



# **PLANNING, PROGRAMMING, BUDGETING, AND EXECUTION IN COMPARATIVE ORGANIZATIONS**

**VOLUME 5**

Additional Case Studies of Selected  
Allied and Partner  
Nations

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# About This Report

The U.S. Department of Defense (DoD) Planning, Programming, Budgeting, and Execution (PPBE) process is a key enabler for DoD to fulfill its mission. But in light of a dynamic threat environment, increasingly capable adversaries, and rapid technological changes, there has been increasing concern that DoD's resource planning processes are too slow and inflexible to meet warfighter needs.<sup>1</sup> As a result, Congress mandated the formation of a legislative commission in Section 1004 of the National Defense Authorization Act for Fiscal Year 2022 to (1) examine the effectiveness of the PPBE process and adjacent DoD practices, particularly with respect to defense modernization; (2) consider potential alternatives to these processes and practices to maximize DoD's ability to respond in a timely manner to current and future threats; and (3) make legislative and policy recommendations to improve such processes and practices for the purposes of fielding the operational capabilities necessary to outpace near-peer competitors, providing data and analytical insight, and supporting an integrated budget that is aligned with strategic defense objectives.<sup>2</sup>

The Commission on PPBE Reform requested that the National Defense Research Institute provide an independent analysis of PPBE-like functions in selected other countries and other federal agencies. This report is part of a seven-volume set of those case studies. The first four volumes were published in early 2024. Volume 1 analyzes the defense budgeting processes of China and Russia. Volume 2 analyzes the defense budgeting processes of Australia, Canada, and the United Kingdom. Volume 3 analyzes the budgeting processes of four U.S. federal agencies other than DoD. Volume 4, an executive summary, distills key insights from Volumes 1 to 3. This current report, Volume 5, analyzes the defense budgeting processes of additional allied and partner nations (France, Germany, Japan, Singapore, and Sweden). Volume 6 analyzes the budgeting processes of two additional U.S. federal agencies other than DoD. Volume 7, an executive summary, distills key insights from Volumes 5 and 6. The commission used insights from these 16 case studies to derive lessons for DoD and recommendations to Congress on PPBE reform.

The full set of *Planning, Programming, Budgeting, and Execution in Comparative Organizations* report volumes is as follows:

- Vol. 1, *Case Studies of China and Russia*
- Vol. 2, *Case Studies of Selected Allied and Partner Nations*

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<sup>1</sup> See, for example, Section 809 Panel, *Report of the Advisory Panel on Streamlining and Codifying Acquisition Regulations*, Vol. 2 of 3, June 2018, pp. 12–13; Brendan W. McGarry, *DOD Planning, Programming, Budgeting, and Execution (PPBE): Overview and Selected Issues for Congress*, Congressional Research Service, R47178, July 11, 2022, p. 1; and William Greenwalt and Dan Patt, *Competing in Time: Ensuring Capability Advantage and Mission Success Through Adaptable Resource Allocation*, Hudson Institute, February 2021, pp. 9–10.

<sup>2</sup> Public Law 117-81, National Defense Authorization Act for Fiscal Year 2022, December 27, 2021.

- Vol. 3, *Case Studies of Selected Non-DoD Federal Agencies*
- Vol. 4, *Executive Summary*
- Vol. 5, *Additional Case Studies of Selected Allied and Partner Nations*
- Vol. 6, *Additional Case Studies of Selected Non-DoD Federal Agencies*
- Vol. 7, *Executive Summary for Additional Case Studies*

This report should be of interest to those concerned with the improvement of DoD's PPBE processes. The intended audience is mostly government officials responsible for such processes. The research reported here was completed in August 2023 and underwent security review with the sponsor and the Defense Office of Prepublication and Security Review before public release.

## RAND National Security Research Division

This research was sponsored by the Commission on PPBE Reform and conducted within the Acquisition and Technology Policy Program of the RAND National Security Research Division (NSRD), which operates the National Defense Research Institute (NDRI), a federally funded research and development center sponsored by the Office of the Secretary of Defense, the Joint Staff, the Unified Combatant Commands, the Navy, the Marine Corps, the defense agencies, and the defense intelligence enterprise.

For more information on the RAND Acquisition and Technology Policy (ATP) Program, see [www.rand.org/nsrd/atp](http://www.rand.org/nsrd/atp) or contact the director (contact information is provided on the webpage).

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## Dedication

These volumes are dedicated to Irv Blickstein, whose decades of experience within the U.S. Navy's PPBE community deeply informed this work and whose intellectual leadership as a RAND colleague for more than 20 years greatly enhanced the quality of our independent analysis to address DoD's most-pressing acquisition challenges. Irv's kindness, motivation, and ever-present mentoring will be sorely missed.



# Summary

## Issue

The U.S. Department of Defense’s (DoD’s) Planning, Programming, Budgeting, and Execution (PPBE) System was originally developed in the 1960s as a structured approach for planning long-term resource development, assessing program cost-effectiveness, and aligning resources to strategies. Yet changes to the strategic environment, the industrial base, and the nature of military capabilities have raised the question of whether U.S. defense budgeting processes are still well aligned with national security needs.

Congress, in its National Defense Authorization Act for Fiscal Year 2022, called for the establishment of a Commission on PPBE reform, which took shape as a legislative commission in 2022.<sup>1</sup> As part of its data collection efforts, the Commission on PPBE Reform asked the National Defense Research Institute, a federally funded research and development center operated by the RAND National Security Research Division, to conduct case studies of budgeting processes first across nine and then eventually across a total of 16 comparative organizations: ten international defense organizations and six other U.S. federal government agencies. The two international case studies of near-peer competitors were specifically requested by Congress, while the other 14 cases were selected in close partnership with the commission.

## Approach

For all 16 case studies, the research entailed extensive document reviews and structured discussions with subject-matter experts having experience in the budgeting processes of the selected international governments and other U.S. federal government agencies. Each case study was assigned a unique team with appropriate regional or organizational expertise. The analysis was also supplemented by experts in the U.S. PPBE process, as applicable.

## Key Insights

The key insights from the case studies of selected allied and partner nations in this volume—France, Germany, Japan, Singapore, and Sweden—are as follows:

- **France, Germany, Japan, Singapore, and Sweden are highly capable U.S. partners that share some strategic concerns and priorities.** The defense priorities of these partners are shaped to a degree by security challenges in Europe and the Indo-Pacific region,

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<sup>1</sup> Public Law 117-81, National Defense Authorization Act for Fiscal Year 2022, December 27, 2021.

which require the countries to develop new capabilities, modernize legacy infrastructure, and boost industrial capacity—all of which entail large financial commitments to defense. This convergence presents opportunities for co-development and broader opportunities to work together toward shared goals, but it also requires the United States and its allies and partners to develop plans and processes to facilitate more-effective approaches to partnership. France, Germany, and Sweden have all demonstrated invigorated commitments to European security and to bolstering and modernizing the North Atlantic Treaty Organization (NATO) alliance in the aftermath of Russia's aggression in Ukraine, while Japan has noted China's rapid military modernization and assertiveness in the region, and Singapore has attempted to retain positive relationships with both the United States and China.

- **Foreign military sales (FMS) are an important mechanism for advancing shared goals, but this support is balanced by initiatives to maintain domestic industrial capacity.** Although all five countries maintain relatively robust industrial capabilities, most also invest in U.S. FMS to strengthen relationships, develop critical capabilities, and foster interconnectedness, interoperability, and interchangeability. Strengthening interoperability is also a key priority for NATO. However, as indicated in these case studies, FMS as a contributor to these objectives needs to be balanced with initiatives to maintain the countries' domestic industrial capabilities.
- **Several countries recently signaled an intent to increase their overall defense spending, but there will be countervailing pressures on top-line budgets.** Complex security challenges have led four of these allies and partners to take concrete steps toward increasing their defense budgets. For the NATO partners, these developments reflect a decade of effort to encourage alliance members to spend at least 2 percent of their gross domestic product (GDP) on defense. Japan's postwar history has long been defined by a narrow interpretation of its self-defense mission and a self-imposed political constraint on defense spending of no more than 1 percent of GDP. In 2022, it signaled its intention to substantially increase its defense spending via the Defense Buildup Program. However, efforts to increase defense spending will likely face several challenges. There is a question of whether governments can maintain domestic support for more spending on defense, especially if it comes at the risk of tax increases or adding to the public debt.
- **Although the countries' political systems are diverse, there is limited friction between the executive and legislative branches in their budgeting processes.** Despite the diversity of political systems explored in this report, interactions between executive and legislative bodies over budgetary priorities appeared to be streamlined, in contrast to the United States. In the Volume 2 analysis of Australia, Canada, and the United Kingdom, we attributed this trend to the parliamentary systems in which the executive had the power of the purse. But, even with the greater diversity in the government structures considered here, we found that budgets were typically generated in an orderly manner, and in no case did we find examples of budget turbulence emerging from political fric-



tion between branches of government to the same degree as is experienced in the United States.

- **The countries place greater emphasis on budget predictability and stability than on agility.** As evidenced throughout their budget processes, these countries prioritize predictability and stability to advance long-term objectives. This stability is seen as a strength to the extent that it offers predictability to industry, enables fiscal planning, and provides steady support for long-term initiatives.
- **Despite the common emphasis on stability, each system provides some budget flexibility to address unanticipated changes.** Several countries have mechanisms for changing budgets during a fiscal year. Singapore and Sweden have provisions for considering supplemental requests. Japan has mechanisms for carrying forward money into the next fiscal year, subject to some constraints. France appears to grant broad authorities for redirecting resources to meet emerging needs; a program manager has mechanisms to move resources within a program or to move resources across programs or even across ministries. Germany's provisions for the transfer of funding (i.e., *virement*) provide flexibility to move resources within the Ministry of Defense budget, subject to threshold requirements and other constraints. Similar to other systems, in Germany, funds can be carried over into the following fiscal year. Several of these cases also include provisions for special funding outside regular budget processes (and fiscal constraints) to support emerging military needs. For example, a special fund was a critical enabler of Germany's support for wartime contingencies in Ukraine and for hitting NATO's spending target, at least in the near term.
- **There are varied approaches to oversight for ensuring transparency, efficiency, and accountability but fewer mechanisms for evaluating effectiveness.** In accordance with their overall structured resource planning processes and generally fiscally conservative policy preferences, most of the countries in this volume have robust processes for oversight to ensure that resources are spent as intended. Germany uses regular spending reviews to track performance against established indicators and to ensure that public funds are spent efficiently and effectively. Japan uses both external and internal mechanisms to exercise oversight of government spending, including the independent Board of Audit of Japan. Singapore uses a three-line accountability system that holds individual officials responsible for budgets and relies on internal regulatory processes and internal and external audits for enforcement. However, evaluation processes to assess whether spending has advanced strategic objectives appear to be less mature. This concern seems less applicable to the German system of spending reviews, which reportedly looks at performance toward measurable, impact-based indicators. In the Singapore case, evaluations of spending are conducted largely by the Ministry of Defence, although the Auditor-General leads a limited external review. Singapore relies on its established anti-corruption processes to guard against waste, with audit agencies serving as a backstop.

The Commission on PPBE Reform was asked to explore by Congress other PPBE-like processes of selected allied and partner nations to improve DoD's PPBE System. Relative to the United Kingdom, Australia, and Canada (considered in Volume 2), the cases in this volume are more varied and have some notable differences from the United States. For example, the postwar history of Germany and Japan have given these U.S. partners unique political cultures that influence defense spending and the scale of their defense goals, which shape their legal frameworks and domestic politics around resource planning for defense. The pull of domestic politics—alongside geography, history, economics, and other considerations—is evident in threat perceptions in all these cases, as well as the degree of convergence of these countries' perceptions of the strategic environment and defense priorities. We selected these countries, in part, because they maintain significant industrial capacities, but how each country engages with its defense industrial base and decides which capacities and capabilities to maintain varies significantly. There are also significant differences in the sizes of their overall military commitments. For example, the city-state of Singapore might be a highly capable U.S. partner, but it is also comparatively small in terms of the monetary value, range, and complexity of its military capabilities.

Despite these differences, we identified the following similarities between these countries and the United States in terms of general approaches to defense resource management:

- Processes are structured and formalized, and they include a variety of well-defined decisionmakers and stakeholders.
- Strategic planning is a key input that explicitly connects priorities to investments in addressing military threats.
- There are ongoing discussions between defense departments and decisionmakers who hold the “power of the purse” to justify how forces and programs will use their funding.
- Defense departments receive and spend funding according to agreed-on appropriations rules and then use certain mechanisms, if plans change, to move or carry over funding.
- Oversight is a key mechanism for ensuring that what is budgeted is appropriately spent, even if mechanisms for exercising oversight vary significantly.

It was particularly noteworthy that several features that have been the focus of discussions about the need to reform the DoD PPBE System did not figure prominently in these case studies. For example, the general U.S. focus on potential points of friction between the executive and legislative branches in budget execution—from continuing resolutions to potential government shutdowns and threats of budget sequestration—did not appear to be a significant concern in these cases. Available evidence suggests that levers for reprogramming are manageable and that colors of money and periods of funding availability do not overly constrain the advancement of defense priorities. Likewise, the U.S. focus on processes that foster innovation, agility, and responsiveness to a changing threat environment was not an animating feature of these case studies. Although all the countries had processes to adjust budgets in response to unanticipated contingencies, such as the coronavirus disease 2019 (COVID-19)

pandemic or support to Ukraine, they generally placed a high priority on budget stability, predictability, and certainty in their fiscal policies, offering steady signals to industry partners and supporting long-term plans.



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# Introduction

In light of a dynamic threat environment, increasingly capable adversaries, and rapid technological changes, there has been increasing concern that the U.S. Department of Defense's (DoD's) resource planning processes are too slow and inflexible to meet warfighter needs.<sup>1</sup> DoD's Planning, Programming, Budgeting, and Execution (PPBE) System was originally developed in the 1960s as a structured approach for planning long-term resource development, assessing program cost-effectiveness, and aligning resources to strategies. Yet changes to the strategic environment, the industrial base, and the nature of military capabilities have raised the question of whether DoD's budgeting processes are still well aligned with national security needs.

To consider the effectiveness of current resource planning processes for meeting national security needs and to explore potential policy options to strengthen those processes, Congress called for the establishment of a commission on PPBE reform in Section 1004 of the National Defense Authorization Act for Fiscal Year (FY) 2022.<sup>2</sup> The Commission on PPBE Reform took shape as a legislative commission in 2022, consisting of 14 appointed commissioners, each drawing on deep and varied professional expertise in DoD, Congress, and the private sector. In support of this work, the commission collected data, conducted analyses, and developed a broad array of input from external organizations, including federally funded research and development centers, to develop targeted insights of particular interest to the commission. The commission asked the RAND National Defense Research Institute to contribute to this work by conducting case studies first across nine and then eventually across a

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<sup>1</sup> See, for example, Section 809 Panel, *Report of the Advisory Panel on Streamlining and Codifying Acquisition Regulations*, Vol. 2 of 3, June 2018, pp. 12–13; Brendan W. McGarry, *DOD Planning, Programming, Budgeting, and Execution (PPBE): Overview and Selected Issues for Congress*, Congressional Research Service, R47178, July 11, 2022, p. 1; and William Greenwalt and Dan Patt, *Competing in Time: Ensuring Capability Advantage and Mission Success Through Adaptable Resource Allocation*, Hudson Institute, February 2021, pp. 9–10.

<sup>2</sup> Public Law 117-81, National Defense Authorization Act for Fiscal Year 2022, December 27, 2021. Section 1004(f) of this Act is of particular relevance to our research approach:

Compare the planning, programming, budgeting, and execution process of the Department of Defense, including the development and production of documents including the Defense Planning Guidance (described in section 113(g) of Title 10, United States Code), the Program Objective Memorandum, and the Budget Estimate Submission, with similar processes of private industry, other Federal agencies, and other countries.

total of 16 comparative organizations: ten international defense organizations and six other U.S. federal government agencies. Congress specifically called for two of the international case studies—of near-peer competitors China and Russia—and we selected additional cases in close partnership with the commission.<sup>3</sup>

This report is Volume 5 in a seven-volume set of case studies conducted in support of the Commission on PPBE Reform. The accompanying volumes focus on selected near-peer competitors (Volume 1),<sup>4</sup> selected U.S. partners and allies (Volume 2 and this report, Volume 5),<sup>5</sup> selected non-DoD federal agencies (Volumes 3 and 6),<sup>6</sup> and executive summaries that distill key insights from each collection of case studies (Volumes 4 and 7).<sup>7</sup>

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<sup>3</sup> Pub. L. 117-81, Section 1004(f) requires “a review of budgeting methodologies and strategies of near-peer competitors to understand if and how such competitors can address current and future threats more or less successfully than the United States.”

<sup>4</sup> Megan McKernan, Stephanie Young, Timothy R. Heath, Dara Massicot, Mark Stalczynski, Ivana Ke, Raphael S. Cohen, John P. Godges, Heidi Peters, and Lauren Skrabala, *Planning, Programming, Budgeting, and Execution in Comparative Organizations: Vol. 1, Case Studies of China and Russia*, RAND Corporation, RR-A2195-1, 2024.

<sup>5</sup> Megan McKernan, Stephanie Young, Andrew Dowse, James Black, Devon Hill, Benjamin J. Sacks, Austin Wyatt, Nicolas Jouan, Yuliya Shokh, Jade Yeung, Raphael S. Cohen, John P. Godges, Heidi Peters, and Lauren Skrabala, *Planning, Programming, Budgeting, and Execution in Comparative Organizations: Vol. 2, Case Studies of Selected Allied and Partner Nations*, RAND Corporation, RR-A2195-2, 2024.

<sup>6</sup> Megan McKernan, Stephanie Young, Ryan Consaul, Michael Simpson, Sarah W. Denton, Anthony Vassalo, William Shelton, Devon Hill, Raphael S. Cohen, John P. Godges, Heidi Peters, and Lauren Skrabala, *Planning, Programming, Budgeting, and Execution in Comparative Organizations: Vol. 3, Case Studies of Selected Non-DoD Federal Agencies*, RAND Corporation, RR-A2195-3, 2024; Stephanie Young, Megan McKernan, Ryan Consaul, Laurinda L. Rohn, Frank G. Klotz, Michael Simpson, Sarah W. Denton, Yuliya Shokh, Madison Williams, Raphael S. Cohen, John P. Godges, Heidi Peters, and Lauren Skrabala, *Planning, Programming, Budgeting, and Execution in Comparative Organizations: Vol. 6, Additional Case Studies of Selected Non-DoD Federal Agencies*, RAND Corporation, RR-A2195-6, 2024.

<sup>7</sup> Megan McKernan, Stephanie Young, Timothy R. Heath, Dara Massicot, Andrew Dowse, Devon Hill, James Black, Ryan Consaul, Michael Simpson, Sarah W. Denton, Anthony Vassalo, Ivana Ke, Mark Stalczynski, Benjamin J. Sacks, Austin Wyatt, Jade Yeung, Nicolas Jouan, Yuliya Shokh, William Shelton, Raphael S. Cohen, John P. Godges, Heidi Peters, and Lauren Skrabala, *Planning, Programming, Budgeting, and Execution in Comparative Organizations: Vol. 4, Executive Summary*, RAND Corporation, RR-A2195-4, 2024; Stephanie Young, Megan McKernan, Andrew Dowse, Nicolas Jouan, Theodora Ogden, Austin Wyatt, Mattias Eken, Linda Slapakova, Naoko Aoki, Ryan Consaul, Laurinda L. Rohn, Frank G. Klotz, Michael Simpson, Jade Yeung, Sarah W. Denton, Yuliya Shokh, Clara Le Gargasson, Charlotte Kleberg, Phoebe Felicia Pham, Madison Williams, Erik Silfversten, James Black, Turner Ruggi, Maxime Sommerfeld Antoniou, Raphael S. Cohen, John P. Godges, Heidi Peters, and Lauren Skrabala, *Planning, Programming, Budgeting, and Execution in Comparative Organizations: Vol. 7, Executive Summary for Additional Case Studies*, RAND Corporation, RR-A2195-7, 2024.

## Evolution of DoD's PPBE System

The Planning, Programming, and Budgeting System (PPBS), the precursor to DoD's PPBE process, took shape in the first decades after World War II and was introduced into DoD in 1961 by then-Secretary of Defense Robert McNamara.<sup>8</sup> Drawing on new social science methods, such as program budgeting and systems analysis, the PPBS was designed to provide a structured approach to weigh the cost-effectiveness of potential defense investments. A central assertion of the PPBS's developers was that strategy and costs needed to be considered together.<sup>9</sup> As Charles Hitch, Secretary McNamara's first comptroller and a key intellectual leader in the development and implementation of the PPBS, noted, "There is no budget size or cost that is correct regardless of the payoff, and there is no need that should be met regardless of cost."<sup>10</sup>

To make decisions about prioritization and where to take risk in a resource-constrained environment, DoD needed an analytic basis for making choices. Therefore, the PPBS first introduced the program budget, an *output*-oriented articulation of the resources associated with a given military capability projected out over five years.<sup>11</sup> The PPBS then introduced an approach for assessing cost-effectiveness, termed *systems analysis*, which was institutionalized in the Office of Systems Analysis. Since 2009, this office has been known as Cost Assessment and Program Evaluation (CAPE).<sup>12</sup> At its inception, the PPBS was a process for explicitly linking resources to strategy and for setting up a structure for making explicit choices between options based on transparent analyses of costs and effectiveness. Then, as today, the system introduced friction with other key stakeholders, including Congress and industry

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<sup>8</sup> An oft-quoted assertion by Secretary McNamara from April 20, 1963, which is pertinent to this discussion, is that "[y]ou cannot make decisions simply by asking yourself whether something might be nice to have. You have to make a judgment on how much is enough" (as cited in the introduction of Alain C. Enthoven and K. Wayne Smith, *How Much Is Enough? Shaping the Defense Program, 1961–1969*, RAND Corporation, CB-403, 1971). For more on the history of PPBE, see Stephanie Young, *Power and the Purse: Defense Budgeting and American Politics, 1947–1972*, dissertation, University of California, Berkeley, 2009.

<sup>9</sup> Or, as Bernard Brodie stated succinctly, "strategy wears a dollar sign" (Bernard Brodie, *Strategy in the Missile Age*, RAND Corporation, CB-137-1, 1959, p. 358).

<sup>10</sup> Charles J. Hitch and Roland N. McKean, *The Economics of Defense in the Nuclear Age*, RAND Corporation, R346, 1960, p. 47.

