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The big squeeze

ASPI defence budget brief 2023–2024

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This is a very different year for the defence budget. We are in a time of significant change and upheaval. Uncertainty is rife, but some fundamentals can help in working through uncertainty, especially in the world of defence policy, planning, capability programming and budget. The order of those words is important.

Defence budgets are not arbitrary. Capability requirements must drive budgets. It doesn't mean that the budget is unlimited but it demands that governments consider proposals for what is required and assess what can be afforded. If budgets drive capability, it risks the true capability needs not being put to government which results in failure to ask of government what they are elected to do – make decisions based on all available information.

The oft-cited metric of defence spend as a percentage of GDP is helpful as a point of comparison on the rate of effort of specific economies towards defence outcomes. It establishes a baseline from which we can measure – and therefore tell a story about – defence spending over time, and in the context of broader geopolitics. The low percentages across major European economies helps to illustrate why deterrence failed against the Putin regime and should be a lesson for all in relation to why defence spending is so important for managing tension and long-term peace.

But a percentage in isolation is not helpful in assessing whether the budget allocated to Defence will allow it to deliver the capabilities for which the government has asked.

The Albanese government released the 2023 Defence Strategic Review (DSR) and its Portfolio Budget Statements (Budget) within weeks of one another. The DSR establishes the future strategic direction for the Department of Defence and the ADF, including by identifying priorities that must be acted upon in the immediate term. The Budget represents a continuity approach with the strategic and budgetary guidance from the 2020 Defence Strategic Update and 2016 Defence White Paper.

There is, therefore, a disconnect between the two. This can be addressed and will be through a series of further reviews and specific activities to be progressed by Defence in the coming year. There are significant additional bodies of work yet to be finalised that will affect the future defence budget; all indications point to a steady and possibly substantial rise.

Australia must of course invest in defence capability commensurate with the challenges of the strategic environment. Crucially, however, the role of defence to help deter wars, while being ready for times of conflict, requires spending even in times of relative peace. A detailed discussion of how defence is budgeted to both deter and win wars, and the external and internal dynamics that drive budget (and other) programming and management, is more important today than at any time in the post-Cold War era. This document is a must read for those interested in current and future defence spending and for increased understanding of its importance to the government's overall budget theme of providing increased certainty to Australians in an increasingly uncertain world.

Justin Bassi

Executive Director

Executive summary

Defence has long been seen as a necessary burden on the federal budget. However, it is assuming the status of an urgent priority in the wake of the AUKUS agreement and the far-reaching reform urged by this year's Defence Strategic Review (DSR). Both are responding to a much more challenging geopolitical environment and the realisation that Australia doesn't have the luxury of time to achieve readiness.

This year's Defence budget reflects the urgency of the demands upon Defence to the extent that it includes the initial spending on the nuclear-powered submarines and the first response to the DSR, despite there being only very approximate estimates for how that spending is to be scheduled and for the savings that will pay for them.

However, the urgency of the demands upon Defence isn't reflected in its short-term funding. The only increase in the Defence budget over the next three years is compensation for the increased cost of imported military equipment flowing from a fall in the value of the Australian dollar.

Excluding this, the core funding of Defence (not including the Australian Signals Directorate) has actually been reduced at a time when unprecedented demands are being placed upon it. Between 2023-4 and 2025-6, Defence funding, excluding compensation for adverse foreign exchange movements, drops from $154.0 billion to $152.5 billion.

Both the AUKUS submarines and the DSR conclusions highlight an approach in which capability will drive budget conversations – not vice versa. That is welcome. But there is clearly much more work to be done to clarify the capability implications of the DSR, and then reflect those accurately - and at the appropriate time – in the budget.

The difficulty in bringing the DSR reforms and the spending on submarines into the budget is understandable. The timing of the DSR meant it reached the staff compiling the Defence budget very late in the annual process, while the nuclear-powered submarine program is of historically unprecedented complexity for any government project. The broad outline of the submarine program was only announced in March 2023.

New programs responding to the DSR such as a long-range strike capability or the hardening of the northern Australian bases, are not the subject of budget measures, with Defence expected to provide the additional funds needed with savings obtained from other programs.

Funding in each year continues to move faster than the predicted annual rate of inflation, consistent with the recommendations of the 2016 Defence White Paper (DWP) and the 2020 Defence Strategic Update (DSU). However, the Defence Department's financial controllers have fewer real resources to work with over the next three years than they were expecting in March 2022, when the Budget still contained the French submarine program and the DSR hadn't even been commissioned.

The surge of inflation over the past year has made the constraints of a reduced funding base even tighter. The Treasury now expects inflation to reach 6% this year, or double the level it predicted a year ago. Inflation is being powered, both in Australia and globally, in large part by an overheated economy that's the result of record low interest rates and large government deficits and further exacerbated by the impact of the Russian invasion of Ukraine on food and energy markets.

With unemployment at near record lows, Defence has been unable to meet its recruitment targets, which has been further exacerbated by increasing separation rates among uniformed personnel.

Defence had planned for the ADF to raise its numbers this year (2022-23) by 2,201 but instead faced a contraction in size by 1,389 uniformed personnel.

The rigid constraints on Defence funding over the next four years reflect the Treasury's judgement that total government spending must be curbed if inflation is to be brought under control. Treasury's economic forecasts assume that the combined efforts of government and the Reserve Bank of Australia will succeed in taming inflation over the next 18 months, bringing inflation back into the Reserve Bank's target band by 2024-25.

The government will start providing increased funding for defence from 2027-28 onwards. An amount of $30.5 billion has been set aside for defence spending out to 2032-33. It's expected that this will increase the defence share of GDP from around 2.05% to more than 2.3%. The additional funding will lift Defence's share of government spending from about 8.2% now, including both operational and capital spending, to about 9.7% by 2032-33.

However, the principal task for Defence over the year ahead is to decide how to reconfigure its force structure and capability acquisition programs in line with the DSR and the difficult budget constraint. That work is to be completed ahead of the planned 2024 National Defence Strategy, which is expected to be released before next year's budget.

The uncertainty surrounding the existing Integrated Investment Program (IIP) will affect defence industry as the scope and schedules of major programs are reviewed. Although Defence has raised the share of its procurement sourced domestically from about 45% to 55% over the past five years, it's possible that the pressure to acquire new capabilities quickly will result in more 'off-the-shelf' imports.

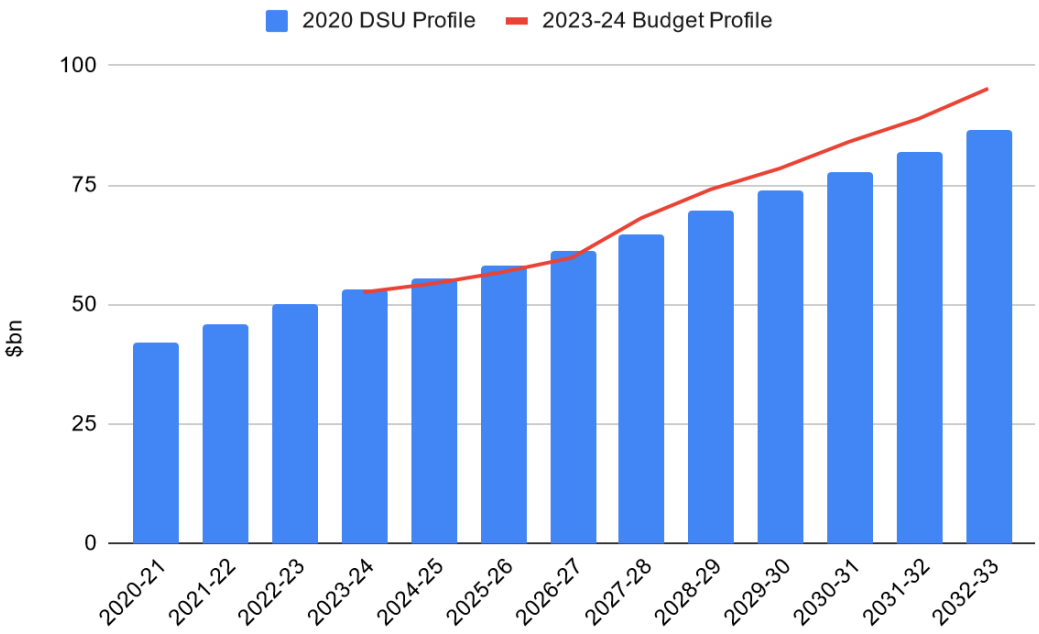
Given the intense re-ordering of the Defence capital program expected over the year ahead, this year's *ASPI defence budget brief* isn't a detailed examination of the major acquisition programs. Rather, it's a guide for the government, industry, academia and citizens interested in Australian defence strategy, capability and budget.

The strategic context for the 2023-24 defence budget is complex and extremely challenging. There's currently a gap, and quite a significant one, between the rhetoric of the 2023 DSR and the 2023-24 defence budget (and forward estimates). How Defence and the rest of government will work together to bridge the gap will become clearer over the coming year. This publication focuses on what ASPI can usefully contribute to that process, and where the key issues lie in the defence budget.

Defence in six tables

Defence Department consolidated funding

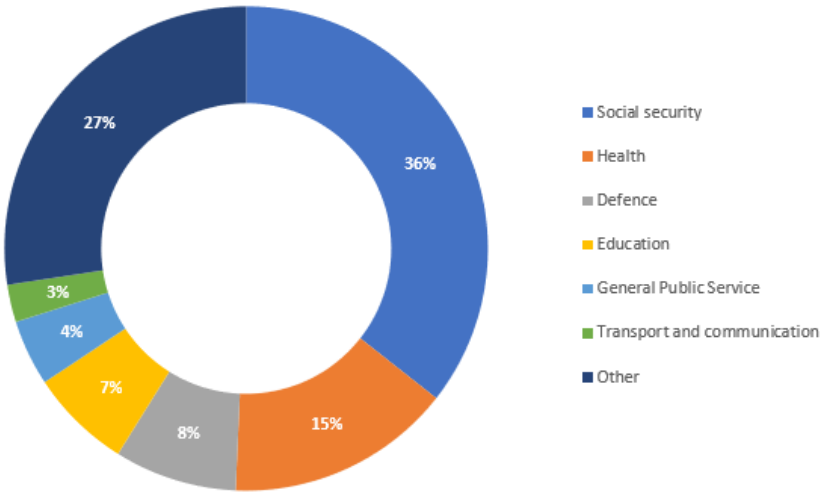
Figure 1: Defence Department consolidated funding, 2020-21 to 2032-33



Source: 2023–24 Defence PBS, historical Defence PBS, Budget paper no. 1.

Defence as a percentage of total 2023-24 government expenditure

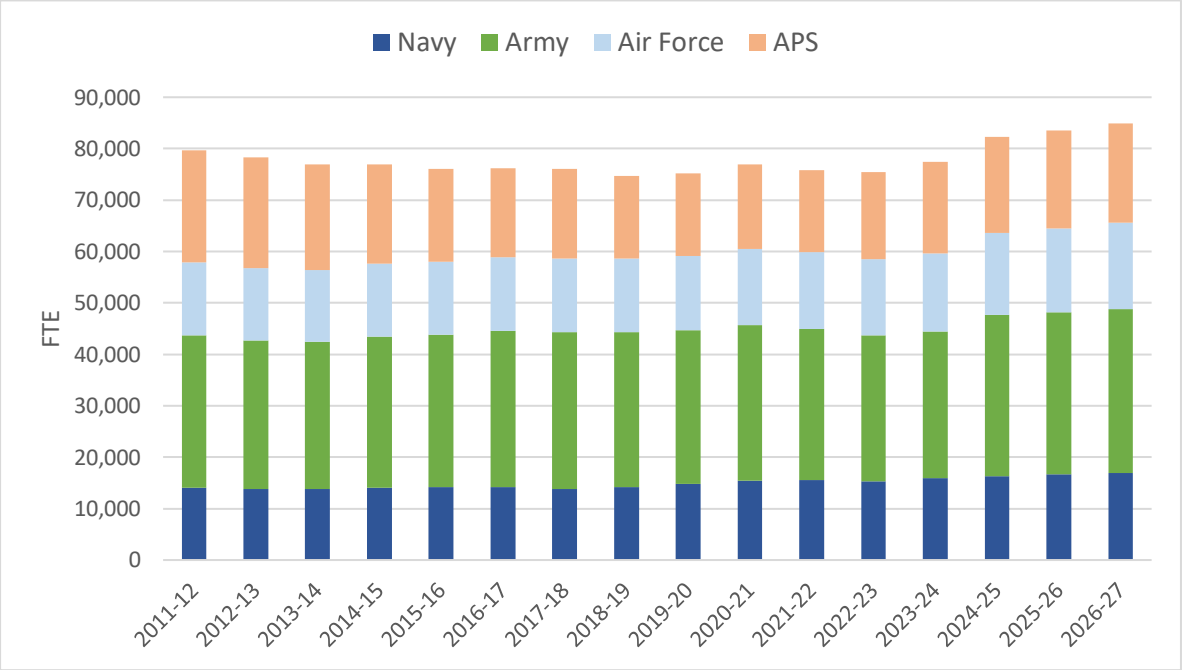
Figure 2: Defence as percentage of total 2023-24 government expenditure



Source: 2023-24 Budget papers (Note – This has been adjusted for capital spending)

Historical and planned ADF and, APS Workforce Allocation

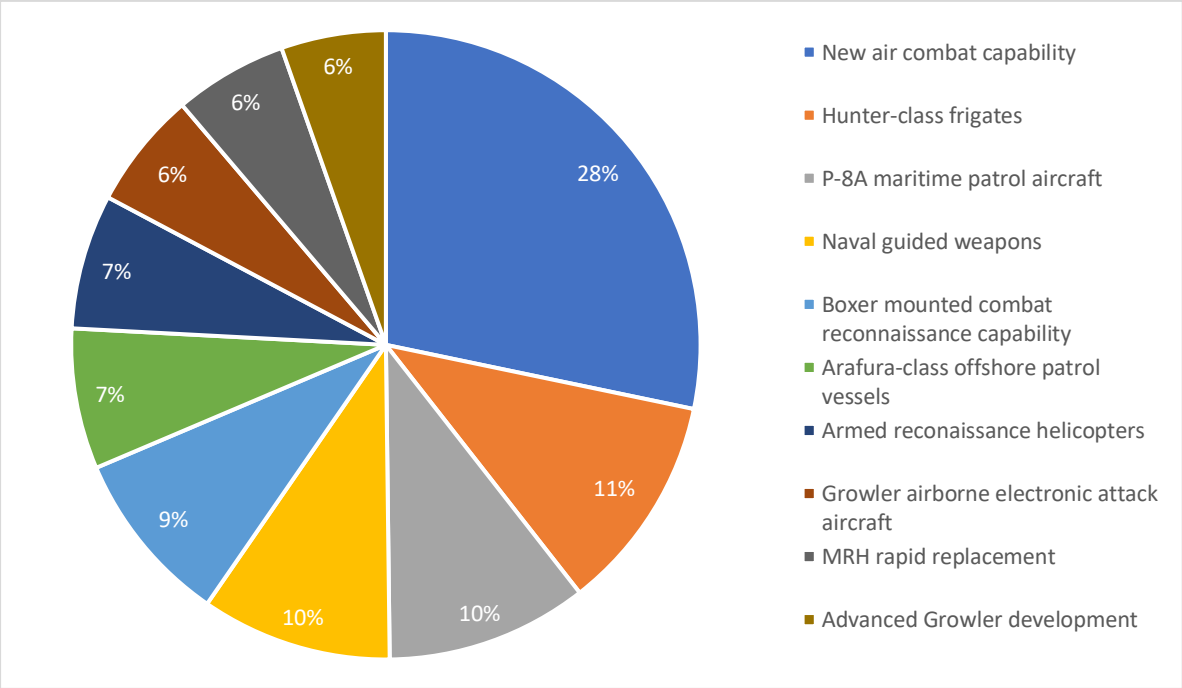
Figure 3*:* Historical and planned ADFand APS Workforce Allocation, 2011–12 to 2026–27



