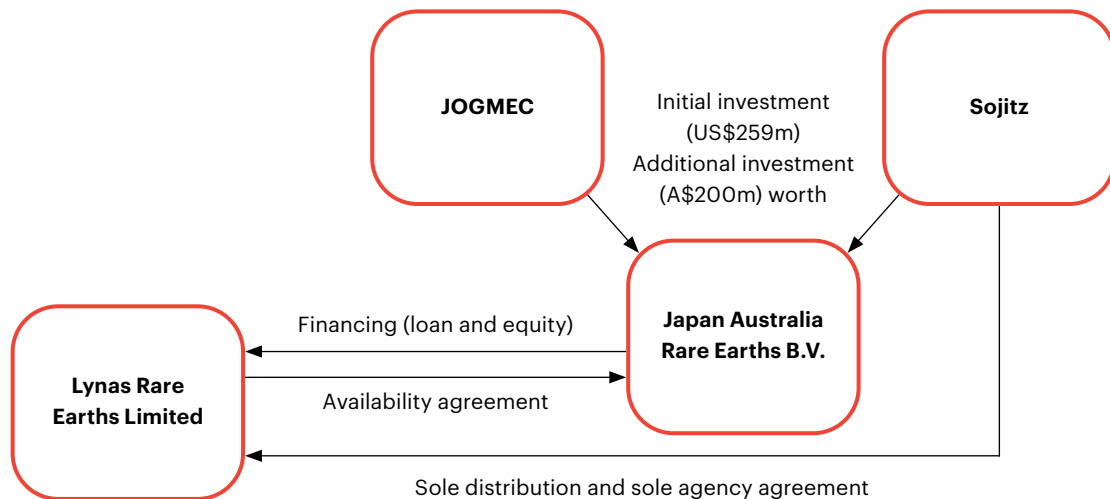
Case study: Lynas Rare-Earths Project

The 2010 Senkaku Islands Crisis: A wake-up call for Japan

Like the United States, Japan has first-hand experience with China's weaponisation of the rare earths supply chain. Following the detention of a Chinese fishing-boat captain near the Senkaku Islands in 2010, China suspended rare-earth exports to Japan, producing immediate downstream impacts²⁸⁵ highlighting Japan's structural dependence on rare earths supply from China. Japan's response combined short-term resilience as well as long-term diversification and reduction of use. It reviewed stockpiling approaches, pursued supply diversification through alternative supply chains, and invested in R&D to reduce rare-earth intensity in magnets and to strengthen domestic²⁸⁶ capabilities. Viewed through the weaponised interdependence lens, the crisis showed China's willingness to use strategic supply chain choke points for geopolitical leverage. However, it also served as a catalyst for Australia-Japan cooperation through the Lynas Project.

Figure 5.

Lynas–JOGMEC–Sojitz arrangement



History, structure and characteristics of the Lynas Project

In basic terms, the Lynas project is best understood as a policy-enabled supply-chain diversification effort. Japan’s state-backed risk capital acted as the early catalyst, while Australia’s federal industrial policy became more visible later in 2020s.

In 2011, JOGMEC and Sojitz established a joint venture to provide patient capital and risk absorption that would have been difficult to sustain commercially given price volatility and cash-flow uncertainty. The financing structure combined equity, loans and long-term offtake commitments to secure stability of the project, and it embedded priority-supply principles extending through 2038 to prioritise Japanese customers under competing demand conditions (see diagram below)²⁸⁷ at the Lynas Advanced Materials Plant (LAMP) in Malaysia.²⁸⁸

From the early 2020s, the Australian Government increased its downstream focus. Under the Modern Manufacturing Initiative, Lynas received two separate grants to support the expansion of domestic processing capability.²⁸⁹ This helped advance a second processing node in Kalgoorlie, Western Australia, intended to strengthen logistics and resilience by taking on part of LAMP’s cracking and leaching functions and providing storage for the resulting mixed rare earth carbonate (MREC). The facility delivered its first production of mixed rare-earth carbonate in 2024, marking tangible progress toward greater onshore processing.²⁹⁰

Japan’s policy role also evolved from initial diversification to deeper midstream resilience, particularly for heavy rare earths. Neodymium magnets require heavy rare earths such as dysprosium and terbium to improve heat resistance, yet their production is currently entirely concentrated in China.²⁹¹ Finally, Lynas has become part of a broader allied industrial-base agenda. In August 2023, Lynas signed a follow-on contract with the US Department of Defense (DoD)²⁹² for a heavy rare-earth processing facility in the United States.²⁹³ Subsequent cost overruns and permitting delays illustrate building non-Chinese capacity is not only a financing challenge, but also a regulatory, environmental, and execution challenge.²⁹⁴ Amid the challenges of localising operations, in March 2026, DoD signed a binding letter of intent with Lynas for a four-year offtake agreement covering both light and heavy rare earths.²⁹⁵

Key takeaways from Lynas

The Lynas case highlights several strengths of friend-shoring projects. Firstly, the project contributed materially to supply diversification by reducing Japan’s dependence on Chinese rare-earth imports from 85% (2009) to 58% (2020)²⁹⁶ It also demonstrated the importance and possibility of sustained political support across multiple project phases: Japan’s early risk capital and demand anchoring, Australia’s expansion-phase grants, and the US defence-driven push for heavy rare-earth processing all contributed to the viability of the project. At the same time, Lynas also demonstrat-

ed that single commodity models come with structural vulnerabilities. Rare-earth markets are small and highly sensitive to supply shocks and strategic pricing by a dominant player. As a rare-earth pure play company.²⁹⁷ The implication is clear: replication is unlikely unless paired with mechanisms that stabilise cash flow — long-term offtake, floor-price structures for strategic volumes under sustained political support and/or involvement of magnet manufacturers with long-term feedstock demand visibility or portfolio players capable of absorbing commodity risk and embedding critical-minerals exposure into diversified earnings.

Recent policy initiatives by Japan and Australia

The Lynas case succeeded in mitigating China's influence over Japan's rare earth supply chain through diversification, but it has not generated a broader pipeline for similar joint projects. Since the 2020s, Australia's federal involvement has become more visible, and both countries' policy toolkits have expanded amid heightened risk. As a foundation for examining pathways to strengthen Japan–Australia cooperation going forward, this section reviews differences in policy priorities between the two countries and outlines their latest policy developments.

As a resource-poor importer, Japan has prioritised securing minerals and processed inputs needed for competitive manufacturing across autos, semiconductors and electronics. Japan enacted the *Economic Security Promotion Act* (ESPA) in 2022 as a comprehensive legal framework, with one of its four pillars focusing on ensuring a stable supply of Specified Critical²⁹⁸ to Japan. The Japanese Government has designated 12 SCPs, and for each product, the presiding ministry is required to formulate an action plan or policies²⁹⁹ on initiatives for ensuring a stable supply.” ‘Critical minerals’ and ‘permanent magnets’ are both designated as SCPs, with METI serving as the competent authority. The Action Plan for Critical Minerals places a high priority on³⁰⁰ of JOGMEC applicable across exploration, demonstration, mining and refining.³⁰¹ The policy aims to expand risk-money tools and to translate security objectives into actionable support for projects and technologies. On the other hand, the Action Plan for Permanent Magnets has

also underscored end-product-focused initiatives — capacity expansion, recycling of rare-earth feedstock from end-of-life magnets and high-efficiency technologies — through projects³⁰² (NEDO). Apart from ESPA, JOGMEC's rare-metal stockpiling regime was revised³⁵ — an orientation consistent with countering coercion.³⁰³

Australia, by contrast, is a resource-rich exporter seeking to capture demand while moving up the value chain and diversifying a resource-anchored economy. Its Critical Minerals Strategy 2023–2030 emphasises strengthening the domestic value chain from mining through processing, reducing dependence on China, and expanding cooperation with trusted partners.³⁰⁴ Financing capacity has expanded through the Critical Minerals Facility under Export Finance Australia (EFA)'s National Interest Account.³⁰⁵ In parallel, Australia has announced plans for a Critical Minerals Strategic Reserve intended to provide long-term offtake support, selective stockpiling, and supply to partner countries, backed by initial budget allocations of \$1.2 billion.³⁰⁶ Another important effort by the Australian Government is the ongoing reform of its environmental approval regime. The reforms are anticipated to streamline duplicated assessments between the federal and state governments and thereby improve regulatory efficiency.³⁰⁷

Importantly, Australia and Japan are increasingly looking to one another to solve their respective critical minerals challenges. The two countries signed the Japan–Australia Critical Minerals Partnership in 2022, and they have a “corresponding Critical Minerals Working Group” under the framework.³⁰⁸ However, work remains to turn intent into action. While Paragraph 2 of the Partnership document articulates an intent to “explore co-financing” and “catalyze private investment,” the arrangement remains general and lacks mechanisms to identify priority projects or embed incentives sufficient to mobilise private actors at scale.³⁰⁹ This contrasts with more specific language found in US-allied frameworks announced in October 2025: the US–Australia framework and a similar Japan–US frameworks for critical minerals collaboration introduced project-oriented financial support language and, in the US–Australia case, quantified mobilisation commitments.³¹⁰ Both Japan and Australia are therefore expanding policy tools to mitigate China's influence through stockpiling and risk-money support, with growing emphasis

on processing. Yet mineral-specific realities differ: the criticality of outputs, market size, and dependence at each supply-chain stage vary across minerals and national circumstances. More frequent bilateral coordination to align priorities, identify jointly supportable projects, and incorporate both supply-side and demand-side needs will therefore be essential if the two countries are to produce a ‘Lynas 2.0’.

Recommendations

Institutional

Japan and Australia should regularly hold operation-oriented dialogue in the existing working group under the 2022 Japan–Australia Critical Minerals Partnership. The dialogue should: (i) define a small set of priority minerals and value-chain segments that are highly vulnerable to economic coercion; (ii) identify a short list of priority projects eligible for coordinated support; (iii) consider inviting end-user companies (e.g. permanent magnet manufacturers) or resilient portfolio companies,

who can stabilise those potential projects as investors and/or long term off-takers; and (iv) align procurement volumes that meaningfully strengthen strategic economic autonomy, rather than fragmenting support across too many initiatives. For rare earths, priority should explicitly incorporate heavy rare earths in terms of product as well as processing and magnet-manufacturing in terms of value chain, reflecting end-user requirements. Given that demand information and supply-chain vulnerabilities are sensitive, the dialogue should adopt strict information governance rules — limited access, secure handling, and designated cleared personnel — so that candid vulnerability assessments and procurement alignment can occur without undermining commercial competitiveness or exposing security risks. The two countries should also coordinate on stockpiling. To the furthest extent possible, Australia’s planned strategic reserve should take into account the demand of like-minded partner countries like Japan as well as JOGMEC stockpiling, so that they should function as complementary instruments, with a clear division of roles (shock absorption, revenue stabilisation or allied supply assurance).



Lynas Rare Earths Plant in Kalgoorlie. Source: Getty

Commercial

For rare earths and other minerals with small and volatile markets, the key barrier is stable revenue. Japan and Australia should therefore treat cash-flow stabilisation as a central instrument for future projects, including coordinated long-term offtake frameworks, floor price for limited strategic volumes and/or synchronised debt/equity support through JOGMEC and EFA, possibly joined by JBIC to further scale up financing in the commercialised phase. These tools should be conditional on performance and milestones to manage fiscal exposure. Where market size is larger, governmental support alone is fiscally constrained: policy should therefore incentivise the participation of end-user companies with long-term feedstock demand visibility or portfolio players capable of absorbing commodity risk and embedding critical minerals exposure into diversified earnings. Defence-related demand aggregation should be actively explored among close strategic partners: even if national defence demand is small in each country, pooled allied demand could support stable offtake for a certain period and improve project bankability.

Technological

Technological cooperation should focus on offsetting or minimising choke points that underpin China's present leverage over the rare earths supply chain. Processing and magnet manufacturing, and technologies that can lower the cost of recycling and more efficient magnet designs should be prioritised. Permitting and environmental compliance reforms must also be treated as a strategic execution risk. Streamlined approval processes for designated strategic facilities that account for high environmental standards can reduce cost overruns and missed opportunities. For rare-earth projects, low-radioactivity feedstock and robust waste-management systems should be prioritised as design criteria, because social license and environmental approval are often decisive bottlenecks in getting projects off the ground.

Conclusion

China's post-2023 tightening of export controls has pushed critical minerals to the front line of economic security. Beyond dominance in midstream processing, China is enhancing its capacity to calibrate supply through systematic export-control tools. For Japan, the 2010 Senkaku Islands crisis served as a wake-up call, and the Lynas project with Australia became a flagship example for friend-shoring. Yet the lack of follow-on projects that have successfully commenced production after Lynas indicates that structural, institutional, and commercial challenges remain. This report has argued that generating 'Lynas 2.0' requires an integrated approach: commercial mechanisms that stabilise cash flow; institutional structures that align priorities, information, and financing; and technological cooperation that reduces dependency at choke points and lowers long-term intervention needs. Continuity across upstream, midstream, and downstream must be treated as a design principle to avoid new choke points.

Japan and Australia now have an opportunity to leverage complementarity and political alignment to produce a second and third wave of projects beyond Lynas. The 50th anniversary of signing basic Treaty of Friendship and Co-operation between Australia and Japan in 2026 will offer added political momentum, that could help align budgets and incentives focusing on joint stockpiling mechanism or concrete projects such as processing-oriented rare earths projects tied to magnet supply. Ultimately, a non-China critical-minerals supply chain cannot be built by a single project or a single country acting alone. Long-term cooperation between Japan and Australia, involving the United States and other like-minded partners where possible, is indispensable to reshape interdependence into a controllable structure and to support stability in the international order.

SECTION THREE

Strategic technologies



Building regional space resilience: Australia-Japan engagement in defence space

DR TRISTAN MOSS

THE UNIVERSITY OF NEW SOUTH WALES, CANBERRA

Executive summary

For Australia and Japan, defence space cooperation is a strategic necessity rather than a choice: neither country can generate resilient space effects alone, yet together they offer complementary strengths in capability, geography and access. Japan brings mature space capabilities and industrial capacity, while Australia provides strategic depth, favourable geography, and growing strengths in ground infrastructure and space domain awareness. Although cooperation has expanded, it remains largely additive and episodic, falling short of shaping shared, resilient space architectures. This brief argues that Australia and Japan should move toward more integrated, complementary defence space cooperation to build resilience, share costs, and strengthen deterrence within a broader alliance and partnership framework.

Recommendations

- Australia and Japan should move beyond dialogue and exercises to work more closely in space, particularly in space domain awareness.
- Both countries should explore how to address gaps in the space workforce through exchanges and training and begin to align industry investment in the service of resiliency in space.
- Australia and Japan should use their bilateral cooperation as a foundation for engagement with other capable partners to distribute risk, infrastructure and analytic burden. This would strengthen regional resilience while reducing over-reliance on US-led frameworks.

Introduction

Space is no longer a peripheral enabler but is now a foundational element of modern military power. Space has become crucial for national security, ranked alongside the air, land, sea and cyber domains in importance. It is, therefore, an essential part of any strong defence relationship. For Japan and Australia, cooperation in space reflects both strategic necessity and opportunity: neither can act alone, but together they can enhance resilience, deterrence and alliance cohesion. Yet, as the space domain is a relative newcomer to the strategic thinking of all but superpowers, and as the Australia-Japan special strategic partnership continues to break new ground, there is work to be done on how the two countries frame their thinking on this element of their collaboration. What is certain, however, is that in an increasingly contested domain, space cooperation is now a critical feature of their evolving security relationship, which both countries should seek to grow.

For Japan and Australia, cooperation in space reflects both strategic necessity and opportunity: neither can act alone, but together they can enhance resilience, deterrence and alliance cohesion.

There are real benefits to doing so. While not yet a domain in which a conflict might be fought and won, space is a vital glue that supports action in all other domains. It is a source of intelligence, communications, Earth observation data, and position and navigation information without which modern militaries cannot operate. It has followed, then, that as these areas become more important for major powers, so too has the ability to understand or disrupt an adversary's own capabilities, leading to an expansion in the range of space activities each nation might seek to undertake to include capabilities that enable offensive options.

Yet, while valuable, space is expensive and technically complex. With competing priorities, all but the largest space nations must collaborate with others to achieve security ends in space, not only in acquiring expensive technology, but also in developing the resource-intensive industry and highly trained space workforce to support this technology. Thus, unlike the sea or land domains, the 'geography' of space makes it a truly global endeavour, meaning these assets are spread across, or around, the globe. While space assets are expensive, they are also vulnerable. Resilience, as the capacity to maintain critical space-enabled military functions despite disruption, interference or attack, is therefore vitally important in achieving security ends in space. Rather than relying on invulnerable systems, resilience is generated through redundancy. This is achieved through geographic dispersion of infrastructure, close integration with partners, a breadth of approaches to space technology, and the ability to operate through or rapidly recover from the loss of individual space assets. That, too, comes from having many partners, bringing their own capabilities to the table.

The cost and complexity of space points naturally toward closer Australia-Japan cooperation in defence space. Japan brings advanced space capabilities but operates from a geographically concentrated base, while Australia offers strategic depth in its favourable geography and growing strengths in ground infrastructure and space domain awareness. As a technologically advanced nation, Australia also has potential for further growth in space to meet resilience needs, albeit from a far smaller base compared with Japan. By working with partners, the two countries can mitigate cost, vulnerability and resilience challenges that neither can effectively address alone.

Australia-Japan convergence

The rapidly growing defence relationship between the two nations enables this turn to each other in the space domain. Australia's 2024 National Defence Strategy emphasises the centrality of regional partnerships, with Japan as a key partner.³¹¹ For its part, the Japanese National Security Strategy outlined how Japan will seek to strengthen ties with countries like Australia, specifically, using pre-existing frameworks such as the trilateral relationship with the United States.³¹² The two countries differ in space capacity, with Japan's far greater than Australia, but their strategic outlooks, their partnership with the United States and their desire to integrate space into their own defence forces and in their defence relationships together offer a foundational commonality.

While Australia has a long history of space activities, it has always had a far smaller base of space development and manufacturing. Aside from Australia's economic size relative to Japan, this has also reflected the deep reliance on access to space through the United States. The US-Australia partnership is a long one, beginning with the opening of the first American tracking stations on Australian soil in the 1950s.³¹³ Australia enjoys access to United States space systems, such as communications and position, navigation and timing (PNT) and, crucially, receives space-based intelligence as part of its place in the Five Eyes network. While for much of its space history Australia has sought simply to leverage its geography for other defence benefits — such as access to intelligence — in the past two decades, the prominence afforded space within national security documents has grown with each new foundational document of the last two decades. By 2024, the National Defence Strategy held that space was “equally important” to other domains.³¹⁴ Practically, this shift has seen the creation of an Australian Space Command, and the expansion of Australia's capability in space domain awareness, intelligence, surveillance and reconnaissance (ISR) and counterspace capabilities.³¹⁵

The 2022 Defence Space Strategy marked the first such document released in Australia and laid out five lines of effort: space access, delivering military effects through space, increasing the understanding of the criticality of space, advancing sovereign capability, and evolving the Defence Space enterprise.³¹⁶

The strategy, like Australia's approach to space more broadly, remains a work in progress, reflecting both the Australian Defence Force's (ADF) continued reliance on space primarily as an enabling domain and the significant capability, workforce and institutional development required for Australia to generate resilient space effects in its own right. Defence's 2025 space domain concept, as yet unreleased, has substantially built on this foundation.³¹⁷ Titled ‘Selene’, this concept lays out nine mission areas, which were summarised as the ADF seeking “space advantage to enable freedom of action by temporally assuring access and disrupting or denying an adversary use of the space domain, as required.”³¹⁸

Crucially, Selene makes clear that Australia does not have the capacity to build resiliency on its own. Brigadier Chris Gardiner, the Australian Space and Cyber Attaché in Washington, DC, explained that an underlying tenet of Selene was that it is “as commercial as possible, as military as required.”³¹⁹ At the same time, all space effort should be “allied by design and as Australian as needed.”³²⁰ Partnerships and cooperation are therefore central to Australia's ability to effectively use space capabilities to ensure its security.³²¹ At the national level, however, the development of the space sector is still limited by the absence of a whole-of-government space strategy bringing together civilian and military space. This is despite the creation of the Australian Space Agency in 2018. The result is that Australia's approach to space at a national level has been relatively uncoordinated and focused on industry alone.³²²

Among Australia's partners, Japan stands out as the most credible collaborator in defence space: technologically advanced, strategically aligned and already embedded in allied space architectures. In the words of political scientist Saadia Pekkanen, “Japan is a formidable military space power.”³²³ Indeed, Japan is fast becoming Australia's partner of choice in space after the United States. While Japan's approach to military space was traditionally dominated by the limits it had placed on defence spending and action, in the last two decades, it has substantially expanded its defence space capabilities. This has reflected a broader shift away from pacifism to a more robust investment in the country's security.³²⁴ The 2018 National Defence Program Guidelines (NDPG) placed new domains — space, cyberspace and the electromagnetic spectrum — alongside traditional domains and committed to strengthening Japanese capabilities in these new areas. For the



The Japan Aerospace Exploration Agency Hayabusa-2 probe's sample is seen from Coober Pedy in South Australia dropping to earth after gathering material from an asteroid some 300 million kilometres from Earth, December 2020. Source: Getty

first time, the NDPG presented space as a domain for both defensive and offensive action, acknowledging Japanese development of counterspace capabilities.³²⁵ Since then, Japan has continued in its growth of space capability, and has more than doubled its investments in civil and national security space in the last five years.³²⁶ It currently boasts a range of capabilities, including space situational awareness assets, defence communications satellites and most likely counterspace technologies, although these are not discussed publicly.³²⁷ The 2025 Space Domain Defence Guidelines lay out four priorities for space growth from here, focusing on battlespace awareness, satellite communications, mission assurance, and resilience and counterspace.³²⁸ These themes align with Australia's own priorities.

The similar integration of space in the two nations and the growing convergence of strategic interests have driven greater Japan–Australia cooperation in space over the past decade. The 2022 Australia–Japan Joint Declaration on Security Cooperation, for instance, saw the two nations specifically commit to enhancing cooperation in the space domain.³²⁹ The Japan–Australia Reciprocal Access Agreement (RAA), which allows for easier information sharing and cooperation in cyberspace and defence technology, also smooths the way for cooperation in space.³³⁰ At the 2+2 Dialogue in September 2025, Japan and Australia committed to continuing these efforts, mentioning both dialogue on space specifically and unit-level exchanges.³³¹ On the ground, Japan

and Australia have worked alongside each other in a range of exercises that include the space domain. Exercise Pitch Black 2024, for instance, saw the two countries work with others in space domain awareness.³³² In the civilian sphere, Australia has played host to the return of the Japanese Space Agency's (JAXA) Hayabusa 2 capsule and has committed to providing landing sites for future missions.³³³ Australia's nascent space industry has also explored partnerships with Japan's established space sector in the form of MOUs.³³⁴ Given the inherently dual-use nature of space technology and the small size of Australia's space industry, growth in the civilian side of space has the potential to affect the indigenous production of defence space technology.