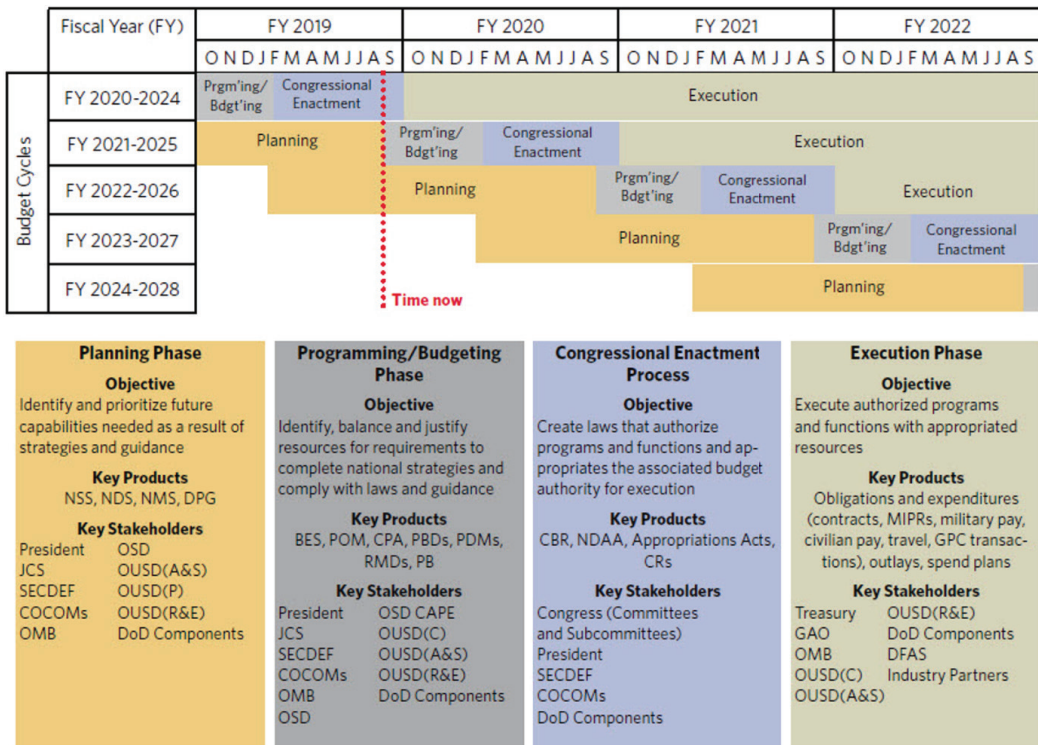
<sup>11</sup> On the need for an output-oriented budget formulation at the appropriate level to make informed choices, Hitch and McKean (1960, p. 50) noted that the consumer "cannot judge intelligently how much he should spend on a car if he asks, 'How much should I devote to fenders, to steering activities, and to carburetion?' Nor can he improve his decisions much by lumping all living into a single program and asking, 'How much should I spend on life?'"

<sup>12</sup> In an essential treatise on the PPBS's founding, Enthoven (the first director of the Office of Systems Analysis) and Smith describe "the basic ideas that served as the intellectual foundation for PPBS" and, thus, PPBE, as follows: (1) decisionmaking should be made on explicit criteria of the national interest, (2) needs and costs should be considered together, (3) alternatives should be explicitly considered, (4) an active analytic staff should be used, (5) a multiyear force and financial plan should project consequences into the future, and (6) open and explicit analysis should form the basis for major decisions (1971, pp. 33–47).

partners. Key features of the PPBS have become institutionalized in DoD’s PPBE System, and questions have arisen about whether its processes and structures remain relevant and agile enough to serve their intended purposes.<sup>13</sup>

To set up the discussion of case studies, it will be helpful to outline the key features of the PPBE process and clarify some definitions. Figure 1.1 offers a summary view of the process.

**FIGURE 1.1**  
**DoD’s PPBE Process (as of September 2019)**



SOURCE: Reproduced from Stephen Speciale and Wayne B. Sullivan II, “DoD Financial Management—More Money, More Problems,” Defense Acquisition University, September 1, 2019, p. 6.

NOTE: BES = budget estimation submission; CBR = concurrent budget resolution; COCOM = combatant command; CPA = Chairperson’s Program Assessment; CR = continuing resolution; DFAS = Defense Finance and Accounting Services; DPG = defense planning guidance; GAO = U.S. Government Accountability Office; GPC = government purchase card; JCS = Joint Chiefs of Staff; MIPR = military interdepartmental purchase request; NDS = National Defense Strategy; NMS = National Military Strategy; NSS = National Security Strategy; OMB = Office of Management and Budget; OSD = Office of the Secretary of Defense; OUSD(C) = Office of the Under Secretary of Defense (Comptroller); OUSD(A&S) = Office of the Under Secretary of Defense (Acquisition and Sustainment); OUSD(P) = Office of the Under Secretary of Defense (Policy); OUSD(R&E) = Office of the Under Secretary of Defense (Research and Engineering); PB = President’s Budget; PBD = program budget decision; PDM = program decision memorandum; POM = program objectives memorandum; RMD = resource management decision; SECDEF = Secretary of Defense.

<sup>13</sup> Greenwalt and Patt, 2021, pp. 9–10.

Today, consideration of PPBE often broadly encapsulates internal DoD processes, other executive branch functions, and congressional rules governing appropriations. Internal to DoD, PPBE is an annual process by which the department determines how to align military programs and resources to strategic guidance. The process supports the development of DoD inputs to the President's Budget and to a budgeting program with a five-year time horizon, known as the Future Years Defense Program (FYDP).<sup>14</sup> DoD Directive (DoDD) 7045.14, *The Planning, Programming, Budgeting, and Execution (PPBE) Process*, states that one intent for PPBE "is to provide the DoD with the most effective mix of forces, equipment, manpower, and support attainable within fiscal constraints."<sup>15</sup> PPBE consists of four distinct processes, each with its own outputs and stakeholders. The objectives of each phase include the following:

- **Planning:** "[I]ntegrate assessments of potential military threats facing the country, overall national strategy and defense policy, ongoing defense plans and programs, and projected financial resources into an overall statement of policy."<sup>16</sup>
- **Programming:** "[A]nalyze the anticipated effects of present-day decisions on the future force" and propose specific forces and programs to meet the military requirements identified in the plans and within the financial limits of the FYDP period.<sup>17</sup>
- **Budgeting:** "[E]nsure appropriate funding and fiscal controls, phasing of the efforts over the funding period, and feasibility of execution within the budget year"; restructure budget categories for submission to Congress according to the appropriation accounts; and prepare justification material for submission to Congress.<sup>18</sup>
- **Execution:** "[D]etermine how well programs and financing have met joint warfighting needs."<sup>19</sup>

Several features of congressional appropriations processes are particularly important to note. First, since FY 1960, Congress has provided budget authority to DoD through specific appropriations titles (sometimes termed *colors of money*), the largest of which are operations and maintenance (O&M); military personnel; research, development, test, and evaluation (RDT&E); and procurement.<sup>20</sup> These appropriations titles are further broken down into *appropriation accounts*, such as Military Personnel, Army or Shipbuilding and Conversion,

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<sup>14</sup> Brendan W. McGarry, *Defense Primer: Planning, Programming, Budgeting and Execution (PPBE) Process*, Congressional Research Service, IF10429, January 27, 2020, p. 1.

<sup>15</sup> DoDD 7045.14, *The Planning, Programming, Budgeting, and Execution (PPBE) Process*, U.S. Department of Defense, August 29, 2017, p. 2.

<sup>16</sup> Congressional Research Service, *A Defense Budget Primer*, RL30002, December 9, 1998, p. 27.

<sup>17</sup> McGarry, 2020, p. 2; Congressional Research Service, 1998, p. 27.

<sup>18</sup> McGarry, 2020, p. 2; Congressional Research Service, 1998, p. 28.

<sup>19</sup> DoDD 7045.14, 2017, p. 11.

<sup>20</sup> Congressional Research Service, 1998, pp. 15–17.

Navy (SCN). Second, the budget authority provided in one of these accounts is generally available for obligation only within a specified period. In the DoD budget, the period of availability for military personnel and O&M accounts is one year; for RDT&E accounts, two years; and for most procurement accounts, three years (although for SCN, it can be five or six years in certain circumstances). This specification means that budget authority must be obligated within those periods, or with a few exceptions, it is sent back to the U.S. Department of the Treasury.<sup>21</sup> There has been recent interest in exploring how these features of the appropriations process affect transparency and oversight, institutional incentives, and the exercise of flexibility, should resource needs change.<sup>22</sup>

Importantly, PPBE touches almost everything DoD does and, thus, forms a critical touchpoint for engagement among stakeholders across DoD (e.g., OSD, military departments, Joint Staff, COCOMs), in the executive branch (through OMB), in Congress, and among industry partners.

## Research Approach and Methods

In close partnership with the commission, we selected 16 case studies to explore decision-making in organizations facing challenges similar to those experienced in DoD: exercising agility in the face of changing needs and enabling innovation. The legislation specifically called for two near-peer case studies, in part to allow the commission to explore the competitiveness implications of strategic adversaries' approaches to resource planning.

For all 16 case studies, we conducted extensive document reviews and structured discussions with subject-matter experts who had experience with the budgeting processes of the international governments and other U.S. federal government agencies. For seven of the eight case studies of allied and partner countries, we leveraged the expertise of researchers in RAND Europe (located in Cambridge, United Kingdom) and RAND Australia (located in Canberra, Australia) who had direct experience with partner defense organizations. Given the diversity in subject-matter expertise required, each case study was assigned a unique team with the appropriate regional or organizational expertise. For the near-peer competitor cases, the assigned experts had the language skills and methodological training to work with primary sources in Chinese or Russian. The analysis was also supplemented by PPBE experts as needed.

Case study research drew primarily on government documents outlining processes and policies, planning guidance, and budget information, as well as published academic and policy research. Although participants in our structured discussions varied in accordance with the decisionmaking structures across case studies, they generally included chief

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<sup>21</sup> Congressional Research Service, 1998, pp. 49–50. Regarding RDT&E, see U.S. Code, Title 10, Section 3131, Availability of Appropriations.

<sup>22</sup> McGarry, 2022.

financial officers, representatives from organizations responsible for making programmatic choices, and budget officials. For obvious reasons, the China and Russia case study teams faced unique challenges in data collection and in identifying and accessing interviewees with direct knowledge of these countries' PPBE-like processes.

To facilitate consistency, completeness in addressing the commission's highest-priority areas of interest, and cross-case comparisons, we developed a common case study template. This template took specific questions from the commission as inputs, aligned key questions with PPBE processes and oversight mechanisms, evaluated perceived strengths and challenges of each organization's processes and their applicability to DoD processes, and concluded with lessons learned from each case. To help us develop a consistent evidentiary base across cases, we also developed a standard interview protocol to guide the structured discussions.

## Areas of Focus

Given the complexity of PPBE and its many connections to other processes and stakeholders, along with other inputs and ongoing analysis by the commission, we needed to scope this work in accordance with three of the commission's top priorities.

First, although we sought insights across PPBE phases in each case study, in accordance with the commission's guidance, we placed a particular emphasis on organizations' budgeting and execution mechanisms, such as the existence of different types of funding appropriations (i.e., colors of money), and on any mechanisms for exercising flexibility, such as reprogramming thresholds. However, it is important to note that this level of detail was not uniformly available. The opacity of internal processes in China, Russia, and (to a lesser extent) Singapore made the budget mechanisms much more difficult to discern in those cases in particular.

Second, while the overall investment portfolios varied in accordance with mission needs, the case studies were particularly focused on investments related to RDT&E and procurement rather than O&M or sustainment activities.

Third, the case studies of other U.S. federal government agencies did not focus primarily on the roles played by external stakeholders, such as OMB, Congress, and industry partners. Such stakeholders are discussed in those case studies when relevant insights emerged from other sources, but interviews and data collection were focused within the bounds of the respective case study organizations rather than across a broader network of key stakeholders.

## Research Limitations and Caveats

This research required detailed analyses of the nuances of internal resource planning processes across 16 extraordinarily diverse organizations, conducted on the tight timeline required by the commission's challenging mandate. This breadth of scope was intended to provide the commission with diverse insights into how other organizations address similar challenges, but it also limited the depth of the individual case studies. These constraints warrant additional discussion of research limitations and caveats of two types.

First, all the case study teams, to varying degree, confronted limitations in data availability. The teams gathered documentation from publicly available sources and doggedly pursued additional documentation from targeted interviews and other experts with direct experience. However, even for allied countries and U.S. federal agencies, including DoD, there was a limit to what information could be confirmed. For example, some important features of how systems work in practice are not captured in formal documentation; the teams often had to tease out and triangulate details about these features from interviews—to the extent that knowledgeable officials were available to engage with them. The general opacity and lack of institutional connections with decisionmakers in China and Russia introduced unique challenges for data collection. Russia was further obscured by the war in Ukraine during the research period, which made access by U.S.-based researchers to reliable government data on current plans and resource allocation impossible.

Second, the case study teams confronted inconsistencies across cases that challenged their efforts to establish cross-case comparability. For example, international cases each involved unique political cultures, governance structures, strategic concerns, and military commitments—all of which we characterized to the extent that they provided essential context for understanding how and why resource allocation decisions are made. The context-dependent nature of the international cases made even defining the “defense budget” difficult, given countries’ various definitions and inclusions. With respect to the near-peer case studies of China and Russia presented in Volume 1, inconsistencies were especially pronounced when it came to purchasing power. To address some of these inconsistencies, we referenced the widely cited Stockholm International Peace Research Institute (SIPRI) Military Expenditure Database.<sup>23</sup> With respect to U.S. federal agencies, each agency has its own unique mission, organizational culture, resource levels, and process of congressional oversight—all of which were critical for understanding how and why resource allocation decisions were made. This diversity strained our efforts to draw cross-case comparisons or to develop internally consistent normative judgments of best practices. For this reason, each case study analysis and articulation of strengths and challenges should be understood to refer to only each organization’s *own* unique resource allocation needs and missions.

## Selected Allied and Partner Nations Focus

The 2022 NDS describes a security environment of complex strategic challenges associated with such dynamics as emerging technology, transboundary threats, and competitors posing “new threats to the U.S. homeland and strategic stability.”<sup>24</sup> Among these challenges, the NDS notes that “[t]he most comprehensive and serious challenge” is the People’s Republic

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<sup>23</sup> SIPRI, “SIPRI Military Expenditure Database,” undated.

<sup>24</sup> DoD, *2022 National Defense Strategy of the United States of America, Including the 2022 Nuclear Posture Review and the 2022 Missile Defense Review*, October 27, 2022, p. 4.



of China (PRC). The NDS points to China’s military modernization and exercise of whole-of-government levers to effect “coercive” and “aggressive” approaches to the region and international order.<sup>25</sup> While the NDS designates China as the “pacing challenge” for DoD, it also highlights Russia as an “acute threat.”<sup>26</sup> To illuminate this competitive environment, in Volume 1, we analyzed resource planning by these key competitors.

To counter these strategic challenges, the NDS calls for strong relationships among U.S. allies and partner nations:

The 2022 NDS advances a strategy focused on the PRC and on collaboration with our growing network of Allies and partners on common objectives. . . .The Department will support robust deterrence of Russian aggression against vital U.S. national interests, including our treaty Allies. . . . The 2022 National Defense Strategy is a call to action for the defense enterprise to incorporate Allies and partners at every stage of defense planning. . . . To succeed in these objectives, the Department will reduce institutional barriers, including those that inhibit collective research and development, planning, interoperability, intelligence and information sharing, and export of key capabilities.<sup>27</sup>

As documented in Volume 2, the commission asked us to analyze the defense resource planning processes of Australia, Canada, and the United Kingdom (UK). Yet, as the 2022 NDS makes clear, advancing U.S. interests requires a global approach and engagement with a wide range of allies and partners to reduce institutional barriers to pursuing shared defense and security goals.<sup>28</sup> To this end, in this report, we analyze internal decisionmaking processes across a broader range of highly capable partners: France, Germany, Japan, Singapore, and Sweden. This focus on internal processes as key enablers of military outcomes is well aligned with the NDS’s imperatives of “build[ing] enduring advantage” and “undertaking reforms to accelerate force development, getting the technology we need more quickly, and making investments in the extraordinary people of the Department, who remain our most valuable resource.”<sup>29</sup> These imperatives have prompted reflection on the extent to which internal DoD processes, including PPBE, are up to the challenge of enabling rapid and responsive capabilities to address the emerging threats.

As detailed in the following chapters, these five comparative case studies represent countries confronting important changes in their strategic environments—with implications for resource allocation decisionmaking. For example, the strategic priorities of each of the three European case studies reflect an invigorated commitment to collective security, especially in the aftermath of Russia’s invasion of Ukraine in February 2022. All three European countries

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<sup>25</sup> DoD, 2022, p. 4.

<sup>26</sup> DoD, 2022, pp. 4–5.

<sup>27</sup> DoD, 2022, p. 2, 14.

<sup>28</sup> DoD, 2022, p. 14.

<sup>29</sup> DoD, 2022, p. iv.

are pressing to increase their domestic defense spending to bolster their military capabilities, and Sweden has joined the North Atlantic Treaty Organization (NATO) despite some initial opposition.<sup>30</sup> As the United States works “bilaterally and through NATO’s established processes to better focus NATO capability development and military modernization to address Russia’s military threat,”<sup>31</sup> these analyses promote a shared understanding of resource planning for key NATO partners. The two Asia case studies similarly explore the resource priorities and allocation processes of highly capable partners that are grappling with an increasingly challenging security environment in the Asia-Pacific region. The NDS specifically notes that the United States will “modernize our Alliance with Japan and strengthen combined capabilities by aligning strategic planning and priorities in a more integrated manner” as a line of effort for advancing strategic interests in the region.<sup>32</sup> The NDS also calls for multilateral partnerships to promote cooperation and stability in the region, specifically mentioning the role of the Association of Southeast Asian Nations, of which Singapore was a founding member.<sup>33</sup> Although there are common threads weaving through these case studies, there are also important differences. Understanding both the points of commonality and how resource planning processes diverge across cases is helpful both for decisionmakers considering reforms to U.S. PPBE processes and for DoD in its objective to “reduce institutional barriers” to more-effective, integrated approaches to global security.

For context on the scale of each country’s investment in its national defense, Figure 1.2 compares recent military expenditures among all the countries we analyzed. The United States and China clearly outspend the other countries on defense.

Excluding the United States and China as outliers (Figure 1.3), Russia and the United Kingdom (UK) lead in military expenditures among our case study countries. France, Germany, and Japan each most recently spent between \$54 billion and \$58 billion. Australia (\$32 billion) and Canada (\$26 billion) have increased their defense expenditures in recent years. Of the case study countries, Singapore (\$11 billion) and Sweden (\$8.4 billion) spent the least, as shown in Figure 1.3.

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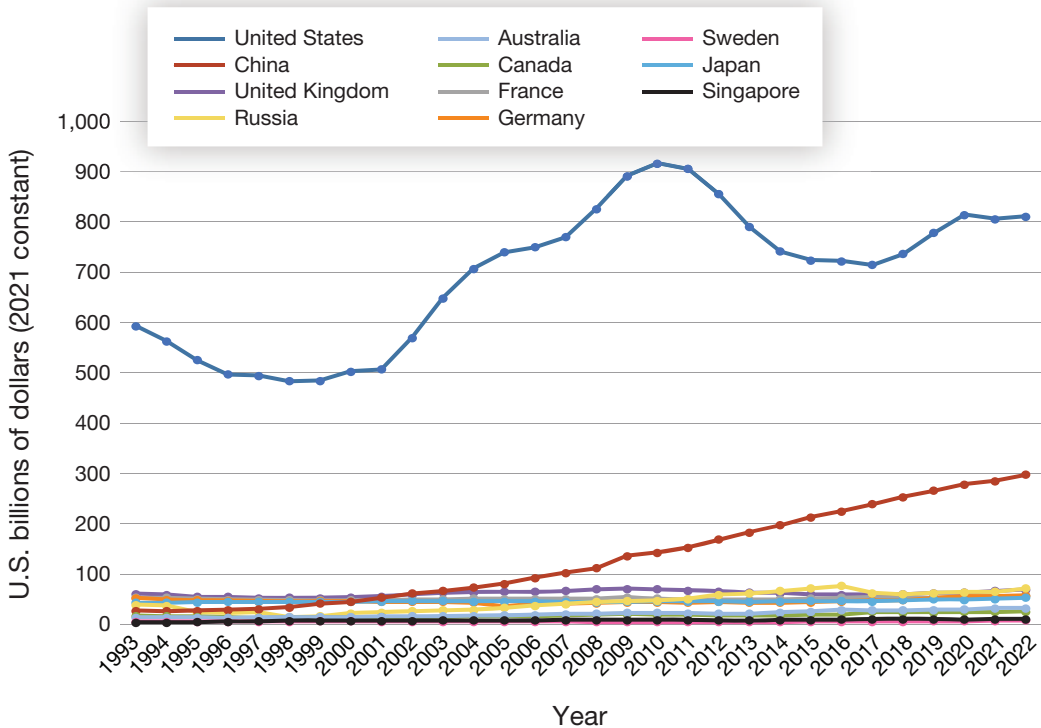
<sup>30</sup> In the aftermath of Russia’s invasion of Ukraine, Sweden (and Finland) applied to join NATO in May 2022, and although Sweden’s bid was delayed for months by opposition from Turkey, in July 2023, President Recep Tayyip Erdogan dropped his opposition and cleared the way for accession (Ben Hubbard, Lara Jakes, and Steven Erlanger, “Turkey Agrees to Support Sweden’s NATO Bid, Clearing Main Obstacle,” *New York Times*, July 10, 2023).

<sup>31</sup> DoD, 2022, p. 15.

<sup>32</sup> DoD, 2022, p. 14.

<sup>33</sup> Ben Dolven and Emma Chanlett-Avery, *U.S.-Singapore Relations*, Congressional Research Service, IF10228, July 25, 2022.

**FIGURE 1.2**  
**Military Expenditure, by Country**

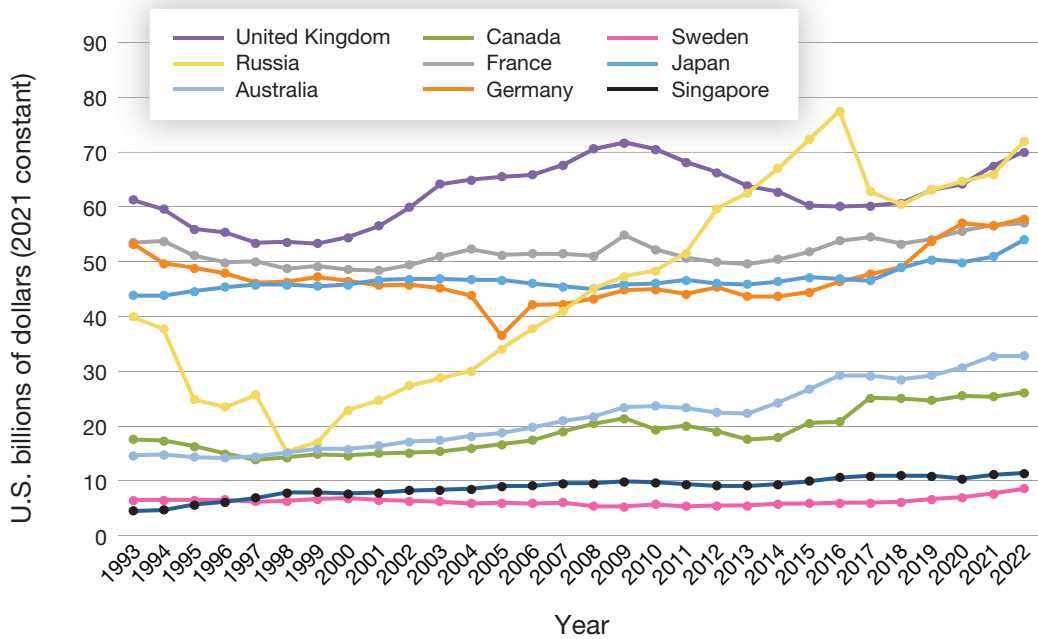


SOURCE: Features information from SIPRI, undated. Data shown are as of September 24, 2023.