Source: 2023-24 Defence PBS, historical Budget papers

Top 10 acquisition projects by approved expenditure

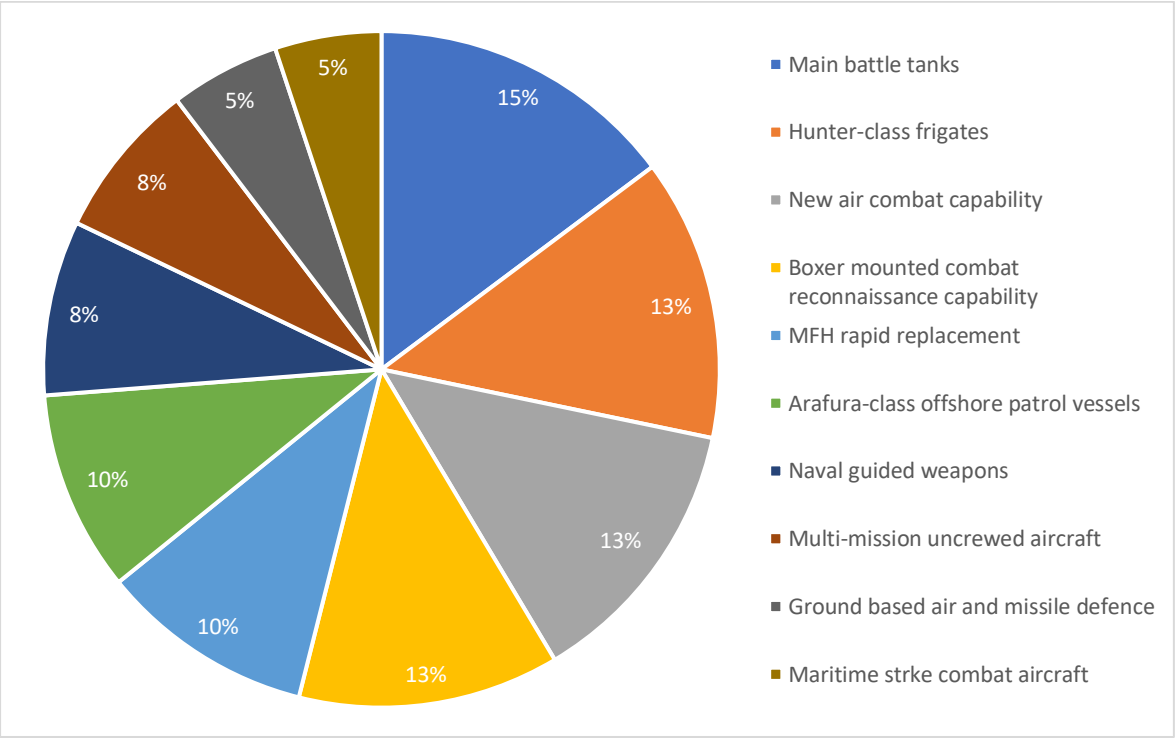
Figure 4*:* Top 10 acquisition projects, by approved expenditure



Source: 2023-24 Defence PBS

Top 10 acquisition projects by planned spend 2023-24

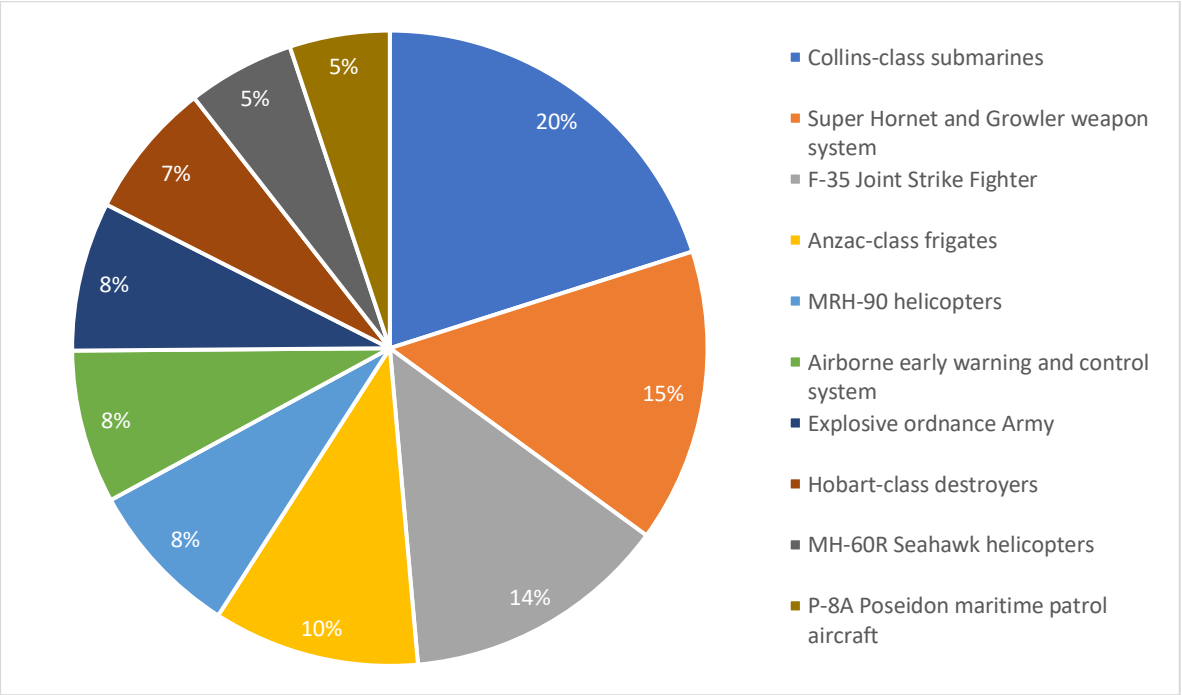
Figure 5: Top 10 acquisition projects by planned spend 2023-24



Source: 2023-24 Defence PBS

Top 10 sustainment spends 2023-24

Figure 6: Top 10 Sustainment spends 2023-24 (%of top 10)



Source: 2023-24 Defence PBS

Chapter 1: The context for defence spending

Key Points:

- An increasingly challenging geopolitical environment is placing greater demands on the capabilities of our Defence forces, which should be reflected in the defence budget.
- Inflation running at its fastest rate in over 30 years is eroding the value of the defence budget at a time when it is taking on the huge nuclear-powered submarine program and the response to the Defence Strategic Review.
- Defence funding over the forward estimate period is lower than the provision in the March 2022 budget. The doubling of inflation further erodes the purchasing power of the defence budget.
- New programs, such as the people retention initiative, aid to the Pacific and the nuclear submarine program are to be financed within existing Defence resources.
- New funding for Defence will not be available until the medium-term (2027-28), with a further $30.5 billion provided over the six years to 2032-33. This funding would lift Defence funding to more than 2.3% of GDP, based on Treasury's economic projections.
- Pressures on the defence budget mean that funding will should be reviewed prior to 2027-28 into order to effectively realise the DSR recommendations.

1.1 The strategic environment

There's a reason that almost every defence strategic document opens with a reminder that there 'is no more important and consequential task for the government than protecting the security, interests and livelihood of its people'.

It's easy to take security for granted when it's there, and only realise its true value when it isn't. The Ukrainian people would affirm that security can evaporate quickly, literally overnight. Ukraine's President has spent the past 15 months reminding us all that failing to see the world for what it is and failure to prepare adequately to defend national sovereignty and free society brings with it enormous social and economic damage, as well as loss of life, property, productivity and national capacity.

Ideally, defence organisations and defence forces are designed and function as an insurance policy. Force design is considered against a range of plausible scenarios that could threaten national security, restrict sovereign decision-making and undermine national prosperity. The capabilities that government deems necessary to deter, deny or respond to those plausible scenarios are the starting point for any discussion of defence budgets. For defence planning purposes, geopolitical reality drives strategy, strategy drives capability, capability drives budget, and the defence budget is just one part of a broader national strategic and budgetary approach.

Since the end of World War II, Australia, and many parts of the world, have benefitted from the absence of major conventional war between nation-states. Nuclear deterrence has held for over 70 years, and for the last few decades 'small wars', insurgencies, internal conflict and terrorism have dominated defence thinking.

That time is clearly over. And, as the 2023 Defence Strategic Review (DSR) re-articulates, so too is the 10 years' warning time that had been built into defence strategic planning assumptions up until the 2020 Defence Strategic Update (DSU).

We now live in a world where many of the positive trends that had been identified in the post-Cold war period – globalisation, US strategic primacy, a functional international rules-based order, historically low spending on defence – are being or have been reversed.

Globalisation's darker side, involving a mix of natural activity through technological evolution and malicious behaviour by authoritarian states leveraging economic dependencies and military power imbalances, has sharpened and entrenched some inequality. At the same time, it has provided individuals, non-state actors and nation states with tools of influence and destruction that can imperil entire populations, industries, and the rules-based system itself.

US strategic primacy is challenged by the rise of both friendly competitors and 'systemic rivals'. The geostrategic playing field has more and different competitors (including nation-states and industry) vying for power and authority, and the game itself has changed. The rules of the post-World War II, US-led international order are being tested by both natural and man-made crises. The institutions of that order, reflecting key principles inherent to democracy and liberal market economics, need urgent renewal; they aren't working as effectively as they need to in today's complex, fast-moving and unstable world. And they're being actively undermined.

The war in Ukraine puts this in stark relief: the United Nations, the collective security guarantor of world peace, couldn't prevent a member of the Permanent Five (P-5) veto power-yielding states of the UN Security Council - Russia - from violating a fundamental tenet of the UN's own charter. Nor could it apply sufficient pressure on another P-5 member, China, from unashamedly supporting the aggressor.

The short-comings in global governance are forcing regional and national-level actors to step-up and take a greater role in and responsibility for their own security, driven by their unique interests; a dynamic that is affecting strategic stability in both positive and negative ways.

In turn, that's driving an increase in defence spending globally. Japan – a key regional security partner for Australia - is initiating dramatic changes to its national defence policy and legal frameworks, with implications for its defence spending. South Korea is also re-examining its strategic circumstances, informing important capability and budget decisions. These changes all reflect the world in which we live and how it's changing. Failing to invest in defence can increase costs and risks – the war in Ukraine is a case in point with relevant lessons for the Indo-Pacific.

Revisionist actors with a very different set of principles have a clear and stated agenda. The way of life we have taken for granted and the institutions and frameworks that support core ideas, like the inviolability of state sovereignty and borders, are not accepted. These actors have the means, the intent and in some cases active strategies to change the system.

China has, for example, unilaterally claimed large swathes of territory in the South China Sea - in direct contravention of the UN Convention on the Law of the Sea. It has declared its intent to dominate key capabilities and technologies that underpin our daily lives and our defence capability. Dual-use technologies are more prevalent today than ever before, and their trajectory is upward and steep. Artificial intelligence is just one example of a technology that is changing our lives, our societies, and our military capabilities all at the same time in different, and largely unpredictable, ways.

The Chinese Communist Party has made it clear that it isn't satisfied with China's current status or role in the world. It's employing hybrid warfare and using disinformation to seek asymmetric advantage. There are important ways that this challenges Australian interests and values. The Chinese Government isn't alone in using tactics and techniques in the so-called grey zone that challenge existing international rules and norms. Other malign actors, such as Iran and North Korea, are seeking to amplify disruption to the rules-based order. There's a need to respond.

So, alongside our allies, partners and friends, Australia is facing real and present threats to the relative peace and stability that has underpinned our prosperity and security as a nation for several decades. This is coming from actors within the international community, with the will and means to compete with and defeat our defence capabilities. It isn't coming only from authoritarian states, but also from an increasingly powerful commercial sector competing in areas historically monopolised by major powers such as the space and information domains, as well as from the vast and potentially catastrophic impacts of climate change.

None of these threats can be faced by defence and military forces alone; nor should they be. They can't and shouldn't be faced by nations acting alone, either. At the national level, defence planning and capability are nested in a broader comprehensive approach to national security – what the 2023 DSR describes as 'National Defence' – in which other elements of national power, including diplomacy and statecraft, are delivered by and with other government agencies.

The DSR places an emphasis, among other elements, on national resilience to 'make Australia a harder target and less susceptible to coercion'. This is expressed as a shift to a more holistic approach to Australia's defence and security. It argues that this will require a 'substantially greater' commitment of national resources, including investment in capabilities beyond the Defence organisation. Australian defence capability is reliant on private sector and commercial actors being ready and able to provide what Defence needs. All of this is a collaborative endeavour requiring both investment and capability building across all elements.

At the international level, partnerships and enhanced self-reliance go hand in hand to produce simultaneous gains in national and collective security. Having a shared agenda driven by a common set of interests and values will continue to be vital in shaping the strategic environment within which Australia operates. Without investment in both financial and policy terms, our national capabilities, and international policy and legal frameworks that protect our sovereignty, can and will deteriorate. AUKUS is a strategically significant partnership that encapsulates the idea of parallel national and collaborative uplift. It seeks benefits to be derived by industry and the broader economy, by the individual nations and their partners, and as a collective.

The defence budget doesn't exist or operate in isolation from the rest of the national budget. Security contributes to the health of our society as a public good, just as health, education and social security programs (including disability support and aged-care) do. It's important to consider the defence budget in the context of what it does to create and sustain an environment that enables the best possible broader national outcomes. All of these 'public good' national budget lines are mutually reinforcing and interdependent.

The DSR recently released by the government makes a clear statement about its priorities and the capabilities that the ADF needs to meet its obligations and objectives on behalf of the Australian people. Importantly, the timing of the DSR release and the Budget means that the requirements and priorities established in the review aren't represented in the Budget. There's much work to be done

by Defence, and by other agencies, to implement the strategic direction that the government has provided in that document.

It is, however, possible to draw some conclusions about the planning assumptions that underpin the Budget and to ask some pertinent questions about how external drivers and internal management (including but not limited to the re-prioritisation of the IIP), will help or hinder efforts to achieve Australia's defence goals. Long-standing challenges, such as workforce recruitment and retention, and major acquisition and sustainment problems haven't gone away and must be addressed.

1.2 The macroeconomic environment

This year's Budget was framed by an overheated economy. That meant that a tight rein was kept on spending in most government departments, including Defence. The overheated economy has also been a factor impacting Defence's ability to recruit and retain personnel, although not the only factor.

The intensity of the economic pressures was unexpected. At the time of last year's Budget, the Reserve Bank's cash rate was still only 0.1% and it was thought that the pressure on prices would be short-lived.

However, the share of the population in work is now close to a record high and the share of the unemployed population is near a record low. There are almost as many unfilled job vacancies as there are people unemployed, resulting in widespread labour shortages.