However, despite this clear convergence in strategic outlook and a growing record of cooperation, Australia–Japan defence space engagement remains limited in scope and ambition. Existing cooperation has been largely additive rather than complementary, focused on dialogue, episodic exercises and parallel participation in US-led frameworks rather than on the deliberate shaping of shared space capabilities or architectures. As a result, Australia has yet to meaningfully offset its structural constraints in space, including limited sovereign capability and heavy reliance on allies, while Japan has not fully leveraged cooperation with Australia as a source of strategic depth, geographic dispersion and resilience beyond the Japanese archipelago.³³⁵

Recommendations for Australia and Japan

Australia and Japan's future defence space cooperation should focus on two broad elements, pursued through four lines of effort. First, both should focus collaborative efforts on building shared resilience in the space domain. Second, the pair should seek to grow the depth of both countries' defence space capabilities. This is particularly important for Australia, as a nation with a smaller space sector but the potential for significant growth and contribution to shared and combined capability.

First, the strengthening of information sharing on and from space is a force multiplier for both countries. This is particularly the case when it comes to deterrence, as seeing something and understanding it is the first step to hitting it. Here, Australia's strengths in space domain awareness are something that can be leveraged for both partners, as can its favourable geography. Australia has the potential to host Japanese space domain awareness capabilities, something it already does with other partners, such as the Deep Space Advanced Radar Capability, a joint project with the United States and United Kingdom.³³⁶ Similarly, as space forms one vital part of the intelligence pipeline, particularly in early warning and ISR, Australia's experience and capability in intelligence analysis can add to the effectiveness of both countries' space domain awareness and ISR capabilities, if challenges in sharing information can be overcome.³³⁷

Secondly, the two countries should seek to build pathways for cooperation in growing the capabilities of both countries' space ecosystems, particularly in space workforce (both civilian and military) and industrial depth. Initiatives such as the Combined Space Operations initiative, led by the United States, are testament to even the world's pre-eminent space power seeking to build resilience through cooperative training and planning.³³⁸ These are particular issues for Australia, which has a small space sector that, while growing, is hampered by the availability of sufficiently trained people. In the Australian Department of Defence, workforce issues are considered significantly sufficient to warrant significant effort by Australia's Space Command.³³⁹ Similarly, the NDPG emphasises the development of the "human resource base" to improve resilience.³⁴⁰ Cooperation

and exchanges between defence forces, education and partnerships with academia all serve to build not only the technical skill needed for space, but also a broader understanding of what is still quite a new domain in defence and national thinking.

Third, there is opportunity to coordinate each country's space industry through ensuring either that they do not duplicate effort or, if they do, this is in service of greater redundancy and resilience in space capabilities. Australia's former ambassador to Japan, Justin Hayhurst, made this clear in late 2023 when he emphasised the need for "innovative, cost-effective solutions that maximise opportunities for industry participation — and grow a strong, sustainable, and secure defence industry."³⁴¹ With both countries seeking to build resilience in space, broadening the type, source and use of space technology, whether whole satellites or individual pieces of space systems, is a vital step. For Australia, this is a long-term project and, crucially, the country should develop a whole-of-government space policy that aligns long-term capability and investment priorities with its regional strategic objectives, including defence space cooperation with Japan, while providing the policy stability and clarity industry requires to invest with confidence.

Finally, Australia and Japan should pursue defence space cooperation not only bilaterally but also with other partners. This approach offers clear advantages in space by improving resilience through the distribution of sensors, ground infrastructure and analytic capacity, while reducing duplication through complementary capability development. This is something that is already being done with the United States, at that country's behest. Effort should be made to expand this to other countries, too. South Korea is a logical partner given its advanced space and missile-warning capabilities, shared threat perceptions and growing role in regional security, making it a natural extension of Australia–Japan cooperation rather than an additional layer for its own sake. Such arrangements would build on, rather than compete with, each country's deep space relationship with the United States, using alliance frameworks to enhance collective resilience in a contested domain.

Looking forward

The enthusiasm with which both Japan and Australia are pursuing growth in their defence relationship will ensure that space, as one of many domains in which the two nations are cooperating, will also continue to grow as a site of engagement. Nonetheless, there are a number of challenges the two nations will need to negotiate, which will dictate the scope and pace of defence space cooperation.

Recent Australian government interest in space has been uneven. This is a product of both legitimate constraints on funding and a general disinterest in space.³⁴² While Australia might relatively easily embed personnel in a foreign headquarters or conduct bilateral training, shifting Australia's space policy settings to refocus on areas of complementarity is far more difficult. Given that Australia does not have a whole-of-government space policy, it is unlikely that this will occur in the short term. Nonetheless, this deep level of commitment — in space and in other areas of defence — is one that allows Australia to offer its allies something more than its geography and pre-existing assets and people when it comes to space.

A reflexive turn to the United States also represents a hurdle to deeper Australia–Japan defence space cooperation. For both Australia and Japan, the United States remains the most important defence partner, and access to US space systems, assets and organisations is currently indispensable. Yet decades of reliance on US-led frameworks have made this orientation almost automatic, often limiting the incentive to develop bilateral or regional alternatives that could enhance resilience and complement the alliance rather than compete with it. This tendency is reinforced by the relative lack of scholarship and policy commentary on the Australia–Japan defence relationship — and on defence space cooperation in particular — which constrains how both countries conceptualise space cooperation beyond that focused on the United States.³⁴³

Defence space cooperation has emerged as one of the most consequential — and underdeveloped — elements of the Australia–Japan security relationship. Neither Australia nor Japan can achieve resilient space effects alone, but together they possess complementary strengths that materially enhance deterrence, resilience and strategic autonomy. Moving beyond episodic engagement toward integrated and complementary cooperation would allow both countries to better manage risk, share burdens and strengthen their broader alliance posture alongside the United States. In this sense, defence space is not a niche add-on to the bilateral relationship, but a defining test of how Australia and Japan adapt their partnership to the realities of contemporary security competition.

Neither Australia nor Japan can achieve resilient space effects alone, but together they possess complementary strengths that materially enhance deterrence, resilience and strategic autonomy.

Advancing Australia–Japan maritime security through quantum technologies in the Indo-Pacific

PILAR COSSIO³⁴⁴

JADE FELLOW

Executive summary

- Japan and Australia are increasingly confronting the strategic implications of quantum technologies as they move rapidly from experimental research into the realm of strategic competition. With both nations heavily dependent on secure sea lanes, satellite navigation and trusted information systems, achieving quantum resilience is no longer a future aspiration but a core national-security imperative in the Indo-Pacific.
- Quantum technologies will fundamentally reshape how maritime environments are navigated, monitored and defended. Recent incidents of GPS jamming, spoofing and digital interference in critical waterways underscore the growing vulnerability of Global Navigation Satellite Systems (GNSS), highlighting the urgency of transitioning toward quantum-secure alternatives. Without coordinated action, adversaries may exploit these vulnerabilities faster than existing defences can adapt.
- Australia and Japan possess highly complementary strengths in the global quantum ecosystem. Australia's policy-driven, commercialisation-focused model and Japan's deep industrial and scientific scaling offer a unique synergy for maritime security — a critical but under-examined gap this paper addresses.
- This paper situates Australia–Japan quantum cooperation within an increasingly competitive global environment, identifying key barriers including regulatory friction, export controls, skills shortages, fragmented standards, data-sharing constraints and the prioritisation of Artificial Intelligence (AI) over quantum investment.
- To address these challenges, this research proposes a set of targeted policy recommendations including: the establishment of a formal Australia–Japan quantum coordination mechanism; alignment of bilateral projects with AUKUS Pillar II priorities; the conduct of parallel quantum threat and risk assessments; strengthened workforce development and talent exchange; and accelerated industry engagement to transition cooperation from research activities to operational maritime capabilities.
- The conclusions of this study are clear: without urgent, coordinated action, Australia and Japan risk falling behind in a domain that will define future maritime security and strategic stability. With it, they can lead in quantum maritime resilience and reinforce the credibility of their Indo-Pacific strategies.

Key policy recommendations

- Establish a formal Australia-Japan quantum coordination mechanism.
- Align bilateral projects with AUKUS Pillar II priorities.
- Conduct parallel quantum threat and risk assessments.
- Strengthen workforce development and talent exchange.
- Accelerate industry engagement to transition cooperation from research activities to operation maritime capabilities.

Introduction

As maritime nations, Australia and Japan are deepening their cooperation on quantum technologies through frameworks like Pillar II of the AUKUS partnership, where Japan is a key collaborator.³⁴⁵ However, accelerating these investments is critical to moving from experimental prototypes to deployable, GPS-independent navigation and secure communication systems. The key domains of quantum technologies³⁴⁶ include quantum communication,³⁴⁷ quantum computing and quantum sensors. Together, they offer next-generation capabilities³⁴⁸ that can strengthen security at sea. Quantum communication enables highly secure data transfer via quantum satellites.³⁴⁹ On the other hand, quantum computing presents both opportunity and risk. It promises unprecedented computing power and thus, could break current encryption standards, threatening defence, commercial and national information systems.³⁵⁰ Quantum sensors provide exceptionally accurate measurements of time, space and forces. This enables navigation systems that remain reliable even when GNSS are jammed and improves situational awareness at sea.³⁵¹ As these technologies advance, the potential for both disruption and advantage will shape not only Australia's and Japan's security environments but also the global security order.

The recent war in the Middle East has exposed the growing vulnerabilities of key maritime waterways, highlighting the urgency of exploring new security approaches. Widespread electronic warfare such as GPS jamming³⁵² and spoofing³⁵³ and the rise of “zombie tankers”³⁵⁴ operating with disabled or manipulated transporters in the Strait of Hormuz illustrate how rapidly risks at sea are evolving. While these threats are not new, recent events have

brought them into sharper focus as their scale, frequency and sophistication have increased. The Indo-Pacific region faces similar vulnerabilities as incidents of GPS spoofing have been occurring in the South China Sea since the early 2020s, particularly near the Spratly Islands and Subi Reef. Such incidents show how digital interference can degrade positioning accuracy, disrupt ship-to-shore communications and cause decision-making delays on route.³⁵⁵

As quantum technologies advance, the risk that malign actors could outpace current defences introduces a fundamental shift in the strategic landscape, one that directly challenges international security norms and threatens to compromise the very systems and infrastructure that underpin regional stability

For Australia and Japan, the stakes are exceptionally high. With both nations dependent on secure maritime corridors and resilient information systems for their economic and national security, achieving quantum resilience has become a non-negotiable strategic pillar. Advancing quantum-secure communications not only safeguards critical data but also counters narratives of Indo-Pacific Strategy decline³⁵⁶ by reinforcing its role in sustaining regional stability and long-term viability.

Despite substantial domestic progress, Australia and Japan have yet to move beyond a high-level research pact³⁵⁷ toward a dedicated, coordinated bilateral roadmap for maritime quantum capability. Australia launched its National Quantum Strategy in 2023,³⁵⁸ committing significant investment to commercialisation, secure communications and workforce development. Japan continues to strengthen its research leadership through the Quantum Technology Innovation Strategy (2020;



Japan's first domestically-built next-generation quantum computer has been developed by Riken and its partners.
Source: Riken Quantum Computing

updated in 2023),³⁵⁹ supported by research and technology institutions such as RIKEN and Nippon Telegraph and Telephone Corporation (NTT). Despite these domestic strengths, closing this gap is now essential to convert unprecedented strategic alignment into a tangible shared maritime security advantage.

Urgent and coordinated action is needed to safeguard regional stability and maintain technological leadership. By framing quantum technologies through a policy rather than a technical lens, it clarifies their implications for defence and maritime security in the Australia–Japan context.

Why quantum matters for maritime security

Quantum technologies have immediate implications for maritime security because they will fundamentally reshape how information is protected, intercepted, and contested.³⁶⁰ As quantum technology develops, it will affect how countries compete for information and maritime power,³⁶¹ making current encryption systems vulnerable to compromise or manipulation.³⁶²

Beyond these vulnerabilities, quantum technologies also offer new opportunities to strengthen maritime resilience. Quantum key distribution

(QKD)³⁶³ provides highly secure communication channels for defence and diplomatic exchanges.³⁶⁴ Similarly, quantum sensing could enhance maritime domain awareness through quantum-based navigation³⁶⁵ for ships and even submarines as an alternative to current technologies of satellite navigation systems such as GPS and Galileo.³⁶⁶

In a region shaped by dense trade routes, ageing port systems, reliance on satellite navigation, and intensifying strategic competition, early investment in quantum-secure communications and Post-quantum cryptography (PQC)³⁶⁷ is essential to protect critical maritime systems³⁶⁸ from quantum-enabled threats.³⁶⁹

Coordinated transition towards quantum-based systems and PQCs is urgent. Google, for instance, plans to migrate to PQC by 2029, predicting this as the “Q-Day” when quantum computers will be able to easily break today’s encryptions.³⁷⁰

Emerging space-based quantum communications may further enhance future maritime security. Research published in scientific journals such as *Nature*³⁷¹ and *Science*³⁷² shows that satellite-to-ground quantum key distribution³⁷³ could enhance security at sea. Japan has already made significant progress in this area through the National Institute of Information and Communications Technology (NICT), notably with the SOTA quantum-communication transmitter deployed aboard the SOC-

RATES satellite.³⁷⁴ Australia is developing optical ground stations for space-based quantum capabilities through the Australian Space Agency, the Australian National University and SmartSat Co-operative Research Centre (CRC).³⁷⁵ Together, these efforts provide a foundation for joint exploration in space-to-ground quantum communication to strengthen maritime and defence systems.

Quantum technologies in the global strategic environment

The global quantum landscape is evolving rapidly, and currently, the United States remains the leading driver of quantum technologies³⁷⁶ (approximately US\$3.5 billion in cumulative public and private capital allocations).³⁷⁷ This is underpinned by sustained federal programs across the Department of Energy, the National Science Foundation and the National Institute of Standards and Technology and as well as major industry actors such as IBM, Google,³⁷⁸ Microsoft, Quantinuum and IonQ.³⁷⁹ The US commercial and standards-setting leadership is matched by efforts to set timelines and requirements³⁸⁰ for the migration to post-quantum security³⁸¹ across its national systems.

China, meanwhile, is also emerging as a major global player in quantum communications with large-scale government investment (approximately US\$15 billion)³⁸² in the deployment of a nationwide quantum network and satellite-based links.³⁸³ High performance demonstrated by the Jiuzhang photonic quantum computer and the Zuchongzhi superconducting quantum processor underlines China's breadth across quantum computing and communications.³⁸⁴

The quantum landscape in Australia and Japan

Within this broader global context, Australia and Japan are among the region's most capable quantum nations, advancing via different but complementary pathways. Australia through a policy-driven, commercialisation-focused model, and Japan through deep investment in foundational science and leading research institutions.

Australia's approach is anchored in its National Quantum Strategy (2023),³⁸⁵ which prioritises start-ups, secure communications and workforce development.³⁸⁶ This includes a landmark A\$1 billion investment in PsiQuantum to build a fault-tolerant quantum computer (FTQC) in Brisbane.³⁸⁷ Since 2024, Austrade has expanded international outreach through trade missions and technology showcases in North Asia, Europe and the United States, positioning Australia as a hub for commercialisation and applied research.³⁸⁸ This is reinforced by Australia's 2021 Joint Statement on Quantum Cooperation with the United States,³⁸⁹ which advances shared standards, secure communications and commercialisation pathways.

Japan's engagement with the United States on quantum technologies sits within broader science and technology frameworks rather than a dedicated quantum agreement. Japan's US\$7.4 billion³⁹⁰ investment in quantum builds on a world-class research ecosystem centred on RIKEN, the University of Tokyo and NTT, driving major advances in computing, sensing and secure communications. Its Quantum Technology Innovation Strategy (2020; updated 2023) emphasises research excellence, national research networks and long-term scientific investment.³⁹¹

In September 2025, Japan hosted the seventh Multilateral Dialogue on Quantum, an international forum bringing together governments and research leaders, signalling a shift from research leadership toward agenda-setting and industrial deployment. The meeting framed 2025 as the '*first year of quantum industrialisation*' with a focus on standards, skills and trusted supply chains as priority areas.³⁹²

At the policy level, leaders in both countries have highlighted quantum as a priority for bilateral cooperation, beginning with the 2022 Joint Declaration on Security Cooperation³⁹³ and reinforced across Australia–Japan 2+2 foreign and defence ministerial statements,³⁹⁴ as well as other economic security and critical-technology statements issued between 2022 and 2025.³⁹⁵

Collaboration between Australia and Japan on quantum technologies is emerging but remains more institution-driven than government-coordinated.³⁹⁶ This coordination gap is strategically significant as both countries face similar challenges in a complex geostrategic environment.

Table 1.**Comparative analysis: Australia and Japan quantum strategies & national approaches**

Category	Australia	Japan
Strategic framework	National Quantum Strategy (2023) led by Department of Industry, Science and Resources. ³⁹⁷	Quantum Future Society Vision (2022) ³⁹⁸ and Ministry of Economy, Trade and Industry (METI) Roadmap (2025) ³⁹⁹ coordinated by Cabinet Office and METI.
Government investment	A\$1 billion+ over 10 years including CSIRO, Australian Research Council (ARC), and Quantum Computing Commercialisation Fund. ⁴⁰⁰	¥1.05 trillion allocated to quantum and semiconductor Research and Development
Industry focus	Commercialisation, startup ecosystem, secure communications, quantum sensing. ⁴⁰¹	Industrialisation of quantum computing, supply chain development, quantum annealing. ⁴⁰²
Research strengths	Photonic quantum computing e.g. PsiQuantum, quantum sensing, quantum software.	Superconducting and annealing systems, quantum middleware, materials science. ⁴⁰³
International collaboration	Strong ties with US, UK, EU; growing links with Japan via summits and science treaties.	Global partnerships through Group of Governmental Experts on Quantum Technologies (G-QuAT), Quantum Strategic Industry Alliance for Revolution (Q-STAR), and International Organization for Standardization / International Electrotechnical Commission — Joint Technical Committee 3 on Quantum Technologies (ISO/IEC JTC3) standardisation efforts.
Policy integration	Quantum included in defence and cybersecurity dialogues but not yet embedded in maritime frameworks.	Quantum tech not yet integrated into defence or maritime cybersecurity policy.
Commercialisation goals	Build sovereign capability and export ready quantum products.	Reach ¥50 trillion in quantum-related production and 10 million users by 2030.
Challenges	Fragmented coordination across sectors; need for bilateral frameworks.	Export controls, weak classification systems and siloed Research and Development efforts.

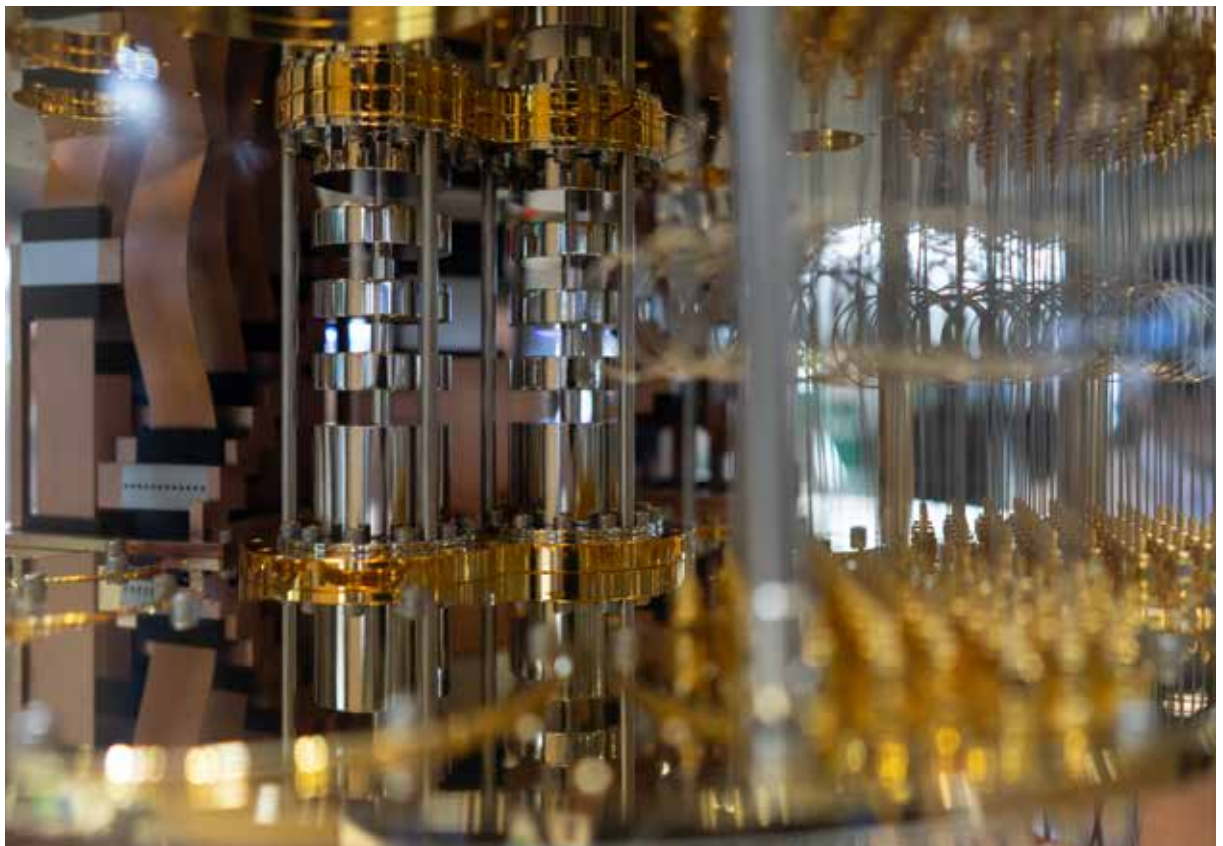
Barriers to Australia–Japan collaboration in quantum technologies

At present, there is no dedicated bilateral mechanism focused on quantum technologies or on its maritime applications, constraining coordinated planning. In addition, regulatory frictions, including Japan's export-control and technology-transfer restrictions,⁴⁰⁴ may further limit bilateral collaboration in this domain.

Another barrier is the absence of a formal Australia–Japan mapping of the quantum ecosystem, which limits bilateral visibility and coordination even as both countries maintain strong national-level frameworks.

Skills shortages present another barrier. National studies in Australia⁴⁰⁵ and Japan identify talent constraints as a significant obstacle; a trend echoed globally with shortages most acute in engineering and applied technical roles.⁴⁰⁶

Prioritisation challenges often delay quantum deployment as public funding and market attention shift toward the immediate returns of AI. International investment trends reflect this divergence.⁴⁰⁷ For example, Australia prioritises quantum infrastructure with a landmark A\$940 million (US\$620 million) allocation to PsiQuantum to build utility-scale quantum computers,⁴⁰⁸ even though its local AI market is projected to reach A\$600 billion annually by 2030.⁴⁰⁹ Conversely, Japan heavily invests in AI and semiconductors, committing ¥10 trillion (US\$65 billion) to those sectors through 2030,⁴¹⁰ compared to quantum investment estimated at US\$7.4 billion.⁴¹¹



A model of a quantum computer is displayed during the Ceatech event in Chiba, Japan, October 2024. Source: Getty

Given this momentum and the strength of existing bilateral foundations, a bilateral-first approach offers the most effective pathway for advancing quantum collaboration.

