

AUKUS: When naval procurement sets grand strategy

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Jonathan D. Caverley*

United States Naval War College, Newport, Rhode Island, USA

Abstract

Traditionally, a grand strategy lays out the trade-offs a state must make in pursuit of security, thereby setting all aspects of foreign policy, from trade deals to defence budgets. This essay argues that the trade-offs embodied in a deal as complex, expensive, and long-lasting as AUKUS will manifest themselves in Australia's grand strategy for decades to come. Going forward, Australia's naval procurement decisions will shape its grand strategy, rather than vice versa. The essay makes three related points. First, Australia's costly renegeing on France in favour of the US is the most important aspect of the deal to date. Even if these nuclear submarines are never built (a not entirely remote possibility), this shift in investment will determine Australia's approach to the world for a generation. Second, understanding this approach requires acknowledging that arms deals, even between allies, are tough, zero-sum negotiations requiring all parties to give up something of value. Given this, the essay makes the final point that Australia, and any other country entering AUKUS in the future, will pay in autonomy as much as in dollars.

Keywords

AUKUS, submarines, naval procurement, grand strategy, arms trade

*The views of this paper are the author's and do not reflect the policies of the United States Naval War College, Navy, or government.

Corresponding author:

Jonathan D. Caverley, United States Naval War College, 686 Cushing Road, Newport, Rhode Island, 02841-1207, USA.

Email: jon.caverley@usnwc.edu

When AUKUS was announced, commentators were sure that it represented an immense development in international politics: “a truly momentous decision,” “a game-changing move,” “a sign of a new global order,” and “perhaps the most significant capability collaboration in the world anywhere in the past six decades.”¹ Perhaps this will be the case in time. To date, the most important aspect of AUKUS is its very costly, and thus credible, signal of Australia’s theory of security, its grand strategy. Because of how interstate agreements like arms deals work, for Australia and any other state that joins the agreement, the ultimate cost of this signal for client states (and make no mistake that Australia is a client) will come, not in dollars, but in sovereignty.

Traditionally, grand strategy should determine a state’s foreign policy, including its military investment. But the unique political economy of naval procurement ensures that decisions about the fleet determine a state’s grand strategy for years after the fact. In an extreme case like AUKUS, procurement decisions can shape a state’s grand strategy, rather than vice versa.

Grand strategy made manifest

Naval advocates rightly point out that fleets perform a unique and valuable diplomatic role in peacetime.² However, many forms of diplomacy can be “cheap talk” due to the incentives involved to misrepresent their position and distrust their counterpart’s statements. Making actions whose expenses cannot be recovered—known as “sinking costs”—an ongoing part of a bargaining process forces the other state to reassess how much value it places on an issue.³ Setting money on fire tells the world how much you value something.

Ironically, one of the best ways to set money on fire is to make it float on water. Developing, building, and operating a navy, even one never used in war, is one of

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1. Sam Roggeveen, “How nuclear subs could transform Australia and its alliance in Asia,” *The Interpreter*, Lowy Institute, 16 September 2021, <https://www.lowyinstitute.org/the-interpreter/how-nuclear-subs-could-transform-australia-its-alliance-asia> (accessed 15 January 2023); Joe Courtney, “AUKUS: A game-changing move by President Biden to counter China,” *The Hill*, 6 October 2021, <https://thehill.com/blogs/congress-blog/foreign-policy/575573-aukus-a-game-changing-move-by-president-biden-to/> (accessed 15 January 2023); Rana Mitter, “AUKUS pact: China’s challenge to US, European security and the future of NATO,” *The Guardian*, 17 September 2021, <https://www.theguardian.com/commentisfree/2021/sep/17/aukus-pact-china-us-european-security-nato> (accessed 15 January 2023).
 2. Mallory Shelbourne, “Bill defining navy’s role pave’s way for bigger budgets, says author Rep. Gallagher,” *USNI News*, 6 December 2022, <https://news.usni.org/2022/12/06/bill-defining-navys-role-paves-way-for-bigger-budgets-says-author-rep-gallagher> (accessed 15 January 2023); Kevin Rowlands, *Naval Diplomacy in 21st Century: A Model for the Post-Cold War Global Order* (London: Routledge, 2019).
 3. The political scientist James Fearon famously laid out two means of cost signaling. Most subsequent intellectual attention has been spent on “tying hands,” which is surprisingly hard to do. See James D. Fearon, “Signaling foreign policy interests: Tying hands versus sinking costs,” *Journal of Conflict Resolution* 41, no. 1 (1997): 68–90.