The ADF is one of many employers finding it hard to recruit the staff they need. Defence had planned to boost ADF numbers by 2,201 over the past year but instead suffered a fall in the number of uniformed personnel of 1,389.

Some supply-chain bottlenecks, which became acute following the Covid-19 pandemic, have cleared, but in high-growth industries, such as construction, supplies of goods are still hard to obtain.

Those pressures also have an impact on the ability of Australian industry to support the acquisition and sustainment plans of Defence. Capital to invest in new lines of production, workforce pressures, and the inconsistency and lack of clarity of Defence procurement are all militating against the development of the necessary industrial capacity and capability to deliver on the DSR.

With interest rates at record lows, it's been easy for both households and businesses to borrow. The Reserve Bank's benchmark interest rate was below 2% for eight years and below 1% for three years, until last July.

Governments – both state and federal – have been pumping money into the economy for the past 14 years. The federal government has been spending an average of 10% more than it raises from taxation over that period, and borrowing the remainder, mostly from global financial markets. In 2020, it spent 25% more than it raised, as it sought to minimise the effect of the Covid-19 pandemic.

With so much stimulation from both the central bank and governments, it's no wonder that revenue is pouring into the federal government's coffers or that inflation is running hot.

The strength of the labour market is bringing record personal income tax payments, while strong consumer demand is boosting company profits. Company profits, and hence company tax payments, have been supercharged by record global commodity prices. Federal revenue over the coming year is now expected to be $84 billion higher than was expected a year ago.

Those trends can be seen across the advanced world. Global central banks started slashing interest rates after the 2008-09 global financial crisis while governments united on the need for deficit-fuelled stimulus payments. For a long time, there was no response from inflation (to the surprise of many economists), but the extreme cuts to interest rates in response to Covid and the fresh stimulus payments, including the big spending programs of the Biden administration in the US, sent prices soaring.

In June 2020, inflation in Australia was at zero but by the end of last year it had reached a 31-year high of 7.8%. Economists construct alternative price indexes—excluding the most extreme moves in either direction, excluding housing or focussing just on goods or just on services. All are showing the same trends. There has been some improvement in the US and the European Union this year, with a small fall also in Australia, but inflation remains the central concern of economic authorities.

That's shaped the government's approach to the defence budget. Although the flood of income was not expected by Treasury and may seem like a windfall, the concern about inflation has restrained spending, and only a few social and health programs have received significant additional funding.

The most obvious risk to the outlook for the economy and for the Budget is that inflation proves more intractable than expected. Although the decline of inflation in other advanced nations is encouraging, the pace of response is hard to predict. The Reserve Bank has been less aggressive in raising its benchmark interest rate than have the central banks in the US, the European Union or the UK.

Treasury expects a short but sharp slowdown in economic growth from 3.25% this year to 1.5% in 2023-24 as rising interest rates and broader cost-of-living pressures take their toll on consumer spending. Business investment is also expected to soften while unemployment should rise modestly to 4.25%. That easing of pressure in the economy is predicted to bring inflation down to 3.25% by June next year and to a more normal 2.75% by June 2025.

Higher inflation for longer than forecast would erode the value of the defence budget and could force delays in the acquisition of new capabilities. A recession, on the other hand, could force a rethink of the medium-term spending plans.

A historic pattern, seen repeatedly both in Australia and overseas, is that central banks find inflation is slow to respond to higher rates, leading them to act more aggressively until financial stresses bring a recession and a collapse in employment. That's the outcome that both the Reserve Bank and its international peers are determined to avoid but which, nevertheless, presents the greatest risk.

1.3 The broader Defence budgetary environment

An increasingly challenging geopolitical environment has forced big shifts in ADF planning, including new capabilities required, changes in the ADF structure, a bigger defence force overall and a demand for increased readiness. Those shifts all carry their own costs which are difficult to contain within a budgetary straitjacket, particularly at a time when inflation generally is running at its fastest pace in 30 years.

Repeated Defence reviews have argued that spending on new capabilities should respond to the strategic need, rather than to fixed benchmarks, such as the share of GDP or of government spending, however this year's Budget requires the department to commence a transformative shift in its capabilities, responding to new geopolitical realities, unsupported by any additional funds for the next four years.

The list of geopolitical challenges includes Beijing's growing assertiveness, including in the South China Sea and towards Taiwan and India as well as its economic coercion globally, the Russian war on Ukraine, the increasing vulnerability of Australia's Pacific island neighbours, especially to climate change, North Korea's escalating nuclear threat and continuing instability in the Middle East.

The appreciation of this rising complexity led the 2016 DWP to set out an IIP that involved increased defence spending, after allowing for inflation. This was confirmed in the 2020 DSU.

The 2020 DSU demolished the long-standing assumption that Australia's defence planners would have at least a decade's notice of any impending conflict. That assumption had been used by successive governments to push back decisions on the acquisition of capabilities, on the premise that, should there be a risk of conflict, the government would have sufficient warning to increase spending and readiness.

In reality, the deferral of spending decisions usually increases costs, rather than delivering a saving. When the commitment to spend is finally made, the demand has become urgent, pushing up the price, this impact is particularly exacerbated during times of conflict. Downsizing of purchases also pushes costs higher, as the same set-up and over-head costs are distributed over fewer items.

Historically, the prices of defence equipment have risen faster than the general rate of inflation. There are several reasons for this. Progressive improvements in the capability of modern weapons and systems typically involve greater complexity. The development costs for new technology are inherently uncertain and often exceed expectations. Finally, defence production can involve inputs whose prices rise faster than increases in other areas of the economy, even after adjustments are made for quantity and quality. The Defence organisation doesn't keep an overall index of the cost of its capability acquisition programs but tracks them individually. However, price rises for even such basic materials as concrete (up 18% over the past two years) and steel (up 40%) erode the purchasing power of the defence budget.

Defence gets compensation from the Treasury for the impact of a falling exchange rate for the Australian dollar, which pushes up the cost to the Budget of imported defence equipment, almost all of which is denominated in US dollars. In the latest Budget, that compensation amounts to about $500 million a year, or $2 billion over the four-year budget estimates period. This adds to the $2.4 billion in compensation for falls in the Australian dollar in the October Budget.

However, Defence gets no compensation for the impact of inflation. Leaving aside the accelerated rate of increase for military-specific prices, the unexpected jump in inflation over the past year has left Defence with less real resources at its disposal. The 2016 DWP and 2020 DSU provided for annual increases in defence spending of between 5% and 5.5%. It assumed an inflation rate of 2.5%, reducing the real rate of growth in defence resourcing to between 2.5% and 3%.

The defence budget sticks to the profile of the 2016 DWP, with annual increases ahead of Treasury's projected inflation rate. Treasury estimates that between 2023-24 to 2026-27, Defence spending will rise by 14%, which would be 5.3% ahead of inflation. However, the amount in each year is almost identical to the provision in the March 2022 budget, despite the near doubling of inflation since then. Excluding compensation for exchange rate movements, the annual funding is slightly lower.

The jump of inflation to over 6% in the past year means that Defence is facing real reductions in its resourcing relative to what it was planning on a year ago, at a time when the demands for strengthening defence capability have never been greater.

The 2023-24 Budget provides no new funding over the forward estimate period for either the capability demands of the DSR, including for enhanced investment in missiles, hardening the northern bases, or the nuclear-powered submarines. New funding for Defence enters the Budget in 2027-28, which is at least one and possibly two elections away.

Defence faces a huge job over the coming year in reassessing its capital equipment program in the light of the recommendations of DSR and the need to make cuts to existing programs to make way for the new. The surface combatant fleet review will feed into this process. Defence is expected to have prepared its new investment program ready for the new National Defence Strategy, which is intended to be ready for release ahead of the 2024 Budget.

While the demands of this restructuring will monopolise the attention of Defence management, the ADF will still have to maintain preparedness levels, operational commitments, run exercise programs and face unexpected crises (both domestic and international). It is arguable that the pressure to make savings, particularly in Defence's estate programs, will make it harder for Defence to meet its posture requirements.

The announcement of the initial costing and planning for the AUKUS submarine investment program drove home the magnitude of the task of equipping Australia to deal with the geopolitical challenges that it faces, and there's been widespread media attention on the $368 billion cost estimate. That is an example of capability need driving costs but needs to be part of a wider conversation between the Australian Government and the public about the reality of geopolitical challenges and the need to provide adequate funding to meet them.

1.4 The big squeeze

At a time when defence is being asked to take on unprecedented challenges with the nuclear-powered submarine program and the far-reaching recommendations of the DSR, the Department has been given less core funding.

The only increase in Defence funding since the final budget of the former government in March 2022 is $4 billion in compensation for the fall in the value of the Australian dollar, which has pushed up the cost of its imported equipment. Excluding that, this year's Budget provides $1.5 billion less to Defence over the next three years than the Budget last March.

This year's Budget provides total funding for Defence, not including the separately funded Australian Signals Directorate, of $152.5 billion between 2023-24 and 2025-26, after allowing for foreign exchange adjustments.

The Budget of March 2022 provided $154.0 billion over the same three years, so resourcing is lower in each of those years.

Although the Department of Finance provides compensation for foreign exchange losses, it does not do so for the impact of inflation. The Budget last March predicted inflation for 2022-23 of 3.25% whereas this year's Budget estimates 6%. That jump reduces the purchasing power of the defence budget by a further $1.5 billion a year.

Treasury expects inflation to return rapidly to the Reserve Bank's target band of 2% to 3% in 2024-25. If inflation takes longer to bring under control, the erosion of the defence budget will be greater.

There is more funding available for Defence beyond the forward estimate period, starting in 2027-28, with an amount of $30.5 billion having been set aside for the next six years out to 2032-33.

However, huge demands are being placed on Defence in the meantime. Defence is having to squeeze the nuclear-powered submarine program and the expansive recommendations of the DSR into that reduced budget envelope.

This squeeze follows a series of new demands on Defence funding since the 2020 DSU with more than $42 billion of new programs, including ASD's REDSPICE program, the Guided Weapons and Explosive Ordnance (GWEO) program and AUKUS Pillar II advanced capabilities, having been added without any corresponding lift in the Budget to pay for them.

Table 1: Difference in the defence budget (ex ASD) from the Mar 22 Budget position to the May 23 Budget position - 2023-24 to 2025-26

The shrinking defence budget ($bn)	Total 2023-24 to 2025-26 ($bn)
March 22-23 Budget	154.0
October 22-23 Budget	156.2
May 23-24 Budget	156.5
Adjustments for Forex	
October 22-23 Budget	2.4
May 23-24 Budget	1.6
May 23-24 Budget less Forex	152.5

Source: 2023-24 Defence PBS, 2022-23 Defence PBS

The DSR was, however, only handed to the Government in February 2023. Although the Department Secretary and the Chief of Defence would have had access to the review then, it would not have got to the staff who pull together the defence budget until very late in the annual budget process.

Therefore, this year's Budget is essentially a holding operation while Defence works out how to accomplish the changes to the force structure recommended by the DSR. That includes making and implementing the tough decisions on what can be cancelled, downsized, rescheduled or otherwise shifted off the books for the next four years while working out the timing and size of the new commitments.

Despite the clarity of the DSR in relation to the strategic circumstances, there is no more money provided to pay for the new commitments until 2027-28, in fact in real terms there is less. The government has set aside $30.5 billion in its 'contingency fund' to support real growth in the defence budget between 2027-28 and 2032-33; however, there's no provision for any increased funding before

that. On the Treasury's forecasts, that will lift defence spending from 2.05% of GDP in 2027-28 to above 2.3% by 2032-33.

That's a long time to wait while implementing new spending commitments to respond to rising strategic challenges. Even though Defence has yet to determine what specific capabilities it needs to prioritise in response to the DSR, the government could have put additional money into the contingency fund over the forward estimates to pay for capability development that Defence needs to get started on in the short term.

The government has put a price of $19 billion on the initial implementation of the DSR recommendations and the commencement of the nuclear-powered submarine program over the forward estimate period. This includes:

- nuclear-powered submarines: $9 billion
- strengthening northern bases: $3.8 billion
- guided weapons and explosive ordnance (GWEO): $2.5 billion
- long range strike capability: $1.6 billion
- retention bonus for Defence: $400 million
- innovation accelerator and AUKUS advanced capabilities (Pillar II): $900 million
- enhancing Pacific engagement: $924 million.

Just under $12 billion of this is covered by funds already in the Budget, while between $7.3 billion and $7.8 billion will have to come from savings elsewhere in the defence budget.

Defence has made a start on identifying how those savings will be generated. The decision to cut the Army's proposed purchase of infantry fighting vehicles by 70% is the major cut to capital equipment, with most of the savings identified to date involving development of Defence property. Savings so far add up to around $6 billion. It's expected that, as the search for savings continues (work that Defence will need to undertake before the release of the 2024 National Defence Strategy), many of the top 30 capital equipment programs will be affected to some extent.

The nuclear-powered submarine program is a huge undertaking that involves multiple arms of government, from the departments of Foreign Affairs, the Attorney-General, Health and Education and the Australian Nuclear Science and Technology Organisation. There are at least $267 million in transfers out of Defence to other agencies over the forward estimates related to the nuclear-powered submarine program on behalf of the Department of Defence, with transfers to Australian Naval Infrastructure Pty Ltd listed as not for publication due to commercial sensitivities.[1]

The Defence PBS includes, for the first time, the new Nuclear-Powered Submarine Program. This starts with payments of $514 million to suppliers in 2023-24 and includes a $3.7 billion payment, notionally, in 2025-26. The actual allocation of funding in each year of the forward-estimates period will be decided ahead of the 1 July 2023 formation of the Australian Submarine Agency, which is to manage the program.

The total provision for the nuclear-powered submarines is $8.9 billion over the forward estimates, made up of $5.6 billion under the nuclear-powered submarines program plus a further $3.3 billion

provided under other defence programs. This will partly be funded by the cancellation of the French submarine program, which yields $6 billion.

The $900 million investment in innovation over the four-year budget forward estimate period includes around $600 million of innovation programs already underway in Defence, mostly under its Defence Science and Technology Group. The $900 million is a down-payment on the proposed Advanced Strategic Capabilities Accelerator (ASCA), to cost $3.4 billion over a decade, and contribute to the second 'pillar' of the AUKUS program covering advanced technologies.

The $1.6 billion investment in long-range strike capabilities similarly includes $600 million already committed under current plans, while there's $1 billion allocated for the GWEO. Savings of $1 billion are needed from elsewhere in the defence budget to fund the strike capability and $1.5 billion for the GWEO over the four-year forward estimate period.

The $400 million commitment to a pilot scheme of $50,000 retention bonuses for service members at the end of their initial contracts is new and will have to be financed entirely from cuts to other programs, as will Defence's share of the new cross-portfolio Pacific Engagement program, which will require $924 million of savings.

Only $200 million of the $3.8 billion commitment to strengthening the ADF's northern bases needs to be found from savings, as the remainder is already committed in the Budget.

The first steps to put these new commitments into action have been made for the innovation program and the people retention scheme, while a start has been made on Pacific engagement. Neither the GWEO enterprise, the northern bases program nor any of the identified savings measures has yet been 'actioned'.