Despite deep cooperation, data sovereignty and privacy regulations remain major barriers to seamless Australia–Japan collaboration, requiring complex, case-by-case data-sharing arrangements. Japan’s constitutional restrictions on government access to private communications further complicate engagement in “*active cyber defence*”⁴¹² and the sharing of cybersecurity information with Australia.

Differences in information-security frameworks also create friction. While Japan’s Critical Economic Security Information (CESI) Act moves its security clearance framework closer to Australian standards, full alignment is likely to remain administratively challenging.⁴¹³ In addition, supply-chain vulnerabilities persist, as both countries seek to reduce reliance on global components and instead build a more resilient, like-minded ecosystem through initiatives such as the Quad’s Quantum Leap.⁴¹⁴

Fragmented standards remain a critical technical challenge. As highlighted in the 2025 joint APEC initiative authored by Standards Australia As APEC (2025) warns, the absence of harmonised metrics risks creating a regional “*quantum divide*.”⁴¹⁵ For Australia and Japan, leadership in standards development is essential to avoid technological isolation and maintain maritime interoperability.

Opportunities for Australia–Japan collaboration in quantum technologies

Australia and Japan share a Special Strategic Partnership built on shared democratic values, economic complementarity and deep people-to-people ties. Both countries are committed to supporting a free and open Indo-Pacific, creating a strong foundation for closer cooperation on quantum technologies.

Although differences in information-security frameworks create friction, a significant opportunity lies in the longer-term convergence of regulatory regimes. The Takaichi government is operationalising reforms under the Economic Security Promotion Act (2022), the 2024 CESI Act, and revised METI export controls. Together, these changes create an opportunity for bilateral cooperation toward sensitive areas such as quantum systems, potentially accelerating Japan’s integration into AUKUS Pillar II-style arrangements.⁴¹⁶

Bilateral ties are at an all-time high, underpinned by the 2022 Joint Declaration on Security Cooperation and the fully operational Reciprocal Access Agreement (RAA). Together with 2+2 Ministerial Consultations, long-standing science and technology agreements⁴¹⁷ and Memorandums of Cooperation across research agencies,⁴¹⁸ these frameworks provide a strong foundation for scaling joint initiatives in quantum technologies. Australia’s purchase of the Mogami-class frigate from Japan further underscores the strengthening of bilateral defence ties.

Given this momentum and the strength of existing bilateral foundations, a bilateral-first approach offers the most effective pathway for advancing quantum collaboration. Established mechanisms can then be leveraged through platforms such as the Quad, AUKUS Pillar II and APEC.

- Quad science cooperation can advance shared standards for quantum-secure communications, interoperability frameworks and pilot projects to reduce regional fragmentation.⁴¹⁹
- AUKUS Pillar II provides a proven pathway for project-based collaboration. Japan’s participation in the 2025 ‘Maritime Big Play’ activities established a clear precedent for cooperation on specific undersea and acoustic technology projects.⁴²⁰

- To advance APEC standardisation, Australia and Japan are well positioned to lead the implementation of the APEC Quantum Standards Roadmap. Championed by Standards Australia, this framework supports regional interoperability, reduces technical barriers and enables jointly developed technologies to scale across Indo-Pacific markets.⁴²¹

Policy recommendations

1. Establish a Japan–Australia quantum coordination mechanism supported by a Track 1.5 dialogue

Australia and Japan should establish a formal Quantum Coordination Mechanism (QCM) integrated within the 2+2 Foreign and Defence Ministerial framework. This body would serve as the central hub for mapping national quantum activities, identifying capability gaps and synchronising investment to reduce duplication. The mechanism could operate through existing structures, such as the Japan–Australia Economic Security Dialogue and science and technology cooperation agreements. The QCM would elevate quantum from a research topic to a core pillar of regional strategic deterrence.

The mechanism could be co-chaired by Australia’s Department of Industry, Science and Resources (DISR) and Japan’s METI/MEXT. Technical execution would be driven by a partnership between CSIRO, Japan’s Q-LEAP⁴²² and RIKEN, ensuring that policy priorities are directly informed by world-leading research and hardware capabilities.

To maintain momentum between ministerial engagements, the QCM should be complemented by a Track 1.5 Japan–Australia Quantum Dialogue. Comprising government officials, academics and industry leaders, this forum would serve as a technical coordination mechanism to address regulatory hurdles (including security clearances and data sovereignty), develop shared technical standards building on the APEC Quantum Roadmap and design joint pilot projects in quantum-secure maritime communications.

Together, the QCM and Track 1.5 dialogue would provide a durable framework to accelerate the transition from research to operational maritime capabilities, helping both countries maintain a technological edge in the Indo-Pacific.

2. Align bilateral projects with AUKUS Pillar II capability priorities

Australia and Japan should align bilateral quantum initiatives, including CSIRO-RIKEN research,⁴²³ Exercise Talisman Sabre 2025⁴²⁴ and the Fujitsu and Australian National University (ANU) partnership,⁴²⁵ with the stated capability goals of AUKUS Pillar II.⁴²⁶ Adopting this approach ensures that joint projects remain interoperable with the capability standards Australia is adopting, providing a pathway for Japan’s project-based collaboration without requiring formal membership in the trilateral pact.

Key AUKUS Pillar II collaborative workstreams:

- Secure communications, including PQC and QKD. These can be progressed through partnerships with the University of Tokyo and Toshiba’s international QKD trials to build quantum-resistant networks.⁴²⁷
- Quantum sensing to improve navigation and the detection of underwater or low-visibility objects. This builds on CSIRO-RIKEN collaboration⁴²⁸ in quantum materials to support submarine operations in GPS-denied and contested maritime environments.
- Resilient defence architectures. Australian university and CRC testbeds can be used to assess Japanese hardware⁴²⁹ and support the integration of quantum-safe⁴³⁰ components into broader networks operating in contested environments.

Practical benefits of alignment:

- Common technical goals make it easier for researchers to work toward compatible designs, reducing duplication and improving interoperability.⁴³¹

- Targeted investment ensures that limited research funding is directed toward capability areas with the most immediate maritime security benefits, such as secure ship-to-ship communications or quantum-safe navigation systems.⁴³²
- Aligning with AUKUS-recognised requirements creates clearer commercial pathways to the global market for Japanese and Australian quantum startups.

3. Conduct parallel quantum threat and risk assessments

Australia and Japan should conduct parallel quantum-risk assessments to identify vulnerabilities to “*Harvest Now, Decrypt Later*”⁴³³ attacks.⁴³⁴ Using simple likelihood–impact scoring models and exchanging information, while still operating within their own security and classification systems, will provide the critical evidence needed to support a coordinated migration to PQC. Furthermore, the findings of these risk assessments could be shared with trusted partners to maintain technical interoperability and regional resilience, ensuring that intercepted data remains secure against future quantum decryption.

4. Strengthen workforce development and talent exchange

As collaboration deepens, both countries will require a stronger pipeline of trusted, quantum-trained specialists. Efforts should prioritise high-impact skill sets, including rapid upskilling in post-quantum security, industry placements between Japanese firms and Australian quantum start-ups, and co-funded fellowships focused on maritime applications such as secure navigation and sensing.

Precedents already exist. Australia’s National Quantum Strategy prioritises skills pipelines and industry placements.⁴³⁵ Japan’s Q-LEAP program⁴³⁶ and the RIKEN Center for Quantum Computing⁴³⁷ host international researchers, while initiatives

such as the Japan Society for the Promotion of Science (JSPS) International Fellowships⁴³⁸ and Australia’s New Colombo Plan⁴³⁹ provide proven models for co-funded fellowships, short courses and placements.

5. Support industry engagement and commercialisation

Australia and Japan should expand industry engagement to accelerate the application of quantum research in maritime security technologies. Drawing on Nordic-style models⁴⁴⁰ of collaborative defence innovation, both nations should establish structured public-private partnerships to support joint innovation challenges, shared testbeds, and clearer commercialisation pathways.

Existing mechanisms, including AUKUS Pillar II technology testbeds, Australia’s Defence Trailblazer program⁴⁴¹ and Japan’s NEDO⁴⁴² and RIKEN testbeds,⁴⁴³ provide a strong foundation in ensuring early-stage prototypes progress toward deployment. Aligning these efforts with AUKUS Pillar II workstreams and Quad science cooperation will provide the common standards and accreditation needed to make Australia–Japan prototypes interoperable, accelerating their deployment with trusted partners.⁴⁴⁴

Endnotes

1. John J. Mearsheimer, *Conventional Deterrence*, (Ithaca: Cornell University Press, 1983), p 24; and Cathal J. Nolan, *The Allure of Battle: A History of How Wars Have Been Won and Lost*, (Oxford: Oxford University Press, 2019).
2. On views that a great power conflict in the Indo-Pacific would likely turn into a protracted war, see for example: Joshua Rovner, “Two kinds of catastrophe: nuclear escalation and protracted war in Asia,” *Journal of Strategic Studies*, Vol. 40, No. 5 (2017): pp 696-730; and Sheena Chestnut Greitens, “Pathways to Protraction: Rethinking US-China Conflict,” *The Washington Quarterly*, Vol. 48, No.1 (2025): pp 125-142.
3. On active denial, see for example: Takuya Matsuda and Elliot S. Ji, “Don’t Judge Islands by their Sizes: The Role of Remote Japanese Islands in the Regional Military Balance,” *Journal of Strategic Studies*, (2025), <https://doi.org/10.1080/01402390.2025.2572640>; and Michael Beckley, “The Emerging Military Balance in East Asia: How China’s Neighbors Can Check Chinese Naval Expansion,” *International Security*, Vol. 42, No. 2 (2017): pp 78–119.
4. For the use of acronym, “AJUS,” see for example, Tom Corben (ed), “A partnership for the AJUS: Operationalising Australia-Japan-United States defence cooperation,” (United States Studies Centre, 2025), <https://www.ussc.edu.au/a-partnership-for-the-ajus-operationalising-australia-japan-united-states-defence-cooperation>. For a comprehensive analysis of this trilateral partnership, see: Thomas Wilkins, “U.S.–Japan–Australia Trilateralism: The Inner Core of Regional Order Building and Deterrence in the Indo-Pacific,” *Asia Policy*, Vol. 19, No. 2 (2024): pp 159–85.
5. Ashley Townshend, David Santoro and Toby Warden, “Collective Deterrence and the Prospect of Major Conflict,” (United States Studies Centre, 2023), <https://www.ussc.edu.au/collective-deterrence-and-the-prospect-of-major-conflict>.
6. Stacie L. Pettyjohn, Andrew Metrick, and Becca Wasser, “The Kadena Conundrum: Developing a Resilient Indo-Pacific Posture,” *War on the Rocks*, 1 December 2022, <https://warontherocks.com/2022/12/the-kadena-conundrum-developing-a-resilient-indo-pacific-posture/>.
7. Andrew Carr, “Australia’s Archipelagic Deterrence,” *Survival*, 65:4 (2023): pp 79-100.
8. Tom Corben, “Australia-Japan Defense Cooperation Must Stand on Its Own,” *The Diplomat*, 13 December 2024, <https://thediplomat.com/2024/12/australia-japan-defense-cooperation-must-stand-on-its-own/>.
9. Tom Corben, “On its own two feet: Advancing the Australia-Japan Defence Agenda,” Black Swan Strategy Paper 13, University of Western Australia (UWA) Defence and Security Institute, December 2024, https://defenceuwa.com.au/wp-content/uploads/2024/12/Black-Swan-Strategy-Paper-13_Tom-Corben-1.pdf. For an overview of Australia-Japan relations, see for instance: Tomohiko Satake and John Hemmings, “Japan–Australia security cooperation in the bilateral and multilateral contexts,” *International Affairs*, Vol. 94, Issue 4 (2018): pp 815–834; and Tomohiko Satake, *Nichigo no Anzenhosho Kyoryoku: “Kyori no Sensei” wo koete [Japan-Australia Security Cooperation: Beyond the “Tyranny of Distance”]* (Tokyo, Keiso shobo, 2022).
10. Quoted from the Government of Australia and Government of Japan, “Australia-Japan Joint Declaration on Security Cooperation,” Department of Foreign Affairs and Trade, 22 October 2022, <https://www.dfat.gov.au/countries/japan/australia-japan-joint-declaration-security-cooperation>. For a discussion on how the two states could complement each other by better clarifying the “scope, objectives and forms” of bilateral security cooperation, see: Rintaro Inoue, “Japan and Australia can fill each other’s defence gaps,” *The Strategist ASPI*, 19 Mar 2025, <https://www.aspistrategist.org.au/author/rintaro-inoue/>.
11. Ely Ratner, “The Case for a Pacific Defense Pact,” *Foreign Affairs*, 2025, <https://www.foreignaffairs.com/china/case-pacific-defense-pact-ely-ratner>.
12. Alexander Lanoszka, *Military Alliances in the Twenty-First Century*, (London: Polity, 2022), p 198.
13. Military alliances could be defined as “a formal or informal commitment for security cooperation between two or more states.” For this definition, see: Stephen M. Walt, “Why alliances endure or collapse,” *Survival*, Vol. 39, No. 1 (1997): pp 156–179.
14. Yasuhiro Izumikawa, “Network Connections and the Emergence of the Hub-and-spokes Alliance System in East Asia,” *International Security*, Vol. 45, Issue 2 (2020): pp 7–50.
15. On this point, see: J. Andrés Gannon, “Complementarity in alliances: How strategic compatibility and hierarchy promote efficient cooperation in international security,” *American Journal of Political Science*, (2025), <https://doi.org/10.1111/ajps.12992>.
16. On the importance of force employment in assessing military power, see: Stephen Biddle, *Military Power: Explaining Victory and Defeat in Modern Battle* (Princeton: Princeton University

- Press, 2006).
17. Government of Australia and Government of Japan, "Australia-Japan Joint Declaration on Security Cooperation."
 18. Ibid. It is useful to note that the 2023 Camp David Summit that facilitated the defence partnership between the United States, Japan and South Korea also invokes the term "commitment to consult." The White House, "The Spirit of Camp David: Joint Statement of Japan, the Republic of Korea, and the United States," US Government, 18 August 2023, <https://bidenwhitehouse.archives.gov/briefing-room/statements-releases/2023/08/18/the-spirit-of-camp-david-joint-statement-of-japan-the-republic-of-korea-and-the-united-states/>.
 19. Lanoszka, *Military Alliances*, p 7.
 20. Takuya Matsuda and Jaehan Park, "Divisions of Labour: Security Cooperation Between Japan, South Korea and the United States," *Survival*, Vol. 67, Issue. 1 (2025): pp 71-88, <https://www.tandfonline.com/doi/full/10.1080/00396338.2025.2459020>
 21. Department of Defence, "National Defence: Defence Strategic Review 2023," (Australian Government, 2023), <https://www.defence.gov.au/about/reviews-inquiries/defence-strategic-review>.
 22. Brendan Taylor, "Is Australia's Indo-Pacific strategy an illusion?" *International Affairs*, Vol. 96, Issue. 1 (2020): pp 95-109, <https://academic.oup.com/ia/article/96/1/95/5697496>
 23. On this point, see for instance: Tomohiko Satake, "Explaining the Difference Between Australia-Japan and Japan-ROK Security Cooperation," *Pacific Review*, Vol. 38, No.3 (2024): pp 473-501.
 24. Stephan Frühling, "Is ANZUS Really an Alliance? Aligning the US and Australia," *Survival*, Vol. 60, Issue. 5 (2018): pp 199-218, <https://www.tandfonline.com/doi/full/10.1080/00396338.2018.1518384>
 25. On this point, see: Iain D. Henry, "Adapt or atrophy? The Australia-U.S. alliance in an age of power transition," *Contemporary Politics*, Vol. 26, Issue. 4 (2020): pp 402-419, <https://www.tandfonline.com/doi/full/10.1080/13569775.2020.1777043>
 26. Nick Bisley, "Australia's strategic culture and Asia's Changing Regional Order," *NBR Special Report #60* (Washington DC: The National Bureau of Asian Research, 2016).
 27. Peter J. Dean, "The Alliance, Australia's Strategic Culture and Way of War" in *Australia's American Alliance*, eds. Peter J. Dean, Stephan Frühling, and Brendan Taylor (Melbourne University Publishing, 2016).
 28. Nora Bensahel, "International Alliances and Military Effectiveness: Fighting Alongside Allies and Partners" in *Creating Military Power: The Sources of Military Effectiveness*, eds. Risa Brooks and Elizabeth Stanley (Stanford University Press, 2007).
 29. Stacie L. Pettyjohn and Becca Wasser, "No I in Team: Integrated Deterrence with Allies and Partners," (Center for a New American Security, 2022), <https://www.cnas.org/publications/reports/no-i-in-team>.
 30. J. Andrés Gannon, "Allies as Armaments: Explaining the Specialization of State Military Capabilities," *Security Studies*, Vol. 34, Issue. 1 (2025): pp 28-58, <https://www.tandfonline.com/doi/full/10.1080/09636412.2025.2467140>
 31. Stacie Pettyjohn, "More than the Sum of its Parts: Developing a Coordinated U.S.-Australian Response to Potential Chinese Aggression," (Carnegie Endowment for International Peace, 6 November 2024), <https://carnegieendowment.org/research/2024/11/more-than-the-sum-of-its-parts-developing-a-coordinated-us-australian-response-to-potential-chinese-aggression?lang=en>.
 32. Stephan Frühling, "U.S.-Australia Alliance Force Posture, Policy, and Planning: Toward a More Deliberate Incrementalism," (Carnegie Endowment for International Peace, 16 September 2024), <https://carnegieendowment.org/research/2024/09/us-australia-alliance-force-posture-policy-and-planning-toward-a-more-deliberate-incrementalism?lang=en>.
 33. Jeffrey W. Hornung et al, "Fighting Abroad from an Ally's Land: Challenges and Opportunities for U.S. Forces in the Indo-Pacific," (RAND Corporation, 2024).
 34. Noboru Yamaguchi, "Japan's New Security Posture and Its Implication for Taiwan," *The Asan Forum*, 24 September 2021, <https://theasanforum.org/japans-new-security-posture-and-its-implications-for-taiwan/>; and Yasuhiro Matsuda, *Chugoku to Taiwan: Kiki to Kinko no Seijigaku [China and Taiwan: The Politics of Crisis and Equilibrium]*, (Keio University Press, 2025), pp 271-275.
 35. Stephan Frühling, "Wrestling with Commitment: Geography, Alliance Institution and the ANZUS Treaty" in *Australia's American Alliance*, eds. Peter J. Dean, Stephan Frühling, and Brendan Taylor (Melbourne University Publishing, 2016). On Australia's growing embrace of the concept

- of deterrence by denial, see: Department of Defence, “National Defence Strategy,” (Australian Government, 2024), <https://www.defence.gov.au/about/strategic-planning/2024-national-defence-strategy-2024-integrated-investment-program>.
36. On this point, see for instance, Ashley Townshend, “How to Manage the Risks and Requirements of U.S.-Australia Force Posture Cooperation,” (Carnegie Endowment for International Peace, 20 October 2023), <https://carnegieendowment.org/research/2023/10/how-to-manage-the-risks-and-requirements-of-us-australia-force-posture-cooperation?lang=en>.
 37. Evan A. Feigenbaum, “Beneath the Mateship, a Quiet Crisis Is Brewing in the U.S.-Australia Alliance,” Carnegie Endowment for International Peace, 23 June 2025, <https://carnegieendowment.org/posts/2025/06/us-australia-alliance-quiet-crisis?lang=en>.
 38. On the trade-off between closer operational coordination and the junior allies’ pursuit of self-reliance or agency, see: Frank Rose, “Security integration without reassurance: Australia, Japan and the US,” *The Strategist ASPI*, 18 December 2025, <https://www.aspi.org.au/security-integration-without-reassurance-australia-japan-and-the-us/>.
 39. Andrew Carr, “A Model Alliance? The Strategic Logic of US-Australia Cooperation,” *The Washington Quarterly*, Vol. 44, Issue. 4 (2021): pp 51-66, <https://www.tandfonline.com/doi/full/10.1080/0163660X.2021.2017645>. Canberra’s provision of ‘real estate’ for the purpose of alliance management also occurred during the Cold War as Australia hosted US space facilities, see: Aaron Bateman, “U.S. Space Power and Alliance Dynamics in the Cold War,” *International Security*, Vol. 50, Issue 2 (2025): pp 55-94, <https://doi.org/10.1162/ISEC.a.12>.
 40. This point is most notable in the ADF’s participation in joint military exercises with the United States and Japan, especially concerning the land domain that are mainly focused on territorial defence across the first island chain and involves operational coordination, including Yama Sakura, Orient Shield, Keen Edge and Keen Sword.
 41. On this point, see: Jennifer Parker, “Australian self-reliance strengthens alliance with US,” *The Strategist ASPI*, 1 September 2025, <https://www.aspi.org.au/australian-self-reliance-strengthens-alliance-with-us/>.
 42. Thomas G. Mahnken, “Indo-Pacific Stronghold: Northern Australia’s Role in the Australia-U.S. Alliance,” (Center for Strategic and Budgetary Assessment, 2025), <https://csbaonline.org/research/publications/indo-pacific-stronghold-northern-australias-role-in-the-australia-u-s-alliance>; and Peter J. Dean, “Protecting the Homeland: Accelerating Ground-Based Air and Missile Defence for Australia,” (United States Studies Centre, 2025), <https://www.usssc.edu.au/protecting-the-homeland-accelerating-ground-based-air-and-missile-defence-for-australia>.
 43. Toshi Yoshihara, Jack Bianchi, and Casey Nicaastro, “Focused Force: China’s Military Challenge and Australia’s Response,” (Center for Strategic and Budgetary Assessment, 2025). Also see: Stephan Frühling, “The defence of Australia: From lucky country to uncomfortable normality” in *After American Primacy: Imagining the Future of Australia’s Defence*, eds. Peter J. Dean et al (Melbourne University Publishing, 2019).
 44. While developing “a networked air and missile defence architecture” is no simple task, it is one of the agendas mentioned in trilateral meetings among AJUS states, see: US Department of Defense, “Australia-Japan-United States Trilateral Defense Ministers’ Meeting November 2024 Joint Statement,” US Government, 16 November 2024, <https://www.war.gov/News/Releases/Release/Article/4202592/trilateral-defense-consultations-ministerial-meeting-joint-statement-on-efforts/>
 45. Canberra and Tokyo, for instance, have underscored that they recognize the importance of discussing the “Scope, Objectives and Forms (SOF)” of their bilateral defense partnership, see: Department of Defence, “Joint Statement on the Twelfth Japan–Australia 2+2 Foreign and Defence Ministerial Consultations,” Australian Government, 6 September 2025, <https://www.minister.defence.gov.au/statements/2025-09-06/joint-statement-twelfth-japan-australia-22-foreign-defence-ministerial-consultations>.
 46. Courtney Stewart, “Australia and Japan take a big step towards collective deterrence,” *The Strategist ASPI*, 18 September 2025, <https://www.aspi.org.au/strategist-posts/australia-and-japan-take-a-big-step-towards-collective-deterrence/>; and Courtney Stewart, “Multinational combined joint force offers credible collective deterrence,” *The Strategist ASPI*, 30 September 2025, <https://www.aspi.org.au/multinational-combined-joint-force-offers-credible-collective-deterrence/>.
 47. China Power Project, “Unpacking China’s GDP,” Center for Strategic and International Studies, updated September 2025, <https://chinapower.csis.org/tracker/china-gdp/>.
 48. US Department of Defense, “Military and Security