For all cases, we examined countries' military expenditures as a percentage of gross domestic product (GDP). Figure 1.4 shows those percentages over time. NATO members—Canada, France, Germany, and the UK—were aiming for the NATO target of 2 percent. Australia and Japan wanted to increase their defense spending in response to additional threats in the Indo-Pacific region. Australia was already allocating the equivalent of approximately 2 percent of its GDP to defense and wanted to increase this spending further. Japan historically has kept its defense spending below 1 percent of GDP, but there have been calls to increase this share in response to the worsening regional security environment. Although it was not an official member of NATO as of September 2023, Sweden was working toward 2 percent of GDP as it pursued membership. Singapore stood out as an anomaly in our case studies. While Singapore is not actively involved in international conflicts, its security strategy has always been focused on defense spending for deterrence.

The following sections summarize the defense budgeting processes of the highly capable allies and partners analyzed in this volume: France, Germany, Japan, Singapore, and Sweden.

**FIGURE 1.3**  
**Military Expenditure, by Country, Excluding the United States and China**



SOURCE: Features information from SIPRI, undated. Data shown are as of September 24, 2023.

## France

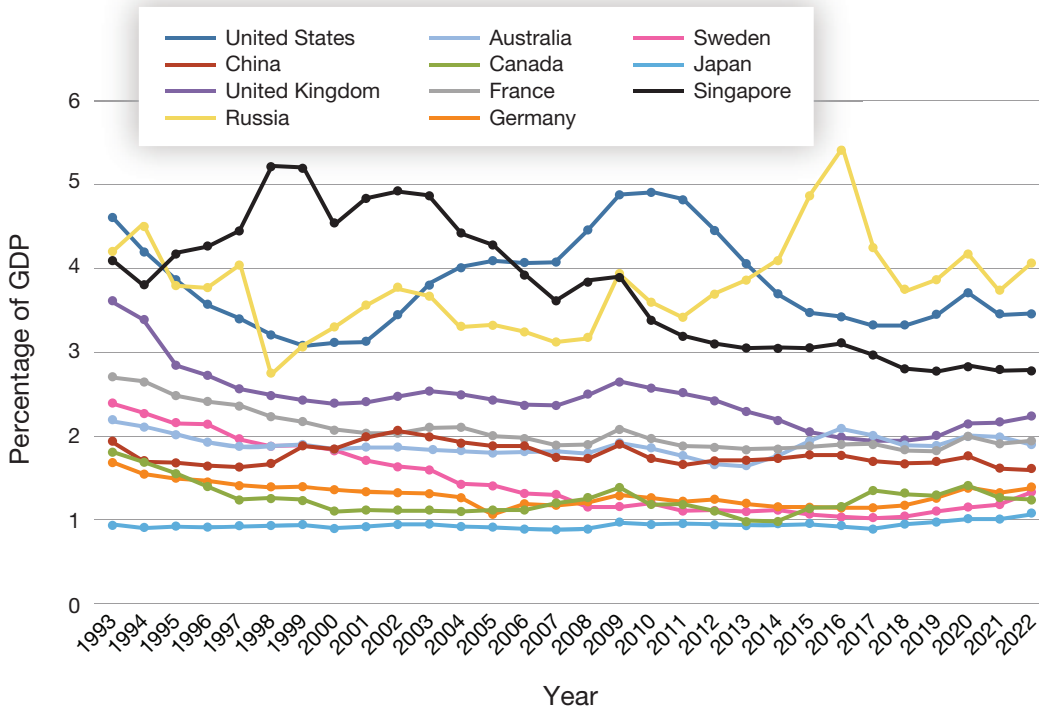
France is the United States’ oldest military ally, having granted financial and military aid to the 13 colonies during the Revolutionary War of 1775–1783. Although France is a founding member of NATO, the nation has pursued a strategy of independence since the end of World War II, particularly in its military and industrial sectors. France is one of the biggest military spenders in Europe, but it spends far less than the United States and has not reached NATO’s goal of allocating 2 percent of its GDP to defense. However, French defense spending has increased steadily over the past ten years, and the French government has committed to reaching the 2 percent goal by 2025.<sup>34</sup>

The French Ministry of Armed Forces (Ministère des Armées, or MinArm) is France’s equivalent to DoD and is responsible for protecting French territories, the French population, and French interests, both domestically and abroad.<sup>35</sup> Funding is allocated to the MinArm through France’s yearly finance law (loi de finance), which is informed by the cyclical Mili-

<sup>34</sup> Vie publique, “Budget de la défense: les étapes pour le porter à 2% du PIB” [“Defense Budget: Steps to Bring It to 2% of GDP”], webpage, December 28, 2022g.

<sup>35</sup> MinArm, “Les missions du ministère des armées” [“The Missions of the Ministry of the Armed Forces”], webpage, undated-b.

**FIGURE 1.4**  
**Military Expenditure, by Country, as a Percentage of GDP**



SOURCE: Features information from SIPRI, undated. Data shown are as of September 24, 2023.

tary Programming Law (*Loi de programmation militaire*, or LPM). The LPM defines the government's commitment for public spending in defense over a period of four to seven years. With the LPM serving as the backbone of France's defense budgeting process, the MinArm can prioritize warfighter and mission needs. The LPM is based on the Strategic Review of Defense and National Security (*Livre blanc sur la défense et la sécurité nationale*),<sup>36</sup> a strategic document that puts forth the state's defense priorities over several years, as formulated by the French executive branch.

France's defense budgetary system offers noteworthy lessons for the United States, another presidential and bicameral system. The ability of the French president to settle governmental debates on budget allocation and to enact laws without the need for a parliamentary majority has spared France from the executive-legislative gridlock of the United States. The Strategic Review, the LPM, and the budget breakdown (into missions, programs, actions, sub-actions, objectives, and performance indicators) provide a coherent framework encapsulating France's perception of national security threats and its ambitions at the national and interna-

<sup>36</sup> MinArm, "Livres blancs" ["White Papers"], webpage, undated-d.

tional levels. They also serve as a military roadmap to fulfilling these ambitions and outline a multiannual budget that decisionmakers can use to enact the changes deemed necessary to support the country's armed forces. The LPM's multiannual reach allows France to plan funding for long-term opportunities and challenges. France's efforts to maintain independence in defense matters, spearheaded by President Charles de Gaulle in the 1960s, have enabled it to sustain an advanced defense industrial base with a high degree of autonomy from other countries.

These characteristics come with trade-offs in terms of democratic accountability and adaptability to the evolution of the security environment. France's PPBE-like process is so centered on the president and president-selected government that the country's defense policy is almost entirely defined by its most recently elected leader, with few pushbacks from lawmakers or civil society. In practice, the LPMs tend to evolve in semi-insularity from the rest of the political debate, staying low on the agenda compared with the domestic social positions of candidates during presidential elections every five years. For the United States, the case of France should be viewed as a mirror-image case in which debate on defense spending is sheltered from legislative politics and the president benefits from far more leeway to dictate long-term priorities. This case study aims to present the benefits and the drawbacks of such a system.

## Germany

Germany's defense budgetary system is shaped by its political configuration as a federal republic with a bicameral parliamentary system, its role in World War II, and cultural norms around public spending. In legislative matters, the lower house of the legislature (the Bundestag) is technically more powerful than the upper house (the Bundesrat): The federal government requires the latter's consent only when legislation affects state government revenue or when there is a shift in state and federal responsibilities. The German head of state (the president) is a largely ceremonial figure selected by a council of Bundestag and Bundesrat members rather than the German people.

German election procedures combine plurality voting with a proportional system. Effectively, each German votes twice: first for a candidate in an electoral district and then for a political party. The second vote is meant to ensure that the makeup of the legislature is proportional to its levels of popular support. In practice, this process results in a multiparty system in which coalition governments are common.

The Bundestag's most important role is electing the chancellor, who heads the government and is commander-in-chief of the armed forces in wartime. (In peacetime, the Federal Minister of Defense is the commander-in-chief.) The German chancellor wields significant power, such as being able to appoint the federal cabinet without the consent of the legislature. The executive is balanced by a robust Supreme Court and the requirements of managing a coalition government, incentivizing cross-party consensus-building.

The German military, the Bundeswehr, was established in 1955 as part of the rearmament of West Germany following World War II and the subsequent division of Germany. Under civilian control and overseen by the Federal Ministry of Defense, the Bundeswehr is responsible for defending the country and its interests. Germany's rearmament hinged on its political and military integration into NATO, and the Bundeswehr remains geared toward engagement within a multilateral framework. Therefore, Germany depends on coordination and cooperation with partners and maintains a close security partnership with the United States.<sup>37</sup>

Prior to 2023, Germany's defense plans were articulated every 12 years in white papers that formulated a long-term vision for its security policy and the Bundeswehr. In 2018, the Bundeswehr published a concept that outlined the implementation of the plan in the most recent (2016) white paper. The objective was to confirm how the Bundeswehr would adapt conceptually from a planning perspective and how it would develop its capabilities and modernize.<sup>38</sup>

In 2023, in light of significant changes in Germany's external environment—notably, Russia's 2022 invasion of Ukraine—the 2016 white paper was superseded by a first-of-its-kind national security strategy.<sup>39</sup> The strategy aimed to “address current and future challenges to our security policy, be they domestic or external, in a comprehensive, integrated and innovative approach which is interministerial and spans all levels.”<sup>40</sup> At the time of our case study, it was anticipated that the Bundeswehr would publish a new concept outlining its plans to meet the objectives of the new strategy.

Germany's budgetary process is highly structured and includes significant checks and balances to ensure that there is sufficient oversight. The theme of accountability to the taxpayer carries throughout budgetary processes and is firmly grounded in German principles and attitudes toward public spending. Although this careful approach to spending has its drawbacks, Germany has historically held a budget surplus and economically outstrips many of its counterparts in Europe.

Parliamentary engagement is robust in the German budgetary system, and there is ample opportunity for independent (or semi-independent) institutions to provide input into fiscal policy and budget planning. In addition to increased oversight, this approach lends greater validation and diversity of thought and expertise to the budgeting process. In addition to an annual budget, Germany issues a federal financial plan (an internal government planning document covering a five-year period), both of which are renegotiated each year. Beyond

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<sup>37</sup> Federal Government of Germany, *On German Security Policy and the Future of the Bundeswehr*, June 2016, p. 1.

<sup>38</sup> Philipp Hoffmann, “Die Konzeption der Bundeswehr” [“The Concept of the Bundeswehr”], webpage, German Federal Ministry of Defense, August 3, 2018.

<sup>39</sup> German Federal Ministry of Defense, “National Security Strategy,” webpage, undated-d.

<sup>40</sup> Jörg Fleischer, “Answers to the Most Important Questions on the New National Security Strategy,” German Federal Ministry of Defense, September 7, 2022.

the annual federal budget and the five-year financial plan, Germany can tap special funds to finance programs or projects with bespoke objectives and predetermined timelines, which do not need to be renegotiated annually. Historically, special funds were used to support German reconstruction after World War II and infrastructure improvements after reunification in 1990. Introduced in 2009, a “debt brake” limits borrowing to 0.35 percent of GDP per year, except in the case of natural disasters or “extraordinary emergencies beyond the control of the state,” as occurred with the coronavirus disease 2019 (COVID-19) pandemic.<sup>41</sup> However, this rigidity has not impeded the Bundeswehr’s special fund.

Germany has a unique history, which shapes current attitudes toward military spending, as well as public spending more broadly. Nonetheless, Germany is geopolitically located at the heart of Europe, where it plays a core role in ensuring European collective security, particularly against Russia’s motives in the region. Although Germany possesses a sizable economy, its defense spending is limited by various political and economic factors, grounded in history, which set it apart from the United States and other allies.

Germany’s PPBE mechanisms are similarly unique. The emphasis on accountability and oversight results in unusual arrangements, such as a special fund that allows the Bundeswehr to overcome the debt brake. Nonetheless, lessons from the German budgeting process may be applicable to DoD. Further lessons on Germany’s approach to PPBE could be shared or discussed through existing bilateral U.S.-Germany forums or through NATO cooperation, which promotes the exchange of good practice.

## Japan

Japan is a constitutional monarchy, with governance shaped by the 1947 constitution that established a separation of powers. The national legislature consists of two houses—the House of Representatives and the House of Councillors—and members are elected by both proportional and single-seat constituencies.<sup>42</sup> Although the two houses share power, the House of Representatives predominates in producing legislation on several matters, including the nation’s budget, which can be approved even if rejected by the House of Councillors.<sup>43</sup>

In this system, Japan’s Ministry of Defense (MOD) is responsible for preventing and repelling aggression and safeguarding Japan’s independence and peace.<sup>44</sup> The MOD and the Self-

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<sup>41</sup> Steffen Murau and Jan-Erik Thie, *Special Funds and Security Policy: Endowing the German Energy and Climate Fund with Autonomous Borrowing Powers*, Institute for Innovation and Public Purpose, September 2022.

<sup>42</sup> Prime Minister of Japan and His Cabinet, “Fundamental Structure of the Government of Japan,” webpage, undated.

<sup>43</sup> Ministry of Foreign Affairs of Japan, *Governmental Structure: Changing with the Times*, Web Japan, undated.

<sup>44</sup> Ministry of Defense (Japan), “Overview and Fundamental Concepts of National Defense,” webpage, undated-d.



Defense Forces (SDF) form a single organization, with the MOD largely responsible for the administrative aspects of defense and the SDF being the operational units.<sup>45</sup>

For decades, Japan's defense budget was kept under an informal restraint of no more than 1 percent of GDP, both to allay domestic concerns about increased defense spending and to signal internationally that Japan was not becoming a military power again.<sup>46</sup> The policy was abolished in 1987, but the defense budget has only occasionally breached the 1-percent threshold.<sup>47</sup> With Japan's economic slowdown in the 1990s, defense spending stagnated. The 2022 defense white paper acknowledged that Japan had the lowest defense budget as a percentage of GDP of the Group of Seven and partner nations, as well as the lowest defense expenditure per capita.<sup>48</sup>

But in recent years, Japan's worsening security environment has led to calls to increase this budget. Against this backdrop, in December 2022, the Japanese government released three landmark documents that signaled a departure from its previous defense strategy: a new National Security Strategy (NSS), a National Defense Strategy (NDS), and a Defense Buildup Program (DBP), all of which span ten years.

The ten-year DBP replaced a five-year cycle of defense budget planning and breaks Japan's capability priorities into specific programs to guide acquisition and procurement. The priorities are framed by two five-year epochs to ensure flexibility over the ten-year time frame. Near-term efforts focus on increasing readiness and resiliency to defend against aggression, whereas the ten-year aspirations center on building a modernized force that can exploit advanced technologies to defeat aggression "earlier and at a further distance."<sup>49</sup> Critically, the DBP calls for a significant increase in Japan's defense budget.

It remains to be seen whether the full defense budget can be achieved, given public resistance to tax increases. Decisions to defer tax increases cannot be taken lightly, especially in a nation that has, by far, the world's largest government debt as a percentage of GDP.<sup>50</sup> Another key factor is Japan's aging population, 30 percent of which is over the age of 65.<sup>51</sup> This factor

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<sup>45</sup> Ministry of Defense (Japan), *Defense of Japan 2023*, 2023a, p. 275.

<sup>46</sup> Daniel Darling, "Japan Prepares for a New Era in Defense Approach and Investment," *Defense and Security Monitor*, December 12, 2022; Tsuruoka Michito, "Confronting the Cost of Japan's Defense Buildup: A Conflicted Public Considers the Options," *Nippon.com*, March 24, 2023. Technically, the policy at the time used gross national product rather than GDP to discuss the 1-percent restraint. See, for example, Kutsunugi Kazuto [香脱和人], "Changes in Defense-Related Expenses After the War" ["戦後における防衛関係費の推移"], *Legislation and Research* [立法と調査], No. 395, December 2017.

<sup>47</sup> "What Is the Defense Budget? Cabinets Have Kept Defense Spending Within 1% of GDP" ["防衛費とは歴代内閣はGDP比ほぼ1%以内に"], *Nihon Keizai Shimbun*, May 20, 2021.

<sup>48</sup> Ministry of Defense (Japan), *Defense of Japan 2022*, 2022a, p. 221.

<sup>49</sup> Ministry of Defense (Japan), *Defense Buildup Program*, December 16, 2022c, p. 14.

<sup>50</sup> World Economics, "Japan's Debt-to-GDP Ratio," webpage, undated.

<sup>51</sup> Yuki Tatsumi, "Japan's Shift to a More Robust Self-Defense Policy," Arms Control Association, June 2023.

translates to a defense personnel challenge: The SDF has consistently missed its recruitment goals over the past ten years, and it currently has a shortfall of 16,000 personnel.<sup>52</sup> Indeed, the new strategy documents call for supplementing the SDF workforce with automation and uncrewed assets. A final consideration for budget planning is Japan's defense industry capacity, which has been eroded by underinvestment and previous export limitations. An industrial reinvigoration could require facilitating exports, international investment, and direct subsidies.<sup>53</sup> It could also require nationalizing certain facilities that manufacture indispensable products.<sup>54</sup>

Japan's budget formulation processes are characterized by decentralized inputs and centralized decisionmaking on priorities. The success of these processes is aided by informal communication between stakeholders prior to and during the formal negotiations.<sup>55</sup> Budgets are typically approved in a timely manner prior to the beginning of a fiscal year, although there have been exceptions. Factors that facilitate the budget approval process include the current dominance of the ruling party, the constitutional ability for budgets to be passed by the House of Representatives alone, and the use of temporary budgets to avoid disrupting ongoing activities. During the fiscal year, there are workable ways in which allocations can be reprogrammed, supplementary budgets or contingency funds can be sought for unforeseen events, and funding can be carried over if justified, although it can take some time to obtain approval.<sup>56</sup>

Although the fragility of Japan's defense commitment in the face of multiple military threats is potentially troubling from a U.S. perspective, Japan's defense resource planning process is notable for its strong top-down approach, with characteristics of a strategies-to-tasks framework. This approach reflects best practices in modernization planning, including alignment with higher-level national objectives, consideration of new operational concepts, identification of emerging technologies and their application, development of programs to achieve selected operational concepts, and prioritized decisionmaking to allocate resources to programs.<sup>57</sup>

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<sup>52</sup> Samuel Porter, "Missiles Are No Substitute for Japan Self-Defense Forces' Manpower Shortage," *The Diplomat*, January 9, 2023.

<sup>53</sup> Gregg Rubinstein, "Japan's New Defense Buildup Plan and Its Defense Industrial Base," Center for Strategic and International Studies, January 26, 2023.

<sup>54</sup> "Japan Enacts Bill to Nationalize Defense Equipment Facilities," *Japan Times*, June 7, 2023.

<sup>55</sup> Japan subject-matter experts, interviews with the authors, July–August 2023.

<sup>56</sup> Japan subject-matter experts, interviews with the authors, July–August 2023.

<sup>57</sup> Glenn A. Kent and David E. Thaler, *A New Concept for Streamlining Up-Front Planning*, RAND Corporation, MR-271-AF, 1993.

## Singapore

The Republic of Singapore has a unicameral parliamentary system of government based on the Westminster system. The president is the head of state, while the prime minister is the chief executive of the government and the leader of the governing party in parliament. The cabinet is made up of elected members of parliament (MPs) chosen by the prime minister and is responsible for the central direction, policy, and government decisionmaking. In addition to elected MPs, the constitution allows for non-constituency cabinet members and independent members nominated by the president, with the aim of broad representation of community perspectives. However, non-constituency members do not have voting rights in budget matters. Given the long-term dominance of the ruling People's Action Party, Singapore's government has been characterized by stability and continuity. The Ministry of Defence (MINDEF), which includes the Singapore Armed Forces (SAF), has a mission to “enhance Singapore's peace and security through deterrence and diplomacy, and should these fail, to secure a swift and decisive victory over the aggressor.”<sup>58</sup>

An island city-state with an aging population of fewer than 6 million, Singapore lacks significant natural resources, retains a system of military conscription, and relies heavily on trade. These factors have motivated Singapore to develop a defense strategy based on diplomacy and deterrence, characterized by fortifying diplomatic ties within the region (including with China) while demonstrating the capacity to project hard power. Arguably the most vulnerable of its interests are the long sea lines of communication through its territorial waters, through which vital trade transits. Within Singapore, counterterrorism intelligence and response are major strategic and operational priorities, along with cyber capabilities. For the SAF, strong regional deterrence through a clear technological advantage is crucial for maintaining good relations with Singapore's closest neighbors. Singapore procures high-technology systems from the United States and focuses its domestic industry on niche upgrades. Singapore views the United States as a “reassuring and stabilizing force” and an important security partner.<sup>59</sup>

The scholarly literature on Singapore's budget process is limited, and even less open-source information is available on MINDEF processes. However, the evidence suggests that the country's overall budget process has not significantly changed over the past 20 years.<sup>60</sup> Singapore operates on a cash-based budget model, and government departments can commit to multiyear funding allocations—generally for major procurements. Each department is assigned an annual funding cap as a percentage of GDP, which gives each flexibility in allocating funds.<sup>61</sup> Singapore does not have a provision for a continuing resolution, and the coun-

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<sup>58</sup> MINDEF Singapore, “Mission,” webpage, last updated November 13, 2019.

<sup>59</sup> Goh Chok Tong, “ASEAN-US Relations: Challenges,” speech transcript, Asia Society, September 7, 2000.

<sup>60</sup> Tim Huxley, *Defending the Lion City: The Armed Forces of Singapore*, Allen and Unwin, 2000.

<sup>61</sup> Singapore Statutes Online, Financial Procedure Act; Chapter 109, Section 24(1), Financial Regulations; Part V, Classification and Control; Regulation 19, Receipts and Payments, 1990; Jón R. Blöndal, “Budgeting

try's decades-long political stability minimizes friction in parliament when it is time to pass a defense budget.

A fiscally conservative government culture is enshrined in Singapore's constitution. There are rules prohibiting successive governments from drawing on their predecessor's accumulated surpluses, limits on the use of sovereign wealth funds in budgeting, and a clause known as the "two-key safety mechanism," which requires the government to secure presidential consent before drawing on reserves or engaging in deficit financing.<sup>62</sup>

Although several lessons can be drawn from Singapore to inform future U.S. PPBE reform, DoD is far larger and more complex than MINDEF, and the political dynamics of the United States and Singapore are vastly different. For example, the Singaporean public largely accepts limited transparency in matters of state security, and MPs refrain from publicly challenging MINDEF and SAF expenditures. Despite this secrecy, the government has secured enduring public support for significant defense spending, even in the absence of a clear state-based threat. Furthermore, Singapore relies principally on bureaucratic audit agencies for budget oversight, in contrast to the significant oversight powers of Congress. Singapore's robust regulatory procedures and integrated accountability highlight the government's focus on deterring internal threats, such as corruption, while the opaqueness of its defense priorities and spending aims to deter external threats.