Table 1: Investment in DSR priority areas ($ billion)

	Current plans	New commitment	Total
GWEO	1.0	1.5	2.5
Long-range strike	0.6	1.0	1.6
Innovation	0.6	0.3	0.9
People retention	0.0	0.4	0.4
Northern bases	3.6	0.2	3.8
Pacific engagement	0.0	0.9	0.9
Submarines	6.0	3.0	9.0
Total	**11.8**	**7.3**	**19.1**

Source: Department of Defence 18 May 2023

The pressure of inflation and the new commitments is being felt across the defence portfolio. Capital spending is the most obvious target for economies. Defence retains its goal of building the workforce

from the current 75,000 to 101,000 by 2040 and is bound by the decisions of the Defence Force Remuneration Tribunal, so it isn't feasible to cut workforce costs. While sustainment can be trimmed on some projects, it's generally a false economy and contrary to some reports, there's been no general edict to achieve sustainment savings.

Across the Defence Department, this year's Budget provides 1.9% more for the workforce between 2023-24 and 2025-26 than did the March 2022 Budget, while spending on sustainment is up by just 1.7%. Capital spending is down by 1.9% (Table 3).

Table 2: 2023-24 Defence budget, workforce, capability acquisition and capability sustainment breakdown

	Spending 2023-24 to 2025-26 in latest Budget ($bn)	Change from March 2022 Budget (%)
Workforce	46.4	1.9
Capability acquisition	54.8	-1.9
Capability sustainment	49.4	1.7

Source: 2023-24 Defence PBS

With the caveat that the spending plans detailed in this year's PBS are a moveable feast pending final decisions ahead of next year's National Defence Strategy, they show significant capital spending cuts in each of three major service arms (Table 4).

A big 35% fall in Navy capital spending reflects the cancellation of the French submarines while the new nuclear-powered submarine program is a separate line item in the Budget. The ship-building program is also now listed separately from the Capability Acquisition and Sustainment Group (CASG).

The Army has 3.4% less for capital items over the next three years than was provided in last year's Budget, while the Air Force has 9.7% less. Operational spending continues to rise in all three services.

Table 3: 2023–24 defence budget: spending on capital and operations, by service

	Spending 2023-24 to 2025-26 in latest Budget ($bn)	Change from March 2022 Budget (%)
Navy operations	27.2	4.0
Navy capital spending	9.9	-34.9
Army operations	30.2	2.6
Army capital spending	13.1	-3.4
Air Force operations	29.1	4.7
Air Force capital spending	10.9	-9.7

Source: 2023-24 Defence PBS

Some of the big movements in Table 5 reflect the management of individual projects being shifted across programs, however the number of programs showing a fall in funding since last year's Budget highlights the intensity of the adjustment as Defence manages the rising expectations of it within an essentially fixed budget allowance (Table 5).

Table 4: Comparison of defence spending: 2023–24 and 2022–23 defence budgets

	Spending 2023-24 to 2025-26 in latest Budget ($m)	Change from March 2022 Budget (%)
Army	36,967	-0.6
Airforce	33,020	2.9
Navy	31,162	-8.3
Security and Estate	21,403	-4.6
Joint capabilities	87,29	-17.2
ASD	7,309	10.2
Chief information office	5,276	-2.1
Nuclear-powered submarines	4,627	NA
Defence Executive Support	3,154	77.0
Defence intelligence	23,154	22.2
Strategy policy and industry	2,710	-1.6
Defence people	2576	11.0
Capability acquisition & sustainment	2064	-30.6
Defence, science and technology	2047	17.9
Defence HQ	1133	40.0
Naval shipbuilding	892	NA

Housing assistance	503	30.6
Total Defence (incl ASD)	**166366**	**1.9**

Source: 2023-24 Defence PBS, historical Defence PBS.

1.5 Medium-term relief

The DSR argued that the funding of Defence should reflect 'the strategic circumstances our nation faces'.[2] Given the growing geopolitical challenges tackled by the review, this suggests that a material increase in defence spending is needed.

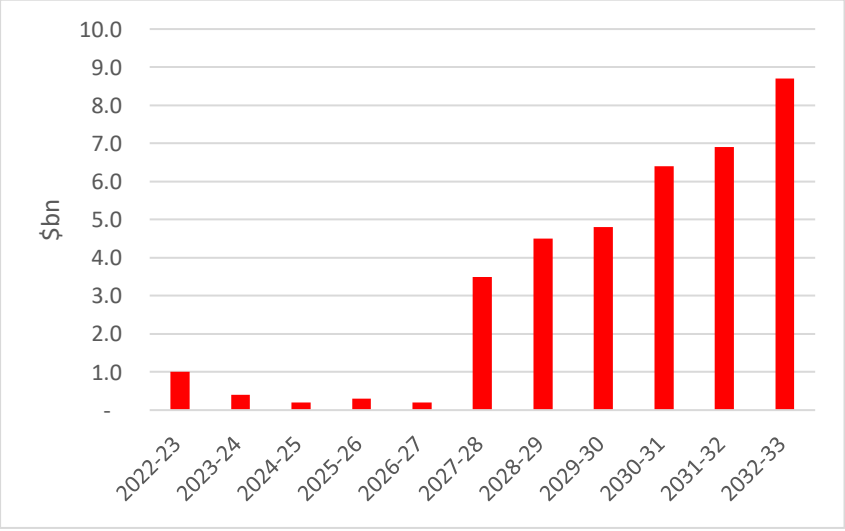
The review commented that 'new capability requirements coupled with sustainment demand for existing capabilities and the need to address severe workforce pressures will require difficult decisions and trade-offs to manage the defence budget over the immediate period'.[3]

The budget papers establish that real new funding, over and above the now seven-year-old profile set out in the 2016 DWP, will occur from 2027-28 onwards.

The addition is significant and is almost the only area in the federal budget in which funds are being made available to support new government decisions over the medium term, as opposed to reflecting broader economic changes.

The government says that the effect of the additional funding is to lift the annual rate of nominal growth over the decade from 5.6% to 6.3%, but a better way to consider it is that growth that averages around 5% over the next four years accelerates to about 8% over the remainder of the decade. The increase in medium-term funding, shown in Figure 7, is drawn from the main budget papers and shows both the $30.5 billion increase and about $4 billion relating to foreign exchange movements (Figure 7, Table 6).

Figure 7: Defence spending changes since the October 2022 Budget ($ billion)



Source: 2023-24 Budget paper no. 1, chart 3.7 (includes both medium term funding and compensation for FX losses)

Table 5: The medium-term boost to defence funding, 2027–28 to 2032–33

	2020 DSU funding profile ($bn)*	2023-4 Budget profile ($bn)**	DSU growth (%)	2023-24 Budget growth (%)
2027-28	64.6	68.1	8.1	13.9
2028-29	69.6	74.1	7.7	8.8
2029-30	73.7	78.5	5.8	5.9
2030-31	77.7	84.1	5.5	7.2
2031-32	82.0	88.9	5.5	5.7
2032-33	86.5	95.2	5.5	7.1

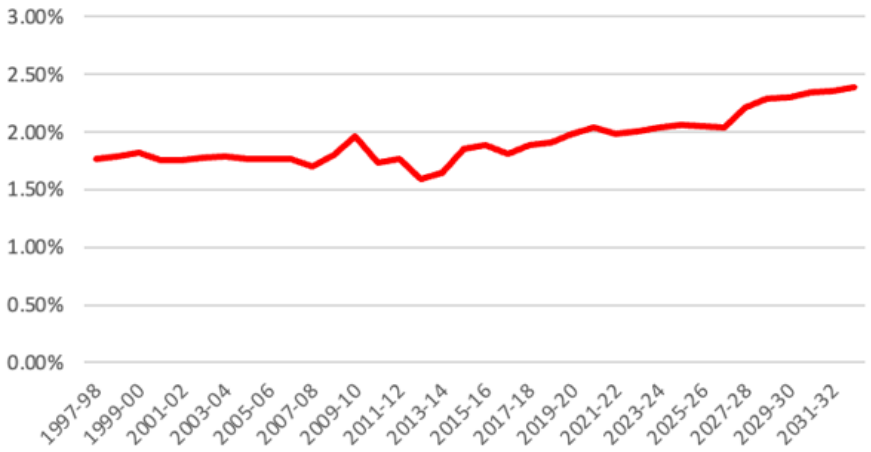
* DSU profile up to 2029–30 and ASPI estimates beyond that.
**ASPI estimates based on 2023-24 Budget paper, no. 1, chart 3.7

The increase in defence funding, which totals $30.5 billion over the six-year period, is to be offset by reductions elsewhere in the federal budget. The government is counting on achieving savings of $40 billion from the National Disability Insurance Scheme and a massive $83 billion saving from forecast lower interest rates to fund the increase in defence spending, along with smaller increases for aged care and social security.[4]

Defence spending had shrunk to just 1.59% of GDP in 2011–12 when the government was trying unsuccessfully to bring the Budget back into surplus in the wake of the 2008–09 global financial crisis. It was up to 2.04% by 2020–21 and, on the latest budget projections, remains at around that level over the next four years.

Treasury estimates that the additional spending over the decade will lift the share of the economy devoted to defence from 2.05% to more than 2.3% by 2032-33 based on its projections for nominal GDP growth (Figure 8); however, there's obviously a high degree of uncertainty about such long-range estimates.

Figure 8: Defence share of GDP, 1997–98 to 2031–32



Source: 2023-24 Budget paper No. 1. ASPI estimates based on 2023-24 Budget paper, no. 1, chart 3.7.

The new spending would increase Defence's share of government spending from about 8.2% now (including Defence capital spending, which usually gets left out of such calculations) to 9.7% by 2032-33.

Although there's no breakdown of how the additional funding will be allocated, the estimate that the nuclear-powered submarine program will absorb around 0.15% of GDP could imply that by 2032-33 that the balance of the increased defence funding, or around 0.10% of GDP, would go to implementing the DSR recommendations.

However, Defence must also deal with the significant over-programming in its current capability acquisition and sustainment planning (IIP). The DSR commented that since 2020, measures with costs to the end of the decade to 2032-33 totalling $42 billion had been announced without the provision of additional funding in the federal budget. That included $32.2 billion for establishing the GWEO enterprise, $7.9 billion for the ASD's REDSPICE program beyond 2025-26 and $1.9 billion to achieve the advanced technology capabilities under AUKUS Pillar II.[5]

Chapter 2: Walking through the numbers

Key Points:

- The defence budget sticks to the profile set out in the 2016 DWP and the 2020 DSU, with annual increases in funding. However, the annual increase between 2023-24 to 2025-26 is less than that forecast in the March 2022 budget once adjusted for foreign exchange impacts.
- The scope and scheduling of major acquisition and sustainment projects is likely to be reviewed over the coming year as Defence accommodates the new demands from the DSR and the nuclear-powered submarine program.
- Defence force numbers fell last year with higher numbers of resignations and fewer new recruits than planned, reflecting the strength of competition in the labour market, amongst other factors.
- Local industry's share of Defence acquisition and sustainment has been rising, although the response to the DSR may involve a greater short-term recourse to imports.

2.1 Top-level numbers

The striking feature of this year's defence budget is how little the numbers for the next four years have changed from either the interim Budget last October or the March 2022 Budget of the former government.

New programs responding to the DSR, such as the hardening of the ADF's northern bases or acquiring a long-range strike capability, aren't the subject of budget measures and the few initiatives that are, such as the nuclear-powered submarine program or the Pacific Engagement program, don't have dollar figures attached, either because they're being absorbed into existing funding, or because they're 'not for publication'. While it's not clear from the budget papers, the DSR and associated media releases from the Prime Minister and Deputy Prime Minister in the wake of the DSR do provide some indication on how much is intended to be spent in some of these key areas. This is discussed in Chapters 1 and 3.

Most of the top-level numbers in the defence budget are consistent with ASPI's *The Cost of Defence: defence budget brief, October 2022-23*.[6] The Australian National Audit Office's Major Projects Review released in February 2023 contains little information not already covered in ASPI's October 2022 analysis, and Defence's annual report is still some months away.

Table 6: Overall Defence funding 2023-24

Consolidated defence funding (including ASD), 2023-24	
Funding	$52.6 billion
Growth on prior year	7.0%
Real growth on previous year	1.0%
Department of Defence government funding, 2023-24	
Funding	$50.1 billion
Funding minus FOREX compensation	$49 billion
Key cost categories, 2023-24	
Acquisition	$17.7 billion (34.6%)
Sustainment	$15.4 billion (30.1%)
Defence workforce	$14.9 billion (29.1%)
Operating (incl. operations)	$3.2 billion (6.2%)

Note: The key cost categories sum to $51.0 billion, which doesn't match the Department of Defence's funding appropriation of $52.6 billion because the key cost categories also include funding from other sources

Source: 2023-24 Defence PBS

As Table 7 indicates, the defence budget, including ASD, is estimated to grow by 7% in nominal terms and 1.0% in real terms to $52.6 billion in 2023-24. This total includes compensation for foreign exchange adjustments, but it is important to note that the defence budget continues to rise annually, consistent with the DSU, whether those adjustments are included or not. The problem for Defence is that the funding over the next three years in this year's budget is less than was provided for those same years in the budget of March 2022, after allowing for that foreign exchange compensation. Funding in each of those three years is still higher than funding in the year before.

2.2 Expenditure trends

The defence budget continues to increase in nominal terms each year, and there's a progressive rise over the forward estimates to $57 billion by 2026-27. Next financial year should see the budget move upwards by $2.7 billion or approximately 6% over this year's results (Table 8).

Table 7: Consolidated Defence funding, 2023-24 forward estimate growth and 2020 DSU projected growth

	2022-23 Estimated actual	2023-24 Budget estimate	2024-25 Forward estimate	2025-26 Forward estimate	2026-27 Forward estimate
Department of Defence	47,419	50,086	51,891	54,506	57,582
ASD	1,712	2,472	2,523	2,304	2,234
Consolidated Total (DOD plus ASD)	49,131	52,559	54,414	56,810	59,816
Growth in 2023-24 Budget total	8.0%	7.0%	3.5%	4.4%	5.3%
2020 DSU predicted growth	9.1%	6.2%	4.3%	4.7%	5.2%

Source: 2023-24 Defence PBS Table 4a

Table 8 indicates the rate of increase in defence funding has exceeded economy-wide inflation in recent years—although only marginally, given Australia's unusually high inflation rates. The budget papers comment that defence spending will rise by 14% in nominal terms and by 5.3% after allowing for inflation between 2023-24 and 2026-27.

However, the total funding over the next three years is only 2% larger than provided in the Budget of March 2022. As noted above, that increase is entirely composed of compensation for adjustments to the exchange rate. Excluding that adjustment which matches the anticipated rise in import costs, Defence spending is 1% smaller over that period than in last year's budget.

Inflation of over 6% in the past year, is double Treasury's prediction a year ago. So while Defence continues to get annual increases, it can buy less with its budget over the forward estimate period than it anticipated after the March 2022 Budget. That loss of purchasing power, which translates to roughly $1.5 billion a year, never gets recouped.