the costliest elements of a government's foreign policy, even relative to other elements of a modern military. Building a fleet is a heavy lift in terms of domestic politics.⁴ Buying a few tanks or fighter planes tells one relatively little about a state's grand strategy compared to building a single nuclear submarine, ocean-going oiler, or modern frigate with vertical launch missile tubes.⁵ Indeed, perhaps the most extravagant signal that a naval vessel can send occurs before the champagne hits the bow at its christening, given the opportunity costs of such a project. Because "the process of building a navy is slow, overdetermined, and hard to change" relative to almost any other defence project, "a fleet design's influence lingers" as the physical manifestation of a country's long-term grand strategy.⁶

These costs have escalated rapidly over time, to the point that most middle powers have few ships available to them. This is especially the case for vessels that can be feasibly deployed beyond a country's own littoral. Canada, for example, has thirteen frigates and four submarines with limited ocean-going capabilities. Australia possesses fourteen "blue-water" combat vessels and six submarines capable of deploying far from home. This is not a lot of diplomacy to work with and, thus, every hull counts.

The initial shipment of Virginia-class and the following "SSN AUKUS," if they are produced, will not arrive for many years, and the Royal Australian Navy will have no choice but to operate them for a generation. The opportunity costs of these submarines, described by the government as "the most transformative industrial endeavour in Australian history" are without precedent. Planning to buy (never mind buying) these submarines in the future requires Australia not to buy other goods (military or otherwise) both now and later. One thorough estimate sets the likely cost of the submarine deal "at an absolute minimum" of \$47 billion USD, cautioning that "it's highly likely that it will cost substantially more once the cost drivers are more clearly understood."⁷ Even in the best-case budget scenario, this represents the entire proposed capital budget for the next four years of the Australian Defence Force.⁸

Whatever is actually produced by the AUKUS deal, the only concrete outcome to date has been Australia spending over half a billion US dollars—the epitome of setting money on fire—to signal its total reliance on the US for security and a belief that long-

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4. Benjamin O. Fordham, "The domestic politics of world power: Explaining debates over the United States Battleship Fleet, 1890–91," *International Organization* 73, no. 2 (Spring 2019): 435–468.
 5. Some might argue that it is not clear that a middle power's strategy can be "grand," but nonetheless, all states have long-term approaches to international politics that advance their interests. See Anders Wivel, "The grand strategies of small states," in Thierry Balzacq and Ronald R. Krebs, eds., *The Oxford Handbook of Grand Strategy* (London: Oxford Academic, 2021).
 6. Jonathan D. Caverley and Peter Dombrowski, "Cruising for a bruising: The impact of anti-access strategies on the US navy," *Security Studies* 28, no. 1 (January 2019): 1–38.
 7. Andrew Nicholls, Jackson Dowie, and Marcus Hellyer, "Implementing Australia's nuclear submarine program," Australian Strategic Policy Institute, December 2021, <https://www.aspi.org.au/report/implementing-australias-nuclear-submarine-program> (accessed 15 January 2023).
 8. Julian Kerr and Andrew MacDonald, "Australia proposes defence spending boost for 2023," *Jane's Defence News*, 26 October 2022, <https://www.janes.com/defence-news/news-detail/australia-proposes-defence-spending-boost-for-2023> (accessed 15 January 2023).

range power projection in the form of nuclear submarines will be Australia's principal means of defence. In addition to the penalty for breaking its contract with France's Naval Group, it has accepted tremendous risk that the replacement submarines will not be available in a reasonable amount of time. Australia has sacrificed both treasure and mid-term capability for stronger ties to the US now and *potentially* a more capable power projection fleet in the uncertain long term.