## Sweden

Sweden is a parliamentary constitutional monarchy. King Carl XVI Gustaf's position as head of state is purely ceremonial and symbolic.<sup>63</sup> Executive power lies with the national cabinet (Regering), consisting of various ministers and headed by the prime minister. The 349-member parliament (Riksdag) holds legislative power in conjunction with the agencies that perform the day-to-day work of the government. Whereas Swedish government ministries are led by cabinet ministers and set policy, Swedish government agencies are freestanding entities that enjoy a high degree of autonomy.<sup>64</sup> This distinction between ministries and agencies sets Sweden's governance system apart from others in Europe.

Sweden has two politically appointed defense ministers: the Minister for Defence, who is responsible for Sweden's military defense, and the Minister for Civil Defense, who is responsible for crisis preparedness and civil defense. This division of authority reflects Sweden's commitment to *total defense*, an all-of-society concept of national defense that includes military, civil, economic, and psychological elements.<sup>65</sup> The Swedish Armed Forces (SwAF) are

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in Singapore," *OECD Journal on Budgeting*, Vol. 6, No. 1, 2006.

<sup>62</sup> Blöndal, 2006.

<sup>63</sup> Government Offices of Sweden, "How Sweden Is Governed," webpage, last updated March 11, 2015a.

<sup>64</sup> SwAF, "Organisational Structure and Responsibilities," webpage, last updated April 27, 2023e.

<sup>65</sup> Swedish Ministry of Defence, *Main Elements of the Government Bill Totalförsvaret 2021–2025: Total Defence 2021–2025*, 2020.

subordinate to the cabinet via the Minister for Defence and to parliament. The role of the Chief of Defence is to supervise the armed forces and to balance their responses to short-term problems against long-term strategic objectives.<sup>66</sup>

Because of Sweden's focus on total defense, it relies on a system of collective decision-making at the ministerial level—a notable strength of its defense planning and budgeting process.<sup>67</sup> This approach ensures that decisions are made with broad support and buy-in from key stakeholders, which can prevent potential conflicts or disagreements down the line. Additionally, Sweden's tightly regulated and transparent budget cycles promote a clear understanding of the budget process and strategic, informed decisionmaking. The Swedish annual budget is part of a multiannual chain of decisions that is designed to promote financial sustainability.<sup>68</sup> This approach recognizes that budgeting decisions made in one year can have implications for future years and that it is important to take a long-term view when it comes to financial planning on issues of importance to national security and defense.

Long-term financial planning and strategic analysis shape Sweden's comprehensive and forward-looking approach to defense planning that aligns with national objectives.<sup>69</sup> Close partnerships and cooperation between the civilian and military sides, as well as between the state and its defense industry, also help Sweden avoid the U.S. pattern of contentiousness and political gridlock that can lead to uncertainty and inefficiency in the allocation of resources for DoD.

## Structure of This Report

In Chapters 2 through 6, we present detailed case studies of defense resource planning in France, Germany, Japan, Singapore, and Sweden, respectively. In Chapter 7, we review the key insights from these five case studies.

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<sup>66</sup> SwAF, "Chief of Defence," webpage, last updated September 11, 2023f.

<sup>67</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>68</sup> Ronnie Downes, Delphine Moretti, and Trevor Shaw, "Budgeting in Sweden," *OECD Journal on Budgeting*, Vol. 16, No. 2, 2017, pp. 27–28.

<sup>69</sup> Sweden subject-matter experts, interviews with the authors, August 2023.



# France

*Nicolas Jouan, Clara Le Gargasson, and Maxime Sommerfeld Antoniou*

France is the United States' oldest military ally, having provided financial and military aid to the 13 colonies during the Revolutionary War of 1775–1783. Although France is a founding member of NATO, the nation has pursued a strategy of independence since the end of World War II, particularly in its military and industrial sectors. France is one of the biggest military spenders in Europe, but it spends far less than the United States and has not reached NATO's goal of allocating 2 percent of its GDP to defense. However, French defense spending has increased steadily over the past ten years, and the French government has committed to reaching the 2-percent goal by 2025.<sup>1</sup>

The French Ministry of Armed Forces (Ministère des Armées, or MinArm) is France's equivalent to DoD and is responsible for protecting French territories, the French population, and French interests, both domestically and abroad.<sup>2</sup> Funding is allocated to the ministry through France's yearly finance law (loi de finance), which is informed by the cyclical Military Programming Law (Loi de programmation militaire, or LPM). The LPM determines and defines the priorities of public spending on defense over a period of four to seven years, as originally intended by President Charles de Gaulle in the early years of the Fifth Republic (since 1958). The LPM is based on the Strategic Review of Defense and National Security (Livre blanc sur la défense et la sécurité nationale),<sup>3</sup> a strategic document that puts forth the state's defense priorities over several years, as formulated by the French executive branch.

France's defense budgetary system offers some potential lessons for another presidential and bicameral system: the United States. The ability of the French president to settle governmental debates on budget allocations and to enact laws without the need for a parliamentary majority has spared France many of the pitfalls of gridlock encountered by the U.S. President and Congress. The Strategic Review, the LPM, and a budget breakdown (into missions, programs, actions, subactions, objectives, and performance indicators) provide a coherent

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<sup>1</sup> Vie publique, 2022g.

<sup>2</sup> MinArm, undated-b.

<sup>3</sup> MinArm, undated-d.

framework encapsulating France's perception of national security threats and its ambitions at the national and international levels. They also serve as a military roadmap to fulfilling these ambitions and outline a multiannual budget that decisionmakers can use to enact the changes deemed necessary to support the country's armed forces. The LPM's multiannual reach allows France to plan funding for long-term opportunities and challenges. France's efforts to maintain independence in defense matters, spearheaded by De Gaulle in the 1960s, have enabled it to sustain an advanced defense industrial base with a high degree of autonomy.

These characteristics come with trade-offs in terms of democratic accountability and adaptability to the evolution of the security environment. France's PPBE-like process is so centered on the president and president-selected government that the country's defense policy can be only as good as its most recently elected leader, with few pushbacks from lawmakers or civil society. In practice, the LPMs tend to evolve in semi-insularity from other political debates, staying low on the agenda compared with the domestic social positions of candidates during presidential elections every five years. For the United States, France could be viewed as a useful comparison in which debate on defense spending is sheltered from legislative politics and the president benefits from far more leeway to dictate long-term priorities. This case study presents the benefits and drawbacks of such a system.

## Historical Context

### The Legacy of Charles de Gaulle and the Constitution of 1958

France is a constitutional republic with a semi-presidential regime.<sup>4</sup> The Constitution of 1958 defines the division of France's executive, legislative, and judicial branches of power. The president, elected by universal suffrage, is the head of state and controls the executive branch, while the government is led by an appointed prime minister. The legislative power is held by the parliament, a bicameral structure composed of the National Assembly (*Assemblée Nationale*) and Senate (*Sénat*), which draft, amend, and vote on laws. The courts, which are independent from the executive and legislative branches, represent judicial power and uphold the laws enacted by parliament.<sup>5</sup> Figure 2.1 provides a simplified view of the structure of the French Republic's executive and legislative branches and how officials in each are elected.

The Constitution of 1958 and its strong emphasis on the executive branch of power were devised by De Gaulle, leader of Free France during World War II and the first president of

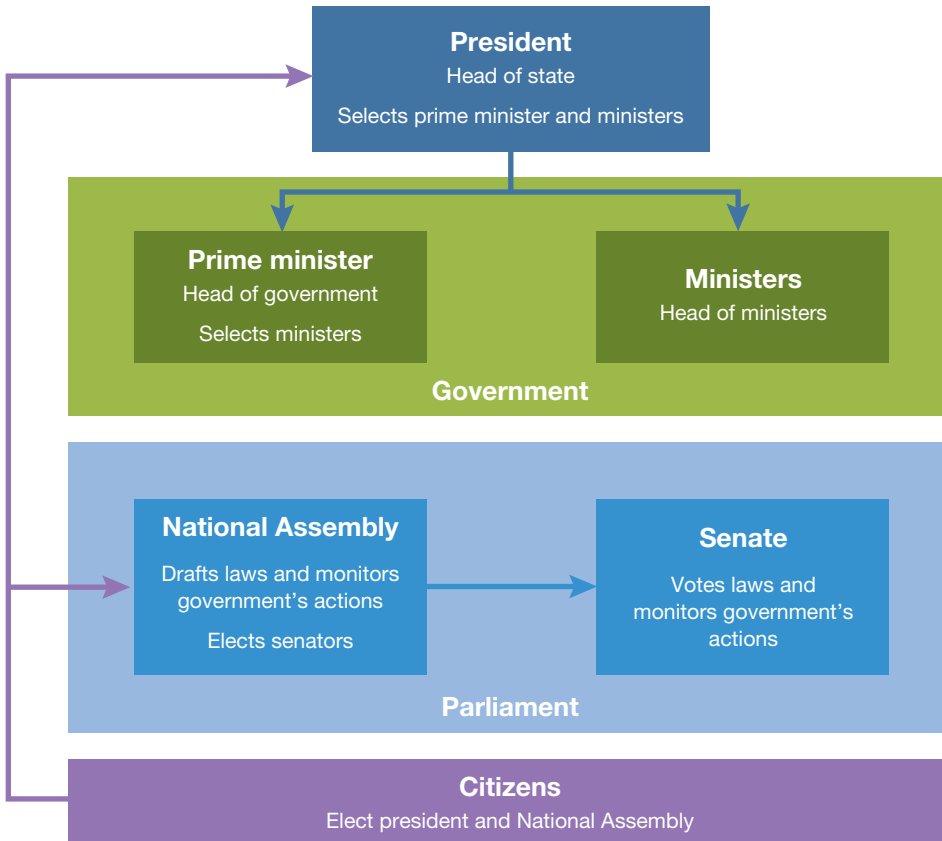
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<sup>4</sup> Vie publique, "Comment caractériser le régime politique de la Ve République?" ["How Can We Characterize the Political Regime of the Fifth Republic?"], webpage, December 7, 2022e. A *semi-presidential regime* is a hybrid system of governance in which a republic is led by an elected president, a prime minister, and a cabinet. In the case of France, the president chooses his prime minister and cabinet, but their approval and removal are determined solely by the National Assembly.

<sup>5</sup> Gicquel, Jean, and Jean-Éric Gicquel, *Droit constitutionnel et institutions politiques* [*Constitutional Law and Political Institutions*], 34th ed., LGD], 2020.



**FIGURE 2.1**  
**Structure of the Executive and Legislative Powers of the French Republic**  
**(Simplified)**



SOURCE: Adapted from Assemblée Nationale, "Fiche de synthèse n°1: Présentation synthétique des institutions françaises" ["Summary Sheet No. 1: Overview of French Institutions"], undated.

the Fifth Republic from 1958 to 1969.<sup>6</sup> De Gaulle came to power at the end of the Fourth Republic, which had been in place since the end of World War II and relied on parliamentary power and unstable partisan coalitions.<sup>7</sup> The National Assembly of the Fourth Republic had the ability to force the cabinet of ministers (akin to today's government) to resign by passing votes of no confidence.<sup>8</sup> Thereafter, MPs struggled to agree on new ministerial cabinets, peri-

<sup>6</sup> Dorothy M. Pickles, "Charles de Gaulle: President of France," *Encyclopedia Britannica*, last updated September 3, 2023.

<sup>7</sup> Vie publique, "La IVe République: un régime marqué par une forte instabilité" ["The Fourth Republic: A Regime Marked by Strong Instability"], webpage, December 22, 2022f.

<sup>8</sup> Constitution de 1946, IVe République [Constitution of 1946, Fourth Republic], October 27, 1946, Articles 49 and 50.

odically leaving France in debilitating ministerial crises. Over the 1947–1958 period, France saw 24 different cabinets.<sup>9</sup>

In the midst of the Algerian War, in which the Algerian National Liberation Front fought for the country’s independence from France, the Algiers putsch of May 1958 (led by a section of the French military) was seen as a threat to national cohesion and a possible precursor to civil war in Algeria.<sup>10</sup> The putsch caused the Fourth Republic to collapse because it made clear that parts of the French army in Algeria were no longer willing to follow or obey orders from politicians in France.<sup>11</sup> De Gaulle was asked to assume the role of head of the executive branch and put together a new constitution.<sup>12</sup> De Gaulle leveraged this position to become the architect of the Fifth Republic and the 1958 constitution, still in use today. He enacted substantial changes to the division of power in French institutions through this new constitution, transferring power from the legislative branch to the executive branch—particularly through its new central figure, the president, whom De Gaulle endowed with substantial powers.<sup>13</sup>

As a military career officer, De Gaulle was proficient in defense-related matters, and most of his choices shape the structure of France’s defense to this day. He was instrumental in France’s choice to research and integrate nuclear deterrence into its arsenal.<sup>14</sup> He removed France from NATO’s integrated command structure to pursue an independent defense policy.<sup>15</sup> He also created the centralized and technocratic Directorate General of Armaments (Direction Générale de L’armement, or DGA), which contributed to the development and sustainment of France’s defense industrial base.<sup>16</sup> Through all these actions, De Gaulle demonstrated his desire to build France’s strategic independence vis-à-vis the United States—a desire that still resonates in Europe today through France’s vision for European strategic autonomy. Nonetheless, since the Strasbourg-Kehl NATO summit held in April 2009, then-President Nicolas Sarkozy enacted the return of France within the alliance’s structures.<sup>17</sup>

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<sup>9</sup> Vie publique, 2022f.

<sup>10</sup> Jean-Pierre Bédéi, “La Ve République a 60 ans” [“The Fifth Republic Is 60 Years Old”], *L’éléphant*, No. 23, June 2018.

<sup>11</sup> Bryan Muller, “‘I Understood You!’: May 1958, the Return of De Gaulle and the Fall of France’s Fourth Republic,” *The Conversation*, May 16, 2018.

<sup>12</sup> Elysée, “Charles de Gaulle,” webpage, updated December 14, 2022.

<sup>13</sup> Vie publique, 2022e.

<sup>14</sup> Bruno Tertrais, *French Nuclear Deterrence Policy, Forces, and Future: A Handbook*, Fondation pour la recherche stratégique, February 2020.

<sup>15</sup> Manuel Lafont Rapnouil and Julianne Smith, “NATO and France,” Center for Strategic and International Studies, March 2, 2019.

<sup>16</sup> MinArm, “Présentation de la Direction générale de l’armement” [“About the Directorate General of Armaments”], webpage, undated-f.

<sup>17</sup> Jean-Pierre Chevènement and Clémence Sebag, “France’s ‘Return’ to NATO: An Inopportune Decision,” *Politique étrangère*, No. 5, 2009.

This decision broke away from a tradition of relative independence from the United States. Still, France conserves some degree of autonomy: It has remained out of NATO's Nuclear Planning Group to ensure the independence of its nuclear arsenal and deterrence approach.<sup>18</sup> Some of this autonomy can also be seen in France's interest in increasing its foreign military sales (FMS). France is keen on maintaining its sovereign capabilities and supporting a strong defense industrial base. For example, French exports of weapons accounted for about 8 percent of total global arms exports in the 2015–2019 period, according to SIPRI, which was a 72-percent increase from the prior five-year period and contributed to France's ability to support its own defense.<sup>19</sup>

## Law Enactment in France's Semi-Presidential System

The President of the French Republic is elected through direct universal suffrage because of an early amendment to the 1958 constitution to abolish the electoral college.<sup>20</sup> The president names a prime minister to head the government. Members of the government are appointed by decree by the president and the prime minister. According to custom, the prime minister must be a member of the party that won a majority in the parliamentary elections, because the prime minister requires the approval of the National Assembly to hold onto the role. If an absolute majority in the National Assembly (50 percent plus one) casts a vote of no confidence, it can force the government's dissolution and, thus, the prime minister's resignation (under Article 50 of the Constitution of 1958).<sup>21</sup> However, a vote of no confidence under Article 50 does not expose the president; another constitutional mechanism exists for impeachment.

Members of the National Assembly, the lower chamber of parliament, are elected through direct universal suffrage. The president can dissolve the National Assembly (according to Article 12 of the constitution) to resolve potential parliamentary opposition to the government's agenda and as a counterweight to the National Assembly's ability to force the government's dissolution.<sup>22</sup> Dissolution of the National Assembly by the president triggers new legislative elections within 20 to 40 days. Presidential and legislative terms are the same length (five years), and elections are nearly synchronous (both are held sequentially in May through June of each election year). The synchronicity of the two elections is a relatively recent thing, dating from the 2000 reform on the length of the presidential mandate (shifting from seven to five years) and the subsequent organic law of May 15, 2001, which pushed legislative elec-

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<sup>18</sup> Chevènement and Sebag, 2009.

<sup>19</sup> SIPRI, "USA and France Dramatically Increase Major Arms Exports; Saudi Arabia Is Largest Arms Importer, Says SIPRI," March 9, 2020; Christina Mackenzie, "Here's What's Behind France's 72% Jump in Weapons Exports," DefenseNews, March 10, 2020.

<sup>20</sup> Vie publique, "Comment est élu le président de la République et pour combien de temps?" ["How Is the President of the Republic Elected and for How Long?"], webpage, January 12, 2023.

<sup>21</sup> Constitution de 1958 [Constitution of 1958], October 4, 1958, Article 50.

<sup>22</sup> Constitution de 1958 [Constitution of 1958], 1958, Article 12.

tions from April to June.<sup>23</sup> These reforms purposely built a close sequence of presidential and legislative elections to create a momentum for the newly elected president to gain a majority in the National Assembly, therefore diminishing the risk of cohabitation (described below).<sup>24</sup> A dissolution would, however, desynchronize the elections and create a situation akin to U.S. midterm elections, in which the executive's political party can see its majority (if it has one) in the House of Representatives challenged over the course of its mandate.

Failing to obtain or losing a majority in the National Assembly would compel the president to select a prime minister of a different political affiliation, who would, in turn, name a government opposed to the president. This could lead to frictions and clashes in many arenas, including defense, finance, and budget allocation.<sup>25</sup> Such a situation is called a *cohabitation* period.<sup>26</sup> The most recent cohabitation was in 1997–2002.

The centrist party of current President Emmanuel Macron, Renaissance, does not hold an absolute majority in parliament; with only 245 seats, it falls short of the 289 needed to hold the National Assembly.<sup>27</sup> Therefore, Renaissance needs to work through ad hoc alliances with other parties to pass laws. Alternatively, the prime minister can use Article 49-3 of the constitution to bypass a parliamentary vote and enact laws through the sole will of the executive.<sup>28</sup> Article 49-3 is not without risk for the government, however: It opens the door to a vote of no confidence by the National Assembly, provided that the opposition parties can reach an agreement.<sup>29</sup>

## Defense and the Ministry of Armed Forces

As noted, the MinArm is responsible for the protection of French territories, the French population, and French interests.<sup>30</sup> It participates in joint endeavors with other countries in the context of international and regional agreements and treaties, such as NATO and European defense organizations (e.g., European Defense Agency, Permanent Structured Cooperation, or the European Union Military Assistance Mission to Ukraine).

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<sup>23</sup> Vie publique, “La réforme de 2000 sur le quinquennat présidentiel” [“The Reform of 2000 on the Presidential Five-Year Term”], webpage, July 26, 2019.

<sup>24</sup> Lisa Thomas-Darbois, *An Institut Montaigne Explainer: Understanding Legislative Elections in France*, Institut Montaigne, June 1, 2022.

<sup>25</sup> France subject-matter experts, interviews with the authors, June–August 2023.

<sup>26</sup> Thomas-Darbois, 2022.

<sup>27</sup> Éric Chaverou, “Législatives 2022: Emmanuel Macron perd sa majorité face à la Nupes et percée historique du RN” [“Legislative Elections: Emmanuel Macron Loses His Majority to Nupes in Historic Breakthrough for RN”], Radio France, June 20, 2022.

<sup>28</sup> French Government, “L'article 49.3: comment ça marche?” [“Article 49.3: How Does It Work?”], June 16, 2015.

<sup>29</sup> Aurelien Breeden, “What Is Article 49.3 of the French Constitution?” *New York Times*, March 16, 2023.

<sup>30</sup> MinArm, undated-b.

Another important actor is the Armament Engineering Corps (Corps d'Ingénieurs de l'Armement), which is a major state technical corps (Grand Corps Technique de l'État). A unique feature of the French system, the Armament Engineering Corps consists of senior civil servants with an administrative or technical focus who have been recruited from prestigious engineering schools. Members are selected each year through competitive exams. They are considered civil servants as soon as they begin training, and they receive monthly remuneration from the French state for the duration of their degree programs.<sup>31</sup> On this basis, they contractually owe a certain duration of work to official state bodies, which they can avoid if they pay back the state's investment. The elite, high-ranking civil servants of the Armament Engineering Corps have military expertise, and most studied at the École Polytechnique (known also as Polytechnique or X), an elite science and engineering school founded during the French Revolution and integrated as a military institution under Napoleon.<sup>32</sup> Engineers from the corps are trained to take on leadership, supervisory, inspection, and coordination roles in all armament-related activities, and they can participate in all scientific, technical, industrial, or administrative tasks, particularly in the fields of defense and security.<sup>33</sup> Many of the engineers work for the MinArm's DGA.<sup>34</sup> However, they also work elsewhere within the MinArm or the government, as well as for the defense industry and international bodies.<sup>35</sup>

## Overview of France's Budgeting Process

In this section, we provide an overview of France's budgeting processes.

### Planning and Programming

#### National Strategy and Programming Laws

The president is the commander-in-chief of the French Armed Forces, as defined in Article 15 of the constitution.<sup>36</sup> The president presides over the National Defense and Security Council, a small council of ministers that sets the objectives and coordinates the political

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<sup>31</sup> Victor Mérat, "Comment entrer à l'INSP, l'école qui remplace l'ENA?" ["How Do You Enter INSP, the School Replacing ENA?"], *Le Figaro étudiant*, February 4, 2022.

<sup>32</sup> Légifrance, "Décret n° 2008-941 du 12 septembre 2008 portant statut particulier du corps militaire des ingénieurs de l'armement" ["Decree No. 2008-941 of September 12, 2008, Establishing the Special Status of Military Corps of Armaments Engineers"], September 16, 2008, Article 4.

<sup>33</sup> Légifrance, 2008, Article 1.

<sup>34</sup> France subject-matter experts, interviews with the authors, June–August 2023.

<sup>35</sup> France subject-matter experts, interviews with the authors, June–August 2023.

<sup>36</sup> Constitution de 1958 [Constitution of 1958], 1958, Article 15.

aspects of French defense and security.<sup>37</sup> The president wields substantial power in defense-related matters and defines the focus of French defense efforts for the duration of the presidential mandate through the Strategic Review, which helps to ensure continuity in defense planning.<sup>38</sup> The drafting of the Strategic Review is supported by the MinArm and groups of experts in the government.<sup>39</sup> The strategic approach defined in the Strategic Review extends to the LPM, which is used to plan spending on armed forces operations and armament programs over several years.<sup>40</sup> Defense spending is then enacted on a yearly basis through budget laws.