- Developments Concerning the People's Republic of China 2024," (US Government, 18 December 2024), p 44.
49. Francisco Lobo, "The Trump Corollary to the Monroe Doctrine: Crisis or Opportunity," Royal United Services Institute, 10 December 2025, <https://www.rusi.org/explore-our-research/publications/commentary/trump-corollary-monroe-doctrine-crisis-or-opportunity>.
 50. M. Talyor Fravel, "China's 'World-Class Military' Ambitions: Origins and Implications," *The Washington Quarterly*, Vol. 43, Issue 1 (2020), p 99, <https://www.tandfonline.com/doi/full/10.1080/0163660X.2020.1735850>; Evan McKinney, "The PLA as a 'World-Class' Tool of National Power," in *The PLA's Long March toward a World-Class Military: Progress, Obstacles, and Ambitions*, eds. Benjamin Frohman and Jeremy Rausch (National Bureau of Asian Research, 2025), pp.16, 19, 27-28.
 51. Ava Kalinauskas and Jared Mondschein, "Despite anxiety about Trump, Asia's maritime democracies are increasingly aligned on security," United States Studies Centre, 27 October 2025, <https://www.ussc.edu.au/despite-anxiety-about-trump-asia-s-maritime-democracies-are-increasingly-aligned-on-security>
 52. The Yomiuri Shimbun, "Japan Survey Finds Only 22% of Respondents Trust U.S.; Significant Drop From Joint Poll After Election," *The Yomiuri Shimbun*, 30 June 2025, <https://japannews.yomiuri.co.jp/politics/politics-government/20250630-266708/>.
 53. Ryan Neelam, "Lowy Institute Poll 2025 Report," (Lowy Institute, 16 June 2025), <https://poll.lowyinstitute.org/report/2025/>.
 54. Ministry of Defense, "Defense of Japan 2025," (Japanese Government, 2025), p 313.
 55. Ministry of Foreign Affairs of Japan, National Security Strategy," (Japanese Government, 2022) pp.11-12; Ministry of Defense, "Defence Buildup Program," (Japanese Government 2022), p 26.
 56. State Department, "Joint Statement of the Security Consultative Committee ('2+2')," United States Government, 28 July 2024, <https://2021-2025.state.gov/joint-statement-of-the-security-consultative-committee-22-2/>
 57. Brendan Taylor, "Searching for a new great and powerful friend?" in *After American Primacy: Imagining the Future of Australia's Defence*, eds. Peter Dean and Stephan Frühling (Melbourne University Press, 2019), p 151.
 58. Richard Dunley, "Plan B?: Reconsidering Australian Security in the event of a post US alliance era," *Australian Journal of International Affairs*, Vol. 78, Issue 4 (2024), p.494.
 59. Department of Defence, "National Defence Strategy," (Australian Government, 2024), p 12.
 60. Ministry of Foreign Affairs of Japan, National Security Strategy," pp 8-9.
 61. Department of Defence "Joint Statement on the Twelfth Japan-Australia 2+2 Foreign and Defence Ministerial Consultations," Australian Government, 6 September 2025, <https://www.minister.defence.gov.au/statements/2025-09-06/joint-statement-twelfth-japan-australia-22-foreign-defence-ministerial-consultations>.
 62. Andrew Carr and Stephan Frühling, "What would Australia be willing to go to war over? This needs to be made clear," *The Conversation*, 22 April 2025, <https://theconversation.com/what-would-australia-be-willing-to-go-to-war-over-this-needs-to-be-made-clear-253246>.
 63. US Department of Defense, "Military and Security Developments Concerning the People's Republic of China 2024," p 67.
 64. Thomas Mahnken, "Indo-Pacific Stronghold: Northern Australia's Role in the Australia-U.S. Alliance," (Center for Strategic and Budgetary Assessments, 23 July 2025), pp 9, 11-12.
 65. Peter Dean, "A New Strategic Song? ANZUS, the 2020 Australian Defence Update, and Redefining Self-Reliance," *War on the Rocks*, 12 August 2020, <https://warontherocks.com/2020/08/singing-a-new-strategic-song-anzus-the-2020-australian-defence-update-and-redefining-self-reliance/>; Evan Feigenbaum, "Beneath the Mateship, a Quiet Crisis Is Brewing in the U.S.-Australia Alliance," Carnegie Endowment for International Peace, 23 June 2025, <https://carnegieendowment.org/posts/2025/06/us-australia-alliance-quiet-crisis>.
 66. Clinton Fernandez, *Sub-Imperial Power: Australia in the International Arena* (Melbourne University Press, 2022), pp 28-31, 41-44.
 67. Thomas Storch, "Putting 'Meat on the Bones' of the U.S.-Japan Alliance Coordination Mechanism," (Sasakawa USA, 1 June 2016), pp 2-3, https://www.spfusa.org/wp-content/uploads/2016/06/Storch-2-number_kkedits.pdf.
 68. Emma Chanlett-Avery and Caitlin Campbell, "The U.S.-Japan Alliance," (Congressional Research Service, 2019), p 28, <https://www.congress.gov/crs-product/RL33740/>
 69. Ministry of Defense, "Defense of Japan 2025," p 321.
 70. Ministry of Defense, "Defense of Japan 2019,"

- (Japanese Government, 2019), p 308, https://www.mod.go.jp/en/publ/w_paper/wp2019/pdf/index.html
71. Courtne Stewart, "Australia and Japan take a big step towards collective deterrence," *The Strategist*, 18 September 2025, <https://www.aspistrategist.org.au/australia-and-japan-take-a-big-step-towards-collective-deterrence/>.
 72. Jeffrey Hornung and Zack Cooper, "Shifting the U.S.-Japan Alliance from Coordination to Integration," *War on the Rocks*, 2 August 2024, <https://warontherocks.com/2024/08/shifting-the-u-s-japan-alliance-from-coordination-to-integration/>; Hirohito Ogi and Christopher Hughes, "Japan's Information Security and Defence Reforms: From Inner Circle to National Standardisation," *The RUSI Journal*, Vol. 171, Issue 1 (February 2026), p 60, <https://www.tandfonline.com/doi/full/10.1080/03071847.2026.2607291>
 73. Department of Defence "Joint Statement on the Twelfth Japan-Australia 2+2 Foreign and Defence Ministerial Consultations," Australian Government, 6 September 2025, <https://www.minister.defence.gov.au/statements/2025-09-06/joint-statement-twelfth-japan-australia-22-foreign-defence-ministerial-consultations>
 74. Ministry of Defense, "Defense of Japan 2025," p 321.
 75. Hirohito Ogi, "Evolving Japan-US command and control cooperation for forward denial," United States Studies Centre, 20 November 2023, <https://www.usssc.edu.au/evolving-japan-us-command-and-control-cooperation-for-forward-denial>.
 76. Ministry of Defense, "National Defense Strategy," (Japanese Government, 16 December 2022), p 18; Ministry of Foreign Affairs of Japan, National Security Strategy," p 23; Department of Defence, "National Defence Strategy," p 14.
 77. Department of Defence "Joint Statement on the Twelfth Japan-Australia 2+2 Foreign and Defence Ministerial Consultations."
 78. Department of Defence, "Japan-Australia Defence Ministers' Joint Statement – Establishment of the Framework for Strategic Defence Coordination," Australian Government, 7 December 2025, <https://www.minister.defence.gov.au/statements/2025-12-07/japan-australia-defence-ministers-joint-statement-establishment-framework-strategic-defence-coordination>.
 79. Alex Luck, "Upgraded Mogami at Indo Pacific – (Non) Zero Change, Shipbuilder Makes Move," *Naval News*, 15 November 2025, <https://www.navalnews.com/event-news/indo-pacific-2025/2025/11/upgraded-mogami-at-indo-pacific-non-zero-change-shipbuilder-makes-move/>.
 80. Mike Hughes and Marc Ablong, "Not enough money, skills or organisation: Australia's defence build-up is too slow," *The Strategist*, 29 May 2025, <https://www.aspistrategist.org.au/not-enough-money-skills-or-organisation-australias-defence-build-up-is-too-slow/>.
 81. Hirohito Ogi and Rintaro Inoue, "From Decline to Surge: The Defense Industry in the Era of Excess Demand," (Institute of Geoeconomics, 24 October 2025), <https://instituteofgeoeconomics.org/en/research/2025102402/>.
 82. Rintaro Inoue, "Exporting Frigates to Australia (Part II: Three Risks in Defense Equipment Transfers)," Institute of Geoeconomics, 4 September 2025, <https://instituteofgeoeconomics.org/en/research/20250904123/>.
 83. The Asahi Shimbun, "LDP swallows Nippon Ishin's demands to push hardline policies," *Asahi Shimbun*, 21 October 2025, <https://www.asahi.com/ajw/articles/16104822>.
 84. Japan Times, "Japan begins studying law to prevent foreign entities from stealing information," *Japan Times*, 31 December 2025, <https://www.japantimes.co.jp/news/2025/12/31/japan/politics/spy-law-study/>.
 85. Mark Manyin, "The Senkakus (Diaoyu/Diaoyutai) Dispute: U.S. Treaty Obligations" (Congressional Research Service, 2021), p 2, <https://www.congress.gov/crs-product/R42761>.
 86. Peter Layton, "Grey Zone Challenges and Australia-Japan Defence Cooperation," (Griffith Asia Institute, 2022), p 8, https://www.griffith.edu.au/_data/assets/pdf_file/0026/1472507/Layton-grey-zone-challenges-web.pdf/
 87. Ibid, p 18.
 88. Hirohito Ogi, "Undertaking concrete trilateral cooperation on information sharing: Opportunities and challenges from a Japanese perspective," in *AJUSINT: Advancing defence information and intelligence sharing between Australia, Japan and the United States*, ed. Tom Corben (United States Studies Centre, September 2025), p 5, [s://www.usssc.edu.au/ajusint-advancing-defence-information-and-intelligence-sharing-between-australia-japan-and-the-united-states](https://www.usssc.edu.au/ajusint-advancing-defence-information-and-intelligence-sharing-between-australia-japan-and-the-united-states)
 89. Mike Mazar, *Mastering the Gray Zone*, (US Army War College Press, 2015), p 84.
 90. The views expressed in this publication are the author's own and do not represent the views of the organizations with which the author is

- affiliated.
91. Ministry of Foreign Affairs, "Japan-Australia Leader's Meeting Joint Statement," Japanese Government, 22 October 2022, https://www.mofa.go.jp/a_o/ocn/au/page1e_000510.html
 92. In the region, there are nine independent states (Fiji, Kiribati, Nauru, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu), five associated states (Cook Islands, Federated States of Micronesia, Niue, Palau and Marshall Islands) and eight dependent territories - of France (New Caledonia, Wallis and Futuna, and French Polynesia), the United Kingdom (Pitcairn Islands), New Zealand (Tokelau) and US (American Samoa, Guam and the Commonwealth of the Northern Mariana Islands), see: Greg Fry, *Framing the Islands Power and Diplomacy Agency in Pacific Regionalism*, (Australian National University Press, October 2019), p 12, <https://press.anu.edu.au/publications/series/pacific/framing-islands>. This paper defines Pacific Island Countries (PICs) as group of island countries which are member of the Pacific Island Forum (but excluding Australia and New Zealand), see: Pacific Islands Forum, "The Pacific Islands Forum," Pacific Islands Forum, n.d., <https://forumsec.org/pacific-islands-forum>.
 93. Ministry of Foreign Affairs, "Fact Sheet: Cooperation Between China and Pacific Island Countries," People's Republic of China, 24 May 2022, https://www.fmprc.gov.cn/mfa_eng/zy/gb/202405/t20240531_11367460.html
 94. Ministry of Foreign Affairs, "China's Position Paper on Mutual Respect and Common Development with Pacific Island Countries," People's Republic of China, 30 May 2022, https://www.mfa.gov.cn/eng/wjbzhd/202205/t20220531_10694923.html
 95. Graeme Smith and Terence Wesley-Smith, eds. *The China Alternative: Changing Regional Order in the Pacific Islands* (ANU Press, 2021), pp vii-xvi, <https://doi.org/10.2307/j.ctv1h45mkn>.
 96. See: Mihai Sora "The Translator: 'Friends to all'," Lowy Institute, 20 March 2024, <https://www.lowyinstitute.org/the-interpreter/translator-friends-all>
 97. Ministry of Foreign Affairs and External Trade, "Foreign Policy White Paper," Government of Fiji, 24 September 2024, p 9, <https://www.foreignaffairs.gov.fj/wp-content/uploads/2024/09/FFPWP.pdf>
 98. Ministry of Defence and Veteran Affairs, "National Security Strategy 2025-2029," Government of Fiji, 2025, p 10, <https://www.homeaffairs.gov.fj/wp-content/uploads/2025/08/National-Security-Strategy-2025-2029.pdf>
 99. Henryk Szadziwski, "How China's presence has grown in the Pacific in the past decade," Jakarta Post, 11 July 2022, How China's presence has grown in the Pacific in the past decade - 360
 100. Ministry of Foreign Affairs, "Joint Statement of the Third China-Pacific Island Countries Foreign Ministers' Meeting," People's Republic of China, 28 May 2025, https://www.mfa.gov.cn/eng/wjbzhd/202505/t20250528_11635595.html
 101. The meeting took place at a distinctive political moment, coinciding with US announcements on new tariff measures, the dismantling of USAID, and withdrawal from the Paris Agreement. The joint statement stated "(a)ll parties recognize that there is but one China in the world, that Taiwan is an inalienable part of China's territory," while China emphasized that its assistance to Pacific Island Countries is provided without political conditionality or coercion. Following the meeting, China also announced a package of implementation measures aimed at supporting the development of PICs, with particular emphasis on climate-related initiatives. See: Ministry of Foreign Affairs, "List of Measures for China to Implement the Consensus of the Third China-Pacific Island Countries Foreign Ministers' Meeting," People's Republic of China, 28 May 2025, https://www.mfa.gov.cn/eng/wjbzhd/202505/t20250528_11635736.html
 102. Hugh S Tuckfield, "China has appointed Ambassador Qian Bo as the Chinese government special envoy for Pacific Island Countries affairs," Indo Pacific Studies Center, n.d., <https://www.indo-pacificstudiescenter.org/commentaries/blog-post-title-three-k4lhn-c2l9c>
 103. US-China Economic and Security Review Commission, "2025 Annual Report to Congress," US-China Economic and Security Review Commission, November 2025, p 283, <https://www.uscc.gov/annual-report/2025-annual-report-congress>
 104. Ibid, p 285.
 105. Helen Davidson, "From a forest in Papua New Guinea to a floor in Sydney: how China is getting rich off Pacific timber," *The Guardian*, 1 June 2021, From a forest in Papua New Guinea to a floor in Sydney: how China is getting rich off Pacific timber | Logging and land-clearing | The Guardian <https://www.theguardian.com/world/2021/jun/01/from-a-forest-in-papua-new-guinea-to-a-floor-in-sydney-how-china-is-getting-rich-off-pacific-timber>

106. Lucy Craymer and Renju Jose, "Cook Islands deal with China on economy, seabed mining spurs protest," *Reuters*, 18 February 2025, Cook Islands deal with China on economy, seabed mining spurs protest | Reuters <https://www.reuters.com/world/asia-pacific/cook-islands-pm-pledges-release-details-china-deal-2025-02-17/>
107. Tom LaTourrette, Fabian Villalobos, Elisa Yoshiara and Zohan Hasan Tariq, "The Potential Impact of Seabed Mining on Critical Mineral Supply Chains and Global Geopolitics," RAND Cooperation, 9 April 2025, https://www.rand.org/pubs/research_reports/RRA3560-1.html; Austin Ramzy, "China Is Mapping the Seabed to Unlock New Edge in Warfare," *Wall Street Journal*, 12 March 2025, <https://www.wsj.com/world/asia/china-is-mapping-the-seabed-to-unlock-a-new-edge-in-warfare-c8ac5180>.
108. US-China Economic and Security Review Commission, "2025 Annual Report to Congress," US-China Economic and Security Review Commission, November 2025, p 286, <https://www.uscc.gov/annual-report/2025-annual-report-congress>.
109. Ministry of Foreign Affairs, "Fact Sheet: Cooperation Between China and Pacific Island Countries."
110. Lowy Institute, "Pacific Aid Map," Lowy Institute, n.d., <https://pacificaidmap.lowyinstitute.org>.
111. China has also expanded its assistance in areas such as maritime domain awareness, human trafficking, drug trafficking, and efforts to combat illegal, unreported, and unregulated (IUU) fishing; however, due to space constraints, this paper focuses exclusively on police cooperation.
112. Embassy of The People's Republic of China in The Republic of Fiji, "The Chinese Embassy in Fiji denounces 60 Minutes Australia for making erroneous remarks about China-Fiji relations," People's Republic of China, 26 March 2024, https://fj.china-embassy.gov.cn/eng/mtjj/202403/t20240326_11270982.htm?utm_source=chatgpt.com. For the alleged leaked memorandum of understanding (MOU) between China and Fiji, see: Michael E Miller and Michael Abbott, "China hoped Fiji would be a template for the Pacific. Its plan backfired," *The Washington Post*, 21 August 2023, <https://wapo.st/4qDHe1r>
113. Michael Kovrig, "The Pacific Islands Challenge," Foreign Affairs, 3 November 2025, <https://www.foreignaffairs.com/china/pacific-islands-challenge>.
114. Sheena Chestnut Greitens, Isaac B. Kardon and Cameron Waltz, "A New World Cop on the Beat? China's Internal Security Outreach Under the Global Security Initiative," Carnegie Endowment for International Peace, 6 August 2025, <https://carnegieendowment.org/research/2025/08/a-new-world-cop-on-the-beat-chinas-internal-security-outreach-under-the-global-security-initiative?lang=en>
115. Peter Connolly, "Competing for Access: China's Growing Security Interest in the Pacific Islands," The National Bureau of Asian Research, 15 May 2025, <https://www.nbr.org/publication/competing-for-access-chinas-growing-security-interest-in-the-pacific-islands/>; Raelene Lockhorst and John Coyne, "Authoritarian policing has no place in the Pacific," ASPI, 15 September 2025, <https://www.aspistrategist.org.au/authoritarian-policing-has-no-place-in-the-pacific/>
116. Alayna Parlevliet, "Support Threefold: Taiwan's Pacific Island Allies, New Perspectives on Asia," CSIS, 17 July 2024, <https://www.csis.org/blogs/new-perspectives-asia/support-threefold-taiwans-pacific-island-allies>
117. Kirsty Needham, "Solomon Islands blocks US, China, Taiwan from Pacific's top political meet," *Reuters*, 8 August 2025, <https://www.reuters.com/world/china/solomon-islands-blocks-us-china-taiwan-pacific-top-political-meet-2025-08-07/>.
118. Stephen Dziedzic, "Solomon Islands defends blocking almost two dozen leaders from Pacific Islands Forum," *ABC News*, 8 August 2025, <https://www.abc.net.au/news/2025-08-08/solomon-islands-defends-blocking-countries-pacific-islands-forum/105630580>
119. Stephen Dziedzic, "Samoa threatens to boycott Pacific Leaders Forum if Taiwan is prevented from attending," ABC Pacific Beat, 6 August 2025, <https://www.abc.net.au/pacific/programs/pacificbeat/samoa-threatens-to-boycott-pacific-leaders-forum-/105622598>
120. John Augé and Kathryn Paik, "Pacific Islands Forum 2025: Navigating Great-Power Rivalry," CSIS, 16 September 2025, <https://www.csis.org/analysis/pacific-islands-forum-2025-navigating-great-power-rivalry>
121. Leader's Communiques, "LEADERS COMMUNIQUE: 54th Pacific Islands Forum Leaders Communique," Pacific Islands Forum, 13 September 2025, <https://forumsec.org/publications/leaders-communicue-54th-pacific-islands-forum-leaders-communique>. See also the press release issued by the Ministry of Foreign Affairs of Japan regarding its attendance at the 2024 Pacific Islands Forum, which illustrates the importance of the Forum

- as a venue for regional development discussions and bilateral diplomacy (available in Japanese): Ministry of Foreign Affairs, “Takamura gaimu daijin seimu-kan no Tonga ōkoku hōmon (kekka)”[Parliamentary Vice-Minister for Foreign Affairs Takamura’s visit to the Kingdom of Tonga (results)], Japanese government, 2 September 2024, https://www.mofa.go.jp/mofaj/a_o/ocn/to/pageit_000001_01026.html
122. Pacific Islands News Association “Palau sets stage for 2026 Pacific Islands Forum leaders meeting,” Pacific Islands News Association, 21 July 2025, <https://pina.com.fj/2025/07/21/palau-sets-stage-for-2026-pacific-islands-forum-leaders-meeting/>
 123. Euan Graham, “Assessing the Solomon Islands’ new security agreement with China,” IISS, 5 May 2022, <https://www.iiss.org/online-analysis/online-analysis/2022/05/china-solomon-islands/>. See alleged leaked document: Professor Anne-Marie Brady (@Anne_MarieBrady), “The agreement has been widely leaked, indicating not everyone in the Solomon Islands is in support of the Sogavare government turning the Solomons into a puppet state of the CCP,” X, 25 March 22, https://x.com/Anne_MarieBrady/status/1506993807421853702?s=20
 124. Joseph Hammond, “China’s Security Agreement with the Solomon Islands Wider Implications for Geopolitics in the South Pacific,” *Journal of Indo-Pacific Affairs*, (15 November 2023), <https://media.defense.gov/2023/Nov/14/2003340194/-1/-1/1/VIEW%20HAMMOND%20-%20JIPA.PDF>
 125. Domingo I-Kwei Yang, “China’s Dual-Use Infrastructure in the Pacific,” SINOPSIS, 14 April 2025, <https://sinopsis.cz/en/chinas-dual-use-infrastructure-in-the-pacific/>
 126. Tom McIlroy, Phillip Coorey and Jessica Sier, “Flights divers around Chinese live-fire exercise off Australia”, Australian Financial Review, 21 February 2025, <https://www.afr.com/politics/federal/flights-divert-around-chinese-live-fire-exercise-off-australia-20250221-p5le55>
 127. US-China Economic and Security Review Commission, “2025 Annual Report to Congress,” US-China Economic and Security Review Commission, November 2025, p 298, <https://www.uscc.gov/annual-report/2025-annual-report-congress>
 128. Senator the Hon Penny Wang, “Interview with David Speers, ABC Insiders,” Australian Government, 16 June 2024, <https://www.foreignminister.gov.au/minister/penny-wong/transcript/interview-david-speers-abc-insiders-0>
 129. Department of Foreign Affairs and Trade, “Papua New Guinea – Australia Mutual Defence Treaty,” Australian Government, n.d., <https://www.dfat.gov.au/countries/papua-new-guinea/papua-new-guinea-australia-mutual-defence-treaty>
 130. Pacific Island Forum, “Boe Declaration on Regional Security,” Pacific Islands Forum, 5 September 2018, <https://forumsec.org/publications/boe-declaration-regional-security>.
 131. Pacific Island Forum, “2050 Strategy for the Blue Pacific Continent,” Pacific Islands Forum, 23 September 2022, <https://forumsec.org/2050>.
 132. Pacific Island Forum Secretariat, “Fifty-Fourth Pacific Islands Forum Communiqué — Blue Pacific Ocean of Peace Declaration,” Pacific Islands Forum, n.d., https://forumsec.org/sites/default/files/2025-09/54th%20Pacific%20Islands%20Forum%20Leaders%20Communique_final.pdf
 133. The Japanese Government has consistently supported initiatives undertaken by the PIF. Most recently the two sides held their first ever bilateral policy dialogue, see: Ministry of Foreign Affairs, “Japan-Pacific Islands Forum Secretariat (PIFS) Kizuna Talanoa,” Japanese Government, 11 July 2025, https://www.mofa.go.jp/a_o/ocn/pagewe_000001_00222.html
 134. Ministry of Foreign Affairs, “Fiscal year 2025 Evaluation of Japan’s contributions to the international organization and others,” Japanese Government, 11 November 2025, p 257, (only in Japanese): https://www.mofa.go.jp/mofaj/ms/pe_ar/pagew_000001_01911.html
 135. Charles Edel, Kathryn Paik and John Augé, “Shifting Tides: The National Security Implications of the United States’ Pacific Drawdown,” CSIS, 22 July 2025, <https://www.csis.org/analysis/shifting-tides>
 136. As an example of China’s propaganda exploiting concerns among PICs, see: Ministry of Foreign Affairs, “Joint Statement of the Third China-Pacific Island Countries Foreign Ministers’ Meeting,” People’s Republic of China, 28 May 2025, https://www.mfa.gov.cn/eng/wjbzhd/202505/t20250528_11635595.html.
 137. Riley Duke, Alexandre Dayant, Nasirra Ahsan and Roland Rajah, “Pacific Aid Map 2025 Key Findings Report,” (Lowy Institute, 2025), <https://pacificaidmap.lowyinstitute.org/>
 138. For example, Deputy Secretary of State Landau’s visit to Papua New Guinea in September 2025 demonstrated sustained US interest of the region. See: US Department of State, “Fact Sheet: Reinvigorating the U.S.-Pacific Islands Partnership: U.S.-Pacific Islands