Arms agreement between allies are still zero sum

Alliances and business deals—and thus arms transfers—largely work in similar ways. They are agreements between two or more self-interested actors seeking to increase the surplus produced from trade but also to maximize their shares of these gains. Understanding the future of AUKUS requires both lenses.

Arms deals like AUKUS require the exchange of valuable goods, leveraging each party's comparative advantage to produce a surplus to be shared by all. At the simplest level, one state offers money to another state that is better at building weapons. The first country gets more military capability; the second makes a profit; and both sides are better off. Of course, arms deals are generally more complicated than that, involving exchanges not only of weapons and money, but technology, security guarantees, manufacturing jobs, and prestige. And perhaps most significantly, states can, reluctantly, give up some of their sovereignty in these deals. Put another way, if an arms-buying state is strapped for cash and has no other comparative advantage, it can put a measure of autonomy on the table.⁹

While arms exchanges create surplus value through the parties' comparative advantages, how this surplus is distributed is a zero-sum negotiation. Given the stakes of the goods being exchanged, it is no wonder that these deals involve ruthless bargaining, take a long time, are extremely complex, and are subject to renegotiation and even renegeing up until the last widget is transferred or the last after-sale maintenance completed. The best predictor of how any surplus is distributed is the relative power of the parties involved.¹⁰ And that is the blessing and the curse of buying weapons from the US.

The US's many competitive advantages

The more ambitious the capability, the more it costs. Indeed, the capability-cost curve bends; the marginal cost of producing an extra unit of extremely high-end weaponry is much greater than it is at the low end. In the famous words of defence-industrial executive Norm R. Augustine, "The last ten percent of performance generates one third of

9. James D. Morrow, "Alliances and asymmetry: An alternative to the capability aggregation model of alliances," *American Journal of Political Science* 35, no. 4 (1991): 904–933.

10. Stephen D. Krasner, "Global communications and national power: Life on the Pareto frontier," *World Politics* 43, no. 3 (1991): 336–366.

the cost and two thirds of the problems.”¹¹ Nuclear-powered attack submarines—along with aircraft carriers and perhaps some exquisite aircraft for early warning and maritime patrol—are the most demanding and costly capabilities to develop. Even the infamous F-35 strike fighter pales in comparison.

While many states can build rifles, tanks, and uncrewed aerial vehicles, very few can build fighter aircraft; fewer still can build nuclear submarines, and no state can likely build either as effectively as the US can. Beyond its efficiency in production the US, with the world’s largest domestic arms market, does not need exports to keep its defence industry humming. This gives the US a tremendous advantage in international sales of high-end weapons. The F-35, a highly capable fifth-generation aircraft, has been rightly criticized for being over budget, long delayed, and burdened with design flaws. Yet the “jet that ate the Pentagon,” to use one critic’s biting phrase, has yet to lose out to any other fighter in any formal procurement competition, winning international competitions in Switzerland, Finland, and the Czech Republic in the past two years alone. Even Germany and Canada, the two countries to have initially rejected the plane in their competitions, have reversed course.¹² Study after study demonstrates that for all its cost, no other plane comes close in terms of value.¹³

Rather than maximizing financial gain like a typical monopolist, the US uses its market power to bolster its international political gain.¹⁴ In 2005, it suspended Israel’s access to its warplane program in retaliation for Israel selling drone parts to China.¹⁵ Israel quickly stopped those sales. The US also kicked out Turkey for