Following from Article 34 of the constitution,<sup>41</sup> the LPM outlines actions for the state and defines the multiyear priorities of public spending on defense over a customary period of four to seven years, a range chosen by De Gaulle when he unveiled the first LPM in 1960.<sup>42</sup> These early LPMs reflected De Gaulle's priorities in pushing for the development of nuclear deterrence, a long-term defense project.<sup>43</sup> Since their origins, LPMs have aimed to modernize the armed forces and prepare France to confront new threats to its security.<sup>44</sup> The LPM is the materialization of the president's chosen military strategy through armament and investments.<sup>45</sup> Although they are the expression of a political commitment, LPMs are not legally binding, which means that parliament cannot challenge a bill on the basis of what was envisioned in the LPM.<sup>46</sup> Nevertheless, LPMs include annual financial volumes with high-level budgets, providing a frame of reference and a means of comparison with the enactment of yearly budget laws.<sup>47</sup> The LPMs inform annual rulings on budgetary priorities and how outside factors—such as changes to the security environment—affect these priorities.<sup>48</sup>

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<sup>37</sup> Vie publique, “Qu’est-ce que le Conseil de défense et de sécurité nationale (CDSN)?” [“What is the National Defense and Security Council (CDSN)?”], webpage, November 3, 2020.

<sup>38</sup> MinArm, undated-b; France subject-matter experts, interviews with the authors, June–August 2023.

<sup>39</sup> France subject-matter experts, interviews with the authors, June–August 2023.

<sup>40</sup> France subject-matter experts, interviews with the authors, June–August 2023.

<sup>41</sup> Constitution de 1958 [Constitution of 1958], 1958, Article 34.

<sup>42</sup> Constitution de 1958 [Constitution of 1958], 1958, Article 34; France subject-matter experts, interviews with the authors, June–August 2023; French Government, “La loi de programmation militaire, qu’est-ce que c’est?” [“What Is the Military Programming Law?”], updated July 17, 2023.

<sup>43</sup> Patrice Buffotot, “Les Lois de programmation militaire en France: un demi-siècle de programmation” [“Military Programming Laws in France: A Half-Century of Programming”], *Paix et Sécurité européenne et internationale*, Vol. 4, 2016.

<sup>44</sup> French Government, 2023.

<sup>45</sup> France subject-matter experts, interviews with the authors, June–August 2023.

<sup>46</sup> France subject-matter experts, interviews with the authors, June–August 2023.

<sup>47</sup> France subject-matter experts, interviews with the authors, June–August 2023.

<sup>48</sup> France subject-matter experts, interviews with the authors, June–August 2023.

LPMs provide overall visibility of France’s defense spending performance and the ability to assess long-term investments against the strategy laid out in the Strategic Review.<sup>49</sup> Their reliability depends on political leaders following through with the LPM’s multiyear planning, thereby ensuring strategic continuity with their predecessors.<sup>50</sup> However, because the LPM process also often outlasts a presidential mandate, it is sometimes criticized for not providing sufficient space for democratic consultation.<sup>51</sup> Despite not being legally binding, LPMs remain a central tool of France’s defense budget process, putting forward a budgetary plan that tends to be followed through. The nonpartisan continuity of LPMs through multiple presidential mandates has helped France deliver complex programs and pursue foreign military interventions with a relative degree of autonomy and efficiency while rarely spurring democratic debates during elections. Figure 2.2 provides a timeline of the most recent strategic reviews and LPMs.

### LPMs Since 2019: Adapting to a New Security Environment

Depending on France’s strategic needs, the LPMs can be updated or replaced prior to the end of the period they cover. If leeway is required because of new circumstances, a new LPM can be drafted to take into account these circumstances and their impact on France’s military

**FIGURE 2.2**  
**Timeline of Most-Recent Strategic Reviews and LPMs**



<sup>49</sup> France subject-matter experts, interviews with the authors, June–August 2023.

<sup>50</sup> France subject-matter experts, interviews with the authors, June–August 2023.

<sup>51</sup> France subject-matter experts, interviews with the authors, June–August 2023.

strategy.<sup>52</sup> This was the case for the 2019–2025 LPM, when President Macron ruled that the geopolitical context—and particularly the war in Ukraine, to which France committed military and humanitarian aid—made it necessary to update France’s defense priorities.<sup>53</sup> More specifically, he identified a need to reinforce the protection of national independence and to prepare France’s defense for the reemergence of high-intensity conflict.<sup>54</sup> As of this writing, the latest LPM was passed into law in August 2023. It covers all of France’s anticipated military spending between 2024 and 2030. The LPM is guided by the contents of the 2022 Strategic Review and the required substantial changes to the French defense apparatus.<sup>55</sup> The Strategic Review lists the intensification of strategic competition, the increased fragility of collective security, and the diversification of means of intimidation and aggression as France’s main strategic concerns.<sup>56</sup>

These changes prompted a substantial increase in defense spending in the 2024–2030 LPM of more than 40 percent over the 2019–2025 LPM.<sup>57</sup> The 2024–2030 LPM’s stated aims are to maintain the credibility of French military nuclear deterrence; to reinforce resilience and assert sovereignty within France’s territories, particularly its overseas territories; to defend common spaces (cyberspace, space, the seabed, and air-maritime spaces); and to rethink and diversify strategic partnerships to reinforce France’s capacity to influence, prevent conflicts, and intervene beyond its borders, as well as increase its capacity to lead large missions with partners and allies if necessary.<sup>58</sup> This translated into a budget with large allocations for the procurement of new aircraft and armored vehicles (€268 billion, or \$288 billion) and a sizable amount dedicated to personnel, with the intent of increasing troop numbers (€98 billion, or \$105 billion). The rest of the budget is parceled out to other areas of focus, such as cyber (€4 billion, or \$4.3 billion), space (€6 billion, or \$6.4 billion), drones and robots (€5 billion, or \$5.4 billion), and anti-missile and defense systems (€5 billion, or \$5.4 billion).<sup>59</sup> Figure 2.3 provides an overview of the distribution of France’s 2024–2030 LPM budget.

<sup>52</sup> France subject-matter experts, interviews with the authors, June–August 2023.

<sup>53</sup> France subject-matter experts, interviews with the authors, June–August 2023.

<sup>54</sup> French Government, 2023.

<sup>55</sup> Secrétariat général de la défense et de la sécurité nationale, *Revue nationale stratégique: 2022* [National Strategic Review: 2022], November 2022.

<sup>56</sup> Secrétariat général de la défense et de la sécurité nationale, 2022.

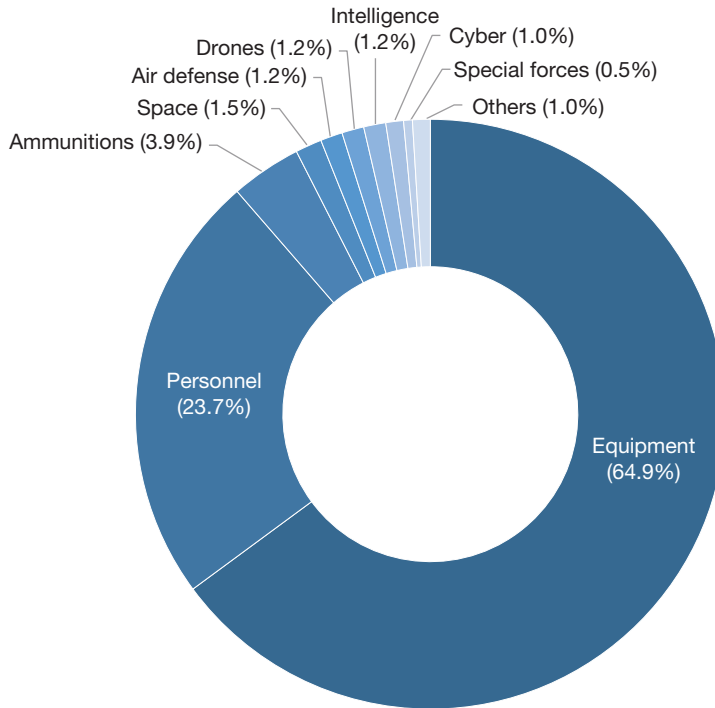
<sup>57</sup> France subject-matter experts, interviews with the authors, June–August 2023; Luc Chemla, “Infographies—Comment doivent être répartis les 413 milliards d’euros de la loi de programmation militaire” [“Infographics: How the €413 Billion in the Military Programming Law Should Be Distributed”], Radio France, May 22, 2023.

<sup>58</sup> MinArm, *LPM 2024–2030: Les grandes orientations* [LPM 2024–2030: Main Directions], 2023a.

<sup>59</sup> Légifrance, “Loi n° 2023-703 du 1er août 2023 relative à la programmation militaire pour les années 2024 à 2030 et portant diverses dispositions intéressant la défense” [“Law No. 2023-703 of August 1, 2023, Relating to Military Programming for 2024–2030, with Various Provisions on Defense”], August 2, 2023.

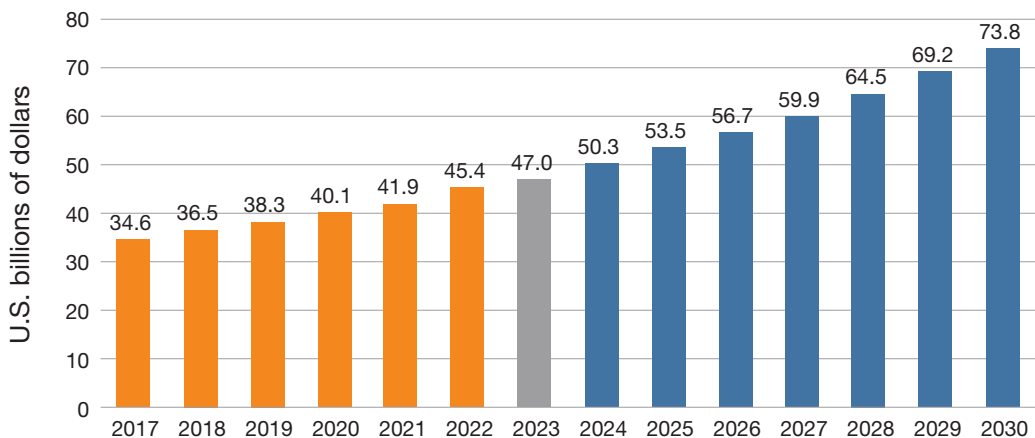


**FIGURE 2.3**  
**Distribution of France's 2024–2030 LPM Budget (€413.3 billion)**



SOURCE: Adapted from Chemla, 2023, featuring Agence France Presse data.

**FIGURE 2.4**  
**Public Spending on the Defense Sector in France Since 2017, Projected to 2030**



SOURCE: Adapted from Les Échos, “Dépenses publiques dédiées au secteur de la défense en France de 2017 à 2030 (en milliards d’euros)” [“Public Spending Dedicated to the Defense Sector in France from 2017 to 2030 (in billions of euros)”], Statista, May 2023.

## Allocation and Breakdown of the Budget, by Programs and Operations

Since 2017, the French government started increasing the MinArm's budget after decades of diminishing spending (see Figure 2.4) to keep up with a fast-changing geopolitical and security context. The overall MinArm budget amounted to €35.8 billion (\$38.5 billion) in 2019, which increased to €39.2 billion (\$41.9 billion) in 2021 and reached nearly €44 billion (\$47 billion) in 2023. The execution of the long-term budget is set to follow a similar trend up to 2030. The new 2024–2030 LPM outlines €413 billion (\$443.6 billion) in spending over this period, with €13 billion (\$14 billion) resulting from the sales of certain assets.<sup>60</sup> Again, this amount represents a 40-percent increase over the previous 2019–2025 LPM budget, which totaled €295 billion (\$317 billion).<sup>61</sup> By 2030, the annual budget should reach €69 billion (\$74 billion), a little less than twice the budget of 2018. The aim is to reach NATO's 2-percent GDP threshold dedicated to defense spending by 2025.<sup>62</sup>

The total military budget's split into missions and programs reflects the French government's strategic military priorities. According to the 2024–2030 LPM, a large part of France's defense budget in these years will be used to maintain current equipment at operational standards and acquire new and costly high-tech equipment.<sup>63</sup> Using estimates from the French Senate, 13 percent of the 2024–2030 budget will serve to maintain the technological credibility of France's nuclear deterrence, the cornerstone of its defense strategy, including aircraft and submarines.<sup>64</sup> France will also build a new nuclear aircraft carrier at a cost of €5 billion (\$5.4 billion) to replace its aging *Charles de Gaulle* carrier.<sup>65</sup> The remaining budget will be split among the maintenance of operational conditions (€49 billion, or \$53 billion), munitions (€16 billion, or \$17 billion), innovation (€10 billion, or \$11 billion), surface-to-air defense (€5 billion, or \$5.4 billion), space (€6 billion, or \$6.4 billion), cyber (€4 billion, or \$4.25 billion), drones (€5 billion, or \$5.264 billion), and special forces (€2 billion, or \$2.2 billion).<sup>66</sup> Military

<sup>60</sup> MinArm, "LPM 2024–2030: 413 milliards d'euros pour 'transformer' les armées" ["LPM 2024–2030: 413 Billion Euros to 'Transform' the Armed Forces"], webpage, January 22, 2023b.

<sup>61</sup> Leila Abboud, "Emmanuel Macron to Boost French Defence Spending in Response to Ukraine War," *Financial Times*, January 20, 2023a.

<sup>62</sup> Ministère de l'Économie, des Finances et de la Souveraineté (MinFin), "Budget de l'État: Dépenses par ministère" ["State Budget: Expenditures by Ministry"], webpage, undated-a.

<sup>63</sup> For example, the cost of a Rafale air fighter is €80 million (\$86 million), twice that of the Mirage fighter jet it replaced. See Leila Abboud, "Macron's 'Bonsai Army' Needs More Money to Grow," *Financial Times*, July 18, 2023b.

<sup>64</sup> Abboud, 2023b.

<sup>65</sup> "La construction du nouveau porte-avions nucléaire français débutera entre fin 2025 et début 2026" ["Construction on the New French Nuclear Aircraft Will Begin Between Late 2025 and Early 2026"], *Le Figaro*, April 1, 2023; Vie publique, "Loi du 1er août 2023 relative à la programmation militaire pour les années 2024 à 2030 et portant diverses dispositions intéressant la défense" ["Law of August 1, 2023, Relating to Military Programming for 2024–2030 with Various Provisions on Defense"], webpage, August 2, 2022b.

<sup>66</sup> Vie publique, 2022b.

intelligence is set to receive a 60-percent budget increase, totaling €5 billion (\$5.4 billion).<sup>67</sup> The 2024–2030 LPM also illustrates another trend in terms of military personnel and fleets. The number of brigades as of the 2030 horizon is set to remain at current levels, but the LPM specifies increases in the number of reservists to 80,000 by 2030 and 105,000 by 2035 at the latest—the aim being to reach a ratio of one reservist for every two active-component military personnel.<sup>68</sup> The size of the French military naval and air fleets will remain stable.<sup>69</sup> Finally, the LPM contains diminished provisions for external operations, primarily because France ended the Barkhane anti-insurgent operation against Islamist groups in the Sahel region of Africa that it conducted from 2014 to 2022.<sup>70</sup>

### Structure of the Programming Process

Decision power for defense budgetary decisions lies among the MinArm, informed primarily by the Chief of Defense Staff (Chef d'État-Major des Armées, or CEMA); the Ministry of the Economy, Finance, and Digital Sovereignty (Ministère de l'Économie, des Finance et de la Souveraineté Numérique, or MinFin); and the prime minister, superseded only by the president (see Figure 2.5).<sup>71</sup> Although the defense budget is agreed on, in theory, on a yearly basis (leading to a finance law), in practice, the MinArm and MinFin are rarely in agreement, and the president is almost always brought into the process to settle matters.<sup>72</sup> Traditionally, the prime minister tends to side with the MinFin in wanting to limit spending for budgetary reasons, whereas the president tends to side with the MinArm in wanting to give defense a substantial budget and uphold the pledges of the LPM.<sup>73</sup> When called on to take a side in a matter of defense finance, the president assembles the National Defense and Security Council to decide on the best way forward. The president alone has the authority to decide who, ultimately, will win in budgeting disagreements.

The dialogue within the MinArm between the CEMA and the DGA is probably the closest France has to a programming phase in its PPBE-like process. The objective of the programming stage is the delivery of military capabilities, but economic considerations come into play and lead to prolonged negotiations in the government.<sup>74</sup>

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<sup>67</sup> Abboud, 2023a; Vie publique, 2022b.

<sup>68</sup> Vie publique, 2022b.

<sup>69</sup> Abboud, 2023b.

<sup>70</sup> Vie publique, 2022b; Saskya Vandoorne and Arnaud Siad, “Macron Announces End of France’s Anti-Terror Operation Barkhane in Africa’s Sahel Region,” CNN, June 10, 2021.

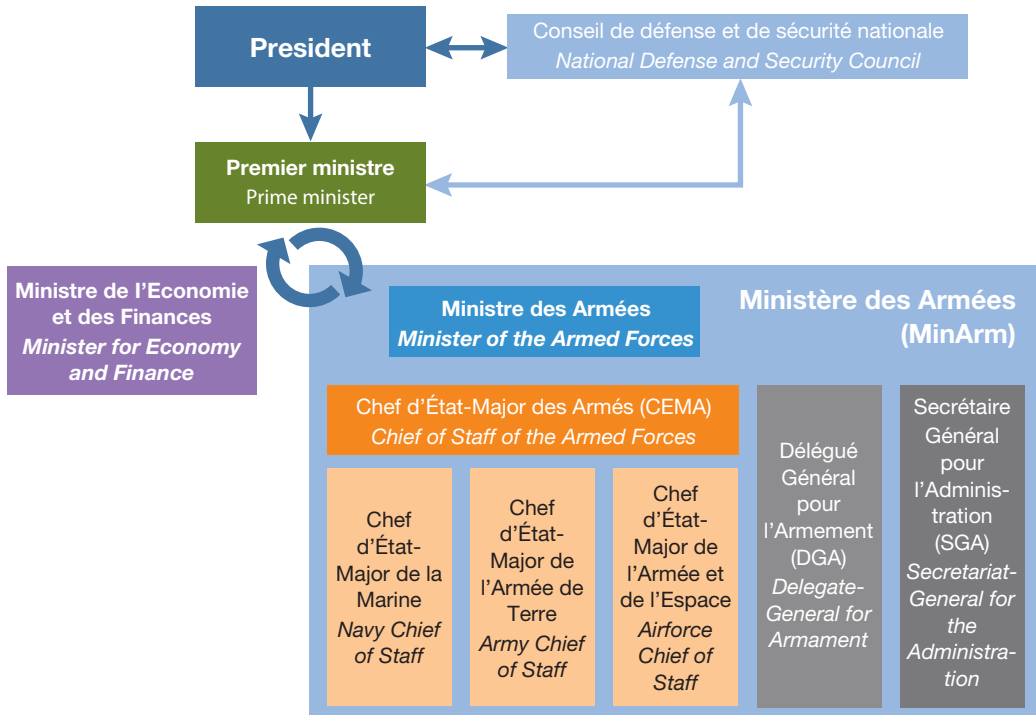
<sup>71</sup> France subject-matter experts, interviews with the authors, June–August 2023.

<sup>72</sup> France subject-matter experts, interviews with the authors, June–August 2023.

<sup>73</sup> France subject-matter experts, interviews with the authors, June–August 2023.

<sup>74</sup> France subject-matter experts, interviews with the authors, June–August 2023.

**FIGURE 2.5**  
**Structure of Defense Programming Process Leading to Finance Law (Simplified)**



SOURCE: Features information from MinArm, “Organisation du ministère des Armées” [“The Organization of the Ministry of the Armed Forces”], webpage, undated-e.

## Main Programming Stakeholders in the MinArm

### Chief of Defense Staff

The CEMA is responsible for the general organization, preparation, readiness, and capability choices of the armed forces and the joint organizations under his authority. As the head of the armed forces, this individual also has a direct communication channel with the president.<sup>75</sup> Just below the CEMA in the hierarchy are the Army Chief of Staff, the Navy Chief of Staff, and the Air and Space Force Chief of Staff. When it comes to budget priorities, these chiefs of staff express their needs and discuss trade-offs.<sup>76</sup> Even after a matter is settled among the ministries, the prime minister, and the president, negotiations can still occur between different branches of the military through their respective chiefs of staff on the specifics of budgetary allocations.<sup>77</sup> The CEMA’s opinion in budgetary matters carries a great deal of weight

<sup>75</sup> France subject-matter experts, interviews with the authors, June–August 2023.

<sup>76</sup> France subject-matter experts, interviews with the authors, June–August 2023.

<sup>77</sup> France subject-matter experts, interviews with the authors, June–August 2023.

because the CEMA is the main decisionmaker within the MinArm and is continuously in dialogue with the DGA, which informs the CEMA's opinions and decisions but does not have any real decisionmaking power.<sup>78</sup>

### Directorate General of Armaments

The MinArm's DGA centralizes France's acquisition process, including procurement programs, technological innovation, international cooperation, and the promotion of exports. It was created in 1961 during De Gaulle's presidency to pilot France's defense industrial policy and to ensure the country's sovereignty in procurement and innovation.<sup>79</sup> The head of the DGA is also the head of defense procurement. Although the DGA appears to be equal to the CEMA in terms of decisionmaking power on most organizational charts, this is not the case in practice because the DGA does not have any real political weight.<sup>80</sup> However, the DGA remains instrumental to France's military programming. Its contributions are linked primarily to its technical expertise. The DGA and its staff of trained engineers (among them, engineers of the Armament Engineering Corps) are responsible for the technical translation of operational needs.<sup>81</sup> Operational needs are defined by the CEMA and, more specifically, the chiefs of staff of the different army components. For example, the chief of staff of the land component would define its operational needs. Over the past 20 years, there has been an effort within the DGA to work more collaboratively with other branches of the MinArm, as well as with the defense industry.<sup>82</sup> The DGA's role is to ensure the strategic coherence of decisions in the short and long terms and to ensure that one branch of the armed forces is not arbitrarily given advantages over another.<sup>83</sup>

Since its inception, the DGA has been central to French defense innovation. However, it was traditionally not very proactive; defense contractors needed to reach out to the DGA with project ideas, and this used to be the only way to get funds for defense projects in France. More recently, as it began losing out to the private sector, the DGA realized that it needed a new business model to pick up on promising innovations. Therefore, in 2018, the DGA established the nominally independent Defense Innovation Agency (Agence d'Innovation Défense), which centralizes the MinArm's innovation initiatives and finds innovation opportunities that could benefit all defense domains.<sup>84</sup> Its nominal independence, which was meant to loosen the DGA's centralization, has nevertheless replicated the DGA's blueprint: A clear

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<sup>78</sup> France subject-matter experts, interviews with the authors, June–August 2023.

<sup>79</sup> France subject-matter experts, interviews with the authors, June–August 2023.

<sup>80</sup> France subject-matter experts, interviews with the authors, June–August 2023.

<sup>81</sup> France subject-matter experts, interviews with the authors, June–August 2023.

<sup>82</sup> France subject-matter experts, interviews with the authors, June–August 2023.