Table 8: Real increase in the defence budget, 2021-22 to 2024-25 (% change over previous year)

	2021-22	2022-23	2023-24	2024-25
Defence spend (including ASD) ($ billion)	45.5	49.1	52.6	54.4
Growth in defence spend (%)	5.4%	8.0%	7.0%	3.5%
Economy wide inflation (%; CPI)	3.8%	7.0%	4.7%	3.0%
Real increase in defence budget (%)	1.6%	1.0%	2.3%	0.5%

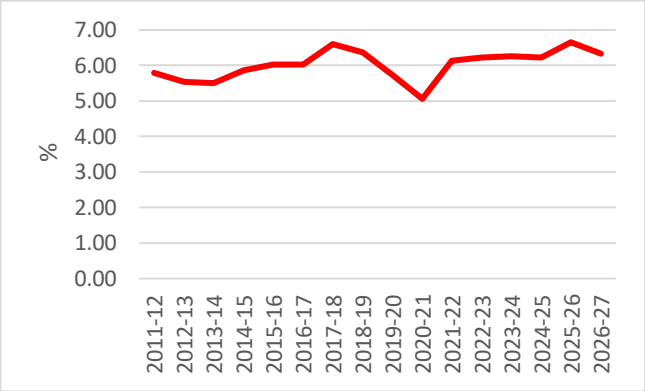
Note: Defence spending is estimated to rise above 2.3% of GDP by 2032–33, based on current GDP projections; Budget paper no. 1, 98

Sources: Defence PBS, Table 4a, for defence spend; ASPI Cost of defence, previous editions; ABS National Accounts; Budget paper no. 1, 58, 66, 78

Defence spending as a percentage of GDP

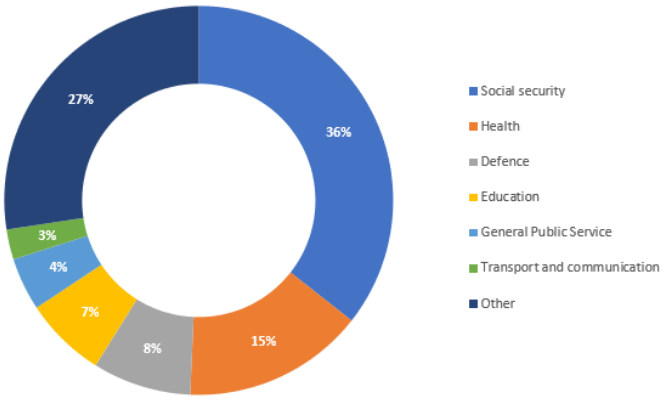
The main budget paper always includes a breakdown of government spending by major areas. It understates the defence share because it doesn't include capital spending, which is a large part of the defence budget but is minor for other departments. However, it highlights the gradually rising trend from the early 2010s. The defence share dipped in 2020 because of the huge stimulus payments to combat the economic effects of the Covid-19 pandemic.

Figure 9: Defence share of government spending



Source: 2023-24 Budget papers

Figure: 10: Defence as % of total 2023-24 government expenditure



Source: 2023-24 Budget papers

Adjusted to include capital spending, the defence share of government spending ranks ahead of education and spending on the public service. It's a little under half the health budget (figures 9 and 10).

Comparison of the defence budget as a percentage of GDP does not provide for the most accurate assessment of whether the government has adequately resourced Defence. This is significantly so in periods of high inflation or surges in commodity exports as experienced in recent years.[7] Significantly, for those very reasons, the 2020 DSU made the point of delinking the defence budget from GDP—a trend that has continued in the recent budget. However, given the international trend of expressing the defence budget as a percentage of GDP, it's expressed for comparison purposes in Table 10.

Table 9: Defence budget as a proportion of GDP, 2021-22 to 2024-25 (nominal, $billion, %change over year)

	2021-22	2022-23	2023-24	2024-25
Defence spend	45.5	49.1	52.6	54.4
% growth	5.4%	8.0%	7.0%	3.5%
Nominal GDP	2,308	2,545	2,577	2,641
Nominal % growth	11%	10.25%	1.25%	2.5%
Defence spend as % of GDP	1.97%	1.93%	2.04%	2.06%
Economy wide inflation (CPI)	3.8%	7.0%	4.7%	3.0%
Real increase in the defence budget	1.6%	1.0%	2.3%	0.5%

Note: Defence spending is estimated to rise above 2.3% of GDP by 2032–33, based on current GDP projections; Budget paper no. 1, 98.
Source: Defence PBS, Table 4a, for defence spend; ASPI Cost of defence previous editions; ABS National Accounts; Budget paper no. 1, 58, 66, 78

Table 10: SIPRI International Military spending as a % of GDP (Calendar Year 2022)

Ranking	Country	% of GDP	Ranking	Country	% of GDP
1	**Ukraine**	33.55%	21	**Iraq**	1.67%
2	**Saudi Arabia**	7.42%	22	**Norway**	1.64%
3	**Israel**	4.51%	23	**Taiwan**	1.61%
4	**Russia**	4.06%	24	**China**	1.60%
5	**Greece**	3.69%	25	**Netherlands**	1.58%
6	**US**	3.45%	26	**Hungary**	1.53%
7	**Myanmar**	3.05%	27	**Spain**	1.47%
8	**Singapore**	2.77%	28	**Germany**	1.39%
9	**Korea, South**	2.72%	29	**Sweden**	1.31%
10	**Pakistan**	2.63%	30	**Canada**	1.24%
11	**Iran**	2.59%	31	**Türkiye**	1.23%
12	**India**	2.43%	32	**New Zealand**	1.18%
13	**Poland**	2.39%	33	**Thailand**	1.16%
14	**Serbia**	2.28%	34	**Japan**	1.08%
15	**UK**	2.23%	35	**Brazil**	1.05%

16	**Cambodia**	2.10%	36	**Philippines**	1.00%
17	**France**	1.94%	37	**Malaysia**	0.96%
18	**Australia**	1.90%	38	**Switzerland**	0.76%
19	**Finland**	1.72%	39	**Indonesia**	0.70%
20	**Italy**	1.68%	40	**Ireland**	0.23%

Source: SIPRI

The Stockholm International Peace Research Institute (SIPRI) compiles a database of military spending in both absolute terms and as a share of GDP. As SIPRI data is over a calendar year, it will differ from the financial year estimates, for example the Australian data shown for 2022 is 1.9% which differs from the 2022-23 financial year estimate of 2.05%.

While SIPRI research provides a good overall comparison of global Defence spending, there are several acknowledged anomalies that generally relate to the transparency of the country in question with respect to its defence spending. For example, while China releases an annual defence budget, there's much debate about its actual defence spending; many defence analysts suggest that it's much higher than the figures put forward by SIPRI.[8]

Approved acquisition projects

In terms of the size of approved acquisition budgets, the new air combat capability, with approved project expenditure of $18.2 billion, and the Hunter-class frigate, with approved expenditure of $7.2 billion, continue to dominate (tables 12 and 13). During 2023–24, the remaining 12 aircraft under the new air combat capability project will be delivered.

In the coming year, acquisition expenditure will centre on the purchase of 75 M1A2 Abrams tanks as it commences full-rate production in the US. Sustainment spends during 2023–24 will centre on the Collins-class submarines, capability upgrades for the F/A-18F and EA-18G aircraft, and moving all 72 F-35 aircraft to full operational capability. Figures 4 to 6 highlight the distribution of funding between the 10 largest projects involved, both in their approved budgets and in the expected spending over the coming year. It's likely that projects will have their scope and schedule amended over the coming year. The largest sustainment projects over the coming year will be led by the Collins-class submarines, the F/A 18 Super Hornets and Growlers and the F-35 Joint Strike Fighters.

Table 11: Top 10 acquisition projects by approved project budget, 2023-24 ($ million)

Acquisition project	Approved budget ($m)
New Air Combat Capability (Air 6000 Phases 2A/B)	18,182
Hunter-class Frigate – Design and Construction (SEA 5000 Phase 1)	7,181
P-8A Maritime Patrol and Response Aircraft System (AIR 7000 Phase2)	6,668
Naval Guided Weapons Sub Program (SEA 1300 Phase 1)	6,308
Mounted Combat Reconnaissance Capability (LAND 400 Phase 2)	5,785
Arafura Class Offshore Patrol Vessel (SEA 1180 Phase 1)	4,648
Armed Reconnaissance Helicopter Replacement (LAND 4503 Phase 1)	4,456
Growler Airborne Electronic Attack Capability (AIR 5349 Phase 3)	3,874
MRH Rapid Replacement (LAND 4507 Phase 1)	3,749
Advanced Growler Development (AIR 5349 Phase 6)	3,459
All other	76,143
Total	140,453

Source: 2023-24 Defence PBS Table 54

Table 12: Top 10 acquisition projects by planned spend 2023-24 ($million)

Acquisition project	Budget estimate
Main Battle Tank Upgrade, Combat Engineering Vehicles (LAND 907 Phase 2)	976
Hunter Class Frigate – Design and Construction (SEA 5000 Phase 1)	890
New Air Combat Capability (Air 6000 Phases 2A/B)	870
Mounted Combat Reconnaissance Capability (LAND 400 Phase 2)	825
MFH Rapid Replacement (LAND 4507 Phase 1)	676
Arafura Class Offshore Patrol Vessel (SEA 1180 Phase 1)	634
Naval Guided Weapons Sub Program (SEA 1300 Phase 1)	552
Multi-mission Uncrewed Aircraft System (AIR 7000 Phase 1B)	497
Ground Based Air and Missile Defence Enhancement (LAND 19 Phase 7B)	347
Enhanced Maritime Strike for Air Combat Capability (AIR 3023 Phase 1)	336
All other	6,302
Total All Acquisitions	12,905

Source: 23-24 Defence PBS Table 54

2.3 Workforce

The DSR and 2023-24 Defence PBS highlighted that Defence is facing significant workforce challenges. Defence had planned to lift the numbers in the ADF by 2201 to 62,063 over 2022-23. However, staffing actually fell by 1,389 to 58,473. That was 3,590 short of the ADF numbers that had been planned during the last financial year.

The Army experienced a larger than expected number of resignations, coupled with a reduction in recruitment which accounted for 1,000 of the fall in total numbers. However, the other services were also affected: Navy personnel dropped by 241, and the Air Force by 145. The civilian workforce achieved its planned staffing level.

As noted above, the fall is symptomatic of the strongest labour market in many decades. The government has responded with a pilot scheme offering retention bonuses of $50,000 to ADF members nearing the end of their contract. However, the fall in ADF numbers last year runs counter to the plan, announced by the former government in March last year, to lift ADF numbers by 30% to almost 80,000 by 2040, and for the total Defence workforce to surpass 101,000.

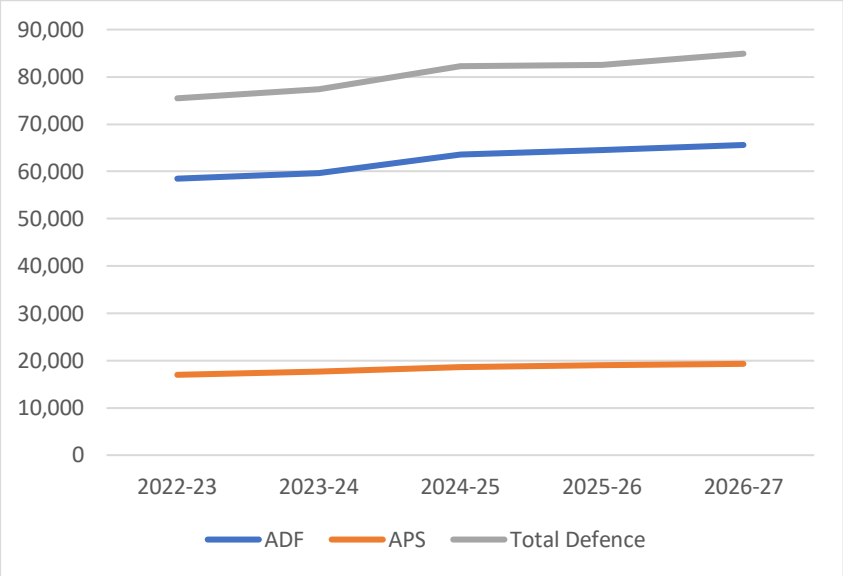
Defence expects the retention scheme to achieve quick results and predicts a 10.5% surge in ADF numbers over the next two years, lifting the ADF force to 63,597 full time staff by 2024-25, the same level expected before the past year's fall in numbers. Where the ADF last year had anticipated hiring just under 2,500 people between 2022-23 and 2025-26, it's now counting on recruiting an additional 6,059. Success in meeting that target will probably depend on there being an easing in labour market conditions.

The fall in numbers was mainly evident among the lower ranks. The Navy, Army and Air Force each exceeded their targets for one-star and above officers, whose numbers reached 240 compared with the 210 predicted in last year's budget. The number of SES personnel in the Defence Department also surpassed the Budget, reaching 196, compared with a forecast 185. The Navy and the Army also exceeded budget targets for senior officers, while the Navy and Air Force exceeded budget targets for officers. The Army fell short of its staffing target by 6.4% for officers and 8.8% for other ranks.

In March 2022 the then Government announced the intent to increase the Defence workforce by 18,500 by 2040, to a total of over 101,000 which is emphasised in the 2023-24 Defence PBS. The growth outlined in the PBS appears to be in addition to the growth projected in the 2016 DWP and the 2020 Force Structure Plan. The DSR and PBS are silent on whether that growth accounts for the acceleration of capabilities, including High Mobility Artillery Rocket System (HIMARs) and the Army amphibious capability outlined in the DSR, although, noting its announcement in March 2022, it's unlikely to do so. Therefore, Defence will probably need to reprioritise its workforce to address the acceleration of capability outlined in the DSR.

Figure 11 and Table 13 show Defence workforce growth and budgeted and actual numbers, respectively.

Figure 11: Defence Workforce Growth 2022-23, 2026-27



Source: 2023-24 Defence PBS

Table 13: Defence workforce 2022-23 to 2026-27

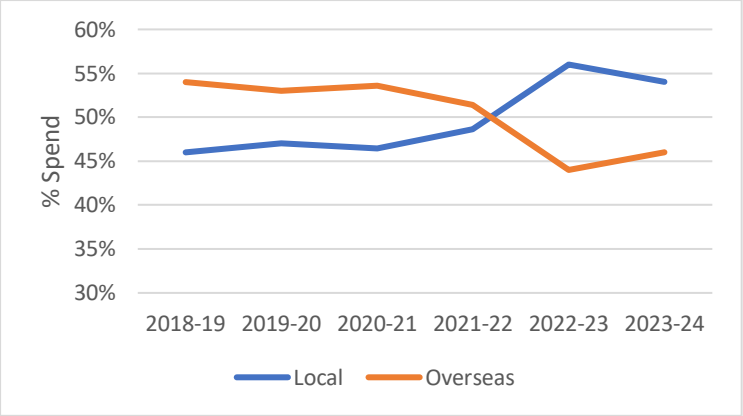
	March 2022-23 budget estimate for 2022-23	2022-23 estimated actual	2023-24 budget estimate	2024-25 forward estimate	2025-26 forward estimate	2026-27 forward estimate
ADF						
Navy	15,748	15,253	15,956	16,231	16,621	16,980
Army	30,977	28,397	28,536	31,342	31,546	31,816
Air Force	15,338	14,823	15,181	15,934	16,365	16,799
Total ADF	62,063	58,473	59,673	63,597	64,532	65,595
Civilian						
APS	16,991	16,991	17,713	18,669	19,045	19,310
Total ADF and APS	79,054	75,464	77,386	82,266	82,577	84,905

Source: 2023-24 Defence PBS Table 8

2.4 Defence industry

Figure 12 and Table 15 indicate that, over the past few years the local share of Defence's spend on equipment acquisition and sustainment has risen substantially while the corresponding level of overseas sourcing has declined. Although the local acquisition spend is expected to decline in 2023-24, the local sustainment spend is expected to rise. Overall, the trend is towards higher levels of Australian industry participation.