Forum (PIF) Roundtable in Port Moresby, Papua New Guinea,” US Government, 16 September 2025, <https://www.state.gov/releases/office-of-the-spokesperson/2025/09/reinvigorating-the-u-s-pacific-islands-partnership-u-s-pacific-islands-forum-pif-roundtable-in-port-moresby-papua-new-guinea>. Furthermore, the US Department of State convened the Indo-Pacific Foreign Assistance Conference in December 2025, in Washington, D.C., at which Deputy Secretary Lewin — responsible for overseeing US foreign assistance — explicitly stated “(t)here has been a narrative that the United States is out of the foreign assistance business. Nothing could be further from the truth. We are going to spend much more in the Indo-Pacific over the coming years than we ever have before.” See t: US Department of State, “America First Foreign Assistance in the Indo-Pacific,” US Government, 29 December 2025, <https://www.state.gov/releases/bureau-of-east-asian-and-pacific-affairs/2025/12/america-first-foreign-assistance-in-the-indo-pacific>. State Department strategic document also sets out an increased US commitment to providing assistance to the Asia region. See: US Department of State, “Agency Strategic Plan Fiscal Years,” (US Government, 2026-2030,” pp), p 19, <https://www.state.gov/agency-strategic-plan>. In addition, on February 24, 2026, Deputy Secretary of State Landau co-hosted Honolulu Investment Summit where U.S. government representatives, leaders, ministers, and senior officials from 16 Pacific Island countries and territories, and private sector representatives, including More than 80 American companies, discussed ways to foster private-sector-led economic growth, promote U.S. commercial diplomacy, and bolster security in the Indo-Pacific region (see the United States Department of State, “Honolulu Investment Summit Connects U.S. Businesses and Pacific Island Countries” February 27, 2026. Available at: <https://www.state.gov/releases/office-of-the-spokesperson/2026/02/honolulu-investment-summit-connects-u-s-businesses-and-pacific-island-countries/>). Following the Summit, Deputy Secretary Landau also travelled to Tonga, Fiji and Samoa, confirming U.S. partnership in the South Pacific (see X post by Deputy Secretary Landau, March 4, 2026. Available at: <https://x.com/DeputySecState/status/2029097940254351484?s=20>)

139. The Pacific Islands Leaders Meeting (PALM), whose official title is the Japan–PIF Leaders Meeting, is a multilateral forum convened between Japan and member countries of the

PIF (including Australia and New Zealand) every three years since 1997. In the intervals between leaders’ meetings, Ministerial Interim Meetings are also held, ensuring opportunities for sustained high-level dialogue. Most recently, the tenth PALM (PALM10) was convened in 2024. PALM is a highly distinctive forum in two respects: first, it was launched in the 1990s, a period when international attention to Pacific Island Countries remained relatively limited; and second, it is a regular multilateral leaders’ meeting hosted solely by the Japanese Government. See more details: Ministry of Foreign Affairs of Japan, “Pacific Islands Leaders Meeting (PALM),” Japanese Government, 17 June 2024, <https://www.mofa.go.jp/region/asia-paci/palm/index.html>. In addition, Inviting the United States would not be an entirely new approach. The Japanese government previously did so at PALM 6 in 2012, which was attended by the Principal Deputy Assistant Secretary of the US Department of State. See: Ministry of Foreign Affairs, “List of Participants at the 6th Pacific Islands Leaders Meeting,” Japanese Government, 2012, https://www.mofa.go.jp/mofaj/area/ps_summit/palm_06/pdfs/list.pdf

140. It is important to remain mindful that there is sustained public support in Japan for preserving the PALM as a forum centred primarily on Japan–PICs relations, with only limited engagement by other partners such as Australia and New Zealand. This preference is reflected in existing Japanese scholarship and policy analyses, which emphasise the value of PALM as a distinctive diplomatic platform underpinning Japan’s long-standing engagement with the Pacific Island Countries. (For more details, see (1) [Japanese] Izumi Kobayashi “What is the Pacific Islands Summit? Japan’s Diplomacy with Island Nations: What It Aims to Achieve,” <https://pia.or.jp/144-太平洋・島サミットとはなにか>; (2) [Japanese] Takehiro Kurosaki “The Influence of the Pacific Islands Forum on Japan’s Pacific Islands Diplomacy” Available at: <https://www.u-tokai.ac.jp/uploads/2021/03/01-9.pdf>, (3) [Japanese] International Organisation Pacific Islands Centre “The Value of Hosting the Pacific Islands Summit and Future Developments” Available at: <https://pic.or.jp/ja/wp-content/uploads/2018/06/18kai.pdf>. At the diplomatic level, it is also reasonable to expect that PICs may be reluctant to include the United States in such meetings, as this could be perceived as intensifying geopolitical competition in the region. This concern has been observed in practice. For example, a policy research paper drafted by Japanese experts

- on PICs notes that in an earlier case where US participation was explored, the decision was not well received by PICs. (For more details, see [Japanese] Ministry of Foreign Affairs of Japan, “Expert Meeting for the 7th Pacific Islands Leaders Meeting – Recommendations” p 5, <https://www.mofa.go.jp/mofaj/files/000070412.pdf>. These domestic and diplomatic sensitivities underscore the need for careful calibration in any effort to expand the scope or participation of PALM.
141. The US Mission in New Zealand “Partners in the Blue Pacific (PBP) White House Statement,” US Government, 27 June 2022, <https://nz.usembassy.gov/partners-in-the-blue-pacific/>.
 142. ASPI, 20; Grant Wyeth, “Pacific Islands Agree on \$270 Million Pacific Policing Initiative – the Creation of the PPI is an indication of the strength of Pacific regionalism,” *The Diplomat*, 29 August 2024, <https://thediplomat.com/2024/08/pacific-islands-agree-on-270-million-pacific-policing-initiative/>
 143. Prime Minister of Australia The Hon Anthony Albanese, “Pacific leaders endorse Pacific Policing Initiative,” Australian Government, 28 August 2024, <https://www.pm.gov.au/media/pacific-leaders-endorse-pacific-policing-initiative>
 144. Blake Johnson and Astrid Young, Blake Johnson and Astrid Young, “Friends to all: achieving Australia’s shared vision for the Pacific,” ASPI, 20 August 2025, <https://www.aspistrategist.org.au/friends-to-all-achieving-australias-shared-vision-for-the-pacific/>
 145. Japan Official Development Assistance, “The Who’s Who behind Japan’s Police Reform Support,” The Embassy of Japan in Indonesia, n.d., https://www.id.emb-japan.go.jp/oda/en/topics_200810_police.htm
 146. As the most fundamental principle of the WTO Agreement, WTO members are obligated to treat products of the same kind of from other members without discrimination (known as Most-Favored-Nation-Treatment, or MFN) (GATT Article 1, Paragraph 1). “Reciprocal tariffs” applying different tariffs based on country and imposing discriminatory taxes on specific countries are considered as a violation of MFN.
 147. TiVa Database, “Trade in value-added,” OECD, revised January 2026, <https://www.oecd.org/en/topics/sub-issues/trade-in-value-added.html>
 148. World Trade Organization, “Global Trade Outlook and Statistics – April 2025,” World Trade Organization, 2025, https://www.wto.org/english/res_e/publications_e/trade_outlook25_e.htm
 149. Keidanren points out that the current WTO practice in which decisions are made by consensus has been one of the major factors of the dysfunction of the WTO, as no progress can be made even if a single member country objects. See Keidanren, “Establishing the WTO 2.0: Keidanren’s Proposal towards WTO Reform/Reposition,” Keidanren (Japanese Business Federation), 14 October 2025, https://www.keidanren.or.jp/en/policy/2025/070_proposal.pdf
 150. Cabinet Secretariat, “CPTPP ni suite” [About the CPTPP], Japanese Government, 2025, <https://www.cas.go.jp/jp/tpp/tppinfo/cptpp/index.html>
 151. Member countries include Mexico, Japan, Singapore, New Zealand, Canada, Australia, Vietnam, Peru, Malaysia, Chile and Brunei.
 152. However, the external factors such as the pandemic of COVID-19, Russia’s invasion of Ukraine, fluctuations in resource prices, exchange rate movements should be considered.
 153. Trade Statistics of Japan, “Press Release – Trade Statistics of Japan,” Japanese Ministry of Finance, n.d., <https://www.customs.go.jp/toukei/shinbun/happyou.htm>
 154. Ibid.
 155. JEF Secretariat, “Recommendations for Restoration of a Rules-Based International Trading System — Requirements for China to Join the CPTPP by the JEF Secretariat,” (Japan Economic Foundation, 31 January 2025), https://www.jef.or.jp/en/2-1.2_CPTPP_Secretariat.pdf
 156. Directorate-General for External Policies Policy Department, “What next after the US withdrawal from the TPP? What are the options for trade relations in the Pacific and what will be the impact on the EU?” European Parliament, 27 November 2017, [https://www.europarl.europa.eu/RegData/etudes/STUD/2017/603857/EXPO_STU\(2017\)603857_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2017/603857/EXPO_STU(2017)603857_EN.pdf); Mireya Solís, “Reinventing the Trading Nation: Japan, the United States, and the future of Asia-Pacific trade,” (The Brookings Institution, November 2019), https://www.brookings.edu/wp-content/uploads/2019/11/FP_20191112_trading_nation.pdf
 157. Department of Foreign Affairs and Trade, “Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP),” Australian Government, n.d., <https://www.dfat.gov.au/trade/agreements/in-force/cptpp/comprehensive-and-progressive-agreement-for-trans-pacific-partnership>
 158. Ken Itakura and Hiro Lee, “Should the United States rejoin the Trans-Pacific trade deal?” International Economics and Economic Policy,

- Vol 20 (29 March 2023): pp 235–255, <https://doi.org/10.1007/s10368-023-00559-8>
159. Mercy A. Kuo, “Vietnam in US-China Trade Tensions,” *The Diplomat*, 1 April 2025, <https://thediplomat.com/2025/04/vietnam-in-us-china-trade-tensions/>
 160. World Trade Organization, “2025 Trade Policy Review: Australia,” World Trade Organization, 12,14 March 2025, https://www.wto.org/english/tratop_e/tpr_e/tp568_e.htm; World Trade Organization, “Trade Policy Review: Japan,” World Trade Organization, 1,3 March 2023, https://www.wto.org/english/tratop_e/tpr_e/tp538_e.htm
 161. European Commission, “South Korea: EU trade relations with the Republic of Korea. Facts, figures and latest developments,” European Union, n.d., https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/south-korea_en
 162. JETRO, “ASEAN-Kankoku jiyū bōeki kyōtei (AKFTA) no buppin bōeki kyōtei” [ASEAN-Korea Free Trade Agreement (AKFTA) Goods Trade Agreement], JETRO, updated July 2018, https://www.jetro.go.jp/ext_images/theme/wto-fta/asean_fta/pdf/akfta_201807.pdf
 163. Department of Foreign Affairs and Trade, “Korea–Australia Free Trade Agreement,” Australian Government, n.d., <https://www.dfat.gov.au/trade/agreements/in-force/kafta/korea-australia-fta>
 164. Keidanren, “Toward the Fair, Equitable, Resilient and Sustainable Trade and Investment Environment –Proposal for the Reconstruction of the Free and Open International Economic Order,” Keidanren (Japanese Business Federation), 18 June 2024, https://www.keidanren.or.jp/en/policy/2024/047_proposal.html; Na-young Kim, “S. Korea to renew push for joining CPTPP to reduce trade uncertainties: ministry,” *Yonhap News*, 3 September 2025, <https://en.yna.co.kr/view/AEN20250902012251320>
 165. Keidanren, “Future Design 2040: Virtuous Cycle of Growth and Distribution Aiming for a Fair, Equitable, and Sustainable Society,” (Keidanren (Japanese Business Federation), 9 December 2024), https://www.keidanren.or.jp/en/policy/2024/082_pamphlet.pdf
 166. Jayanty Nada Shofa, “Indonesia Still Has No Plans to Join CPTPP Trade Pact,” *Jakarta Globe*, 12 October 2023, <http://jakartaglobe.id/business/indonesia-still-has-no-plans-to-join-cptpp-trade-pact>
 167. CARI ASEAN Research and Advocacy, “CARI Captures Issue 726: The Philippines submits application to join CPTPP amidst growing trade protectionism,” CARI ASEAN Research and Advocacy, n.d., <https://cariasean.org/news/cari-captures-issue-726-the-philippines-submits-application-to-join-cptpp-amidst-growing-trade-protectionism/>
 168. Keidanren, “Toward the Fair, Equitable, Resilient and Sustainable Trade and Investment Environment.”
 169. Mukesh Jagota, “WTO flays India for ‘blocking’ investment pact,” *Financial Express*, 17 September 2025, <https://www.financialexpress.com/policy/economy-wto-flays-india-for-blocking-investment-pact-3980969/>
 170. Trading Economics, “Japan Exports by Country,” Trading Economics, n.d., <https://tradingeconomics.com/japan/exports-by-country>; Trading Economics, “Australian Exports by Country,” Trading Economics, n.d., <https://tradingeconomics.com/australia/exports-by-country>
 171. The EU Commissioner Šefčovič emphasized before the European Parliament in September 2025 that the United States, which accounted for 17% of EU trade last year, is not the only trading partner. See Philip Blekinsop, “Hit by Trump’s tariffs, rest of world races to forge new trade alliances,” *Reuters*, 1 October 2025, <https://www.reuters.com/world/china/hit-by-trump-tariffs-rest-world-races-forge-new-trade-alliances-2025-10-01/>
 172. Gerardo Fortuna, “Let’s create a new World Trade Organization - Von der Leyen,” *Euronews*, 27 June 2025, <https://www.euronews.com/my-europe/2025/06/27/von-der-leyen-touts-eu-led-alternative-to-mired-wto>
 173. Department of Foreign Affairs and Trade, “Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) Joint Ministerial Statement,” Australian Government, 16 May 2025, <https://www.dfat.gov.au/trade-and-investment/comprehensive-and-progressive-agreement-trans-pacific-partnership-cptpp-joint-ministerial-statement-16-may-2025>
 174. Department of Foreign Affairs and Trade, “2025 CPTPP-EU Trade and Investment Dialogue Joint Ministerial Statement,” Australian Government, 2025, <https://www.dfat.gov.au/trade/agreements/in-force/cptpp/2025-cptpp-eu-trade-and-investment-dialogue-joint-ministerial-statement>
 175. Shiwen Yap, “EU–CPTPP Integration: A Strategic Roadmap in a Multipolar World,” *Modern Diplomacy*, 14 March 2025, <https://>

- moderndiplomacy.eu/2025/03/14/eu-cptpp-integration-a-strategic-roadmap-in-a-multipolar-world/
176. Eurostat, Database, 2026, <https://ec.europa.eu/eurostat/web/main/data/database>
 177. Auckland Principles are the mandatory criteria for evaluating new accession to the CPTPP.
 178. With the United Kingdom's accession, the CPTPP now comprises 12 countries, representing a market of nearly 600 million people. The United Kingdom also became the first European country to join the CPTPP. See Research Department – European Division, “The UK officially joins the CPTPP, expanding the framework to 12 countries, including Japan,” JETRO, 17 December 2024, <https://www.jetro.go.jp/biznews/2024/12/3c05d3149e87c339.html>
 179. Keidanren, “Toward the Fair, Equitable, Resilient and Sustainable Trade and Investment Environment.”
 180. Shuaiyu Li and Yong Wang, “China's perspective on applying for the CPTPP: enhancing economic interdependence as a hedging approach in great power rivalry,” *China International Strategy Review*, Vol 6 (14 May 2024): pp 78-99, <https://link.springer.com/article/10.1007/s42533-024-00154-9>
 181. Tsuyoshi Kawase, “How to Deal with China's Bid to Join CPTPP,” Research Institute of Economy, Trade and Industry, 22 September 2021, https://www.rieti.go.jp/en/columns/a01_0662.html
 182. Economic and Social Commission for Asia and the Pacific, “Asia-Pacific digital trade regulatory review 2022: ESCAP–OECD initiative on digital trade regulatory analysis,” (Economic and Social Commission for Asia and the Pacific, 23 June 2022), <https://www.unescap.org/kp/2022/apdtr>; World Trade Organization, “Trade Policy Review: China,” World Trade Organization, 17, 19 July 2024, https://www.wto.org/english/tratop_e/tpr_e/tp558_e.htm
 183. Japan's Ministry of Foreign Affairs expressed a cautious stance at a press conference in September 2021 when China submitted its application for membership, stating that it is extremely important for Japan to determine whether China was prepared to meet the high standards of the CPTPP. See Ministry of Foreign Affairs, Press Conference by Foreign Minister Motegi Toshimitsu,” Japanese Government, 17 December 2021, https://www.mofa.go.jp/mofaj/press/kaiken/kaiken22_000034.html#topic2; Australia's Prime Minister Anthony Albanese stated in a press conference on November 2023 that China “needs to show that it can meet the high standards and address concerns about its trade practices.” See Prime Minister of Australia, “Press Conference – Beijing – People's Republic of China,” Australian Government, 6 November 2023, <https://www.pm.gov.au/media/press-conference-beijing-peoples-republic-china>
 184. Department of Foreign Affairs, “2025 CPTPP-EU Trade and Investment Dialogue Joint Ministerial Statement.”
 185. According to the analysis of political scientist Shaun Narine, FTAs have become “powerful symbols of US economic inequality” to both wings. See: Shaun Narine, “US Domestic Politics and America's Withdrawal from the Trans-Pacific Partnership: Implications for Southeast Asia,” *Contemporary Southeast Asia*, Vol 40, No. 1 (2018): 50
 186. Itakura and Lee, “Should the United States rejoin the Trans-Pacific trade deal?”
 187. Kenichi Kawasaki, “Economic Impact of the US and/or China joining CPTPP,” (Policy Analysis Focus 23-4, October 2023), <https://www.grips.ac.jp/cms/wp-content/uploads/2023/10/PAF23-4%20Economic%20Impact%20of%20the%20US%20and%20or%20China%20joining%20CPTPP.pdf>
 188. Itakura and Lee, “Should the United States rejoin the Trans-Pacific trade deal?”
 189. Jonathan E. Hillman, “The Rise of Economic Security,” Council on Foreign Relations, 21 January 2025, <https://www.cfr.org/articles/rise-economic-security>.
 190. Jonathan E. Hillman, “The Rise of Economic Security,” Council on Foreign Relations, 21 January 2025, <https://www.cfr.org/articles/rise-economic-security>; Georgia Edmonstone, “Economic security policies compared: The United States, its allies and partners,” United States Studies Centre, 23 September 2024, <https://www.ussc.edu.au/economic-security-policies-compared-the-united-states-its-allies-and-partners>.
 191. Tatsuya Terazawa, “How Japan solved its rare earth minerals dependency issue,” World Economic Forum, 13 October 2023, <https://www.weforum.org/stories/2023/10/japan-rare-earth-minerals/>; Keith Bradsher, “Amid Tension, China Blocks Vital Exports to Japan,” *The New York Times*, 22 September 2010, <https://www.nytimes.com/2010/09/23/business/global/23rare.html>
 192. Kazuto Suzuki and Jared Mondschein, “What Japan can teach the world about economic security,” United States Studies Centre, 15 July 2025, <https://www.ussc.edu.au/podcasts/ussc->