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11. Norm R. Augustine, *Augustine’s Laws* (Reston: American Institute of Aeronautics and Astronautics, 1997). For another estimate, “The final 10 percent striving towards maximum perfection costs 40 percent of the total expenditure on most projects,” see Ben R. Rich and Leo Janos, *Skunk Works: A Personal Memoir of My Years at Lockheed* (New York: Little, Brown and Company, 1994), 325.
 12. Winslow Wheeler, “The jet that ate the Pentagon,” *Foreign Policy*, 16 April 2012, <https://foreignpolicy.com/2012/04/26/the-jet-that-ate-the-pentagon/> (accessed 15 January 2023). See also Jonathan Caverley, Ethan Kapstein, and Srdjan Vucetic, “F-35 sales are America’s Belt and Road,” *Foreign Policy*, 12 July 2019, <https://foreignpolicy.com/2019/07/12/f-35-sales-are-americas-belt-and-road/> (accessed 15 January 2023).
 13. See, for example, “Executive summary: Type selection of Denmark’s new fighter aircraft: Evaluations of Eurofighter, Joint Strike Fighter, and Super Hornet,” Ministry of Defence, Denmark, 2016, 4–9, <https://www.fmn.dk/globalassets/fmn/dokumenter/strategi/kampfly-type-selection-denmarks-new-fighter-aircrafts-english-summary5-.pdf> (accessed 15 January 2023); “The Lockheed Martin F-35A Lightning II is Finland’s next multi-role fighter,” Ministry of Defence, Finland, 10 December 2021, https://www.defmin.fi/en/frontpage/administrative_branch/strategic_capability_projects/hx_fighter_program/topical/the_lockheed_martin_f-35a_lightning_ii_is_finland_s_next_multi-role_fighter.12343.news#bb06ad41 (accessed 15 January 2023); Theresa Hitchens, “F-35 nabs \$6.5B Swiss deal with lowest operating costs,” *Breaking Defense*, 30 June 2021, <https://breakingdefense.com/2021/06/f-35-nabs-6-5b-swiss-deal-lowest-operating-costs/> (accessed 15 January 2023).
 14. Jonathan D. Caverley, “Slowing the proliferation of major conventional weapons: The virtues of an uncompetitive market,” *Ethics & International Affairs* 31, no. 4, (2017): 401–418.
 15. Conal Urquhart, “US acts over Israeli arms sales to China,” *The Guardian*, 13 June 2005, <https://www.theguardian.com/world/2005/jun/13/usa.israel> (accessed 14 July 2023).

buying Russian weapons.¹⁶ While Turkey is attempting to build its own aircraft, it also seeks to buy F-16s as a consolation prize.

What will be traded in AUKUS?

What does this mean for Australia (or Britain, for that matter)? Australia will struggle to pay the full cost of even “off-the-shelf” nuclear submarines. A Virginia-class submarine costs \$3.4 billion USD up front. A basic rule of thumb for the infrastructure needed to operate a new class of weapon is an additional 50 to 100 percent of the purchasing cost. A low-end estimate for the operating cost of a nuclear submarine is \$3 billion USD each.¹⁷ Thus, the conservative calculation for eight submarines is \$65 to \$78 billion USD. On top of this, Australia seeks technology transfer (nuclear propulsion being just the start) and for understandable political reasons wants a great deal of the work to be done in Australia. On both the political and economic levels, the US needs neither Australian money, nor its technology, nor production jobs.

What does Australia bring to the table? Although it habitually sends troops to support American military adventures, it cannot provide much in the way of security guarantees to the US. Perhaps there is some prestige in the US selling submarines abroad (although not enough to justify doing it often), but Australia accrues far more by joining the nuclear submarine club and being only the second country to receive such capability from the US.¹⁸

Having eight Australian nuclear-powered submarines might shift the military balance in the Pacific somewhat in the US’s favour, but only if it does not require the US to forgo submarines for its own fleet. As US naval leaders and congressional members have pointed out, the US is hell-bent on squeezing as many submarines for itself as possible out of its industrial base.¹⁹ The US understandably prefers to keep complete control over a submarine rather than transfer it to even its closest ally. It is therefore significant and not surprising that the next steps Australia will take—forward-basing US submarines (with an occasional one from the UK) in

16. Aaron Mehta, “Turkey officially kicked out of F-35 program, costing US half a billion dollars,” *Defense News*, 17 July 2019, <https://www.defensenews.com/air/2019/07/17/turkey-officially-kicked-out-of-f-35-program/> (accessed 14 July 2023).