<sup>83</sup> France subject-matter experts, interviews with the authors, June–August 2023.

<sup>84</sup> MinArm, “Agence de l'innovation de défense: Présentation de l'Agence” [“Defense Innovation Agency: About the Agency”], webpage, undated-a.

focus on technical engineering leaves little space for a business culture resembling that of the commercial companies it intends to work with.<sup>85</sup>

### Secretary-General for Administration

Another actor at this stage is the closest equivalent in France to the role of chief financial officer: the Secretary-General for Administration (*Secrétaire Général pour l'Administration*). The Secretary-General for Administration liaises with the MinFin and assists the MinArm in all the general administration of the ministry, especially on matters relating to budget, finance, legal, real estate, human resources, and interactions between the armed forces and the French population.<sup>86</sup> However, the role lacks any real political or executive power.<sup>87</sup> As mentioned, the CEMA holds the most weight in budgetary and financial discussions, and the Secretary-General for Administration should be best understood as an enabler in the budgetary process, limited to administrative tasks.

### Acquisition Programs

The CEMA is responsible for the two defense-related missions to which governmental funding is directly allocated: (1) Defense and (2) Veterans, Remembrance, and Defense-Nation Links.<sup>88</sup> Subdivisions of the two missions are known as *grands programmes* (i.e., top-level acquisition programs)—spending programs to meet the needs of the French armed forces. In a top-down approach, the CEMA constantly monitors those needs and launches programs to fulfill them.<sup>89</sup> The DGA prepares and keeps track of these programs, managing and adjusting them to suit changing needs.<sup>90</sup> Although the programs are practical for catering to short-term needs, it is difficult to adapt them to larger, long-term projects (such as those related to evolutions in weaponry or warfare) because it can take up to 40 years for these programs to advance from the research phase to the production phase. Although the day-to-day management of programs is efficient in the French system, there is a need to better think ahead about the updates to armament programs that will be required and how to finance them.<sup>91</sup>

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<sup>85</sup> France subject-matter experts, interviews with the authors, June–August 2023.

<sup>86</sup> MinArm, “Le secrétariat général pour l’administration” [“The Secretary-General for Administration”], webpage, undated-b.

<sup>87</sup> France subject-matter experts, interviews with the authors, June–August 2023.

<sup>88</sup> France subject-matter experts, interviews with the authors, June–August 2023. The content of these missions is defined in greater details in the following subsections.

<sup>89</sup> France subject-matter experts, interviews with the authors, June–August 2023.

<sup>90</sup> France subject-matter experts, interviews with the authors, June–August 2023.

<sup>91</sup> France subject-matter experts, interviews with the authors, June–August 2023.

## Budgeting and Execution

### Principles of the National Budget Process

For more than 40 years, France’s national budget has been ruled by the Ordinance of the 2nd of July 1959. After the end of the Cold War, French officials came to view the 1959 Ordinance as inadequate for contemporary challenges. Therefore, it was replaced in 2001 by an organic finance law (Loi organique relative aux lois de finances, or LOLF).<sup>92</sup> The LOLF came into full application in 2005 and is considered France’s “financial constitution.”<sup>93</sup>

The LOLF created a new architecture for France’s public finance and budget, which is no longer defined by ministry and the nature of spending (e.g., personnel, functioning, investment, intervention) but is instead structured around missions (e.g., defense, justice, education), programs (e.g., equipment of the armed forces, preparation and employment of the forces), and actions (e.g., foreign intelligence, maritime infrastructures, drones).<sup>94</sup> According to France’s National Institute of Statistics and Economic Studies (Institut National de la Statistique et des Études Économiques), a *mission* “may concern one or more ministries,” while a *program* is defined as a “grouping of means in a public policy” that is run by a ministry according to a predefined strategy.<sup>95</sup> An *action* represents “the indicative breakdown of the program” and “provides details on the intended destination of the credits.”<sup>96</sup> Under this architecture, the premise is that the general budget of the French government will embody key public policy choices. In 2022, the budget of the French government was organized around 34 missions, themselves divided into 138 programs.<sup>97</sup> The LOLF emphasizes performance, which implies that objectives are set and results are expected.<sup>98</sup> Thus, each program has a defined strategy and quantifiable objectives and performance indicators. These elements are integrated into Annual Performance Projects (projets annuels de performances), annexes of the finance law.<sup>99</sup> Under the authority of a given minister, each program manager is respon-

<sup>92</sup> MinFin, “La loi organique relative aux lois de finances (LOLF)” [“The Organic Law Related to Finance Laws (LOLF)”], webpage, last updated October 9, 2019a.

<sup>93</sup> MinFin, 2019a; Buffotot, 2016.

<sup>94</sup> MinFin, 2019a.

<sup>95</sup> Institut National de la Statistique et des Études Économiques, “Organic Law Relating to the Finance Laws/LOLF,” webpage, October 13, 2016.

<sup>96</sup> MinFin, “Le projet de loi de finances (PLF), comment ça marche?” [“The Finance Bill (PLF): How Does It Work?”], webpage, last updated September 26, 2023.

<sup>97</sup> MinFin, “PLF 2022: 34 missions au budget général de l’Etat” [“PLF 2022: 34 Missions of the General State Budget”], webpage, October 8, 2021c.

<sup>98</sup> MinFin, 2019a.

<sup>99</sup> MinFin, 2019a.

sible for the execution of the program's strategy and thereafter reports to the parliament on its execution.<sup>100</sup>

The LOLF marked a clear departure from the 1959 Ordinance in at least three meaningful ways. First, whereas the 1959 Ordinance organized the budget based on means, the LOLF instead emphasized ends.<sup>101</sup> With a large public deficit and limited public money to spend, the LOLF structures the allocation of credits according to a functional logic. This drive for performance has also translated to greater flexibility for decisionmakers at lower levels.<sup>102</sup> That is, credits are fungible at the program level in accordance with the principle of asymmetrical fungibility. This means that each program manager can, in theory, allocate credits between the different operations, provided the ceiling for personnel expenditures is not exceeded.<sup>103</sup> Importantly, credits dedicated to personnel expenditures can be redistributed to other operations, but the other way around is not allowed.

Second, although the French Fifth Republic is notoriously centralized and vertical, the LOLF has reinforced the prerogatives of parliamentarians: They have more information at their disposal to control how the public purse is spent. Parliamentarians can propose amendments concerning the development of the yearly budget.<sup>104</sup> More specifically, they can modify how credits are allocated within a mission; create, modify, or cancel a program; set a ceiling on the number of civil servants; and modify the objectives and performance indicators of each ministry.<sup>105</sup>

Third, the LOLF was complemented by the December 2021 organic law relative to the modernization of the management of public finances (*Loi organique relative à la modernisation de la gestion des finances publiques*), which was fully implemented on January 1, 2023.<sup>106</sup> This new organic law aims to modernize the French governance framework of public finances by strengthening the multiyear management of public spending and debt, introducing a new objective on the evolution of public administration expenditure, and improving the budgetary examination procedure and calendar.<sup>107</sup>

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<sup>100</sup> MinFin, 2019a.

<sup>101</sup> MinFin, 2019a.

<sup>102</sup> Vie publique, "LOLF: quelles sont les prérogatives des gestionnaires dans l'exécution des dépenses?" ["LOLF: What Are the Prerogatives of Managers in the Execution of Expenses?"], webpage, August 16, 2021a.

<sup>103</sup> Vie publique, 2021a.

<sup>104</sup> France subject-matter experts, interviews with the authors, June–August 2023.

<sup>105</sup> MinFin, 2023.

<sup>106</sup> Vie publique, "Loi organique du 28 décembre 2021 relative à la modernisation de la gestion des finances publiques" ["Organic Law of December 28, 2021, Relating to the Modernization of Public Finance Management"], webpage, December 29, 2021b.

<sup>107</sup> Corinne Desforges, "Réforme de l'État et gestion publique" ["State Reform and Public Management"], *Revue française d'administration publique*, Vol. 1, No. 181, 2022.



## Impact of the LOLF on Defense Budgeting

The promulgation of the LOLF has had a structural impact on the budgeting process of the French armed forces by redefining the budget-ministry dynamic. Until 2005, the MinArm budget was structured around four titles aligned with the nature of the spending: staff salaries, defense functions, investments, and exceptional subventions.<sup>108</sup> These titles were thereafter allocated across nine structures: the Air Force, Navy, Land Army, Gendarmerie, DGA, inter-army support, intelligence, administration, and the CEMA.<sup>109</sup> Before the LOLF, budgets were mapped to ministries and their objectives blurred with those of the organization they were attached to. The LOLF sought to simplify this supervision. Now, the national budget is articulated in terms of mission portfolios with their own sets of objectives. Since 2005, credits are no longer allocated by titles but spread across the two missions of (1) Defense and (2) Veterans, Remembrance, and Defense-Nation Links.<sup>110</sup> A recently added third mission, Economic Recovery Plan, is not directly under MinArm supervision; rather, it is shared by all the ministries, and the MinArm benefits from its funds.<sup>111</sup>

As of 2023, the MinArm is responsible for two missions and six programs from which it derives its budget (see Figure 2.6). First, the Defense mission is divided into four key programs:

- Program 144: Environment and Future Defense Policy
- Program 146: Equipment of the Armed Forces
- Program 178: Preparation and Employment of Forces
- Program 212: Support to the Defense Policy.

The second mission—Veterans, Remembrance, and Defense-Nation Links—is subdivided into two programs.<sup>112</sup>

- Program 167: Defence-Nation Links
- Program 169: Recognition and Compensation for Veterans.

The Economic Recovery Plan mission and its two programs—Ecology (Program 362) and Competitiveness (Program 363)—are not solely under MinArm authority, but the ministry nonetheless receives credits for each program. Additionally, it should be noted that the Defense mission does not include pensions, which are financed by the MinFin budget.

<sup>108</sup> Buffotot, 2016.

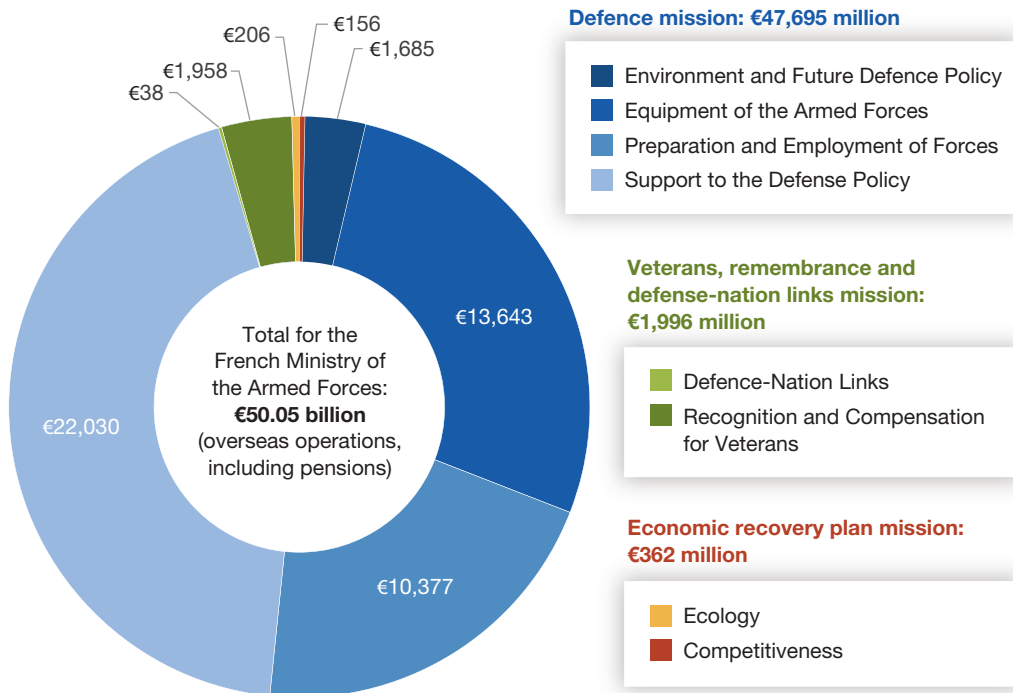
<sup>109</sup> Buffotot, 2016.

<sup>110</sup> France subject-matter experts, interviews with the authors, June–August 2023.

<sup>111</sup> France subject-matter experts, interviews with the authors, June–August 2023.

<sup>112</sup> MinFin, *Budget Général, Mission Interministerielle: Projets Annuels de Performances, Annexe au Projet de Loi de Finance pour 2022—Anciens Combattants, Mémoire et Liens avec la Nation*, [General Budget, Interministerial Mission: Annual Performance Reports, Annex to the Draft Finance Law for 2022—Veterans, Memory, and Links to the Nation], 2021a.

**FIGURE 2.6**  
**Breakdown of France’s Military Budgetary Credits, by Program (2021 € millions)**



SOURCE: Adapted from MinArm, *Defence Key Figures, 2021 Edition*, 2021, p. 12, Figure 2.2.

### Yearly Budget Cycle and Finance Law

The LPM orients decisionmakers by projecting future military spending over the next four to seven years, but the public and MinArm budgets are decided on a yearly basis. The budget for a given year is elaborated in the preceding year with the Project Finance Law (Projet de loi de finances, or PLF).<sup>113</sup> At the end of each yearly cycle, the finance law (loi de finances) replaces the PLF and is eventually promulgated by the president.<sup>114</sup>

The finance law provides a high-level view of the budgets allocated to each mission and program of the French government. Each finance law is complemented by annexes specifying performance expectations and providing granular details on spending associated with specific missions. These annexes provide program-by-program and action-by-action details on expenses, reports on past performances, and performance forecasts for informative (i.e.,

<sup>113</sup> Vie publique, “Quelles sont les étapes d’élaboration d’une loi de finances?” [“What Are the Steps in Developing the Finance Law?”], webpage, August 22, 2022c.

<sup>114</sup> Vie publique, 2022c.

non-binding) purposes.<sup>115</sup> Each operation's budget is projected on a timeline spanning five fiscal years: two years in the past, the current year, and two years in the future. The budget is further broken down into two categories:<sup>116</sup>

- commitment authorizations (*autorisations d'engagement*), total budget authorized for a fiscal year (only for the prior and current years)<sup>117</sup>
- payment credits (*crédits de paiement*), the upper limit of credit allocation by fiscal year (starting from the fiscal year of the commitment and projected into the future).

The budget cycle leading to the promulgation of the finance law follows a well-defined sequence, which spans from January 1 until December 31 (see Figure 2.7).<sup>118</sup>

- **Between February and April**, the MinFin gets in touch with other ministries through conferences on the budget and structural economy. In parallel, the government invites the High Council of Public Finances (Haut Conseil des Finances Publiques) to audit the economic forecasts of the executive.
- **Between March and April**, the prime minister sends budgetary guidelines on the government's financial objectives to each ministry to manage expectations.
- **Between April and June**, ministers receive the guidelines formalizing the maximum budget at the disposal of their respective ministries. Ministers attend "performance conferences" to establish and evaluate the objectives and performance indicators for each mission. Then, political negotiations and arbitrations between the ministers and the prime minister begin. The MinArm has an internal process to continuously evaluate its budgetary requirements and expenditures.<sup>119</sup> Like any ministry, it can contest the budget proposed by the prime minister.<sup>120</sup> In case of persistent disagreement between the ministries, the president can arbitrate between the MinArm minister, the CEMA, and the DGA on the one hand and the MinFin on the other.<sup>121</sup> In any case, the president,

<sup>115</sup> See, for example, MinFin, *Budget Général, Programme 146: Projets Annuels de Performances, Annexe au Projet de Loi de Règlement du Budget et d'Approbation des Comptes pour 2023—Équipement des Forces*, [General Budget, Program 146: Annual Performance Projections, Annex to the Draft Budget Regulation, and Accounts Approval Law for 2023—Equipment of the Armed Forces], 2022b.

<sup>116</sup> See MinFin, 2022b.

<sup>117</sup> France's fiscal year is the same as the calendar year: January 1 to December 31.

<sup>118</sup> Vie publique, 2022c.

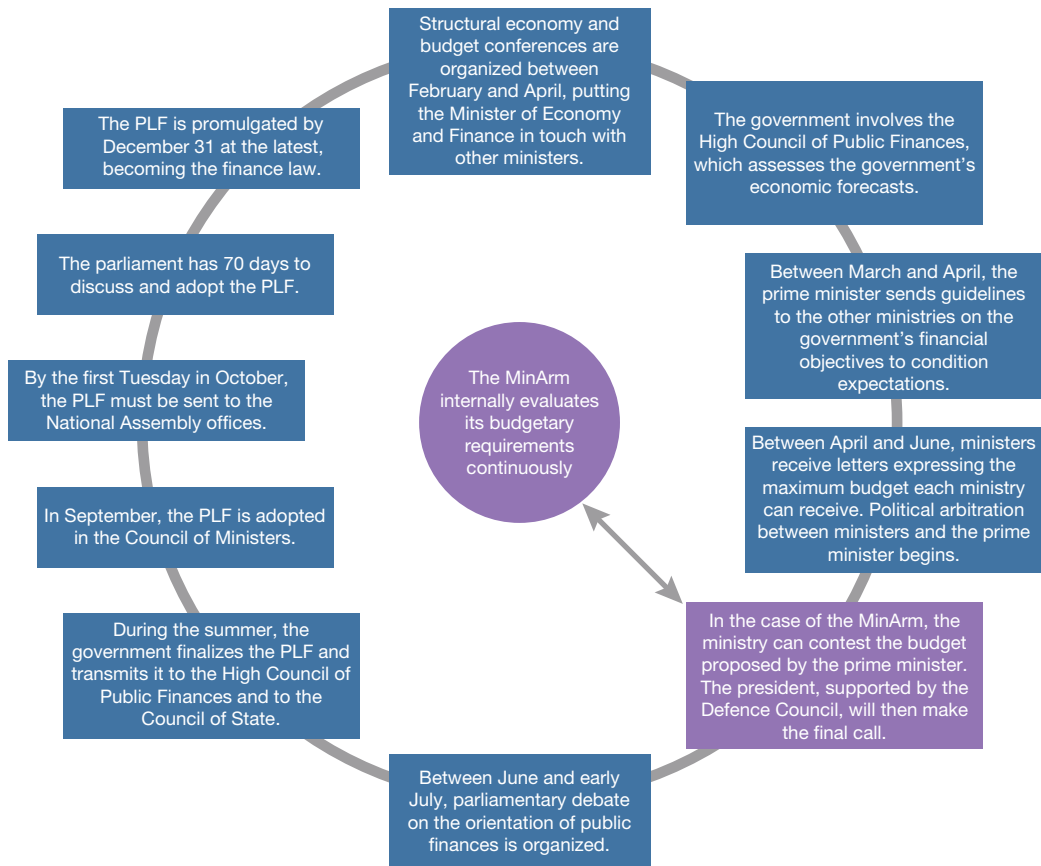
<sup>119</sup> France subject-matter experts, interviews with the authors, June–August 2023.

<sup>120</sup> France subject-matter experts, interviews with the authors, June–August 2023. As mentioned, the prime minister tends to side with the MinFin in compounding the budgetary demands of the MinArm, whereas the President tends to side with the latter. Public servants with influence, such as the head of the DGA, are usually needed for the MinArm to influence the decisionmaking process and counterbalance the MinFin's influence.

<sup>121</sup> France subject-matter experts, interviews with the authors, June–August 2023.

FIGURE 2.7

### Budgetary Cycle of the French Government



SOURCE: Features information from Vie publique, "Comment est élaborée une loi de finances?" ["How Is a Finance Law Drawn Up?"], webpage, September 19, 2022d.

supported by the National Defense and Security Council, makes the final call if no agreement is found. Once the president has conducted the necessary arbitrations, the prime minister passes a decree confirming the presidential rulings.

- **Between April and July**, debate in the National Assembly unfolds over governmental decisions on public finances. Parliamentarians and political parties can modify the PLF within missions, but only the government can create missions or transfer credits across them.
- **Over the summer**, the government finalizes the PLF and sends it to the High Council of Public Finances and the State Council (Conseil d'État, France's Supreme Court for administrative justice) to review the credibility of the PLF and its objectives in the current macroeconomic context.
- **In September**, the PLF is adopted by the Council of Ministers.

- **By the first Tuesday of October**, the PLF is formalized into a draft version of the finance law and is sent to the National Assembly. From this point onward, lawmakers have 70 days to discuss, debate, propose, and, eventually, adopt, amend, or reject the draft of the finance law.<sup>122</sup>
- **By December 31 at the latest**, the draft finance law officially becomes the finance law for the following year by presidential promulgation. The yearly amount of credit each ministry disposes of results from this finance law.

### Yearly Performance Plans of Mission and Acquisition Programs

Each finance law is accompanied by annexes that plan out performance and provide granular details on the spending associated with specific missions. These annexes (1) provide details on (sub)action-by-(sub)action (e.g., acquisition program) and operation-by-operation (e.g., subaction component) expenses, (2) report on past performance, and (3) articulate forecasted performance. Each operation's budget is projected on a timeline spanning four fiscal years: one year in the past, the current year, and two years in the future. These timelines are broken down into commitment authorizations and payment credits. Table 2.1 shows how this process plays out using the example of the Rafale multirole fighter acquisition and its corresponding performance report in the most recent finance law at the time of this writing (FY 2022). Columns show the usual timeline with commitment authorization (*Engagements*) sums for the prior year (FY 2021), current FY 2022, projected FYs 2023 and 2024, and the total sum beyond (*Paielements*), at the operation (*Opérations*) level.

### Discrepancies and Limits in the Execution of the Budget

Arguably, the LPM provides a framework for budget planning and execution with a clarity that does not exist in such countries as the UK or Germany.<sup>123</sup> Nonetheless, budgetary execution can deviate from the priorities provided in the LPM in several ways. First, *unforeseen extra costs* can prevent the correct execution of the budget. External operations can lead to a significant increase in military spending compared with what was initially planned. According to the French Senate's Foreign Affairs and Defense Committee, unforeseen extra costs have already reached €7.4 billion (\$8 billion) over the 2024–2030 LPM (a result of, for example, external operations or the aftermath of the COVID-19 crisis).<sup>124</sup> This, in turn, will force the MinArm to reallocate credits from certain programs to cover these overexpenditures or delay strategic investments.<sup>125</sup>

<sup>122</sup> Vie publique, "Qu'est-ce qu'une loi de finances?" ["What Is a Finance Law?"], webpage, July 19, 2022a.

<sup>123</sup> France subject-matter experts, interviews with the authors, June–August 2023.

<sup>124</sup> Assemblée Nationale, *Constitution du 4 Octobre 1958, Tome IV: Défense* [Constitution of October 4, 1958, Vol. 4: Defense], October 19, 2022.

<sup>125</sup> Vie publique, 2022g; France subject-matter experts, interviews with the authors, June–August 2023.