- briefing-room/ussc-briefing-room-what-japan-can-teach-the-world-about-economic-security.
193. Jun Osawa, "How Japan Defines Economic Security," Wilson Center, 11 July 2023, <https://www.wilsoncenter.org/publication/how-japan-defines-economic-security>.
 194. Tanaka Akihiko and Amari Akira, "The Urgent Need to Establish "Strategic Autonomy" and "Strategic Indispensability"— economic security strategy for a digital transformation society," Japan Policy Forum, 13 October 2021, <https://www.japanpolicyforum.jp/diplomacy/pt2021101308092511642.html>.
 195. "Summary of Economic Security Promotion Act," Council on Foreign Relations, n.d., https://www.cfr.org/sites/default/files/pdf/economic%20security%20promotion%20act%20%28summary%29%28English%29.pdf?utm_source=sendupdateologo; Shiro Armstrong, Mireya Solís and Shujiro Urata, "Economic Security and New Industrial Policy," *Asian Economic Policy Review*, Vol 20, Issue 2 (18 February 2025), <https://onlinelibrary.wiley.com/doi/full/10.1111/aepr.12502>; International Energy Agency, "International Resource Strategy - National stockpiling system," International Energy Agency, 9 April 2025, <https://www.iea.org/policies/16639-international-resource-strategy-national-stockpiling-system>.
 196. Yuqing Xing, "Japan's plan to restructure global supply chains," Hinrich Foundation, 16 July 2024, <https://www.hinrichfoundation.com/research/article/trade-and-geopolitics/japan-plan-to-restructure-global-supply-chains>.
 197. Armstrong, Solís and Urata, "Economic Security and New Industrial Policy."
 198. Jim Chalmers, "Opinion piece: Budgeting for a bigger focus on economic security," Treasury portfolio, 1 May 2024, <https://ministers.treasury.gov.au/ministers/jim-chalmers-2022/articles/opinion-piece-budgeting-bigger-focus-economic-security>.
 199. The Treasury, "Future Made in Australia National Interest Framework," Australian Government, 14 May 2024, <https://treasury.gov.au/sites/default/files/2024-05/p2024-526942-fmia-nif.pdf>.
 200. Australian Trade and Investment Commission, "PsiQuantum to build world's first fault-tolerant quantum computer in Australia," Australian Government, 2 May 2024, <https://international.austrade.gov.au/en/news-and-analysis/news/psiquantum-to-build-worlds-first-fault-tolerant-quantum-computer-in-australia>; Prime Minister of Australia, "Solar Sunshot for our regions," Australian Government, 28 March 2024, <https://www.pm.gov.au/media/solar-sunshot-our-regions>.
 201. Minister for Industry and Innovation and Minister for Science, "Backing workers through the Whyalla Steelworks sales process," Australian Government, 23 July 2025, <https://www.minister.industry.gov.au/ministers/timayres/media-releases/backing-workers-through-whyalla-steelworks-sales-process>; Minister for Industry and Innovation and Minister for Science, "Landmark deal to protect regional Queensland jobs and strengthen Australia's copper capability," Australian Government, 8 October 2025, <https://www.minister.industry.gov.au/ministers/timayres/media-releases/landmark-deal-protect-regional-queensland-jobs-and-strengthen-australias-copper-capability>; Minister for Industry and Innovation and Minister for Science, "Partnership to scope critical minerals and protect jobs at Port Pirie and Hobart," Australian Government, 5 August 2025, <https://www.minister.industry.gov.au/ministers/timayres/media-releases/partnership-scope-critical-minerals-and-protect-jobs-port-pirie-and-hobart>.
 202. Department of the Prime Minister and Cabinet, "Critical Minerals Strategic Reserve," Australian Government, n.d., <https://www.pmc.gov.au/domestic-policy/critical-minerals-strategic-reserve>.
 203. Minister for Resources and Minister for Northern Australia, "Delivering Australia's critical minerals supply," Australian Government, 12 January 2026, <https://www.minister.industry.gov.au/ministers/king/media-releases/delivering-australias-critical-minerals-supply>.
 204. Minister for Resources and Minister for Northern Australia, "Australia-Japan Strengthen critical minerals cooperation," Australian Government, 22 October 2022, <https://www.minister.industry.gov.au/ministers/king/media-releases/australia-japan-strengthen-critical-minerals-cooperation>.
 205. Consultations with the Ministry of Economy, Trade and Industry.
 206. Peter Ker, "Japanese giant buys Aussie battery start-up in coal to minerals pivot," Australian Financial Review, 18 December 2024, <https://www.afr.com/companies/mining/japanese-giant-buys-aussie-battery-start-up-in-coal-to-minerals-pivot-20241218-p5kz8k>.
 207. Minister for Foreign Affairs, "Joint Statement on the Twelfth Japan-Australia 2+2 Foreign and Defence Ministerial Consultations," Australian Government, 6 September 2025,

- <https://www.foreignminister.gov.au/minister/penny-wong/media-release/joint-statement-twelfth-japan-australia-22-foreign-and-defence-ministerial-consultations>; JOGMEC, “Equity Participation in a Joint Development Study for Gallium Production in Australia - Toward the Establishment of a New Gallium Supply Chain,” JOGMEC, 4 August 2025, https://www.jogmec.go.jp/english/news/release/news_08_00044.html.
208. Australian Embassy Tokyo, “The Australia-Japan Economic Security Dialogue,” Australian Government, 5 March 2025, https://japan.embassy.gov.au/tkyo/pr2025_tk04.html; Defence Ministers, “Eleventh Australia-Japan 2+2 Foreign and Defence Ministerial Consultations,” Australian Government, 5 September 2024, <https://www.minister.defence.gov.au/statements/2024-09-05/eleventh-australia-japan-22-foreign-defence-ministerial-consultations>.
 209. Minister for Trade and Tourism, “Australia-Japan Ministerial Economic Dialogue Joint Ministerial Statement,” Australian Government, 8 October 2023, <https://www.trademinister.gov.au/minister/don-farrell/statements/australia-japan-ministerial-economic-dialogue-joint-ministerial-statement>.
 210. Ibid.
 211. Jennifer A. Hillman and Inu Manak, “Rethinking International Rules on Subsidies,” Council on Foreign Relations, September 2023, https://cdn.cfr.org/sites/default/files/report_pdf/Rethinking%20International%20Rules%20on%20Subsidies_0.pdf.
 212. Shiro Armstrong, “The Next Phase of Australia and Japan’s Economic Security Policies,” Research Institute of Economy, Trade and Industry, 22 October 2024, <https://www.rieti.go.jp/users/shiro-armstrong/serial/009.html>.
 213. Sarah Oliver, “Chart of the Week: China Ends its Exports Tax for Rare Earths,” Peterson Institute for International Economics, 27 April 2015, <https://www.piie.com/research/piie-charts/chart-week-china-ends-its-exports-tax-rare-earths>.
 214. Georgia Edmonstone, “China’s trade restrictions on Australian exports,” United States Studies Centre, 2 April 2024, <https://www.usssc.edu.au/chinas-trade-restrictions-on-australian-exports>; Shiro Armstrong, “The Next Phase of Australia and Japan’s Economic Security Policies,” Research Institute of Economy, Trade and Industry, 22 October 2024, <https://www.rieti.go.jp/users/shiro-armstrong/serial/009.html>; Richard McGregor, “Chinese coercion, Australian resilience,” Lowy Institute, 20 October 2022, <https://www.loyyinstitute.org/publications/chinese-coercion-australian-resilience>.
 215. World Trade Organization, “Australia and China announce mutually agreed solution in dispute over wine duties,” World Trade Organization, 3 April 2024, https://www.wto.org/english/news_e/news24_e/disp_03apr24_e.htm; World Trade Organization, “WTO issues panel report regarding Chinese duties on Australian barley,” World Trade Organization, 24 August 2023, https://www.wto.org/english/news_e/news23_e/598r_e.htm; James Laurenceson, “How the WTO helped Australia repair its trade ties with China,” Australian Financial Review, 29 October 2023, <https://www.afr.com/world/asia/how-the-wto-helped-australia-repair-its-trade-ties-with-china-20231029-p5eft8>.
 216. Tom Barrett, Hayley Channer, Samuel Garrett, and Sahara Hoff, “Developing a shared Australia-Japan agenda for economic security,” (United States Studies Centre, 15 July 2025), <https://www.usssc.edu.au/developing-a-shared-australia-japan-agenda-for-economic-security>.
 217. Department of Industry, Science and Resources, “Critical Minerals Strategy 2023-2030: Our approach,” Australian Government, n.d., <https://www.industry.gov.au/publications/critical-minerals-strategy-2023-2030/our-approach>; Jim Chalmers, “Economic security and the Australian opportunity in a world of churn and change: address to the Lowy Institute, Sydney,” Parliament of Australia, 1 May 2024, <https://parlinfo.aph.gov.au/parlInfo/search/display/display.w3p;query=Id%3A%22media%2Fpressrel%2F9722682%22>.
 218. Gracelin Baskaran and Meredith Schwartz, “Ahead of APEC, Trump Signs Flurry of Bilateral Minerals Agreements on Asia Tour,” Center for Strategic & International Studies, 31 October 2025, <https://www.csis.org/analysis/ahead-apec-trump-signs-flurry-bilateral-minerals-agreements-asia-tour>.
 219. Export Finance Australia, “World – Critical mineral markets remain volatile and concentrated,” Australian Government, June 2025, <https://www.exportfinance.gov.au/resources/world-risk-developments/2025/june/world-critical-mineral-markets-remain-volatile-and-concentrated/>.
 220. Minister for Resources and Minister for Northern Australia, “Media conference, Rockingham WA,” Australian Government, 12 January 2026, <https://www.minister.industry.gov.au/ministers/king/transcripts/media-conference-rockingham-wa>.
 221. Department of Industry, Science and Resources, “United States–Australia Framework for Securing

- of Supply in the Mining and Processing of Critical Minerals and Rare Earths,” Australian Government, 21 October 2025, <https://www.industry.gov.au/publications/united-states-australia-framework-securing-supply-mining-and-processing-critical-minerals-and-rare-earths>.
222. The White House, “United States-Japan Framework For Securing the Supply of Critical Minerals and Rare Earths through Mining and Processing,” US Government, 27 October 2025, <https://www.whitehouse.gov/briefings-statements/2025/10/united-states-japan-framework-for-securing-the-supply-of-critical-minerals-and-rare-earths-through-mining-and-processing/>.
 223. River Akira Davis and Kiuko Notoya, “How Japan Built a Rare-Earth Supply Chain Without China,” *The New York Times*, 8 December 2025, <https://www.nytimes.com/2025/12/08/business/japan-rare-earths-lynas.html>.
 224. Justin Hayhurst, “Ambassador Hayhurst remarks at The Japan National Press Club,” Australian Embassy Tokyo, 8 December 2025, https://japan.embassy.gov.au/tkyo/HOM_JNPC_remarks.html.
 225. Reuben Finighan and Ryan Neelam, “Reframing the Australia-Japan energy relationship,” (Lowy Institute, 18 December 2025), <https://www.lowyinstitute.org/publications/reframing-australia-japan-energy-relationship>.
 226. Ministers for the Department of Industry, Science and Resources, “Japan-Australia partnership on decarbonisation through technology,” Australian Government, 13 June 2021, <https://www.minister.industry.gov.au/ministers/taylor/media-releases/japan-australia-partnership-decarbonisation-through-technology>; Department of Climate Change, Energy, the Environment and Water, “Hydrogen Energy Supply Chain Pilot Project,” Australian Government, 29 January 2026, <https://www.dceew.gov.au/energy/hydrogen/supply-chain-pilot-project>.
 227. Department of Foreign Affairs and Trade, “Joint Ministerial Statehoganment on the occasion of the Ninth Commission Meeting of the CPTPP,” Australian Government, 21 November 2025, <https://www.dfat.gov.au/trade/agreements/in-force/cptpp/joint-ministerial-statement-occasion-ninth-commission-meeting-cptpp>.
 228. Pacific Economic Cooperation Council, “Modernizing Digital Trade,” Pacific Economic Cooperation Council, October 2025, <https://www.pecc.org/resources/digital-economy/2858-modernizing-digital-trade-updating-the-cptpps-digital-economy-measures-1/file>.
 229. Following the summit between the US and Chinese presidents on 30 October 2025, China delayed the implementation of some measures announced in April and October 2025, including measures to prohibit exports of gallium etc. shipped to the United States, for one year.
 230. In 2022, China made a consultation request to the United States regarding their initial export control measures of semiconductors shipped to China under the WTO dispute settlement procedures (DS615), but the case has not yet moved to the panel stage.
 231. Tatsuya Terazawa, “How Japan solved its rare earth minerals dependency issue,” *World Economic Forum*, 13 October 2023, <https://www.weforum.org/stories/2023/10/japan-rare-earth-minerals/>.
 232. Notable shifts towards more explicit industrial policies regarding critical minerals in Australia can be seen in initiatives such as the “Critical Minerals Strategy 2023-2030,” published in 2023 (see (1) below), and the Future Made in Australia Act, adopted in 2024. The latter established an industrial policy framework aimed at supporting investment in Australia’s manufacturing initiatives relating to the renewable energy transition, including tax incentives for critical minerals production.
 233. Geoscience Australia, “Australia’s Identified Mineral Resources 2023,” Australian Government, 2024, https://d28rz98at9flks.cloudfront.net/149056/149056_00_1.pdf.
 234. The shares were calculated based on International Energy Agency, “Critical Minerals Data Explorer,” International Energy Agency, last updated 21 May 2025, <https://www.iea.org/data-and-statistics/data-tools/critical-minerals-data-explorer>. It is projected that Australia’s share of the refining sector will be 2.4% by 2030, while China’s share is expected to remain at a substantial 76%.
 235. Libby Hogan and Xiaoning Mo, “What Australia can learn from China to become the world’s ‘cleaner’ rare earth refiner,” *ABC News*, 11 November 2025, <https://www.abc.net.au/news/2025-11-15/australia-refining-rare-earths-environmental-challenges/105969994>.
 236. Ministry of Economy, Trade and Industry, “The Policy for Ensuring a Stable Supply of Critical Minerals,” Japanese Government, 19 January 2023 (amended 29 March 2024), https://www.meti.go.jp/policy/economy/economic_security/metal/250619_torikumihoshin.pdf (Japanese only). The three pillars described in the text is a classification taken in this paper, and not by the

Policy itself.

237. Offtake rights in mining sector are generally contractual rights (and/or obligations) of a buyer to purchase a specified volume of a mineral product from a producer over a defined period, typically agreed before the project has reached commercial production.
238. See Table 1 of Australia's Department of Industry, Science and Resources, "Australia's Critical Minerals List and Strategic Materials List," Australian Government, updated 20 February 2024, <https://www.industry.gov.au/publications/australias-critical-minerals-list-and-strategic-materials-list>
239. Ministry of Economy, Trade and Industry, "The Policy for Ensuring a Stable Supply of Critical Minerals," (note 8) pp 13-14 et al.
240. Ibid., pp 24-26.
241. Department of Industry, Science and Resources, "Critical Minerals Strategy 2023-2030," Australian Government, 20 June 2023 (updated on 7 July 2023), <https://www.industry.gov.au/publications/critical-minerals-strategy-2023-2030>
242. Ibid., pp 15, 21, 27 et al.
243. Department of the Prime Minister and Cabinet, "Critical Minerals Strategic Reserve," Australian Government, n.d., <https://www.pmc.gov.au/domestic-policy/critical-minerals-strategic-reserve>
244. Department of Industry, Science and Resources, "Critical Minerals Strategic Reserve," Australian Government, n.d., <https://www.industry.gov.au/mining-oil-and-gas/minerals/critical-minerals/critical-minerals-strategic-reserve>
245. Prime Minister's Office, "Partnership Concerning Critical Minerals," Japanese Government, 22 October 2022, https://japan.kantei.go.jp/101_kishida/documents/2022/_00019.html
246. Department of Industry, Science and Resources, "Critical Minerals Strategy 2023-2030," (note 13), P 27.
247. The White House, "United States-Australia Framework For Securing of Supply in the Mining and Processing of Critical Minerals and Rare Earths," US Government, 20 October 2025, <https://www.whitehouse.gov/briefings-statements/2025/10/united-states-australia-framework-for-securing-of-supply-in-the-mining-and-processing-of-critical-minerals-and-rare-earth/>
248. Emphasis added; Ibid.
249. Ministry of Foreign Affairs, "Japan-United States Framework For Securing the Supply of Critical Minerals and Rare Earths through Mining and Processing," Japanese Government, 28 October 2025, <https://www.mofa.go.jp/files/100926026.pdf>
250. Ministry of Foreign Affairs, "Fact Sheet regarding 2025 Quad Foreign Ministers' Meeting," Japanese Government, 1 July 2025, <https://www.mofa.go.jp/files/100868824.pdf>
251. Department of State, "Indo-Pacific Economic Framework for Prosperity Agreement Relating to Supply Chain Resilience," US Government, 14 November 2023, <https://www.state.gov/wp-content/uploads/2025/02/24-224-IPEF-Supply-Chains-Agreement.pdf>
252. IPEF members are: Australia, Brunei Darussalam, Fiji India, Indonesia, Japan, the Republic of Korea, Malaysia, New Zealand, Philippines, Singapore, Thailand, and Vietnam.
253. Ministry of Trade, Industry and Resources, "Indo-Pacific Economic Framework Members to Review Supply Chain Cooperation," Republic of Korea, 22 October 2025, <https://english.motir.go.kr/eng/article/EATCLdfa319ada/2370/view>
254. Jason Asenso, "IPEF members hold minerals-focused supply chain drill as U.S. remains silent on its role," World Trade Online, 23 October 2025, <https://insidetrade.com/daily-news/ipef-members-hold-minerals-focused-supply-chain-drill-us-remains-silent-its-role>
255. G7 2025 Kananaskis, "G7 Critical Minerals Action Plan," Government of Canada, 17 June 2025, <https://www.g7.utoronto.ca/summit/2025kananaskis/250617-critical-minerals.html>
256. Government of Canada, "Roadmap to Promote Standards-based Markets for Critical Minerals," Government of Canada, 31 October 2025, <https://www.canada.ca/en/natural-resources-canada/news/2025/10/roadmap-to-promote-standards-based-markets-for-critical-minerals.html>
257. Ibid.
258. "G7 Critical Minerals Action Plan" (note 26)
259. Ibid.
260. MSP partners included Australia, Canada, Estonia, Finland, France, Germany India, Italy, Japan, Norway, the Republic of Korea, Sweden, the United Kingdom, the United States and the European Union. See Department of State, "Minerals Security Partnership," US Government, n.d., <https://2021-2025.state.gov/minerals-security-partnership/>
261. Department of State, "Joint Statement of the

- Minerals Security Partnership Principals' Meeting 2024," US Government, 27 September 2024, <https://2021-2025.state.gov/joint-statement-of-the-minerals-security-partnership-principals-meeting-2024/>
262. Department of State, "2026 Critical Minerals Ministerial Fact Sheet," US Government, 4 February 2026, <https://www.state.gov/releases/office-of-the-spokesperson/2026/02/2026-critical-minerals-ministerial/>
263. See *Marrakesh Agreement Establishing the World Trade Organization*, opened for signature 15 April 1994, 1867 UNTS 3 (entered into force 1 January 1995), annex 1A ('*Agreement on Subsidies and Countervailing Measures*') art 5.
264. See Hoekman and Douglas Nelson, "Industrial Policy and International Cooperation," *World Trade Review* (2025), 24, p.137.
265. *Agreement on Subsidies and Countervailing Measures* art 1.1.
266. Another key issue is whether and how a transnational subsidy (i.e. a subsidy granted to a recipient manufacturing the product at issue *outside* the country of the granting government) can be regulated under the Subsidy Agreement. A certain portion of potential subsidies for critical minerals projects involving foreign investment can be transnational. Some provisions of the Subsidy Agreement appear to exclude transnational subsidies from the scope of the Agreement in principle. However, the European and the United States are currently attempting to interpret the Subsidy Agreement in a way that would allow transnational subsidies, particularly those under China's Belt and Road Initiative, to be subject to countervailing duties.
267. The various initiatives taken by the United States in 2026 explicitly indicate the idea of minimum import price. For example, the United States Trade Representative (USTR) published a request for public comments on the design of a plurilateral agreement on critical minerals trade. The USTR described their anticipation that "such an agreement will include a commitment by all parties to implement minimum prices or other price mechanisms, with appropriate border measures" and asked for comments on mechanisms to "enforce minimum prices for imports" which "may include, but are not limited to, *ad valorem*, specific, or compound tariffs and quotas or tariff-rate quotas." See *Request for Comments on the Design of a Plurilateral Agreement on Trade in Critical Minerals and Policy Actions To Strengthen the Resilience of Critical Mineral Supply Chains*, 91 Fed. Reg. Vol. 91, 9686, (26 February 2026), <https://www.federalregister.gov/documents/2026/02/26/2026-03868/request-for-comments-on-the-design-of-a-plurilateral-agreement-on-trade-in-critical-minerals-and>. Also, action plans on critical minerals agreed by the United States with Mexico and/or European Union and Japan list "border-adjusted price floors for critical minerals imports" as a topic to be discussed (see, e.g. USTR, "United States – Mexico Critical Minerals Action Plan," US Government 4 February 2026, https://ustr.gov/sites/default/files/files/Press/Releases/2026/FINAL%20Critical%20Minerals%20Action%20Plan_US%20MX%20for%20release%204%20Feb%202026.pdf).
268. e.g. Panel Report, *Russia – Traffic in Transit*, WTO Doc WT/DS512/R, adopted 26 April 2019.
269. See the analysis under GATS Article XIV(a) in Panel Report, *EU – Energy Package*, WT/DS476/R, (10 August 2018, under appeal) and the relevant analysis in Mari Shimizu, "How to Capture 'Supply Chain Resilience' Under Justifications of the WTO Law," in *Geopolitical Risks and Geoeconomics in International Economic Law*, eds., Junji Nakagawa, Taro Hamada and Yoshimichi Ishikawa (Springer Singapore, 29 March 2026), <https://link.springer.com/book/10.1007/978-981-95-6996-0#bibliographic-information>
270. *On WTO Reform – Communication from the United States*, WT/GC/W/984, 15 December 2025, s 4, (arguing that the use of non-market policies and practices cannot be addressed in multilateral rulemaking (WTO) as relevant Members benefiting from such practices are unlikely to agree to fundamental changes to their economic systems.).
271. The author appreciates various discussions and advice with/from Australian and Japanese officials and experts obtained in the USSC JADE program.
272. Definitions of "critical minerals" vary across countries. In this paper, the term is used to encompass the mineral commodities designated by the Australian Government as critical minerals, namely: high-purity alumina, antimony, arsenic, beryllium, bismuth, chromium, cobalt, fluorine, gallium, germanium, graphite, hafnium, indium, lithium, magnesium, manganese, molybdenum, nickel, niobium, platinum-group elements, rare-earth elements*, rhenium, scandium, selenium, silicon, tantalum, tellurium, titanium, tungsten, vanadium and zirconium (*rare-earth elements refer to the lanthanides as a group). See Department of