17. Nicholls, Dowie, and Hellyer, “Implementing Australia’s nuclear submarine program,” 70–73.

18. It is an interesting question whether the United Kingdom, with an equally stretched (and smaller) sub-building industry and far less of a comparative advantage relative to the US, feels the same way. The Anglo-American dynamic will be an interesting one to watch in this respect.

19. Scott Pappano, program executive officer for strategic submarines, observed that “If you are asking my opinion, if we were going to add additional submarine construction to our industrial base, that would be detrimental to us right now, without significant investment to provide additional capacity, capability to do that.” See Andrew Greene, “US admiral issues blunt warning on building Aus subs,” ABC News Australia, 1 September 2022, <https://www.abc.net.au/news/2022-09-01/us-admiral-issues-blunt-warning-on-building-aus-subs/101394250> (accessed 15 January 2023).

Western Australia and subsidizing submarine ship-building infrastructure *in the US*—amount to Australia paying to enhance the US’s submarine presence in the region.

Sovereignty for security

Business transactions begin with the exchange of money for a product. Alliances generally start with one state providing another with security in exchange for the recipient giving up a degree of autonomy. As a business deal and alliance, AUKUS will entail both types of exchange. The Australian analyst Marcus Hellyer notes that with a deal like AUKUS, “traditional views of sovereignty and sovereign capability are kind of irrelevant at this point,” but theory, and the history of programs like the F-35, suggests this will only apply to Australia.²⁰ Canada’s experiences in NORAD and the Northern Command may be instructive on this front.

It is no coincidence that Hellyer also refers to the likeliest industrial arrangement as “Joint Strike Fighter on steroids.”²¹ Just as the F-35 is the worst combat aircraft in the world, except for all the others, it is highly likely that the AUKUS boats will be the worst possible submarines for Australia, except for all the others. After all, the foremost concern of a monopolist is to not charge so much money that competitors can enter the market.

AUKUS is such a large endeavour, with many costs already sunk, that even failing to build the submarines will make clear Australia’s approach to the world. Australia will either be on its own or locked into the distinctive American approach to the Indo-Pacific region and the Sino-American competition. Ironically, as the analysis by Brendon O’Connor, Lloyd Cox, and Danny Cooper compellingly shows, in the debate over how much sovereignty Australia is giving up to buy these submarines, the best defence is that Australia does not have much sovereignty left to transfer.²²

This essay does not argue that AUKUS is a bad deal for Australia, but it is useful to understand what both sides are bringing to the table and what this means for international politics going forward. Any country, be it Japan or Canada, wanting to enter this arrangement later will have to pay a much higher price in money and autonomy.

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20. Marcus Hellyer, qtd. in *Ibid*.

21. Tory Shepherd, “Australia’s AUKUS nuclear submarines estimated to cost at least \$70bn.” *The Guardian*, 14 December 2021, <https://www.theguardian.com/world/2021/dec/14/australias-aukus-nuclear-submarines-estimated-to-cost-at-least-70bn> (accessed 15 January 2023).

22. Brendon O’Connor, Lloyd Cox, and Danny Cooper, “The AUKUS umbrella: Australia–US relations and strategic culture in the shadow of China’s rise,” *International Journal* 78, no. 3 (2023): xx. See also Peter K. Lee, “Fears AUKUS will undermine Australia’s defence sovereignty are misplaced,” United States Studies Centre, 28 March 2023, <https://www.ussc.edu.au/analysis/fears-aukus-will-undermine-australias-defence-sovereignty-are-misplaced> (accessed 4 July 2023). For historical context, see Srdjan Vucetic, *The Anglosphere* (Palo Alto: Stanford University Press, 2011), 22–53.

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Author Biography

Jonathan D. Caverley is professor of strategic and operational research at the United States Naval War College. The views expressed are his own and do not represent those of the U.S. Naval War College, Navy, or government.