Figure 12: Total equipment acquisition and sustainment spends in Australia and overseas, 2018–19 to 2022–23 (%)



Source: Defence Department, May 2023

Table 14: Australian industry's share of total equipment acquisition and sustainment spend (CASG), 2018-19 to 2023-24 ($million)

	2018-19	2019-20	2020-21	2021-22	2022-23 forecast	2023-24 budget estimate
Acquisition						
Local	2,456	2,617	2,953	3,279	4,057	3,508
Overseas	5,555	5,360	6,372	6,242	5,314	5,536
Total	8,011	7,977	9,325	9,521	9,371	9,044
Sustainment						
Local	4,288	4,359	4,935	5,166	6,232	6,391
Overseas	2,482	2,629	2,726	2,686	2,912	3,060
Total	6,770	6,988	7,662	7,851	9,144	9,451
Total Acquisition and Sustainment	14,781	14,965	16,986	17,373	18,515	18,495
Local	6,744	6,976	7,888	8,445	10,289	9,899
Overseas	8,037	7,989	9,098	8,928	8,226	8,596

Source: Defence Department, May 2023

Forward estimates indicating that Defence's equipment spend on sustainment is expected to rise steadily through to 2027-28 should help to bolster demand for Australian defence industry output. The levels of Australian content associated with maintaining, repairing and modifying that equipment are consistently much higher—and tend to be more predictable—than for most equipment acquisition projects.

That situation may be exacerbated in the short to-medium term as Australia concentrates on strengthening its military capabilities by procuring equipment—including missiles—from overseas and

offsetting some of the associated costs by scaling back acquisition projects with higher levels of Australian content. However, that needs to be balanced against several factors.

One factor is that acquisitions that have a high strategic priority and require expedited delivery. In some cases, there is a tendency to favour a move to domestic production, offering greater opportunity for Australian-based companies. However, in certain cases, if sourced from abroad, overseas assembled equipment might still provide some opportunity for Australian input.

Moreover, a temporary delay in shifting to a higher level of defence industrial self-reliance might provide defence manufacturers and the government with breathing space to determine the best strategy for addressing chronic shortages of skilled labour, before large acquisition projects gather momentum, especially those relating to missiles, submarines, and naval surface combatants.

Chapter 3: Resourcing an integrated and focused force?

Key Points:

- The shift from a balanced to a focused force is expected to result in significant changes to the present and planned force structure.
- The government announced that the DSR recommendations will result in $19 billion worth of investments in the six priority areas. $11.8 billion comes from already extant funding in those areas, while $7.3 billion is new funding that must be absorbed into the defence budget.
- The 2023-24 defence budget provides limited clarification on how the ADF will transform from a balanced to a focused force, how much such a reshaping will cost and the impact that may have on existing projects, although it's clear there will be an impact.
- Adding complexity to understanding the sufficiency or otherwise of the defence budget, is a series of additional reviews which are planned to provide the government with a clearer picture of Defence's funding requirements.
- The budget papers forecast a significant decrease in unit availability days during the forward estimates across the RAN fleet meaning fewer surface units will be available to be employed on operations during that period.
- $457 million has been approved for the acquisition of an additional seven Ghost Bat aircraft, increasing the fleet to a total of 10 which is consistent with the DSR recommendations.
- Despite the DSR commentary on the requirement for an adjustment of the phasing of space projects and additional investment in smaller space acquisition projects, the space domain barely warrants a mention in the budget papers.

3.1 Overview

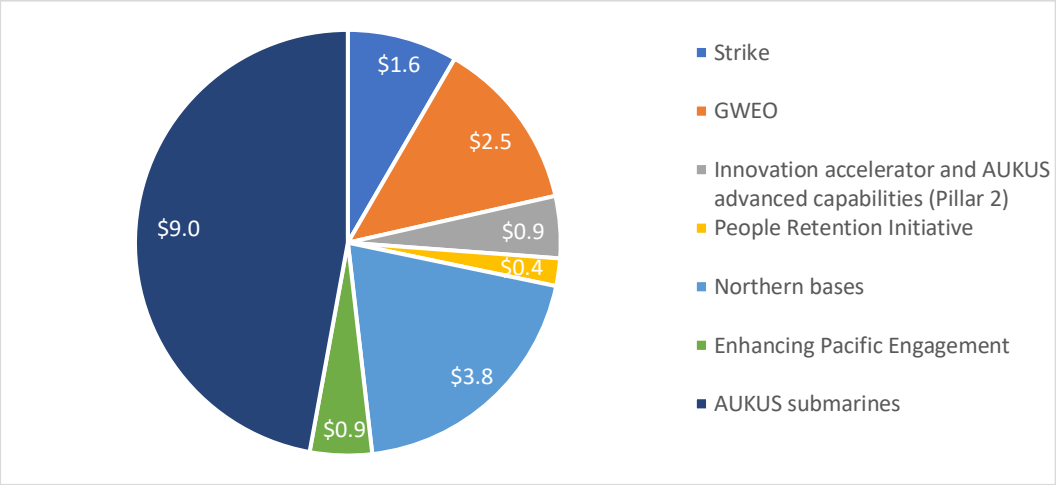
The DSR outlined the need for a more integrated, focused force and moved decisively away from the concept of a balanced force. The present ADF force structure has by and large been designed to meet the needs of a balanced force. The DSR defines a balanced force as a 'force is designed to be able to respond to a range of contingences when the strategic situation remains uncertain'.[9]

The DSR defines a focused force as 'a force designed to address the nation's most significant military risks'. Naturally, the shift from a balanced to a focused force could be expected to result in significant changes to the present and planned force structure through the cancellation, rescoping or delaying of capability acquisition projects now assessed to be a lower priority mission.

The DSR is clear about the need for the ADF to revise and reprioritise the IIP to achieve this. The government announced that the DSR recommendations will result in an initial $19 billion worth of

investments in the six priority areas directed by government across the forward estimates, representing 7.3% of the total defence budget over that period. The breakdown of the $19 billion investment in the six priority areas shown in Figure 13.

Figure 13: Breakdown of $19 billion DSR investments over the forward estimates ($ billion)



Source: Defence Department, 2023

Of the $19 billion worth of investments, approximately half are acknowledged in the recent Budget as new measures, while the rest are contained within the acquisition funding lines of the PBS.[10] $11.8 billion or 62% of the of the recommended investments in the six priority areas comes from already extant funding in those areas, while $7.3 billion or 38% is new funding that must be absorbed into the defence budget.

Of the $7.3 billion of new funding, approximately $6 billion has already been identified through the rescoping, delaying or cancellation of existing projects. A review of the Defence PBS makes plain that the DSR recommendations haven't yet been incorporated into the defence budget. Given the proximity of the release of the DSR to the release of the defence budget, that's understandable. However, as a result, the defence budget provides little insight into the changes that will be made to the IIP in the wake of the DSR.

Beyond the 70% reduction in infantry fighting vehicles (IFVs) and the cancellation of the second regiment of self-propelled howitzers it is not clear which projects will be rescoped, cancelled or delayed to provide the $6 billion worth of offsets, although some of those savings are expected to come from estate and infrastructure. The remaining $1.3 billion is expected to be absorbed by the defence budget, probably through over-programming of the IIP in the forward estimates. Of note, the DSR acknowledged that the IIP was already at least 24% over-programmed in the forward estimates. 24% over-programming means that there are already 24% more funds allocated in a financial year than exist in the funds allocated to that IIP (that is the capability acquisition and sustainment lines outlined in Table 4b of the PBS). The 2016 DWP recommended that Defence carry 20% over-programming of the IIP to account for project slippage or underspends, but the higher rate of over-programming in the forward estimates means that that money will need to be paid back eventually.

Beyond the $19 billion worth of announcements, the DSR provides limited guidance on the projected cost of its recommendations, although it highlights that Defence's budget is carrying significant pressures across acquisition, sustainment, workforce and operating costs.[11] Reasonably, the DSR acknowledges that 'the full cost of the Review recommendations will not be able to be fully quantified until Defence has analysed the capability recommendations in the review and costed them'.[12]

The key takeaway here is that the 2023-24 defence budget provides limited clarification on how the ADF will transform from a balanced to a focused force in the near term, how much such a reshaping will cost and the impact that may have on existing projects, although it's clear there will be an impact.

Beyond the forward estimates, the government does make allowances for the DSR's recommendation of an increase in defence funding in the medium term. This is evident in Budget paper no. 1, in which the Government has set aside $30.5 billion for increased defence spending over six years, from 2027-28 to 2032-33 in its 'contingency' fund. It was also confirmed by the Defence Minister Richard Marles who stated 'Ultimately, Defence spending will grow over the medium term, which is in line with the strategic circumstances'.[13] However, the timing of this relief in the medium-term, appears slightly at odds with the urgency of the strategic situation outlined in the DSR.

Adding complexity to understanding the sufficiency or otherwise of this allocation, is a series of additional reviews which are planned to provide the government with a clearer picture of Defence's funding requirements. Most will report during 2023-24. The reviews will cover:

- the surface combatant fleet structure,
- guided weapons and explosives ordnance,
- defence infrastructure and estate management,
- defence industry policy,
- logistics support,
- the ADF Reserves,
- national fuel storage.

The surface combatant fleet review is due in the third quarter of 2023, defence infrastructure and estate and the defence industry policy review by the end of 2023, guided weapons and explosives ordnance stocks by the second quarter of 2024, guided weapons manufacture by mid-2024 (with a commitment to commence domestic production two years from now),[14] logistics support by 2025, the ADF Reserves by 2025, and an expanded national fuel storage capacity by an unspecified date.

Over the next 10 years, the defence budget is oversubscribed by at least $42 billion—$7.9 billion for ASD's REDSPICE program to strengthen Australia's intelligence, offensive and defensive cyber capabilities, $32.2 billion for a GWEO enterprise, and $1.9 billion for the technology component of AUKUS.[15] Not mentioned in the DSR is that further pressure on the Budget will come as expenditure on AUKUS nuclear-powered submarines begins to outstrip the funding already set aside for the cancelled Attack-class project.

3.3 Issues by domain

Maritime

The defence budget provides no real surprises for the maritime domain in the light of the DSR recommendation that the surface combatant fleet be reviewed in the third quarter of 2023 and the significant AUKUS optimal pathway decision. It's likely that the 2024 National Defence Strategy and subsequent defence budget will generate more significant movements in the maritime domain, particularly in relation to surface ships and uncrewed and undersea warfare capabilities. The 2023-24 Budget does, however, provide some insights into unit availability trends, capability upgrades to the eight ANZAC-class frigates, shipbuilding, and submarines.

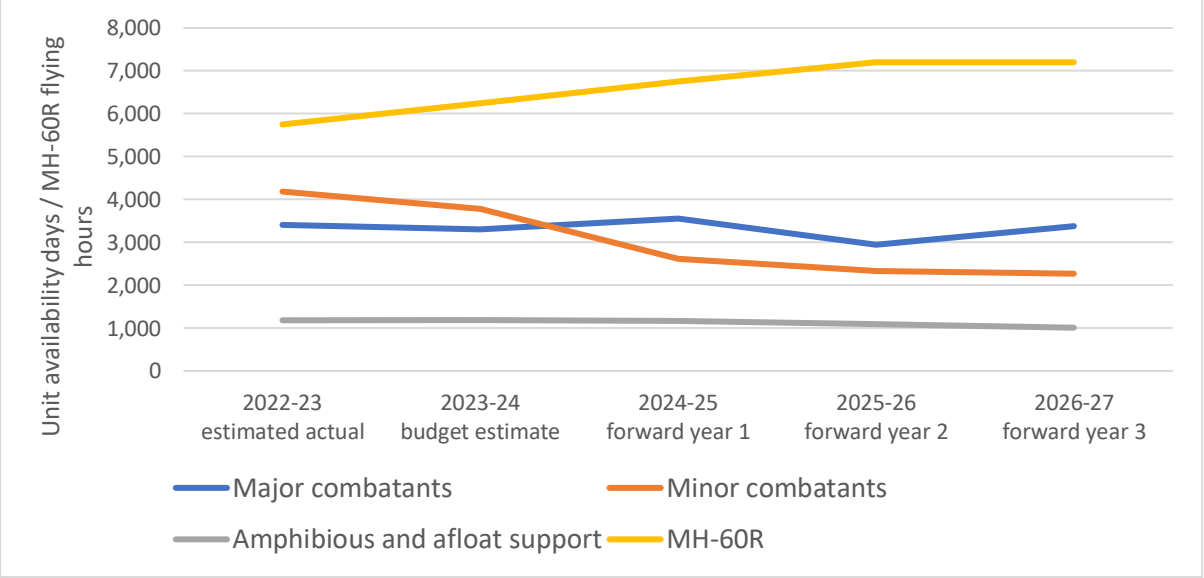
Aviation and surface fleet availability trends

The budget papers forecast a significant decrease in unit availability days (UAD) during the forward estimates across the RAN fleet, as highlighted in Figure 14 below. A UAD is defined in the Defence PBS as 'a day when a unit is materially ready and its personnel state and level of competence enables the unit to safely perform tasks in the unit's normal operating environment, immediately'. Table 22 of the Defence PBS reveals that major surface combatant UADs will reduce in the forward estimates. Major surface combatant (frigates, destroyers, submarines) UADs are predicted to reduce by 14% in 2025-26, before almost regaining the 2022-23 availability numbers in 2026-27. The slump in major combatant UADs in the forward estimates is attributed in the Defence PBS to the ANZAC-class frigate and the Hobart-class destroyer transition and upgrade plans.

Minor surface combatant UADs (patrol boats and mine hunters) will reduce by 46% across the forward estimates due to the transition from the Armidale-class patrol boat to the Cape-class patrol boat. The reduction in both major and minor surface combatant UADs over the forward estimates is a concern, as fewer surface units will be available to be employed on operations during that period. This means that, during this period of upgrades, the Navy will have to do more with less.

On a more positive note, the Defence PBS reveals a significant increase in flying hours for the Navy's MH60R Seahawk of over 25% in flying hours for the Navy's fleet of 24 due to anticipated continued progress in the remediation of workforce shortfalls.

Figure 14: RAN ship, submarine unit availability days / MH60R helicopter flying hours



Source: Defence PBS, Table 22.

Anzac-class frigates

It will be no surprise to defence commentators that the 2023–24 defence budget provides for the extension of the Anzac-class frigates. The Navy's eight Anzac-class frigates are due to be replaced by nine Hunter-class frigates. The original planned withdrawal date of the Anzac class was scheduled to occur between 2024 and 2033; however, the Hunter class is now not expected to enter service until 2031 at the earliest. Subsequently, the Defence PBS reveals that the Anzac class will require an average of a nine-year extension per ship to see the fleet through until the delivery of the Hunters. To achieve that, the 2023–24 defence budget provides for $133 million to continue the Transition Capability

Assurance Program (TransCap) that is designed to accommodate 'weight, space and power margins to accommodate capability insertions to keep the ships relevant to the threat'.[16]

Naval Surface Shipbuilding

The Budget establishes Naval Shipbuilding and Sustainment Group (NSSG) as a new program, appointing Rear-Admiral Wendy Malcolm as the acting Deputy Secretary, replacing outgoing Deputy Secretary Tony Dalton. This is consistent with the establishment of the group in October 2022. The Defence PBS outlines that the objective of the NSSG is to:

> 'To deliver maritime capability through the acquisition and sustainment of naval vessels for Navy and Army, while supporting the development of continuous naval shipbuilding key enablers in Australia, including the development of a secure, sovereign industrial base, infrastructure, and an appropriately skilled and experienced workforce'.[17]

The Budget provides $1.1 billion to support the establishment of the NSSG program.[18] This program is likely to be key to enacting recommendations from the surface combatant fleet review.