- Industry, Science and Resources, “Australia’s Critical Strategic Material List,” Australian Government, 20 February 2024, <https://www.industry.gov.au/publications/australias-critical-minerals-list-and-strategic-materials-list>
273. Industrial Structure Council Manufacturing Sector WG, Ministry of Economy, Trade and Industry, “Kōbutsu seisaku o meguru jōkyō ni tsuite” [Regarding the situation surrounding mineral policy], Japanese Government, 28 October 2024, p 9, https://www.meti.go.jp/shingikai/sankoshin/seizo_sangyo/mining/pdf/001_03_00.pdf.
 274. Steven Kennedy, “Economic policy in a changing world,” keynote address, United States Studies Centre, 19 June 2024, <https://www.ussc.edu.au/economic-security-in-a-turbulent-world-conference-summary-report>.
 275. The seven rare earth elements and magnets are samarium, gadolinium, terbium, dysprosium, lutetium, scandium and yttrium. See Gracelin Baskaran and Meredith Schwartz, “The Consequences of China’s New Rare Earths Export Restrictions,” Center for Strategic and International Studies, 14 April 2025, <https://www.csis.org/analysis/consequences-chinas-new-rare-earths-export-restrictions>.
 276. Tiffany Chong, “China’s Critical Minerals and Rare Earth Export Controls: The New Non-Tariff Battlefield,” Export Controls Australia Group, 16 October 2025, <https://www.ecag.com.au/the-ecag-navigator-journal-1/china%E2%80%99s-critical-minerals-and-rare-earth-export-controls%3A-the-new-non-tariff-battlefield>.
 277. Jarrett Renshaw and Karen Freifeld, “Nvidia’s resumption of AI chips to China is part of rare earths talks, says US,” *Reuters*, 16 July 2025, <https://www.reuters.com/technology/nvidia-resume-h20-gpu-sales-china-2025-07-15/>
 278. Victor D. Cha, “Collective Resilience: Detering China’s Weaponization of Economic Interdependence,” *International Security*, Vol. 48, Issue 1 (July 2023), pp 96-102, https://doi.org/10.1162/isec_a_00465.
 279. Takahiro Kamisuna, “Japan’s economic statecraft of rare earths,” IISS, 27 February 2026, <https://www.iiss.org/online-analysis/online-analysis/2026/02/japans-economic-statecraft-of-rare-earths/>
 280. Cha, “Collective Resilience: Detering China’s Weaponization of Economic Interdependence,” pp 96, 110.
 281. Sixty per cent of rare-earths mining (followed by Myanmar accounting for 16%) and 91% of refining (followed by Malaysia accounting for 4%) are geographically concentrated in China (2024). See International Energy Agency, “Global Critical Minerals Outlook 2025,” International Energy Agency, 21 May 2025, pp 92-93, <https://www.iea.org/reports/global-critical-minerals-outlook-2025>.
 282. International Energy Agency, “Global Critical Minerals Outlook 2025,” p 30.
 283. Ibid, p 30.
 284. Tiffany Chong, “China’s Critical Minerals and Rare Earth Export Controls.”
 285. METI Journal online, “Reaāsu shokku kara 15-nen Sojitz no tantōsha ga kataru `ano toki` to sapuraichēn takaku-ka no torikumi” [Fifteen years after the rare earth shock: A Sojitz representative talks about “that time” and their efforts to diversify their supply chain], METI Journal Online, 30 October 2025, <https://journal.meti.go.jp/p/42046/>.
 286. Ministry of Economy, Trade and Industry, “Kōbutsu seisaku o meguru jōkyō ni tsuite” [Regarding the situation surrounding mineral policy], p 9.
 287. Lynas Rare Earths, “Annual Report FY2024,” 11 October 2024, <https://wcsecure.weblink.com.au/pdf/LYC/02865113.pdf>, pp 19, 96; JOGMEC, “Sojitz and JOGMEC enter into Definitive Agreements with Lynas Including Availability Agreement to secure supply of Rare Earths products to Japanese Market,” 30 March 2011, <https://www.jogmec.go.jp/english/news/release/release0069.html>; Lynas Rare Earths, “About Lynas Rare Earths,” n.d., <https://lynasrareearths.com/about-us/about-lynas-rare-earths/>; Yvonne Ball, “Lynas and Japan’s Sojitz strike rare earths alliance,” *Australian Financial Review*, 25 November 2010, <https://www.afr.com/markets/commodities/lynas-and-japan-s-sojitz-strike-rare-earths-alliance-20101124-j58i0>.
 288. LAMP is the company’s only facility with end-to-end processing capability, covering cracking and leaching, solvent extraction, and product finishing. The Kalgoorlie processing facility plays a complementary role, providing cracking and leaching capacity and storage for the resulting mixed rare earth carbonate (MREC). Lynas Rare Earths, “Kuantan, Malaysia,” n.d., accessed March 2026, <https://lynasrareearths.com/kuantan-malaysia-2/>
 289. The two grants were valued at A\$14.8 million in 2021 and A\$20 million in 2023. See, Business.gov.au, “Modern Manufacturing Initiative – Manufacturing Integration Stream

- grant recipients,” Australian Government, 2021, <https://business.gov.au/grants-and-programs/modern-manufacturing-initiative-manufacturing-integration/grant-recipients>; Business.gov.au, “Modern Manufacturing Initiative – Manufacturing Integration Stream Resources Technology and Critical Minerals Processing round 2 grant recipients,” Australian Government, 2023, <https://business.gov.au/grants-and-programs/mmi-manufacturing-integration-stream-resources-technology-and-critical-minerals-processing-round-2/grant-recipients>.
290. Lynas Rare Earths, “2024 Annual Report,” (Lynas Rare Earths, 11 October 2024), p 15, <https://wcsecure.weblink.com.au/pdf/LYC/02865113.pdf>; The Hon Madeleine King MP, “Australia’s first rare earth processing plant opens in Kalgoorlie,” Australian Government, 8 November 2024, <https://www.minister.industry.gov.au/ministers/king/media-releases/australias-first-rare-earths-processing-plant-opens-kalgoorlie>.
 291. Yui Sato, “Japan’s Sojitz to expand Australian rare earth imports,” *Nikkei Asia*, 16 February 2026, <https://asia.nikkei.com/business/materials/japan-s-sojitz-to-expand-australian-rare-earth-imports>
 292. JOGMEC and Sojitz provided an additional A\$200 million. They concluded an additional arrangement with Lynas to secure a 65% share of Lynas-produced heavy rare earths, expected to meet around 30% of the annual consumption in Japan. JOGMEC, “Securing Supply of Heavy Rare Earths to Japan with Additional Investment to Lynas,” 7 March 2023, https://www.jogmec.go.jp/english/news/release/news_10_00029.html
 293. Lynas Rare Earths, “2024 Annual Report,” p 16; C. Todd Lopez, “DOD Looks to Establish ‘Mine-to-Magnet’ Supply Chain for Rare Earth Materials,” U.S. Department of War, 11 March 2024, <https://www.war.gov/News/News-Stories/Article/Article/3700059/dod-looks-to-establish-mine-to-magnet-supply-chain-for-rare-earth-materials/>
 294. Lynas Rare Earths, “Quarterly report for the period ended 31 March 2025,” (Lynas Rare Earths, 28 April 2025), <https://wcsecure.weblink.com.au/pdf/LYC/02939565.pdf>.
 295. Under the deal, the DoD will allocate US\$96 million to buy light and heavy rare earth oxide products from Lynas, with a floor price of US\$110 per kg for NdPr oxide. See Rajasik Mukherjee, “Australia’s Lynas inks US rare earth oxide supply deal,” *Reuters*, 16 March 2026, <https://www.reuters.com/world/asia-pacific/australias-lynas-inks-us-rare-earth-oxide-supply-deal-2026-03-15/>
 296. Industrial Structure Council Manufacturing Sector WG, Ministry of Economy, Trade and Industry, “Kōbutsu seisaku o meguru jōkyō ni tsuite” [Regarding the situation surrounding mineral policy], p 9.
 297. In the first half of FY2025, Lynas’s profit after tax declined by around 85% year-on-year, reflecting low market price incurred by China and rising operating costs. Lynas Rare Earths, “Lynas Rare Earths Half Year 2025 Results,” 26 February 2025, <https://wcsecure.weblink.com.au/pdf/LYC/02917443.pdf>.
 298. *Act on the Promotion of Ensuring National Security Through Integrated Implementation of Economic Measures*, Law no. 43/2022, <https://www.japaneselawtranslation.go.jp/en/laws/view/4716/en>; Japanese Law Translation, “Outline of the Economic Security Promotion Act,” Japanese Government, n.d., <https://www.japaneselawtranslation.go.jp/outline/75/905R403.pdf>
 299. Japanese Law Translation, “Outline of the Economic Security Promotion Act.”
 300. Priority minerals with annual supply targets to be secured by 2030: Manganese: 20 kt; Nickel: 90 kt; Cobalt: 20 kt; Lithium: 100 kt; Graphite: 150 kt, Neodymium and Praseodymium: 13 kt; Dysprosium & Terbium: 1.2 kt; Gallium and Germanium; Uranium (some items do not have quantified targets). Ministry of Economy, Trade and Industry, “Jūyō kōbutsu ni kakawaru antei kyōkyū kakuho wo hakaru tame no torikumi hōshin” [Action Plan for securing stable supply of critical minerals], Japanese Government, 29 March 2024 (originally published on 19 January 2023), pp 13-14, https://www.meti.go.jp/policy/economy/economic_security/metal/torikumihoshin.pdf; Ministry of Economy, Trade and Industry, “Jūyō kōbutsu ni kakawaru antei kyōkyū kakuho wo hakaru tame no torikumi hōshin” [Action Plan for securing stable supply of critical minerals], Japanese Government, 30 March 2026 (originally published on 19 January 2023), https://www.meti.go.jp/policy/economy/economic_security/metal/torikumihoshin.pdf.
 301. For example, in Australia, ¥4.9 billion has been provided in FY2024 to a nickel–cobalt exploration project in Kalgoorlie undertaken by Mitsubishi Corporation and Sumitomo Metal Mining in partnership with Ardea Resources Limited. JOGMEC, “Jūyō kōbutsu josei-kin kōfu jigyo” [Critical Minerals Grant Capacity], n.d., https://www.jogmec.go.jp/metal/metal_10_00001.html
 302. Ministry of Economy, Trade and Industry, “Jūyō

- kōbutsu ni kakawaru antei kyōkyū kakuho wo hakaru tame no torikumi hōshin” [Action Plan for securing stable supply of critical minerals], pp 15-17.
303. Ministry of Economy, Trade and Industry, “Reametaru bichiku seido no minaoshi ni tsuite” [Review of the rare metal stockpiling system], 1 July 2020, https://www.meti.go.jp/shingikai/enecho/shigen_nenryo/pdf/029_05_02.pdf, pp 3-4.
 304. Department of Industry, Science and Resources, “Critical Minerals Strategy 2023–2030,” Australian Government, 7 July 2023, <https://www.industry.gov.au/publications/critical-minerals-strategy-2023-2030>.
 305. See Export Finance Australia, “We’re growing Australia’s critical minerals sector — The Australian Government’s Critical Minerals Facility,” Australian Government, n.d., <https://www.exportfinance.gov.au/how-we-can-help/our-solutions/critical-minerals/>; The Treasury, “Future Made in Australia,” Australian Government, n.d., <https://treasury.gov.au/policy-topics/future-made-australia>.
 306. Department of Prime Minister and Cabinet, “Critical Minerals Strategic Reserve,” Australian Government, 24 April 2025, <http://pmc.gov.au/domestic-policy/critical-minerals-strategic-reserve>.
 307. Department of Climate Change, Energy, the Environment and Water, “More efficient and robust project assessments,” Australian Government, 5 March 2026, <https://www.dceew.gov.au/environment/epbc/epbc-act-reform/more-efficient-robust-epbc-act-project-assessments>
 308. Prime Minister’s Office of Japan, “Partnership between Japan’s Ministry of Economy, Trade and Industry and Australia’s Department of Industry, Science and Resources and Department of Foreign Affairs and Trade Concerning Critical Minerals,” Japanese Government, 22 October 2022, https://japan.kantei.go.jp/101_kishida/documents/2022/_00019.html; Department of Industry, Science and Resources, “International engagement to support Australia’s critical minerals objectives,” Australian Government, 20 June 2023 (updated 7 July 2023), <https://www.industry.gov.au/publications/critical-minerals-strategy-2023-2030/appendix-international-partnerships>
 309. Prime Minister’s Office of Japan, “Partnership between Japan’s Ministry of Economy, Trade and Industry and Australia’s Department of Industry, Science and Resources and Department of Foreign Affairs and Trade Concerning Critical Minerals.”
 310. Department of Industry, Science and Resources, “United States-Australia Framework for Securing of Supply in the Mining and Processing of Critical Minerals and Rare Earths,” Australian Government, 21 October 2025, <https://www.industry.gov.au/publications/united-states-australia-framework-securing-supply-mining-and-processing-critical-minerals-and-rare-earth>; Ministry of Foreign Affairs, “Japan-United States Framework For Securing the Supply of Critical Minerals and Rare Earths through Mining and Processing,” Japanese Government, 28 October 2025, <https://www.mofa.go.jp/files/100926026.pdf>
 311. Department of Defence, “National Defence Strategy,” (Australian Government, 2024), p 47
 312. Japan Ministry of Defense, “2022 National Defense Strategy,” (Japanese Government, December 2022), p 13, <https://www.cas.go.jp/jp/siryoku/221216anzenhoshou/nss-e.pdf>
 313. Tristan Moss, “The space between alliance and self-reliance: The evolution of the Australia-US defence space relationship,” (United States Studies Centre, August 2023), <https://www.usssc.edu.au/the-evolution-of-the-australia-us-defence-space-relationship>
 314. Department of Defence, “National Defence Strategy,” p 15.
 315. Moss, “The space between alliance and self-reliance.”
 316. Defence Space Command, “Defence Space Strategy,” (Defence Space Command, 2022).
 317. Lieutenant Baldwin, “Cert Cito Ex Astris: Workforce,” The Cove, 7 August 2025, <https://cove.army.gov.au/article/cert-cito-ex-astris-workforce>
 318. Baldwin, “Cert Cito Ex Astris: Workforce.”
 319. Air and Space Forces Association, “Watch, Read: How Australia and the US are strengthening space capabilities,” Air and Space Forces Association, 9 October 2025, <https://www.afa.org/watch-read-how-australia-and-the-us-are-strengthening-space-capabilities/>
 320. Air and Space Forces Association, “Watch, Read: How Australia and the US are strengthening space capabilities.”
 321. Theresa Hitchens, “Australia Space Command considers ‘space control’ options: Senior officer,” Breaking Defence, 9 October 2025, <https://breakingdefense.com/2025/10/australian-space-command-considers-space-control-options-senior-officer/>

322. Tristan Moss, "Unifying Space: Australia Needs a Whole of Government Space Policy," Black Swan Strategy Paper Issue 2 (UWA Defence and Security Institute, 2021), https://defenceuwa.com.au/wp-content/uploads/2021/11/Black-Swan-Strategy-Paper-Issue02_Unifying-Space.pdf
323. Saadia M. Pekkanen, "Japan's Grand Strategy in Outer Space," in *The Oxford Handbook of Space Security*, eds. Saadia M. Pekkanen and P. J. Blount (Oxford University Press, 2024), p 346.
324. Vineeth Krishnan and Anupama Vijayakumar, "Assessing Continuities and Changes in Japan's Space Security Blueprint 2023," *Strategic Analysis*, Vol. 47, No. 5 (2023): p 465.
325. Fukushima Yasuhito, "Japan's Defense Space Policy: Focusing on Changes Based on the 2018 National Defense Program Guidelines," in *National Security Policies in a Changing Environment*, (National Institute for Defence Studies, November 2025), p 159, https://www.nids.mod.go.jp/event/proceedings/symposium/pdf/2024/e_all.pdf
326. Kari A Bingen and Makena Young, *The Evolution of Japan's Space Security Policy and a Blueprint for Strengthening the U.S.-Japan Space Security Partnership*, (Center for Strategic and International Studies), 2024.
327. Yasuhito, "Japan's Defense Space Policy," p 158.
328. Kota Umeda, "Japan's Space Domain Defense Guidelines: Background, Key Features, and Policy Implications," Institute of Geoeconomics, 14 August 2025, <https://instituteofgeoeconomics.org/en/research/2025081401/>
329. Department of Foreign Affairs and Trade, "Australia-Japan Joint Declaration on Security Cooperation," Australian Government, <https://www.dfat.gov.au/countries/japan/australia-japan-joint-declaration-security-cooperation>
330. Cassandra Steer and Andre Kwok, "Working together in space can enhance worldly ties between Australia and Japan," Lowy Interpreter, 21 November 2024, <https://www.lowyinstitute.org/the-interpreter/working-together-space-can-enhance-worldly-ties-between-australia-japan>
331. Department of Foreign Affairs and Trade, "Joint Statement on the Twelfth Japan–Australia 2+2 Foreign and Defence Ministerial Consultations," Australian Government, n.d., <https://www.foreignminister.gov.au/minister/penny-wong/media-release/joint-statement-twelfth-japan-australia-22-foreign-and-defence-ministerial-consultations>
332. Department of Defence, "Space Command Shines in the Top End," Australian Government, 5 August 2024, <https://www.defence.gov.au/news-events/news/2024-08-05/space-command-shines-top-end>
333. Australian Space Agency, "Request for information: Australian capabilities to support Japan's Mars mission," Australian Government, 4 June 2025, <https://www.space.gov.au/news-and-media/australian-space-agency-visits-japan-advancing-space-partnership>
334. Australian Defence Magazine, "Gilmour Space and Sojitz sign satellite agreement," Australian Defence Magazine, (31 October 2025), <https://www.australiandefence.com.au/news/news/gilmour-space-and-sojitz-sign-satellite-agreement>
335. Rintaro Inoue, "Japan and Australia can fill each other's defence gaps," ASPI Strategist, 19 March 2025, <https://www.aspistrategist.org.au/japan-and-australia-can-fill-each-others-defence-gaps/>
336. Lisa Sodders, "Deep Space Advanced Radar Capability makes tremendous progress in first year," United States Space Force, 20 February 2025, <https://www.spaceforce.mil/news/article-display/article/4072069/deep-space-advanced-radar-capability-makes-tremendous-progress-in-first-year/>
337. See Tom Corben, Hirohito Ogi, Luke Collin and Carl Herse, "AJUSINT: Advancing defence information and intelligence sharing between Australia, Japan and the United States," (United States Studies Centre, 10 September 2025), <https://www.usssc.edu.au/ajusint-advancing-defence-information-and-intelligence-sharing-between-australia-japan-and-the-united-states>
338. US Department of Defence, "Combined Space Operations Vision 2031," US Government, February 2022, <https://media.defense.gov/2022/Feb/22/2002942522/-1/-1/0/CSPO-VISION-2031.PDF>
339. Robert Dougherty, "Defence announces purpose-built space workforce for Australian Defence Force," Defence Connect, 15 July 2025, <https://www.defenceconnect.com.au/joint-capabilities/16440-defence-announces-intention-to-create-purpose-built-space-workforce-for-australian-defence-force>
340. Cabinet Secretariat, "National Defense Program Guidelines for FY2019 and Beyond," (Japanese Government, 2018).
341. Australian Embassy Tokyo, "Remarks by Ambassador Hayhurst – Australia-Japan Space Situational Awareness, Satellite Communications, and Autonomous Systems Symposium," Australian Government, 27

- November 2023, https://japan.embassy.gov.au/tkyo/pr2023_tk026.html
342. Peter Dean, Kester Abbot, “Buffeting winds: Moving the Australia-ROK bilateral partnership forward in a period of uncertainty,” (United States Studies Centre, 1 May 2025), <https://www.ussc.edu.au/moving-the-australia-rok-bilateral-partnership-forward-in-a-period-of-uncertainty>
 343. Inoue, “Japan and Australia can fill each other’s defence gaps.”
 344. Any views, opinions or recommendations expressed herein are solely those of the author and do not represent the views of any employer. I would like to acknowledge the support and trust of the Japan Foundation and the United States Studies Centre throughout the fellowship. I am deeply grateful to my husband, Dr Thomas Loudis Papanikolaou, whose patient explanations and many *sobremesa* conversations introduced me to quantum concepts and made this research possible.
 345. Parliament of Australia, “AUKUS Pillar 2, Japan and South Korea,” Australian Government, 15 August 2024, https://www.aph.gov.au/About_Parliament/Parliamentary_departments/Parliamentary_Library/Research/FlagPost/2024/August/AUKUS_Pillar_2.
 346. European Quantum Flagship, “Strategic Research Agenda,” (European Quantum Flagship, March 2020), https://qt.eu/media/pdf/Strategic_Research_Agenda_d_FINAL.pdf.
 347. Nicolas Gisin and Rob Thew, “Quantum communication,” *Nature Photon*, Vol 1 (March 2007): pp 165–171, <https://doi.org/10.1038/nphoton.2007.22>.
 348. OECD, “A quantum technologies policy primer,” OECD Digital Economy Papers, No 371 (OECD Publishing, 28 January 2025), <https://doi.org/10.1787/fd1153c3-en>.
 349. European Commission, “European Quantum Communication Infrastructure – EuroQCI,” European Commission, 10 April 2026, <https://digital-strategy.ec.europa.eu/en/policies/european-quantum-communication-infrastructure-euroqci>.
 350. National Institute of Science and Technology, “Quantum Computing Explained,” US Government, 18 March 2026 (updated 30 March 2026), <https://www.nist.gov/quantum-information-science/quantum-computing-explained>.
 351. Windward, “Widespread GPS Jamming Hits 1,000-plus Ships in the Middle East,” Windward, 1 March 2026, <https://windward.ai/blog/gps-jamming-disrupts-1100-ships-in-the-middle-east-gulf/>.
 352. Peter Knight and Ian Walmsley, “UK national quantum technology programme,” *Quantum Sci. Technol.*, Vol 4, No 4 (29 October 2019), <https://doi.org/10.1088/2058-9565/ab4346>.
 353. Chris Baraniuk, “GPS jamming: The invisible battle in the Middle East,” BBC News, 10 March 2026, <https://www.bbc.com/news/articles/c3eww1x9e1xo>.
 354. Jamie Seidel, “Zombie ships use dead vessel identities in Strait of Hormuz crisis,” *News.com.au*, 25 March 2026, <https://www.news.com.au/world/middle-east/zombie-ships-use-dead-vessel-identities-in-strait-of-hormuz-crisis/news-story/72c030754ecfb8bd064581d43e36c48f>.
 355. US Department of Defense, “Military and Security Developments Involving the People’s Republic of China,” US Government, 2025, <https://media.defense.gov/2025/Dec/23/2003849070/-1/-1/1/ANNUAL-REPORT-TO-CONGRESS-MILITARY-AND-SECURITY-DEVELOPMENTS-INVOLVING-THE-PEOPLES-REPUBLIC-OF-CHINA-2025.PDF>.
 356. Jeffrey Robertson, “The Indo-Pacific strategy just sank in Iran,” *Asia Times*, 25 March 2026, <https://asiatimes.com/2026/03/the-indo-pacific-strategy-just-sank-in-iran/>.
 357. Takahiko Kei, “Australia-Japan cooperation is key to sustained Indo-Pacific order,” *The Strategist*, 20 February 2026, <https://www.aspistrategist.org.au/australia-japan-cooperation-is-key-to-sustained-indo-pacific-order/>.
 358. Department of Industry, Science and Resources, National Quantum Strategy,” Australian Government, 3 May 2023, <https://www.industry.gov.au/publications/national-quantum-strategy>.
 359. Cabinet Office, “Quantum Technology Innovation,” Japanese Government, accessed 12 Feb 2026, <https://www8.cao.go.jp/cstp/english/quantum/index.html>.
 360. National Institute of Science and Technology, “What Is Quantum Cryptography?” US Government, 24 April 2025 (updated 19 May 2025), <https://www.nist.gov/cybersecurity/what-quantum-cryptography>.
 361. Daniel Berger, Aaron Lye, Anton Maidl, Jannis Stoppe and Aljoscha Windhorst, “Post-Quantum Cryptography for Maritime Systems,” (2025 IEEE International Conference on Cyber Security and Resilience (CSR), 26 August 2025), pp 660–665, <https://ieeexplore.ieee.org/document/11129991>
 362. OECD, “Quantum Technologies as a New