TABLE 2.1

## Example of (Sub)Action Performance Report: Rafale Acquisition Action (FY 2022)

| TBF3<br>Opérations<br>stratégiques | Niveau | Opérations                                    | Engagements       |             |             | Paiements           |        |          |          |          | Total    |
|------------------------------------|--------|---|-------------------|-------------|-------------|---------------------|--------|----------|----------|----------|----------|
|                                    |        |   | RàP à fin<br>2020 | Eng<br>2021 | Eng<br>2022 | 2021                | 2022   | 2023     | 2024     | >2024    |          |
| INFRA                              | ACT    | Réaliser l'infrastructure d'accueil<br>RAFALE | 7,58              |             |             | 3,99                | 1,74   | 0,05     | 0,07     | 1,73     | 7,58     |
|                                    |        |   |                   | 73,95       |             | 3,23                | 17,24  | 29,44    | 20,89    | 3,14     | 73,95    |
|                                    |        |   |                   |             | 69,98       |                     | 10,00  | 34,85    | 23,29    | 1,84     | 69,98    |
| AOA                                | OP     | AOA-EC  | 222,07            |             |             | 81,97               | 50,76  | 40,11    | 29,14    | 20,09    | 222,07   |
|                                    |        |   |                   | 84,05       |             | 8,55                | 12,58  | 28,08    | 20,35    | 14,50    | 84,05    |
|                                    |        |   |                   |             | 74,48       |                     | 11,45  | 30,63    | 17,22    | 15,19    | 74,48    |
| PEM                                | ACT    | RAFALE  | 1 853,48          |             |             | 571,92              | 236,03 | 669,34   | 237,45   | 138,75   | 1 853,48 |
|                                    |        |   |                   | 1 711,16    |             | 399,26              | 49,02  | 193,47   | 453,45   | 615,96   | 1 711,16 |
|                                    |        |   |                   |             | 282,93      |                     | 14,09  | 51,60    | 90,85    | 126,39   | 282,93   |
| PEM                                | ACT    | RAFALE: Rétrofit Rafale F1-F3                 | 9,71              |             |             | 2,98                | 1,31   | -        | -        | 5,42     | 9,71     |
|                                    |        |   |                   | 0,21        |             | 0,21                | -      | -        | -        | -        | 0,21     |
|                                    |        |   |                   |             | 0,59        |                     | 0,59   | -        | -        | -        | 0,59     |
| PEM                                | ACT    | RAFALE: Rafale F3R                            | 19,36             |             |             | 17,07               | 2,27   | -        | -        | 0,02     | 19,36    |
|                                    |        |   |                   | 5,76        |             | 4,46                | 1,29   | -        | -        | 0,01     | 5,76     |
|                                    |        |   |                   |             | 1,42        |                     | 0,07   | 1,35     | -        | -        | 1,42     |
| PEM                                | ACT    | RAFALE: Rafale F4                             | 1 379,07          |             |             | 348,18              | 217,20 | 234,07   | 218,61   | 361,01   | 1 379,07 |
|                                    |        |   |                   | 333,34      |             | 39,42               | 25,32  | 66,22    | 43,53    | 158,85   | 333,34   |
|                                    |        |   |                   |             | 520,51      |                     | 27,76  | 32,70    | 144,71   | 315,34   | 520,51   |
| PEM                                | OP     | Divers PEM                                    | 1,31              |             |             | -                   | -      | -        | -        | 1,31     | 1,31     |
|                                    |        |   |                   | -           |             | -                   | -      | -        | -        | -        | -        |
|                                    |        |   |                   |             | -           |                     | -      | -        | -        | -        | -        |
| Total                              |        |   | 3 492,59          | 2 208,46    | 949,93      | 1 481,23            | 678,71 | 1 411,92 | 1 299,57 | 1 779,55 | 6 650,97 |
|                                    |        |   | Somme des engts   |             | 6 650,97    | Somme des paiements |        |          |          |          | 6 650,97 |

SOURCE: Reproduced from MinFin, 2021b, p. 145, Table 5.3.

Second, *external shocks* can affect the budget's execution. For example, high inflation is set to strain the 2024–2030 military budget by €30 billion (\$32 billion), which represents 30 percent of the budget increase since the 2019–2025 LPM.<sup>126</sup> This cost increase has forced the MinArm to reduce the quantities of equipment ordered. The French Air Force will reduce its orders of Rafale aircraft by 48 units over the 2024–2030 period and faces other cancellations that could result in penalties paid by the MinArm to industry suppliers.<sup>127</sup> Conversely, such events as the 2015 terrorist acts that killed 130 people in France led to increased military spending.<sup>128</sup> It should be noted that, although Russia's invasion of Ukraine has reinvigorated France's willingness to invest in defense, the government must still face the inherent limits of

<sup>126</sup> Abboud, 2023a.

<sup>127</sup> Abboud, 2023a; France subject-matter experts, interviews with the authors, June–August 2023.

<sup>128</sup> Buffotot, 2016.

its tax-raising abilities because, in the words of one interviewee, the country is “not running a wartime economy.”<sup>129</sup>

Third, the political will backing defense expenditures may be the most fundamental factor explaining discrepancies between the LPM’s budgetary projections and the actual credits allocated in the finance law.<sup>130</sup> France has severe budgetary constraints that can prevent it from investing as much as initially planned in its armed forces.<sup>131</sup> Often, the military budget has been adjusted to reduce the country’s deficit, maintain a more-or-less balanced state budget, or fund other programs, such as addressing climate change.<sup>132</sup> In times of limited funding, the MinArm has redirected the budget allocated to Program 146, Equipment of the Armed Forces, to finance other parts of the French military, such as Program 178, Preparation and Employment of Forces.<sup>133</sup> Of the 13 LPMs spanning 1960 to 2019, only the first three had their budgets executed as planned; the ten others have systematically been confronted with budget cuts.<sup>134</sup> Indeed, there can be important differences between the LPMs and the finance laws. For example, the discrepancy between the 1997–2002 LPM and the actual budget over the same period amounted to €14 billion (\$15 billion). According to the 2008 Strategic Review on National Defense and Security, this difference can be attributed to choices made during the government’s budgetary execution to reallocate portions of the military budget to other ministries and programs.<sup>135</sup> Nevertheless, the report on the 2023 finance law relating to defense, published by the National Assembly’s Foreign Affairs Committee, indicates that the allocation of credits for 2023 is in line with the trajectory of the 2019–2024 LPM (now superseded by the 2024–2030 LPM).<sup>136</sup>

### Mechanisms to Adapt the Budget at the Program Level

The execution of the budget is adaptable at the program level in several ways. As mentioned, credits are fungible in accordance with the principle of *asymmetrical fungibility*, meaning that within each program, the program manager can, in theory, allocate credits between different actions, provided the ceiling for personnel expenditure is not exceeded and that it contributes to the fulfillment of the program’s objectives (i.e., aligns with the LOLF’s emphasis on *ends* instead of *means*). These reallocations within programs are reported annually in the annex to

<sup>129</sup> France subject-matter experts, interviews with the authors, June–August 2023.

<sup>130</sup> France subject-matter experts, interviews with the authors, June–August 2023.

<sup>131</sup> Buffotot, 2016.

<sup>132</sup> Buffotot, 2016; France subject-matter experts, interviews with the authors, June–August 2023.

<sup>133</sup> France subject-matter experts, interviews with the authors, June–August 2023.

<sup>134</sup> Buffotot, 2016.

<sup>135</sup> Friederike Richter, “Les budgets de défense en France: une difficulté chronique du respect des lois de programmation militaire?” [“Defense Budgets in France: A Chronic Difficulty in Respecting Military Programming Laws?”], *Les Champs de Mars*, Vol. 1, No. 30, 2018.

<sup>136</sup> Vie publique, 2022g.

the finance law. For example, in the annex to the 2022 finance law concerning Program 212, Support to Defense Policy, asymmetrical fungibility allowed the program manager to transfer €200,000 (\$210,000) from the personnel budget to nonpersonnel expenditures.<sup>137</sup> Nonetheless, some constraints remain. First, credits dedicated to personnel expenditures can be redistributed to other actions but not the other way around. Additionally, autonomy does not exclude control. Ex post analysis is conducted to evaluate the efficiency of a program manager's choices, and the program manager has to report on the program's performance to parliament. The funding under the authority of the program managers can vary greatly: from several million euros to billions of euros. For instance, the SCORPION program, France's main land vehicle acquisition program, had more than €1 billion (\$1.07 billion) of commitment authorizations allocated in 2021, whereas most other programs had less than €100 million (\$107 million) of an expenditure area (AE) allocated that same year.<sup>138</sup> Finally, both the MinArm's Secretary-General for Administration and the MinFin have stated that credit fungibility should be used only as a last resort once an action's budget has been executed for the year.<sup>139</sup>

Additional credits can be allocated to a given program. On prime ministerial decree, on the advice of the MinFin, funds can be taken from a special program on "allowance for accidental and unforeseeable expenses" and allocated during the fiscal year to another program.<sup>140</sup>

Sometimes, the budget must be adjusted during a given year, such as to cover the expenses of personnel unexpectedly sent abroad. On prime ministerial decree, on the advice of the MinFin, virements of credits between programs are possible within the same ministry. The cumulative number of appropriations transferred in any given year may not exceed 2 percent of the appropriations approved in the finance law for that year for each of the programs concerned. In other words, there is space for transfers of credit within the armed forces budget during the year should funding priorities change. For instance, the prime minister passed a decree in FY 2022 canceling credits for Program 178, Preparation and Employment of Forces, and reallocated them to Program 144, Environment and Future Defense Policy.<sup>141</sup> As a result, Action 3 of Program 144, which finances MinArm intelligence activities, benefited from a transfer of €10 million (\$11 million) to finance a cyberdefense operation.<sup>142</sup>

<sup>137</sup> MinFin, *Budget Général, Programme 212 : Rapports Annuels de Performances, Annexe of Projet de Loi de Règlement du Budget et d'Approbation des Comptes pour 2022—Soutien de la Politique de la Défense*, [General Budget, Program 212: Annual Performance Projections, Annex to the Draft Budget Regulation and Accounts Approval Law for 2022—Support to the Defence Policy], 2022c.

<sup>138</sup> MinFin, 2021b.

<sup>139</sup> Court of Auditors, *Analyse de l'Exécution Budgétaire 2022: Mission "Défense"* [Analysis of Budget Execution: "Defense" Mission], April 2023.

<sup>140</sup> MinFin, 2019a.

<sup>141</sup> Légifrance, "Décret n° 2020-1016 du 7 août 2020 portant virement de crédits" ["Decree No. 2020-1016 of August 7, 2020, on Transferring Credits"], August 9, 2020.

<sup>142</sup> Court of Auditors, 2023.



Credits can also be transferred across programs and ministries. On prime ministerial decree, credit transfers between ministries and programs can happen if the intended use of credits corresponds to actions of the program of origin. For instance, the prime minister passed a decree during FY 2022 canceling credits from one mission of Program 129, Coordination of Governmental Work, that was under the responsibility of the prime minister's cabinet and transferred €78.4 million (\$84.2 million) to Program 144, Environment and Future Defense Policy, part of the Defense mission under MinArm purview.<sup>143</sup> The credits were originally intended for the Secretariat-General for Defense and National Security (Secrétariat Général de la Défense et de la Sécurité Nationale), which assists the prime minister in matters related to defense and national security.<sup>144</sup> The transfer of credits to the French foreign intelligence agency was justified based on the agency's need to reinforce its technical capacity.<sup>145</sup>

Program-level budgets can benefit from two accounting procedures to receive additional funding. The first, assistant funds (*fonds de concours*) in the LOLF, are intended for public-interest expenditures and are not taxed.<sup>146</sup> The second, product attributions (*attributions de produits*), are revenues derived from the remuneration of services regularly provided by the state, including for licenses, industrial intellectual property rights, or even the selling of assets.<sup>147</sup> For example, an analysis of the 2022 budgetary execution of the Defense mission revealed that product attributions and assistance funds amounted to €1.06 million (\$1.14 million) because of the sale of Rafale aircraft to Croatia.<sup>148</sup>

Finally, the precautionary reserve, set up by the LOLF, aims to help programs face future unexpected events.<sup>149</sup> To this end, programs need to save a fraction of the credits allocated to them by the finance law. The rates of savings range from 0.5 percent for credits allocated to personnel spending to an average of 3 percent for other programs.<sup>150</sup> For instance, in Program 144, the precautionary reserve was used to cover extra costs related to energy, infra-

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<sup>143</sup> Court of Auditors, 2023.

<sup>144</sup> Assemblée Nationale, *Rapport n°3399, Annexe 15: direction de l'action du gouvernement publications officielles et information administrative investissements d'avenir* [Report No. 3399, Annex 15: Direction of Government Action for Official Publications and Administrative Information Investments for the Future], October 8, 2020.

<sup>145</sup> Assemblée Nationale, 2020.

<sup>146</sup> MinFin, "Les principaux outils de pilotage de l'exécution du budget" ["The Main Tools for Managing Budget Execution"], webpage, October 9, 2019b.

<sup>147</sup> MinFin, 2019b; MinFin, *Annexe au Projet de Loi de Finances pour 2023: Etat Récapitulatif des Crédits de Fonds de Concours et Attributions de Produits* [Annex to the Finance Bill for 2023: Summary Statement of Competition for Fund Credits and Product Allocations], 2022a.

<sup>148</sup> Court of Auditors, 2023.

<sup>149</sup> MinFin, 2019b.

<sup>150</sup> MinFin, 2019b.

structures, and intelligence gathering, as well as new equipment for civilian and military intelligence agencies in the wake of Russia's invasion of Ukraine.<sup>151</sup>

### Mechanisms to Adapt the Budget at the Finance Law Level

Budget execution is adaptable at the level of the finance law in several ways. Additional funding can be provided via amendments to the finance law. Sections of the finance law can be amended by following the same steps used to produce the finance law. A draft is generally discussed by the Council of Ministers at the end of the year, with a view to settling end-of-year operations: covering budgetary deadlocks, canceling appropriations that have become superfluous, or otherwise taking the steps necessary to comply with the execution of the finance law.

Furthermore, credits can be allocated through advanced emergency funding from the next finance law. In the event of an emergency, advanced funding taken from the next finance law can be issued by decree on the advice of the Council of State and after consultation with the National Assembly and Senate Finance Committees to open additional appropriations without affecting the budget balance defined in the previous finance law.

In addition, provisions can be unblocked to finance operations. Funding for operations is theoretically included in the Defense mission. If operational costs go beyond allocated funding, Article 4 of the LPM includes the possibility to use additional interministerial funding, requiring reallocations from every other mission in the name of national contributions to the defense effort. Such reallocations tend to have a high political cost, however, and the government sometimes refuses to use this lever, instead letting the MinArm carry the burden by using virements.

Finally, if deemed necessary in exceptional circumstances, a new finance law can be created from the ground up by publishing a so-called rectifying finance law (*loi de finance rectificative*).<sup>152</sup> The French government used an amending finance law at the end of 2022 to set up a special fund of €100 million (\$107 million) to support Ukraine's acquisition of defense and security equipment.<sup>153</sup>

## Oversight

On top of restructuring the national budget process, the LOLF is intended to simplify supervision.<sup>154</sup> There are theoretically verifications of the finance law by France's independent audit authority, the Court of Auditors (*Cour des Comptes*) and the Defense Commission of the

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<sup>151</sup> Court of Auditors, 2023.

<sup>152</sup> France subject-matter experts, interviews with the authors, June–August 2023.

<sup>153</sup> MinFin, 2021b.

<sup>154</sup> France subject-matter experts, interviews with the authors, June–August 2023. See the previous section “Principles of the National Budget Process” for more on France's budget process restructuring procedures.

National Assembly.<sup>155</sup> At the end of a fiscal year, a specific finance law, called the settlement law (*loi de règlement*) is passed to close the year's accounts. A full reporting on past fiscal year performance by mission, program, and operation is annexed to this law. The annex outlines the final amount of credit appropriations and expenditures recorded during the fiscal year, indicating any discrepancies in appropriations down to the operation level and any transfers recorded during the year. The annex covers each budget line, specifying, for example, why specific budgets were created, what was spent in the years prior, what will likely be spent in the years to come, and whether there was any deviation from the plan.<sup>156</sup>

The Court of Auditors also monitors budgetary execution. The court publishes an analysis of budgetary execution for each mission (including the Defense mission), monitors the execution of the LPM, evaluates fiscal spending, and provides recommendations. The Court of Auditors is led by the First President (*Premier Président*), who is named by the president.<sup>157</sup> Because the mandate of the First President is not revokable, independence is considered guaranteed. The current First President of the Court of Auditors is Pierre Moscovici, named by President Macron in June 2020. Clashes between the court and the government do occur when France's president is considered to be failing at meeting budget commitments. In June 2023, for instance, the court openly requested a "substantial effort" from the government to reduce the public deficit.<sup>158</sup> These requests are, however, only consultative; the Court of Auditors does not have any binding power over the executive and legislative branches.

The DGA also has auditing responsibilities.<sup>159</sup> The directorate has an internal control process for monitoring budgets and tracking armament projects to prevent financial mismanagement.<sup>160</sup> At the start of an acquisition program, a committee is put in charge of keeping track of the program's conduct.<sup>161</sup> However, this process tends to be very opaque, and the results (and data) are almost always kept internally to the MinArm.<sup>162</sup> As a result, parliamentary oversight and control are very limited.<sup>163</sup>

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<sup>155</sup> France subject-matter experts, interviews with the authors, June–August 2023.

<sup>156</sup> France subject-matter experts, interviews with the authors, June–August 2023.

<sup>157</sup> MinFin, "Le statut de la cour des comptes" ["The Status of the Court of Auditors"], webpage, undated-b.

<sup>158</sup> "La Cour des comptes demande 'un effort substantiel' à la France sur ses dépenses afin de réduire le déficit public d'ici 2027" ["Court of Auditors Requests 'a Substantial Effort' from France on Its Spending to Reduce the Public Deficit by 2027"], Franceinfo, June 29, 2023.

<sup>159</sup> France subject-matter experts, interviews with the authors, June–August 2023.

<sup>160</sup> France subject-matter experts, interviews with the authors, June–August 2023.

<sup>161</sup> France subject-matter experts, interviews with the authors, June–August 2023.

<sup>162</sup> France subject-matter experts, interviews with the authors, June–August 2023.

<sup>163</sup> France subject-matter experts, interviews with the authors, June–August 2023.

## Analysis of France's Budgeting Process

In this section, we discuss the strengths and challenges of France's budgeting processes, with a focus on possible implications for DoD.

### Strengths

#### Linking Plans to Budgets at Multiple Levels

The LPM provides a framework for planning over four to seven years. It acts as a bridge between the political doctrine and defense priorities set in the strategic reviews and the budget. Put differently, the LPM is a coherent framework that encapsulates France's perception of national security threats, presenting France's ambitions at the national and international levels, offering a vision for the force structure of its armed forces to fulfill these ambitions, and detailing a multiyear budget to enact the necessary changes to its armed forces.

The LPM provides a useful frame of reference for policymakers. It acts as a benchmark to compare the planned budget with the actual budget of the armed forces on a yearly basis via the finance law. It also offers visibility on mission and program performance, and it makes it possible to assess long-term investments against the strategy laid out in the strategic reviews.

#### Sustaining Funding for Long-Term Initiatives

The DGA is the cornerstone of France's capacity to sustain tech-oriented funding for long-term initiatives. The DGA has this capacity because it recruits chiefly from the Armament Engineering Corps. With their administrative and technical focus, these civil servants are trained to take on leadership, supervisory, inspection, and coordination roles in all armament-related activities and can perform all scientific, technical, industrial, or administrative tasks, especially in the fields of defense and security. The culture of civil service created around the corps tends to shelter France's arms acquisition from the infighting of electoral politics.

The DGA is instrumental to France's military programming. It provides direction and expertise for the conduct of France's acquisition process, including procurement programs, technological innovation, international cooperation, and export promotion. The DGA and its staff of trained engineers are not only responsible for the technical transcription of operational needs but also for the sustainment of the national industrial strategy itself. In this way, the DGA ensures that France's acquisition programs are in line with long-term strategic decisions. A corollary of this pivotal position is that the DGA serves as the interface with defense contractors and suppliers to deliver highly complex military products.

#### Prioritizing Warfighter and Mission Needs

With the LPM serving as the backbone of France's budgeting process, the MinArm can prioritize warfighter and mission needs. First, the continuum traced by the Strategic Review, the LPM, and the budget breakdown (missions, programs, actions, subactions, objectives, and performance indicators) provides a clear structure that links strategic priorities to mission needs.

Second, the MinArm's foresight helps it anticipate its needs over the coming decades. The CEMA created a red team, recruiting science-fiction writers to envision future scenarios. The team is in constant dialogue with the DGA, which also conducts technology-focused long-term foresight work. The DGA engages with defense contractors and suppliers and organizes its acquisition program by thinking about future needs and breaking down these needs into programmable actions. Finally, the newly created Defense Innovation Agency provides added value through its focus on short-term technological shifts to help the MinArm adapt more quickly.

### Offering Flexibility for Emerging Requirements

France has a large legal and institutional toolbox to finance its armed forces when it faces emerging requirements. This toolbox offers funding flexibility at different levels. At the program level, flexibility relies on various mechanisms. Within programs, the allocation of credits is the responsibility of program managers, and the fungibility of credits enables the program managers to redirect funding priorities if needed. Credits can also be transferred across programs in the same ministry and across ministries. Interestingly, the armed forces also dispose of buffers at the program level to respond to emergencies. The accounting procedures and precautionary reserves provide emergency funding in case the French armed forces face unforeseen events and expenditures.

This flexibility is also present at the level of the finance law. There are multiple mechanisms to palliate the lengthiness and rigidity of the finance law process. For one thing, amendments to the finance law can be introduced by the government. Emergency funds from the next finance law can be unblocked to respond to emergency requirements. Although seldomly used, interministerial funding is another option. Finally, a new finance law can be created and enacted when more structural changes in budget allocation are required. Because of the centralized and presidential nature of the French political system, as well as the limited role played by parliament, the French president and the ministries often have extensive leeway in using these mechanisms.

## Challenges

### Reliance on Political Will

The LPM provides a clear multiannual policy framework for the French armed forces, but it is not legally binding and remains only normative. To put it differently, the commitments of the LPM are only worth what the president has the political will to defend. By extension, there have been large discrepancies between the budget outlined in the LPM and the actual budget given to the armed forces through the finance laws. The nature of the French political system makes the president's political will to conform or depart from the LPM central to the armed forces' funding. However, structural and institutional factors can limit the president's ability and capacity to support the allocation of funds to remain on track with the objectives set by the LPM. France has had severe budgetary constraints for several years, and the armed

forces budget has often been an adjustable variable to keep the country's looming deficit at bay. With limited resources, the president might prioritize funding to address climate change or other needs at the detriment of the MinArm's missions. Finally, the power of the MinFin and its minister has often enabled a short-termed bookkeeping approach at the expense of the strategic and long-term budgetary needs of the MinArm.

### Enduring Barriers to Coping with Short-Term Structural Changes in the Operating Environment

The MinArm is efficient in conducting multiannual acquisition cycles, but it also has limited flexibility in adjusting to abrupt strategic, operational, or tactical changes from an acquisition perspective. This is notably because the acquisition of new equipment represents a large share of the MinArm committed spending. The commitment authorization provides an upper limit to the budget allocated for the acquisition of a type of equipment, which gives predictability to defense contractors. On a yearly basis, the parliament votes on the credits needed to cover these commitment authorizations. This greatly limits flexibility within the MinArm because the authorizations often represent as much as 90 percent of known spending.