AUKUS – Nuclear-powered submarines

The Budget establishes a new program created in March 2023: the Nuclear-Powered Submarines program to support the acquisition of nuclear-powered submarines under the AUKUS optimal-pathway. The program will be managed by the Australian Submarine Agency (ASA), a key recommendation of the DSR, due to be established on 1 June 2023. The Budget provides an allocation of $5.6 billion to this project over the forward estimates, the remaining $3.3 billion of the $9 billion quoted in the DSR press-release towards AUKUS submarines is reflected against other projects.[19]

The 2023-24 Budget provides no insight, however, into how the defence budget will accommodate the $368 billion price tag associated with the AUKUS optimal pathway for submarines over the next 30 years. The Budget also provides little insight into the breakdown of the $368 billion, although it's understood that this figure involves $123 billion in continency funding, which represents a 50% contingency allocated for potential unexpected costs associated with the project.[20] It's common for IIP projects to have a contingency figure associated with them, but that's generally in the vicinity of 10%. The 50% contingency of $123 billion gives an indication of how loose the $368 billion estimate is, which is not entirely unreasonable given both the complexity of the project and the timeframe over which it will be delivered.

What is clear, however, is that the $368 billion price tag will be difficult to squeeze into the defence budget without further increases, beyond the $30.5 billion contingency funds allocated in the Budget from financial year 2027-28.

Collins-class submarine life-of-type extension

The Budget provides some further insight into the Collins-class submarine life-of-type extension foreshadowed in previous budget papers. It allocates a further $160 million to the project for financial year 2023–24.

The Budget highlights that HMAS *Farncomb*, the second of the Collins' class submarines, will be the first to undertake the life-of-type extension at Osborne in South Australia from mid-2026, which should see her extended until 2038. Based on this timeline, *Farncomb*, one of six Collins-class submarines, will decommission before the AUKUS submarines have started to be built.

Air

Aviation assets

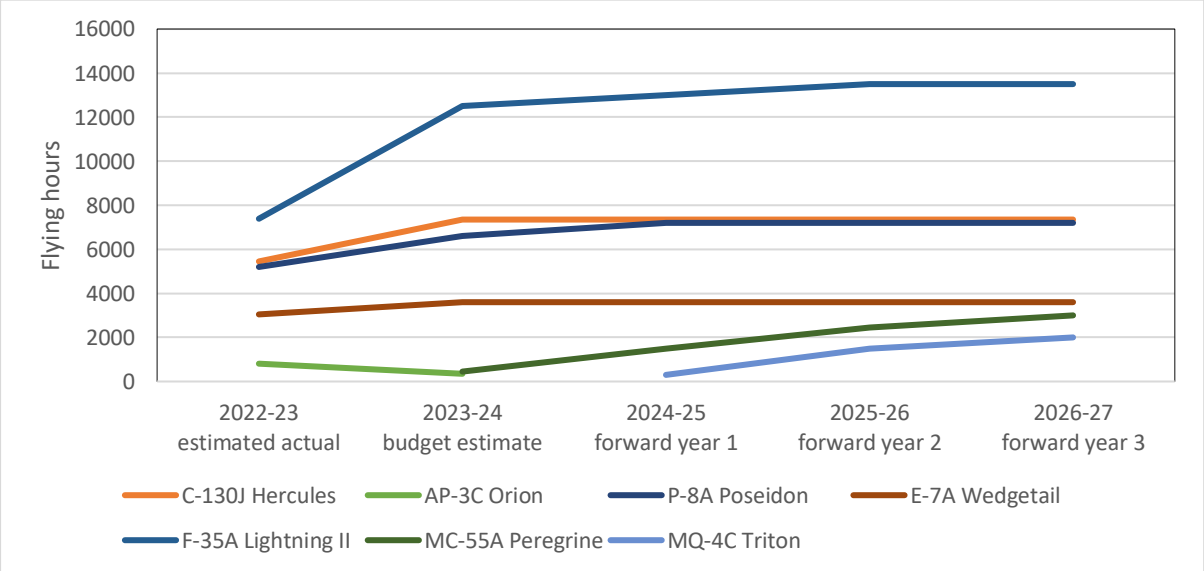
There are no significant changes to the air domain in the 2023-24 budget papers. The F-35A Joint Strike Fighter (JSF; AIR 6000 Phase 2A/B) remains the largest approved expenditure within the acquisition program; approved expenditure to date totals $18.2 billion. The final 12 of a total of 72 F-35As are expected to be delivered in 2023-24, and the aircraft is expected to achieve full operational capability in the same year. This is evident from the planned 70% increase in available flying hours for the F-35A from 2023-24.[21]

The 2023-24 Defence PBS provides some insight into the operational capability of several RAAF aircraft types through its flying hours projections. Figure 15 below shows the planned withdrawal of the AP3C Orion from service in the forward estimates, coinciding with an increase in P-8A Poseidon operating hours, reflecting the fleet's ongoing introduction into service. This was largely expected as the P-8A Poseidon had been approved to steadily increase to a fleet of 14.

Also, not unexpectedly the MC-55A Peregrine electronic warfare aircraft will also enter service from 2023-24; a fleet of four has been approved for acquisition.

MQ-4C Triton remotely piloted aircraft for maritime patrol and intelligence, surveillance and reconnaissance (ISR) will enter service in 2024-25. The acquisition of three aircraft has been approved, although that number, is likely to increase in line with the DSR recommendations on uncrewed capabilities.

Figure 15: RAAF aircraft flying hours (selected platforms only)



Source: Defence PBS Table 27

The DSR outlines the acquisition of this sovereign autonomous capability as a priority investment for the air domain. In keeping with that recommendation, the Defence PBS shows that $457 million has been approved for the acquisition of an additional seven aircraft, increasing the Ghost Bat fleet to a total of 10.

Aviation weapons

$902 million of approved expenditure has been allocated to the acquisition of enhanced air-to-air weapons for the JSF. Throughout 2023-24, the project will continue to acquire AIM-9X Sidewinder and AIM-120D advanced medium-range air-to-air missiles.

In line with the DSR recommendation, the Defence PBS highlights that $766 million in project expenditure has been approved, of which $336 million is expected to be spent in 2023-24 to progress the integration of the Long-Range Anti-Ship Missile and the Joint Strike Missile into the F35A JSF, although no expected date of initial or final operational capability is provided.

Land

The Budget reveals little new information about the land domain, with many of the DSR recommendations yet to be considered in full. However, it does provide some clarity on Army aviation and M1A2 tanks.

Infantry Fighting Vehicles: Land 400 Phase 3

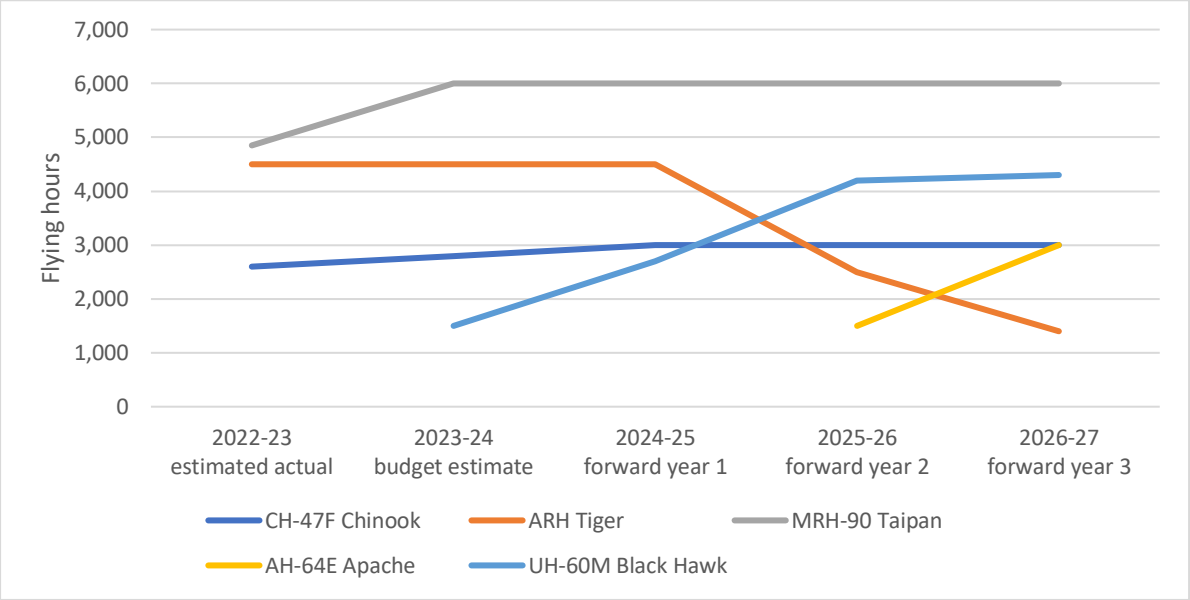
The 70% reduction in IFVs announced under the DSR represents a significant change to the Land domain, which although not referenced in the budget papers, warrants acknowledgment. As detailed in Chapter 1, the savings from this reduction are expected to fund a significant part of the $19 billion investment into DSR recommendations across the forward estimates, although it's not clear just what percentage will be contributed by LAND 400 Phase 3 offsets, given the infancy of the project.

Army aviation

The Army's transition from the ARH Tiger attack helicopter to the AH-64E Apache attack helicopter will continue despite some criticisms of the relevance of this capability. Aircraft deliveries of the Apache are to commence in the third quarter of 2025 and eventually increase the fleet to 29. The introduction of the Apache is consistent with the estimated reduction in flying hours for the ARH Tiger from financial year 2025-26.[22]

Meanwhile the UH60M Black Hawk utility aircraft will enter service from 2023-24, and deliveries of the aircraft are expected to commence in the second quarter of 2023. The Army is expecting to eventually operate a fleet of up to 40. Although the Black Hawks are entering service to replace the controversial MRH-90, it isn't clear from the budget papers when the MRH-90 will begin to reduce operations and withdraw from service, as that decision is still subject to planning.[23] Flying hours for selected Army aviation capabilities are shown in Figure 16.

Figure 16: Army aviation estimated flying hours over the forward estimates.



Source: Defence PBS, Table 27

M1A2 tanks (Land 907 Phase 2)

$2.3 billion has been approved for expenditure on the delivery of 72 M1A2 Abrams main battle tanks to replace the current in-service capability, and $225 million has been expended to date. The main battle tanks and combat engineering vehicles under LAND 907 Phase 2 will commence their full rate of production in 2023-24.[24]

There had been significant speculation in the lead up to the DSR that tanks would be rescoped or cancelled in line with the transformation to a more focused force. However, based on the budget papers it appears that this project was probably too advanced to make any significant adjustments, even if an argument could be made that capability did not fit with the DSR guidance on a focused force.

Hawkei -Protected Mobility Vehicle - light (Land 121 Phase 4)

The budget papers shed little light on the protected light mobility vehicle which has recently gained prominence due to Ukraine's calls for Australian to 'free the Hawkei' by gifting some of the capability to Ukraine. The 2022-23 budget papers stated that it was expected that the project would finalise the remediation of problems with the Hawkei's brakes in 2023 and achieve full operational capability. However, this capability and its challenges do not warrant a mention in the current budget papers, so the status of this project is unclear.

Army littoral capability

The DSR recommends the prioritisation of accelerated investment in Army littoral manoeuvre capability and long-range strike through the acquisition of Precision Strike Missile (PRsM) and Army Tactical Missile System (ACTACMs) missile for the HIMARs missile system. However, the Defence PBS doesn't provide any insights into the scale of investment into these capabilities or the timeframes in which they'll be delivered. This will need to be a key consideration of the IIP re-prioritisation.

Space

The DSR states that:

> 'Space Command has the requisite funding for large projects allocated in the IIP but it is not phased correctly. Space Command also requires additional investment for smaller, rapid acquisition projects'.[25]

Despite the DSR commentary on the requirement for an adjustment of the phasing of space projects and additional investment in smaller space acquisition projects, the space domain barely warrants a mention in the budget papers. This indicates that there's a gap in the current understanding of the domain and its capabilities, both as a stand-alone operational domain and as an enabler. There can be no precision or long-range strike without space capabilities providing the necessary Intelligence, Surveillance and Reconnaissance and the US Global Positioning System supporting necessary precision navigation and timing. Australia can continue to rely upon the US for these kinds of high-end capabilities, but increasingly cheaper and commercially available options to augment or offer redundancy for GPS, for example, are becoming available. For concepts essential to underpin US and allied space operations, space capabilities that offer resilience and responsiveness are key.

Australia's natural geography, the announcement of the conclusion of negotiations on a bilateral Technical Safeguards Agreement (that will enable the transfer of relevant launch technology and would allow US commercial launch companies to operate from Australia), and the capabilities that are inherent strengths in Australia's space industry all mean that this is a domain in which Australia could make a significant contribution to its own and to allied deterrence and defence efforts. It can increasingly do so for significantly less investment.

Space has always been a key domain for deterrence – a central plank of the National Defence strategy under the DSR. The new direction of the DSR may explain the lack of insights on space capabilities, but the decreases in the Budget for civil and commercial space, especially for the development of Australian space port infrastructure and access to global supply chains - coinciding as they did with the breakthrough in the Technical Safeguards Agreement negotiations – points to a lack of coherence in budget and approach. We would expect to see further developments in this area in the 2024 National Defence Strategy and subsequent Budget.

Information and cyber domain

The 2023-24 Budget reveals no significant changes for the information and cyber security domain within Defence, except a small $3.9 million of additional funding to cyber security spelled out in the Budget measures.[26]

This measure provides $3.9 million of new funding in 2023-24 to support the transition out of the Cyber Hubs program. This funding is for the decommissioning of cyber hubs services and off-boarding client entities.[27]

The significant movement within this domain is an increase in funding to ASD. The Budget outlined an estimated outlay of $8.3 billion to ASD during the forward estimates; the projection has increased by $4.2 billion, effectively a 50% increase in the recent Budget.

It's important to recognise that cyber capabilities – both defensive and offensive – are not the same as information capabilities. Cyber warfare isn't analogous to information warfare. The DSR explicitly recognises Chinese coercion as a risk and a threat: while that includes economic coercion, it is not

limited to that realm and the information domain is foundational to Beijing's application of concepts like coercion, compellence, influence and deception. Yet the information domain (which sits horizontally across the traditional 'vertical' domains of land, sea and air and the newer domains of cyber and space) gets no air-time at all. Neither the DSR nor the Budget provides any information on how Defence should develop its capabilities for information warfare or information operations, which would seem prudent given the central position they occupy in Chinese strategy and military doctrine.