- Paradigm for Digital Economies and Societies,” OECD Policy Briefs, No 12, (OECD Publishing, 4 February 2025), <https://doi.org/10.1787/e6664d58-en>.
363. Quantum Key Distribution is a way of sending secret codes so securely that if anyone tries to read or interfere with them, it is instantly noticeable.
 364. Department of Industry, Science and Resources, “National Quantum Strategy,” Australian Government, 3 May 2026, <https://www.industry.gov.au/publications/national-quantum-strategy>.
 365. Amos Zeeberg, “Quantum navigation could solve the military’s GPS jamming problem,” MIT Technology Review, 16 December 2025, <https://www.technologyreview.com/2025/12/16/1129887/quantum-navigation-militarys-gps-jamming-problem/>.
 366. Galileo is the Global Satellite Navigation System made by the European Union.
 367. Post-quantum cryptography refers to new encryption methods designed to stay secure even against powerful quantum computers.
 368. European Patent Office and Organisation for Economic Co-Operation and Development, “Mapping the global quantum ecosystem: A comprehensive analysis based on innovation, firm, investment, skills, trade and policy data,” (EPO and OECD Publishing, 17 December 2025), <https://doi.org/10.65216/20251217-0001>.
 369. Quantum-enabled threats are risks arising from the advantages of quantum technologies, for example, quantum computers could easily break current encryption systems.
 370. New Scientist, “We urgently need to prepare for quantum computers breaking encryption,” New Scientist, 8 April 2026 <https://www.newscientist.com/article/2522124-we-urgently-need-to-prepare-for-quantum-computers-breaking-encryption/>
 371. Laurent de Forges de Parny et al, “Satellite-based quantum information networks: use cases, architecture, and roadmap,” Communications Physics, Vol 6, No 12 (16 January 2023), <https://doi.org/10.1038/s42005-022-01123-7>
 372. Juan Yin et al, “Satellite-based entanglement distribution over 1200 kilometers,” Science, Vol 356, Issue 6343 (16 June 2017): pp 1140-1144, 10.1126/science.aan3211.
 373. Sheng-Kai Liao et al, “Satellite-to-ground quantum key distribution,” Nature, Vol 549 (2017): pp 43–47, <https://doi.org/10.1038/nature23655>.
 374. National Institute of Information and Communications Technology, “World’s First Demonstration of Space Quantum Communication Using a Microsatellite,” Japanese Government, 11 July 2017, <https://www.nict.go.jp/en/press/2017/07/11-1.html>.
 375. Australian Trade and Investment Commission, “Australian Quantum Technology: Industry Capability Report,” (Australian Government, 16 September 2025), <https://international.austrade.gov.au/en/news-and-analysis/publications-and-reports/quantum-technology-industry-capability>.
 376. European Patent Office and Organisation for Economic Co-Operation and Development, “Mapping the global quantum ecosystem.”
 377. Henning Soller, “The Year of Quantum: From concept to reality in 2025,” (McKinsey & Company, 23 June 2025), https://www.mckinsey.com/capabilities/tech-and-ai/our-insights/the-year-of-quantum-from-concept-to-reality-in-2025#.
 378. Google Quantum AI and Collaborators, “Quantum error correction below the surface code threshold,” Nature, Vol 638, No 8052 (9 December 2025): pp 920–926, <https://doi.org/10.1038/s41586-024-08449-y>.
 379. Philip Ball, “The Best Qubits for Quantum Computing Might Just Be Atoms,” Quanta Magazine, 25 March 2024, <https://www.quantamagazine.org/the-best-qubits-for-quantum-computing-might-just-be-atoms-20240325/>.
 380. National Security Agency, “Announcing Commercial National Security Algorithm Suite 2.0,” US Government, September 2022, https://media.defense.gov/2025/May/30/2003728741/-1/-1/0/CSA_CNSA_2.0_ALGORITHMS.PDF.
 381. Cybersecurity and Infrastructure Security Agency, National Security Agency, and the National Institute of Standards and Technology, “Quantum-Readiness: Migration to Post-Quantum Cryptography,” US Government, 21 August 2023, <https://media.defense.gov/2023/Aug/21/2003284212/-1/-1/0/CSI-QUANTUM-READINESS.PDF>.
 382. Resonance, “China’s Quantum Sector Sees Investment Surge as Larger Funding Rounds Return,” Quantum Insider, 7 April 2026, <https://thequantuminsider.com/2026/04/06/chinas-quantum-sector-sees-investment-surge-as-larger-funding-rounds-return/>.
 383. Yin, “Satellite-based entanglement distribution over 1200 kilometers.”

384. Gabriel Popkin, "China's quantum satellite achieves 'spooky action' at record distance," *Science*, 15 June 2017, 10.1126/science.aan6972.
385. Department of Industry, Science and Resources, "National Quantum Strategy."
386. Greg Williams and Marcel Bick, "Growing Australia's Quantum Technology Industry," Commonwealth Scientific and Industrial Research Organisation (CSIRO), 2020 (last updated 26 February 2026), <https://www.csiro.au/en/work-with-us/services/consultancy-strategic-advice-services/csiro-futures/future-industries/quantum>.
387. Brittney Levinson, "PsiQuantum's plant in Brisbane will reach -269C. It's running behind," *Australian Financial Review*, 13 February 2026, <https://www.afr.com/technology/psiquantum-s-plant-in-brisbane-will-reach-269c-it-s-running-behind-20260211-p5oldw>.
388. Australian Trade and Investment Commission, "Australian Quantum Technology Industry Capability Report," (Australian Government, 16 September 2025), <https://international.austrade.gov.au/en/news-and-analysis/publications-and-reports/quantum-technology-industry-capability>
389. Department of Industry, Science and Resources, "Joint Statement of the United States of America and Australia on Cooperation in Quantum Science and Technology," Australian Government, 19 November 2021, <https://www.industry.gov.au/publications/joint-statement-united-states-america-and-australia-cooperation-quantum-science-and-technology>.
390. Henning Soller, "The Year of Quantum: From concept to reality in 2025," (McKinsey & Company, 23 June 2025), <https://www.mckinsey.com/capabilities/tech-and-ai/our-insights/the-year-of-quantum-from-concept-to-reality-in-2025#/>
391. Cabinet Office, "Quantum Technology Innovation," Japanese Government, accessed 12 February 2026, <https://www8.cao.go.jp/cstp/english/quantum/index.html>
392. Cabinet Office, "Strengthening International Collaboration in Quantum Technology: The 7th Multilateral Dialogue on Quantum Held in Tokyo/Tsukuba," Japanese Government, 22 September 2026, https://www8.cao.go.jp/cstp/stmain/20250922ryoshi_en.html.
393. Department of Foreign Affairs and Trade, "Australia-Japan Joint Declaration on Security Cooperation," Australian Government, 22 October 2022, <https://www.dfat.gov.au/countries/japan/australia-japan-joint-declaration-security-cooperation>
394. Prime Minister of Australia, "Australia-Japan Leader's Meeting Joint Statement," Australian Government, 22 October 2022, <https://www.pm.gov.au/media/australia-japan-leaders-meeting-joint-statement>
395. Prime Minister's Office of Japan "Japan-Australia Joint Declaration on Security Cooperation," Japanese Government, 22 October 2022, https://japan.kantei.go.jp/101_kishida/documents/2022/_00018.html
396. Group of Eight Australia, "Partners In Excellence: The Go8's long-standing relationship with Japan," (Group of Eight Australia, 2024, https://go8.edu.au/wp-content/uploads/2024/06/Partners-in-Excellence_Japan_Go8-2024.pdf.
397. Department of Industry, Science and Resources, "National Quantum Strategy."
398. Secretariat of Science, Technology and Innovation Policy, Cabinet Office, "Vision of Quantum Future Society: Future Society to be Realized through Quantum Technology and Strategies for Its Realization Outline," Japanese Government, April 2022, https://www8.cao.go.jp/cstp/english/outline_vision.pdf.
399. Ministry of Economy, Trade and Industry, "Guidance for the Control of Sensitive Technologies for Security Export (for Academic and Research Institutions) Amended," Japanese Government, 24 September 2025, https://www.meti.go.jp/english/press/2025/0924_003.html
400. Australian Trade and Investment Commission, "Australian Quantum Technology Industry Capability Report."
401. Williams and Bick, "Growing Australia's Quantum Technology Industry."
402. Japan Science and Technology Agency, "MEXT-Quantum Leap Flagship Program (MEXT Q-LEAP)," Ministry of Education, Culture, Sports, Science and Technology , December 2025, <https://www.jst.go.jp/stpp/q-leap/en/index.html>
403. Yasunobu Nakamura, "Center for Quantum Computing (RQC)," RIKEN, accessed 24 February 2026, <https://www.riken.jp/en/research/labs/rqc/>
404. For the overview of Japan's Export Control System under the Foreign Exchange and Foreign Trade Act (FEFTA) see, Ministry of Economy, Trade and Industry, "Export Control," Japanese Government, January 2021, <https://www.meti.go.jp/policy/anpo/englishpage.html>.
405. Sydney Quantum Academy, "National Quantum Industry and Workforce Development Review," (Sydney Quantum Academy, November 2023),

- https://cdn.sydneyquantum.org/wp-content/uploads/2023/11/SQA_Quantum-Industry-Workforce-Review_29Nov2023_Web-2.pdf.
406. Franziska Greinert, Malte S. Ubben, Ismet N. Dogan, Dagmar Hilfert-Rüppell and Rainer Müller, "Advancing quantum technology workforce: industry insights into qualification and training needs," *EPJ Quantum Technology*, Vol 11, No 82 (10 December 2024), <https://doi.org/10.1140/epjqt/s40507-024-00294-2>.
 407. Zoe Kleinman, "Will quantum be bigger than AI?" *BBC*, 6 November 2025, <https://www.bbc.com/news/articles/c04gvx7egw5o>.
 408. Department of Industry, Science and Resources, "Leading quantum company chooses Australia as site for its groundbreaking utility scale quantum computer," Australian Government, 30 April 2024, <https://www.industry.gov.au/news/leading-quantum-company-chooses-australia-site-its-groundbreaking-utility-scale-quantum-computer>
 409. The Byteline, "Australia unveils AI plan to drive \$600B GDP growth by 2030," *The Byteline*, 16 December 2024, <https://www.thebyteline.com/news/australia-unveils-ai-plan-to-drive-600b-gdp-growth-by-2030>
 410. Ministry of Economy, Trade and Industry, "Press Conference by Minister Muto (Excerpt)," Japanese Government, 30 April 2024, https://www.meti.go.jp/english/speeches/press_conferences/2024/1112001.html.
 411. Pablo Valerio, "Quantum Sun Rises, Japan Gambit for Leadership," *EE Times*, 30 June 2025, <https://www.eetimes.com/quantum-sun-rises-japan-gambit-for-leadership/>.
 412. Tomohiko Satake, "Japan-Australia Security Cooperation: Domestic Barriers to Deeper Ties," *Stimson*, 1 February 2023, <https://www.stimson.org/2023/japan-australia-security-cooperation-domestic-barriers-to-deeper-ties/>.
 413. Tom Barrett, Hayley Channer, Samuel Garrett and Sahara Hoff, "Developing a shared Australia-Japan agenda for economic security," (United States Studies Centre, 15 July 2025), <https://www.ussc.edu.au/developing-a-shared-australia-japan-agenda-for-economic-security>.
 414. Sam Howell, "The Quad's quantum leap: how Quad countries can boost cooperation on quantum computing," (ANU National Security College, 12 December 2023), <https://nsc.anu.edu.au/national-security-college/content-centre/research/quads-quantum-leap-how-quad-countries-can-boost>
 415. Alexandra Dunn-Delvaen and Alistair Tegart, "Quantum Technologies in APEC," Standards Australia, accessed 25 March 2026, <https://www.standards.org.au/engagement-events/international/apec-quantum-technologies>.
 416. Max Blenkin, "Japan cleared to join AUKUS alliance," *Australian Defence Magazine*, 11 April 2024, <https://www.australiandefence.com.au/news/news/japan-cleared-to-join-aukus-alliance>.
 417. Commonwealth Scientific and Industrial Research Organisation, "Commonwealth Scientific and Industrial Research Organisation Annual Report 2023-24," (Australian Government, 11 September 2024), <https://www.transparency.gov.au/publications/industry-science-and-resources/commonwealth-scientific-and-industrial-research-organisation/commonwealth-scientific-and-industrial-research-organisation-annual-report-2023-24/csiro-2022-23-annual-report/our-global-reach>.
 418. Australian Space Agency and Japan Aerospace Exploration Agency, "Memorandum Of Cooperation (MOC) between the Australian Space Agency and the Japan Aerospace Exploration Agency (JAXA) regarding space cooperation for peaceful purposes," Australian Government, 7 July 2020, <https://www.industry.gov.au/sites/default/files/2020-07/moc-australian-space-agency-and-japan-space-agency.pdf>.
 419. Prime Minister of Australia, "Joint statement from the leaders of Australia, India, Japan, and the United States," Australian Government, 21 September 2024, <https://www.pm.gov.au/media/joint-statement-leaders-australia-india-japan-and-united-states>.
 420. Department of Defence, "AUKUS partners make waves in acoustic communication testing," Australian Government, 23 July 2025, <https://www.defence.gov.au/news-events/releases/2025-07-23/aukus-partners-make-waves-acoustic-communication-testing>.
 421. Standards Australia, "Strengthening Collaboration on Standardisation for Quantum Technologies in the APEC Region: Final Report and Roadmap," (Standards Australia, November 2025), <https://www.standards.org.au/documents/strengthening-collaboration-on-standardisation-for-quantum-technologies-in-the-apec-region-final-report-and-roadmap>
 422. Japan Science and Technology Agency, "MEXT-Quantum Leap Flagship Program (MEXT Q-LEAP)."
 423. CSIRO, "Commonwealth Scientific and Industrial Research Organisation Annual Report 2023-24."
 424. Department of Defence, "AUKUS partners make waves in acoustic communication testing."

425. Australian Trade and Investment Commission, “Fujitsu and ANU to set up quantum research centre,” Australian Government, 22 August 2024, <https://international.austrade.gov.au/en/news-and-analysis/news/Fujitsu-and-ANU-to-set-up-quantum-research-centre>.
426. Defence Ministers, “AUKUS Defense Ministers Meeting Joint Statement,” Australian Government, 2 December 2023, <https://www.minister.defence.gov.au/statements/2023-12-02/aukus-defense-ministers-meeting-joint-statement>.
427. Nature Research Custom Media and Toshiba, “Quantum infrastructure hits the encryption market,” Nature Portfolio, n.d., <https://www.nature.com/articles/d42473-022-00133-x>.
428. CSIRO, “Commonwealth Scientific and Industrial Research Organisation Annual Report 2023-24.”
429. Takahiro Tsuchiya, “Towards the Quad Quantum Network Initiative,” (ANU National Security College, 11 December 2023), <https://nsc.anu.edu.au/national-security-college/content-centre/research/towards-quad-quantum-network-initiative>.
430. CSIRO, “The 1st Australian Quantum Communication Forum,” Australian Government, 21 March 2024, http://research.csiro.au/qt/wp-content/uploads/sites/434/2024/03/1st-AQCF-Booklet_web.pdf.
431. Australian Department of Defence, AUKUS Advanced Capabilities Fact Sheet (2023); ASPI, “Interoperability and Defence Technology Cooperation” (2022)
432. Greg Bock, “Q-CTRL’s New Maritime Quantum Navigation Solution Successfully Undergoes First Defense Trials at Sea,” Quantum Insider, 16 July 2025, <https://thequantuminsider.com/2025/07/16/q-ctrls-new-maritime-quantum-navigation-solution-successfully-undergoes-first-defense-trials-at-sea/>.
433. Harvest now, decrypt later refers to the practice of storing encrypted data now in anticipation that advances in quantum computing will enable its decryption in the future.
434. Francis Kagai, Philip Branch, Jason But and Rebecca Allen R, “Harvest-Now, Decrypt-Later: A Temporal Cybersecurity Risk in the Quantum Transition,” Telecom, Vol 6, No 4 (18 December 2025): p 100, <https://doi.org/10.3390/telecom6040100>.
435. Department of Industry, Science and Resources, “National Quantum Strategy.”
436. Japan Science and Technology Agency, “MEXT-Quantum Leap Flagship Program (MEXT Q-LEAP).”
437. RIKEN, “Center for Quantum Computing (RQC).”
438. Japan Society for the Promotion of Science (JSPS), “Inviting Excellent Researchers from Other Countries to Japan,” JSPS, accessed 24 February 2026, https://www.jsps.go.jp/english/e-inv_researchers/index.html.
439. Australia’s mobility and internship placements in the Indo-Pacific. See, Department of Foreign Affairs and Trade, “New Colombo Plan,” Australian Government, accessed 24 February 2026, <https://www.dfat.gov.au/people-to-people/new-colombo-plan>.
440. Nordic Quantum network, “Nordic Quantum white paper,” Nordita, 2024, https://nordita.org/site/assets/docs/nordic_quantum/nordic_quantum_white_paper.pdf.
441. Defence Trailblazer, “ABOUT,” Defence Trailblazer, accessed 24 February 2026, <https://dtb.solutions/about/>.
442. Japan’s New Energy and Industrial Technology Development Organization (NEDO), R&D funding and testbeds supporting industry adoption. See, New Energy and Industrial Technology Development Organization, “Research and Development on New Energy Technology for Discovering Technology Seeds and Commercializing Developed Technologies,” New Energy and Industrial Technology Development Organization, 27 April 2026, https://www.nedo.go.jp/english/activities/activities_CA_00251.html.
443. These refer to research facilities and platforms operated by RIKEN (including through quantum programs such as Q-LEAP) that support prototyping, integration and evaluation of quantum computing, communications and sensing technologies.
444. Australian Department of Defence, “AUKUS Advanced Capabilities.”

About the authors



Kotaro Abe

Japan Bank for International Cooperation

Kotaro Abe is Deputy Director at the Japan Bank for International Cooperation (JBIC), where he leads financing initiatives in the mineral resources sector, with a particular focus on diversification and decarbonization of iron ore/steel supply chain. He also oversees JBIC's cross-sectoral strategic engagement with Australia. Prior to joining JBIC in 2023, he served in the Ministry of Foreign Affairs of Japan for about 10 years, which includes posting to the Embassy of Japan in Germany with assignments in economic security. He holds a Master's degree in Peace and Security Studies from the University of Hamburg and a B.A. in Law from the University of Tokyo. He is fluent in Japanese, English, and German.



Pilar Cossio

JADE Fellow

Pilar Cossio is an Executive Officer at the Australian Department of Foreign Affairs and Trade, with expertise in Australia–Japan strategic policy engagement, including leading coordination for the 2+2 Ministerial Dialogue in 2024. Her career spans international diplomacy, humanitarian and development programs— with field experience in West Africa and Southeast Asia through UN and NGO missions — and media, as a former journalist with SBS Radio. She also brings expertise in disaster risk reduction and crisis response, contributing to resilience-building efforts across the Indo-Pacific. Pilar is particularly interested in the policy applications of emerging technologies—such as AI and quantum—to enhance regional security.



James Ghusn

Mandala

James Ghusn is an Associate at Mandala, an Australia-based economics and public policy research firm. With a background in economics, James' research interests sit at the intersection of trade, defence, and industrial policy in the Asia-Pacific region. In particular, he enjoys combining economic modelling and novel data with qualitative policy research. James holds a Bachelor of Advanced Finance and Economics (Honours) from the University of Queensland.



Dr Takuya Matsuda

Aoyama Gakuin University

Takuya Matsuda is an Assistant Professor at the School of International Politics, Economics and Communication (SIPEC) at Aoyama Gakuin University in Tokyo, Japan. Takuya is concurrently a Non-Resident Fellow for the Asia Program at the Foreign Policy Research Institute (FPRI) in Philadelphia, Pennsylvania. His research focuses on alliance politics, great power relations, deterrence, and U.S. grand strategy with a focus on the western Pacific. His work has been published in the *Australian Journal of International Affairs*, *The Washington Quarterly*, *Survival*, *War on the Rocks*, and *Foreign Policy*. He received his Ph.D. from King's College London, M.A. from Johns Hopkins University's School of Advanced International Studies (SAIS) and B.A. from Keio University in Tokyo, Japan.



Toshiki Matsukiyo

Ministry of Foreign Affairs of Japan

Toshiki Matsukiyo has been an official of the Ministry of Foreign Affairs of Japan since 2015. He is a First Secretary at the Embassy of Japan in the United States and is currently seconded to the United States Department of State as a Baker-Kato Diplomatic Exchange Fellow. He holds a Master of Science in Russian and East European Studies from the University of Oxford (St Antony's College) and a Bachelor of Arts in Policy Management from Keio University.



Dr Tristan Moss

The University of New South Wales, Canberra

Dr Tristan Moss is a senior lecturer in history at the University of New South Wales, Canberra. He is a historian researching Australian space history and the history of the Australian Defence Force and is currently writing a history of Australian space activities, 1957 to the present. He is the author of *Guarding the Periphery: The Australian Army in Papua New Guinea, 1951–75* (Cambridge University Press, 2017), and co-editor of *Beyond Combat: Australian military activity away from the battlefields* (NewSouth Books, 2018) and *Fighting Australia's Cold War: the Nexus of Strategy and Operations in a Multipolar Asia, 1945–1965* (Australian National University Press). Tristan is the winner of a Discovery Early Career Researcher Award, titled 'Australia and Space: Government policy and public imagination, 1957–2021', and is a Fulbright Senior Scholar, (Fulbright Professional Scholarship in Australian-U.S. Alliance Studies).



Mari Shimizu

The University of Osaka; Anderson Mori & Tomotsune

Mari Shimizu is a Professor at the University of Osaka and an Of Counsel of Anderson Mori & Tomotsune. She was engaged in a wide range of international trade legal affairs for about 10 years at the Ministry of Economy, Trade and Industry of Japan, including negotiations of WTO/FTA rules, handling of dispute settlement procedures and providing legal advice under international trade law on various domestic and foreign regulations. She has diverse expertise in international trade law related matters, including government investigations of trade remedies (e.g. anti-dumping measures), various international economic dispute settlement procedures, legal analysis of trade measures of various countries (United States, EU, China, Southeast Asia etc.) based on international trade law and domestic laws and regulations, economic security-related matters, trade-related aspects of environmental regulations and labour regulations. She teaches the international economic law at the University of Osaka.



David Vallance

The Lowy Institute

David Vallance is a Research Associate in the International Security Program at the Lowy Institute. His research interests include maritime strategy, Australian defence policy, military capability, and military history. He also supports the long-term research of the Institute's Executive Director. David joined the Institute as Research Associate to the Executive Director, prior to which he worked as a consultant in Canberra, supporting projects within ADF Headquarters, Defence Science and Technology Group, and the Royal Australian Navy. He holds a Master of Strategic Studies from the ANU, a BA with First Class Honours in War Studies and History from King's College London and is an Associate of King's College.



Ai Watanabe

Keidanren (Japan Business Federation)

Ai Watanabe is Secretariat at International Affairs Bureau, Keidanren (Japan Business Federation). She joined Keidanren in April 2021. From April 2021 to August 2024, she worked in the Environment & Energy Policy Bureau and was primarily responsible for energy policy and worked on GX (Green Transformation) and AZEC (Asia Zero Emission Community). From September 2024 to May 2025, she worked in the Labor Policy Bureau and contributed to the annual report of the Committee on Management and Labor Policy. In June 2025, she became a secretariat at the International Affairs Bureau and primarily responsible for the European Commission and trade policy. She holds a master's degree in Agricultural and Resource Economics from the Graduate School of Agricultural and Life Sciences, The University of Tokyo.

Analysis of America. Insight for Australia. *Solutions for the Alliance.*



CONTACT

United States Studies Centre
Institute Building (H03)
The University of Sydney NSW 2006
ussc.media@sydney.edu.au

ussc.edu.au



THE UNIVERSITY OF
SYDNEY

**AUS
USA** American
Australian
Association