Chapter 4: Budgetary risks to achieving the DSR

Key Points:

- Defence's ability to recruit and retain its personnel remains the primary risk to achieving the plan outlined in the DSR and the defence budget.
- Re-prioritisation of the IIP in order to afford the additional requirements squeezed into the defence budget is likely to prove a significant challenge for Defence. With no budgetary relief in the short-term, Defence will need to accommodate the impacts of inflation, DSR initiatives and nuclear-powered-submarines within its existing budgetary envelope.
- Should an increase in Defence funding not manifest in the short to medium term it would generate significant risk to Defence's ability to develop the integrated, focused force required to meet our strategic circumstances.
- The DSR strategy depends on Defence being able to streamline its equipment procurement process, improve the way technology spending is managed, re-align defence industry policy.

4.1 Workforce

Chapter 2 outlines Defence's expected planned growth of the ADF and the challenges it has faced to date with recruitment and retention—notably the reduction of the ADF in 2022–23 by 1,389 personnel. The workforce challenge is further exacerbated by an overheated economy and its impact on unemployment rates as outlined in Chapter 1 and the workforce challenges also being experienced in the defence industry due to similar pressures.

The Defence PBS outlines a number of initiatives that Defence and the government have undertaken to address what's been a retraction in the ADF in 2022–23 despite the intended growth. Those initiatives include the establishment of a recruiting and retention 'tiger team', improvements to the Defence Assisted Study Scheme and Study Bank, the announcement of the new ADF continuation bonus and the ongoing ADF employment offer modernisation program. Despite those initiatives, Defence's ability to recruit and retain its personnel remains the primary risk to achieving the plan outlined in the DSR and the defence budget.

4.2 Integrated Investment Program prioritisation and medium-term funding

Despite the inclusion of costs associated with the AUKUS optimal submarine pathway and the DSR recommendations, the defence budget hasn't increased in real terms, and in fact over the period 2023-24 to 2025-26 it is less than that laid out in the March 2022 Budget (once foreign exchange adjustments are accounted for). The DSR articulates that to accommodate for the additional expenditure in the forward estimates, Defence will need to re-prioritise the IIP. This re-prioritisation will be required to harness the savings to fund not only AUKUS and current DSR requirements, but also to manage over-programming and force structure changes required by the shift to an integrated focused force, that will likely go well beyond those changes articulated in the DSR.

This will be a challenging task as Defence will need to make some hard decisions on what existing or planned capability acquisition and sustainment lines will have to be rescoped, rephased on cancelled to ease the significant pressure on the defence budget. This IIP re-prioritisation will most likely result in significant changes to the scope of projects within the top 30 military equipment acquisition program approved projects outlined in the PBS.[28]

Even if Defence is able to effectively re-prioritise the IIP to generate the initial $7.3 billion worth of savings required in the forward estimates, it will still have significant challenges to address the current level of over-programming in the IIP. These challenges do not take into account the further changes to force structure that will be required as Defence comes to terms with what is required of an integrated, focused force. Defence is unlikely to be able to achieve the above without a further increase in funding in the short-to medium term, beyond the contingency figure of $30.5 billion between 2027-33 outlined in the 2023-24 Budget. Should this increase in funding not manifest, that would generate significant risk to Defence's ability to develop the integrated, focused force required to meet our strategic circumstances.

4.3 Equipment and procurement processes

The need for reform of innovation and capability acquisition is clear in the DSR. There are numerous examples globally of programs and policies that partners and allies are applying to excellent effect to get new technology and emerging capability into the hands of warfighters faster and more safely. Australia is a slow follower in this regard. Partnerships such as AUKUS must be leveraged to drag up our capabilities and innovation eco-system. This needs to be matched by investment, and that doesn't appear to be forthcoming in any meaningful way. The discussion in Chapter 5 of this paper on Australian defence investment in innovation and industry expands on this and unfavourably compares Australian investment to that of our AUKUS partners.

The DSR strategy depends on Defence being able to streamline its equipment procurement process, improve the way technology spending is managed, re-align defence industry policy and most of all determine how to attract more people before additional funding can be applied successfully. The risks associated with each of those initiatives are high.

Chapter 5: Future focus and defence priorities

Key Points:

- The creation and funding of ASCA is a positive development, however, whether this will prove to be the right model to deliver the intended effects, including the necessary embrace of risk and the fast fail/fast learn mindset of the commercial sector and successful innovation systems is yet to be seen.
- There is a state of flux in defence acquisition plans, as priorities are re-assessed in the wake of the DSR and the savings needed to support the AUKUS nuclear-powered submarine program, which may be unsettling to Defence's industry partners.

5.1 Technology development and innovation

Innovation was announced as one of the government's six priority areas, following the release of the DSR, specifically 'Lifting our capacity to rapidly translate disruptive new technologies into ADF capability, in close partnership with Australian industry'.[29]

$900 million has been put aside during the forward estimates to service this priority. The $900 million includes $748.4 million that will go directly to funding the Australian Strategic Capability Accelerator (ASCA) with the remainder supporting AUKUS Pillar II activities. Of the $900 million set aside to accelerate innovation in the forward estimates, approximately $600 million of this comes from existing projects, and $300 million will be new money that will need to be found as part of the $7.3 billion in the forward estimates.[30] It is not clear at this stage what capabilities will be considered under the AUKUS pillar II activities and therefore, it is not clear what overall costs might be associated with this endeavour in the forward estimates.

Over the 10-year period, government has announced $3.4 billion will be allocated to fund the ASCA, all of which will be met from Defence's existing resources to deliver a cost neutral outcome.[31]

However, the metric that perhaps matters most is that funding of $3.4 billion over the coming decade represents a net increase in the Department's spend on defence innovation of $557 million or approximately $56 million annually. A rise of that magnitude suggests a portion of the money for funding the technology element of AUKUS will come from Defence's Science and Technology Group annual budget of around $600-800 million[32]. That's consistent with both official calls for the group to align its funding and resources more closely to AUKUS objectives and with the somewhat limited nature of its current activities closely related to the agreement.

Contributions from the government's recently established National Reconstruction Fund could notionally add to the funding Defence has available. However, the $15 billion budget set aside for reconstruction is spread over seven years, divided between seven industry categories, guarantees only $1 billion for the kinds of technologies most relevant to Defence, leaving a figure of perhaps $50 million each year for AUKUS, DSR and other technologies directly relevant to the ADF.[33]

Whilst funding of $3.4 billion or $340 million on average each year to ASCA does not represent the total planned innovation spend within the defence budget over the decade, it does still appear modest especially compared to our AUKUS partner the US. The US Department of Defense spends more than

US$120 billion per year on research, development, testing, and evaluation, including more than US$15 billion for early-stage science and technology.[34]

However, it needs to be kept in mind that Defence's innovation programs appear not to have performed as well as they might.[35] It can therefore be argued that to channel large amounts of additional resources into that area without first having created and tested a new administrative support structure in the form of the ASCA would have been imprudent.

Starting on 1 July, ASCA will 'focus on defined missions, solving the most relevant technical issues, and taking a more flexible and agile approach to procurement'.[36] Following 18 months it will test whether the funding allocated is adequate.[37] The Accelerator will be situated inside Defence for now and a group of three senior officials within the Department will be responsible for its oversight.[38] Whether this will prove to be the right model to deliver the intended effects, including the embrace of risk and fast fail/fast learn mindset of the commercial and successful innovation systems is yet to be seen.

DSR authors expressed a clear view that 'the ASCA must be an unencumbered entity outside of Defence that receives capability priorities from Force Design Division and works with industry to develop innovative asymmetric capability solutions'. The necessity of this separation from Defence as being critical to delivering successful outcomes is shared by many experts and practitioners. There is a reason that then-Secretary of Defense in the US, Ash Carter, himself a physicist and deeply expert on technology and innovation, established the Defence Innovation Unit in Silicon Valley.

With limited funds available, the work of the ASCA might usefully begin by clarifying the range of technologies it considers most important to support. Defence already has a set of industrial research, design and development (RD&D) capabilities that it considers critically important to retain in Australia for military-strategic reasons. Those have been identified in a series of development and implementation plans for Sovereign Industrial Capability Priorities (SICPs).[39] It is unclear how the concept and transition of current SICPs will be affected by the creation of the ASCA and the review of defence industry strategy.

To help industry and Defence, it's important to determine the degree to which the technologies highlighted by AUKUS and the DSR align with those identified as critical under SICPs and to arrive at a common list of technologies with preferred status. That should go a long way towards resolving the problem of Defence sponsoring RD&D projects but then failing to purchase from Australian industry the material and components inputs to the military equipment it helps deliver.

Within that framework a case can be made for two additional measures. First, there's a need for stronger support for small businesses engaged solely in RD&D defined as critical when bidding for assistance under Defence's industry assistance programs not only for innovation but workforce skilling and exports. Second, those materials and components should be given priority by Australia in its negotiations with the US and UK on work share agreements under AUKUS.

Exploiting the advantages of joint efforts and minimising any obstacles that working together, even with close allies, might create is essential.[40] Progress can be made by better understanding the pros and cons of a cooperative approach to innovation, and the practical barriers to enhanced collaboration. That can be achieved by better understanding recent domestic industry experience, how similar joint ventures have fared, and how innovative approaches to cooperation might be structured.

Finally, the available evidence suggests that economic gains are likely to come from the generation of spillovers in the form of new technologies and new skills which move from Defence-sponsored RD&D to boost productivity in other areas of the economy. Economic modelling to help refine understanding of how defence and adjacent industries can contribute to broader economic outcomes and opportunity should be developed to build out the necessary data in Australia to make better informed policy decisions in this area.

5.2 Defence industry policy

The state of flux in defence acquisition plans, as priorities are re-assessed in the wake of the DSR and the savings needed to support the AUKUS nuclear-powered submarine program, may be unsettling to Defence's industry partners.

With discussion on cuts to some acquisition programs to fund new acquisitions, there is concern that recent investment by industry will be wasted and both capital and workforce may flee to other, more profitable sectors of the economy. While there remains as much debate about 'sovereign' capabilities and AUKUS Pillar II elements, industry's ability to quickly tool up to meet Defence's needs will become increasingly challenging – particularly in the overheated economy noted above.

That said, domestic defence industry partners have been increasing their share of Defence procurement. Over the past few years, the local share of Defence's spend on equipment acquisition and sustainment has risen substantially while the corresponding level of overseas sourcing has declined. Although the local acquisition spend is expected to decline in 2023-24, the local sustainment spend is expected to rise. Overall, the trend is towards higher levels of Australian industry participation.

Availability and value for money

Availability goes to the heart of the strategic dilemma Australia now faces. The focus is on ensuring not only that the industrial capabilities essential to the ADF are clearly identified but that their 'health' is monitored regularly, and suitable measures are in place to intervene in the market should a capability shortfall arise.

Simply identifying an industrial capability as important for Australia to hold in-country isn't enough. It's necessary to be able to take the next step of being assured that those capabilities exist and having a strategy in place to address any problems that might emerge. For critical capabilities, the costs of any intervention, including paying a price premium for preferring domestic over foreign supply, might be outlays that must be made.

Value for money centres on ensuring that the Australian content of whatever equipment is assembled in Australia is set to reflect not only the potential for long-term military-strategic gains but significant economic benefits—ideally in a way that improves Australia's overall productivity on which funding for national security ultimately depends.

The challenge

The DSR has identified attracting a suitably qualified workforce as among the most significant challenges to Australia developing a higher level of defence industrial self-reliance. Skills shortages

tend to prevail across the defence industry even during periods of high national unemployment, indicating the need for purpose-designed training and other related measures to develop domestic labour markets.

Those initiatives will eventually require greater insight into the extent of the skills needed, where shortages are expected to be most acute, the strengths and weaknesses of competing options for increasing labour supply, the impediments to each option being pursued, and the lessons learned from previous attempts to increase the skills base of Australia's defence industry.

However, although skilling programs have an important and even crucial role to play they're not without risk on a number of levels. More importantly, even if the programs functioned perfectly, labour market trends are inherently so difficult to predict that an unknown level of risk will always remain. Expressed another way, Defence might be able to influence labour markets but that's not the same as control.

Given that Australia must, not might, have access to an expanded range of military equipment assembled in Australia, supply-side efforts to train a suitably skilled workforce should be coupled with demand-side efforts to carefully manage Australian content in order for both technical and financial risk to be managed effectively and to prevent defence markets from 'overheating'.

The industry policy review

In early February this year the government recognised the need to act by announcing an industry policy review.[41] To be conducted internally by Defence, the review will report during the second half of 2023. It will apparently focus on 'hard-edged analysis of what are the key sovereign capabilities we need in this country, and where defence needs to make investments to sustain those sovereign capabilities.' Rather than trying to be 'all things to all people', a new policy will focus on 'narrowing and more clearly defining' the defence industrial capabilities essential to retain in-country.

Driving the initiative is a desire to end minimum quotas for local content for major military contracts in order to meet the challenges of, among other things, building nuclear-powered submarines and long-range missiles in Australia. The government considers that 'obsession has gone too far',[42] and that high-value adding content needs to be identified more clearly.

The shape of the industry policy review was clarified somewhat on 24 April this year with a media statement coinciding with the release of the public report of the DSR. That statement noted a Defence Industry Development Strategy will be completed later this year setting out the strategic rationale for a sovereign defence industrial base, more targeted and detailed SICPs, a plan to grow industry's workforce to deliver a viable industrial base and increase Australia's defence exports, reforms to defence procurement to support the development of Australian defence industry and respond to the review, mechanisms to improve security within defence businesses, and a detailed implementation plan.[43]

A review is welcome. However, effective monitoring of the recommendations and outcomes is vital for providing industry with the certainty it needs to invest in Australia's national security.

Acronyms and Abbreviations

ACTACMS	Army Tactical Missile System
ADF	Australian Defence Force
APS	Australian Public Service
ASA	Australian Submarine Agency
ASCA	Advanced Strategic Capabilities Accelerator
ASD	Australian Signals Directorate
AUKUS	Australia, United Kingdom, and United States partnership
CASG	Capability Acquisition and Sustainment Group
DSR	Defence Strategic Review
DSU	Defence Strategic Update
DWP	Defence White Paper
GDP	Gross Domestic Product
GPS	Global Positioning System
GWEO	Guided Weapons and Explosive Ordnance
HIMARS	High Mobility Artillery Rocket System
IFV	Infantry Fighting Vehicle
IIP	Integrated Investment Plan
ISR	Intelligence, Surveillance and Reconnaissance
JSF	Joint Strike Fighter
NSSG	Naval Shipbuilding and Sustainment Group
PBS	Portfolio Budget Statements
PRsM	Precision Strike Missile
RAN	Royal Australian Navy
RD&D	research, design and development
SICPs	sovereign industrial capability priorities
SIPRI	Stockholm International Peace Research Institute
TransCap	ANZAC Class Frigate Transition Capability Assurance Program
UAD	unit availability days
UN	United Nations

Notes

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[4] Budget paper no. 1, Australian Government, 2023, 98.
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[16] Defence PBS, 23–24.
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[19] Defence PBS, 23–24, 88.
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[21] Defence PBS, 23–24, Table 54, 116.
[22] Defence PBS, 23–24, 64.
[23] Defence PBS, 23–24, 62.
[24] Defence PBS table 54, 121
[25] *National Defence Strategic Review 2022–23,* 62.
[26] Defence PBS, 23–24, Table 2, 14.
[27] Details provided by the Department of Defence 26 May 2023.
[28] Defence PBS table 54, 116.
[29] Minister for Defence, 'Release of the Defence Strategic Review' 24 April 2023.
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[31] Minister for Defence, Minister for Defence Industry, 'Government announces most significant reshaping of Defence innovation in decades to boost national security'.
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