A corollary is that military acquisition cycles are extremely long. Current programs for the Land Army were planned in the early 2000s: They will be fully integrated into the fleet in the 2030s and will last for 30 to 40 years. Structural changes from counterterrorism and counterinsurgency doctrines to a new high-intensity warfare doctrine following Russia's invasion of Ukraine are hard to quickly translate into practice. Although they are reflected in the 2024–2030 LPM, the process for implementing doctrinal changes in the armed forces is long, complex, and filled with hurdles.

### Lack of Oversight and Democratic Accountability

From the planning phase and through the execution and audit phases, the government faces very little potential pushback from parliament or the Court of Auditors. This top-level state control is not conducive to genuine democratic debates on defense budget priorities, especially concerning equipment and innovation decisions.

It should be noted that the MinArm has real in-house expertise driven by highly skilled technocrats and civil servants, whether be they on the CEMA or DGA staffs or elsewhere. Although this has clear advantages, the MinArm is also rightly perceived as a black box lacking a culture of transparent evaluation. For example, performance indicators are often designed by program managers—the same people in charge of implementing the programs being evaluated—and objective, external audits are limited. Likewise, evaluation data are often kept in house at the DGA and rarely shared with third parties, such as academics.

### Applicability

France shares several challenges with the United States, even if France has a much smaller defense budget and is engaged in fewer operations abroad. Both countries are key NATO members with global commitments, engaged in operations outside their national boundaries,

and possess full-spectrum capabilities. Notwithstanding some strategic divergences, France and the United States remain close allies and share the same needs for efficient, flexible, and forward-looking funding, development, and capabilities to project their influence internationally. The fact that the MinArm and DoD face similar challenges should incentivize both entities to share perspectives on their respective budgeting processes. One way to do so could be for officials from the MinArm and DoD to conduct exchanges to share experiences and best practices.

Arguably, the French budgeting process offers valuable insights for DoD to the extent that it can provide relevant comparisons and inspiration for potential changes. Conversely, some of the challenges and pitfalls of the French system might serve as cautionary tales for DoD. The French capacity to articulate a clear multiannual framework through its LPM—linking strategy and operationality, means and ends, doctrinal aspirations and practical considerations—could provide a valuable blueprint for DoD. The depoliticization of the acquisition debate, thanks to the technocratic culture of the DGA and the Armament Engineering Corps, could also inspire DoD. Some aspects of the French system of budgeting are irrelevant to the U.S. system, however. Chief among these aspects are the differences in the two countries' political systems and constitutions—especially regarding the balance between the executive branch (where France's balance of power tends to tilt) and legislative branch (where the United States has more ability to amend governmental policies).

## Lessons from France's Budgeting Process

The following lessons from France's budgeting process are summarized in Table 2.2.

### Lesson 1: France's System Secures Budget Appropriations Despite Partisan Politics

One of the main features of the Constitution of 1958 is the government's ability to bypass parliamentary opposition to enact legislation, including finance laws, when no majority can be found. This power is enshrined in Article 49.3 of the constitution. It is a guarantee of continuity and stability for the MinArm because it allows the government to respect the commitments of the LPM without going through extensive negotiations with legislators. This procedure is not without risk: If political parties that are part of the opposition secure a vote of no confidence, the government would be forced to resign. Opposition parties and representatives in the National Assembly have the opportunity to topple the government by agreeing on a motion of no confidence. However, this gamble tends to pay off for the government because the National Assembly is usually wary of the consequences of a government collapse. Furthermore, the gathering of a vast array of opposition parties around a single motion of no confidence tends to be more challenging than regular parliamentary opposition.

## Lesson 2: LPMs Act as Conduits Between Grand Strategy and Budgetary Realities

LPMs are useful legislative instruments to ensure continuity between France's strategic priorities and budget appropriations. Despite being nonbinding, LPMs carry a great deal of political weight and provide a baseline budget to keep the government accountable in subsequent finance laws. Furthermore, LPMs do not prevent flexibility and adaptation to unforeseen strategic circumstances because the government is able to produce a new law that supersedes the previous one at virtually any point. The United States could use an equivalent system to provide a political middle step between the President's National Security Strategy and the Department of Defense Appropriations Act. Such a middle step would require the executive and legislative branches to agree on top-line budgets and acquisition priorities in an effort to smooth out partisan disagreements as early in the process as possible and may encourage more-regular budget resolutions that set top-line budgets that the legislative and executive branches could adjust depending on the strategic environment.

## Lesson 3: A Technocratic Culture Guides Defense Acquisitions

France's defense apparatus has embraced technocracy to a larger extent than most other democracies in the world. Both the existence of the DGA and the preponderance of Armament Engineering Corps members throughout governmental institutions are features of the technocratic approach to defense acquisition preferred by France. This arrangement has some obvious downsides: The opaque and homogenous ecosystem of engineers has been criticized, even within the MinArm itself, for the engineers' lack of field experience. There is also a danger in letting civil servants develop overly close relationships with the defense industry, where many graduates of the Armament Engineering Corps training program continue their careers. Nevertheless, this system has generally been beneficial to France's defense industrial strategy for its ability to generate close cooperation between government and industrial stakeholders and create national industry champions, such as Dassault Aviation and the Naval Group. A DGA equivalent in DoD could be a nonpartisan voice cutting through rivalries between political parties and military services and providing reasonable middle ground for congressional debates on acquisitions.

## Lesson 4: The LOLF Offers a Framework to Adapt Budget Allocation to a Limited Extent

France's defense budget, like that of many other countries, is relatively hard to alter in any radical way in the short term. The stability offered by the LPMs and the technocratic program management of the DGA keep acquisition projects on track but are less useful for modifying them once they have started. Nevertheless, provided that the LPM is adapted to France's security environment and defense challenges, the LOLF offers a multitude of mechanisms to adapt the budget dynamically according to the emphasis on ends over means. There are several pro-



cesses to move credits at the program level and to amend the budget through the finance law, with noticeable leeway given to program managers. This leeway is even more remarkable for a country generally known for its centralism and top-down decisionmaking culture.

## Lesson 5: France's Defense Budget Features a Lack of Democratic Accountability

Arguably the main challenge of France's PPBE system, and the flipside of the technocratic coin, is its overall lack of checks and political accountability. From the planning phase and all the way to the execution and audit phases, the government faces very few potential push-backs from parliament or the Court of Auditors. Disputes between the MinArm and the defense industry, when they exist, tend to be resolved behind closed doors. The programming phase, in particular, is mostly internal to the MinArm; legislators have very little control over the acquisition programs pursued by the government. There would be little potential benefit to lawmakers' constituencies if lawmakers were to vote on specific programs and budget commitments. The main safeguard of the system eventually comes from the president as the ultimate authority in cases of internal disagreements on budget allocations within the government. This control at the very top level, however, is not conducive to genuine democratic debates on defense budget orientations, especially concerning equipment and innovation decisions.

**TABLE 2.2**  
**Summary of Lessons from France's Budgeting Process**

| Theme                           | Lesson Learned  | Description  |
|---------------------------------|---|--|
| Decisionmakers and stakeholders | Lesson 1: France's system secures budget appropriations despite partisan politics.    | The extensive presidential powers of the French political system prevent political deadlocks over budget appropriations.   |
| Planning and programming        | Lesson 2: LPMs act as conduits between grand strategy and budgetary realities.        | The LPM ensures continuity between strategic thinking and tangible budget appropriations.  |
|                                 | Lesson 3: A technocratic culture guides defense acquisitions.                         | The DGA and the Armament Engineering Corps efficiently drive long-term acquisition programs; however, they are opaque and homogeneous ecosystems.  |
| Budgeting and execution         | Lesson 4: The LOLF offers a framework to adapt budget allocation to a limited extent. | The LOLF created a series of mechanisms to move credits at the program level and to amend the budget through the finance law, partly compensating for the relative rigidity of the system.       |
| Oversight                       | Lesson 5: France's defense budget features a lack of democratic accountability.       | The downside of the centralized and technocratic nature of the French system is its lack of checks and political accountability for the country's defense priorities, spending, and performance. |



# Germany

*Theodora Ogden, Linda Slapakova, and Turner Ruggi*

The Bundeswehr, which literally means *federal defense*, is the armed forces of the Federal Republic of Germany. In this chapter, we provide an overview of the Bundeswehr's approach to defense resource management and insights relevant to DoD.

Germany's defense budgetary system is shaped by the country's political configuration as a federal republic with a bicameral parliamentary system, the country's historical context and role in World War II, and contemporary cultural norms around public spending. Defense budgets are closely overseen by parliament, government oversight mechanisms, and independent experts, although some flexibility is built in through *virement*—the process of moving funds between accounts or within a budget—and special funds that can carve out room in the budget where required. Germany has a strong industrial base and holds standing as an economic powerhouse within Europe; however, red tape and lengthy procurement processes mean that it is not always well positioned to leverage this position for defense spending.

## Historical and Current Context

### Government Structure and Bundeswehr Responsibilities

Germany is a federal republic based on the 1949 West German constitution, Grundgesetz (Basic Law), which remained in effect after German reunification in 1990 with only minor amendments. Legislative power is vested in a bicameral parliamentary system: The lower house, known as the Bundestag, is directly elected by the German people every four years. The upper house, or Bundesrat, is composed of delegations from the 16 German Länder (states) appointed by the respective state governments. Although state governments have considerable authority in their respective jurisdictions, matters of defense and foreign affairs fall exclusively under the authority of the federal government. In legislative matters, the Bundestag is technically more powerful than the Bundesrat because the federal government requires the latter's consent only when legislation affects state government revenue or if there is a shift in state and federal responsibilities. In practice, the Bundesrat's support is often

required, given the role of state and local agencies in implementing federal decisions. The German head of state (the president) is a largely ceremonial figure selected by a council of Bundestag and Bundesrat members rather than the German people.

Unlike many other countries, Germany does not rely on a first-past-the-post (or plurality) voting system but instead uses a mixed-member electoral process that combines plurality voting with a proportional system. Effectively, each German votes twice: first for a candidate in an electoral district and then for a political party. The second vote is meant to ensure that the makeup of the legislature is proportional to its levels of popular support. In practice, this process results in a multiparty system in which coalition governments are common.

The Bundestag's most important role is electing the chancellor, who heads the government and is commander-in-chief of the armed forces in wartime. (In peacetime, the Federal Minister of Defense is the commander-in-chief.) The German Chancellor wields significant power, such as being able to appoint the federal cabinet without the consent of the legislature. The executive is balanced by a robust Supreme Court and the requirements of managing a coalition government, incentivizing cross-party consensus-building. Figure 3.1 shows the structure of the German government's executive and legislative branches.

The Bundeswehr was established in 1955 as part of the rearmament of West Germany following World War II and the subsequent division of Germany. Under civilian control and overseen by the German Federal Ministry of Defense, the Bundeswehr is responsible for defending the country and its interests. During the Cold War, *defense* referred primarily to protecting Germany and its NATO allies against a direct attack on their territories and populations. Today, the concept is broader and includes new challenges, such as cyber threats, international terrorism, and protection against pandemics.<sup>1</sup> The modern Bundeswehr consists of the Army, Navy, Air Force, Joint Medical Service, Joint Support and Enabling Service, Cyber and Information Domain Service, and organizational support elements.

Germany's rearmament in the 1950s hinged on its political and military integration into NATO. The Bundeswehr was and remains geared toward engagement within a multilateral framework. Germany remains dependent on coordination and cooperation with partners for international security, and priority is given to functioning alliances, partnerships, and bilateral avenues, particularly through close security partnership with the United States.<sup>2</sup> Moreover, the German national identity is inextricably linked with the European identity in embracing a comprehensive understanding of security and defense.<sup>3</sup> In the preamble to the Basic Law, Germany prioritizes the need to "promote world peace as an equal partner in a united Europe."<sup>4</sup> Beyond ensuring security for the nation and its partners, Germany pursues

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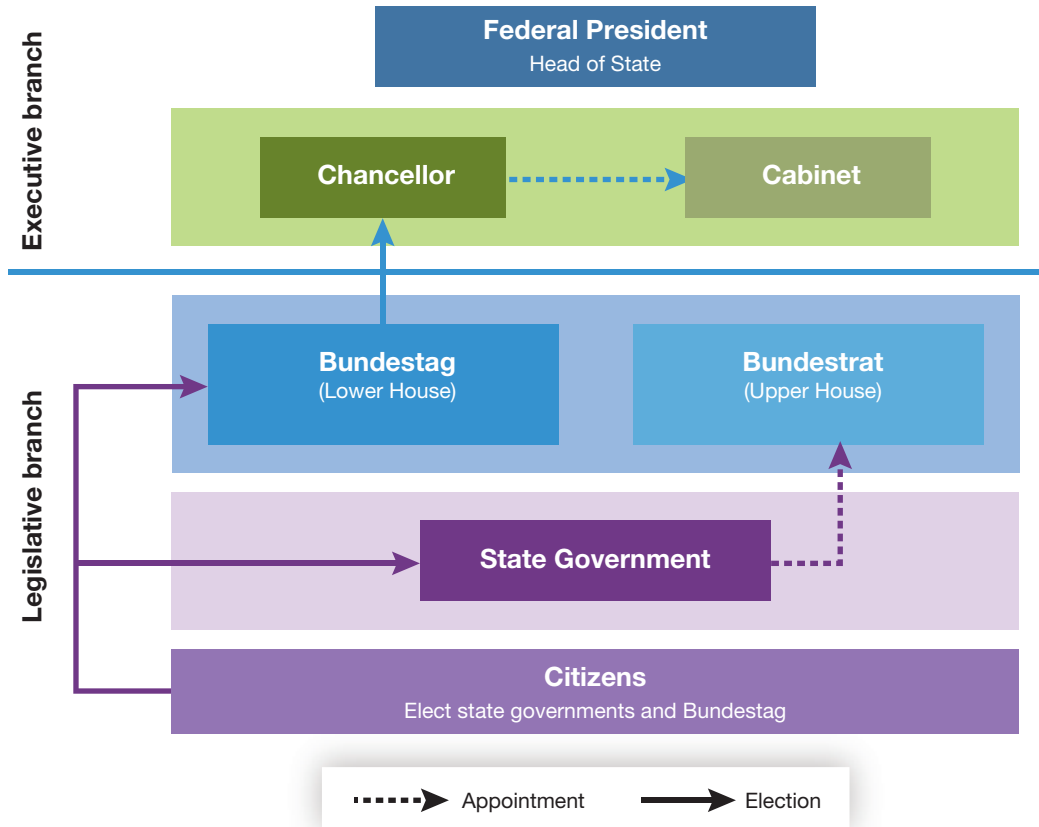
<sup>1</sup> Bundeswehr, "Mission and Tasks of the Bundeswehr," webpage, undated-g.

<sup>2</sup> Federal Government of Germany, 2016, p. 31.

<sup>3</sup> Federal Government of Germany, 2016, p. 22.

<sup>4</sup> German Federal Ministry of Justice, "Basic Law of the Federal Republic of Germany," webpage, undated.

**FIGURE 3.1**  
**Structure of the German Government's Executive and Legislative Branches**



a “united Europe,” in which the conditions of human coexistence are improved and international human rights standards are protected and strengthened.<sup>5</sup>

## Bundeswehr Policy and Planning

The Bundeswehr’s approach to PPBE has been embedded in cross-governmental policy documents and corresponding defense planning papers. Prior to 2023, defense plans were articulated in white papers that formulated a long-term vision for German security policy and the Bundeswehr. Germany published a white paper every ten to 12 years, with the most recent one published in 2016. The 2016 white paper affirmed five key aims of the Bundeswehr as an instrument of security and defense policy: guarantee the capacity for action in foreign policy,

<sup>5</sup> Bundeswehr, undated-g.

contribute to European and global stability, maintain national security and defense, assist in the defense of our allies, and foster multinational cooperation and integration.<sup>6</sup>

Following the 2016 white paper, the Bundeswehr published a 2018 concept that outlined the implementation of the plan in the white paper. Its objective was to confirm how the Bundeswehr would adapt conceptually from a planning perspective and how the Bundeswehr would develop its capabilities and modernize.<sup>7</sup>

In 2023, in light of significant changes in Germany's external environment—notably, Russia's 2022 invasion of Ukraine—the 2016 white paper was superseded by a first-of-its-kind national security strategy.<sup>8</sup> The strategy aimed to “address current and future challenges to our security policy, be they domestic or external, in a comprehensive, integrated and innovative approach which is interministerial and spans all levels.”<sup>9</sup> It is anticipated that publication of a new Bundeswehr concept will follow the publication of Germany's National Security Strategy.

## Germany's Tentative Defense Spending Ambitions

Germany's geostrategic position, economic strength, and the size of its armed forces make Germany an essential member of NATO and a crucial actor in European security. However, since reunification in 1990, Germany has not met NATO's target of spending 2 percent of its GDP on defense, and its military capabilities have correspondingly eroded.<sup>10</sup> In 2011, Germany abolished conscription and reduced the size of its Army from 100,000 to 70,000; a disproportionate reduction was among heavier units and major weapon systems that were not suitable for expeditionary operations at the time, such as missions in Afghanistan. The abolition of conscription was intended primarily to reduce defense expenditures and eliminate the delay for young men to enter the workforce, as well as to professionalize the Army with exclusively long-term contract soldiers.

After Russia's annexation of Crimea in 2014, Chancellor Angela Merkel's government took a more active role in European security and NATO. In 2015, defense spending saw a *trendwende*, or financial turnaround, through an ambitious modernization program initiated by then-Defense Minister Ursula von der Leyen. But these modernization plans faced significant delays, and defense spending began to pick up only in 2018. As a result, the German military renounced its goal of being fully equipped and instead prioritized having sufficient materiel to meet the military's current demands. One outcome was the Dynamic Sustain-

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<sup>6</sup> Federal Government of Germany, 2016.

<sup>7</sup> Hoffmann, 2018.

<sup>8</sup> German Federal Ministry of Defense, undated-d.

<sup>9</sup> Fleischer, 2022.

<sup>10</sup> World Bank, “Military Expenditure (% of GDP)—Germany,” dataset, 2022a.

ment System: Rather than purchasing more vehicles, the German military would rotate existing supplies between units.<sup>11</sup>

The Merkel administration's defense ambitions were revamped with the release of the 2016 white paper, which warned of a state-on-state conflict in Europe and therefore a need to enhance the Bundeswehr's conventional warfare capabilities. Even the language used shifted from a focus on deployability (*einsatzfähigkeit*) to a focus on readiness (*einsatzbereitschaft*).<sup>12</sup> Germany's reinvigorated role in European security also came in response to calls from U.S. political leaders for allies to increase their responsibility and decrease the scale of the U.S. commitment to European security.<sup>13</sup> Perhaps most significantly, the white paper authorized a gradual increase in defense spending, from \$39.9 billion in 2016 to \$53.2 billion by 2020 (from 1.1 to 1.4 percent of GDP).<sup>14</sup>

After the 2021 election, Olaf Scholz of the Social Democratic Party formed a coalition with the Greens and Free Democrats and replaced Merkel as chancellor. The resulting coalition agreement reduced the emphasis on increasing defense spending and instead proposed a more multidimensional approach by pledging to direct 3 percent of GDP toward a combination of defense, development, and diplomacy, of which typically less than half would be spent on defense alone.<sup>15</sup>

However, this approach was uprooted by Russia's invasion of Ukraine in February 2022. Since then, the Bundeswehr has experienced a significant boost in defense spending, with a particular focus on capability maintenance, development, and the digitization of processes. In early 2022, German Chancellor Olaf Scholz delivered his "Zeitenwende" (turning point) speech, in which he called for an overhaul of German defense and foreign policy in response to the situation in Ukraine. Among other measures, the government took out a €100 billion (\$108 billion) loan as part of the Bundeswehr's special defense fund to plug capability gaps and rectify years of budget cuts. (We discuss the details on the special fund later in this chapter.) Separate from the *special* defense fund, the 2023 *core* defense budget was raised to \$54 billion, marking a \$3 billion increase over the 2023 estimate in Germany's financial plan.<sup>16</sup> The core 2024 budget also saw a defense spending increase of \$1.8 billion—bringing it to nearly \$56 billion—despite widespread budgetary cuts in other federal programs.<sup>17</sup> This

<sup>11</sup> Thomas Wiegold, "Mangelverwaltung bei der Bundeswehr: neue Begriffe, gleicher Mangel" ["Shortage Management in the Bundeswehr: New Terms, Same Shortage"], *Augen Geradeaus*, June 6, 2015.

<sup>12</sup> Michael Shurkin, "How the Bundeswehr Should Spend Its Money," *War on the Rocks*, March 21, 2022.

<sup>13</sup> Federal Government of Germany, 2016, p. 31.

<sup>14</sup> World Bank, "Military Expenditure (current USD)—Germany," dataset, 2022c.

<sup>15</sup> German Social Democratic Party, *Koalitionsvertrag 2021–25* [Coalition Agreement 2021–25], December 2021.

<sup>16</sup> German Federal Ministry of Defense, "Kabinettsbeschluss zu Haushaltsgesetz 2023 und Finanzplan 2022 bis 2026" ["Cabinet: Decision on the 2023 Budget and 2022 to 2026 Financial Plan"], July 1, 2022a.

<sup>17</sup> Hans von der Burchard, "Germany Faces €31 Billion Budget Cut, Triggering Coalition Infighting," *Politico*, July 5, 2023.

figure is still significantly short of the 2-percent GDP target, which would require at least \$80.7 billion in 2023 (by low estimates) and would need to steadily rise to \$92 billion by 2026, according to an assessment by SIPRI.<sup>18</sup> (After initial confusion, it was confirmed that the special defense fund would not be added on top of the 2-percent GDP pledge but, rather, would contribute to it.)<sup>19</sup>

To help plug the shortfall between 2023's \$54 billion budget and the 2-percent GDP target of \$80.7 billion for the same year, Germany's government earmarked \$9 billion from the \$108 billion special defense fund to supplement the 2023 core defense budget. Of this additional \$9 billion, \$8.8 billion was to be spent on military procurement; the remainder was earmarked for paying the interest on the special fund.<sup>20</sup> The 2023 special defense fund presents an opportunity for the Bundeswehr not just to close the gaps resulting from decades of saving but also to quickly and effectively modernize the armed forces and equip them for future missions.<sup>21</sup> Hence, largely because of the special fund, Germany's 2023 total defense spending rose to \$63 billion, or 1.5 percent of GDP, according to NATO estimates. (This is still significantly shy of the 2-percent target.)<sup>22</sup> In 2024, alongside the \$1.8 billion increase in the core defense budget, Germany will spend a \$20.7-billion infusion from the special fund, raising total defense spending to \$76.7 billion and, according to data from the Federal Ministry of Finance (Bundesministerium der Finanzen, or BMF), reaching the 2-percent goal.<sup>23</sup> (The BMF data differ somewhat from that of SIPRI, which only includes data up to 2022.)

However, a one-off special fund is not a sustainable option for Germany to reach its targets in the medium or long term: The special fund has so far been committed to only roughly \$32 billion worth of projects; meanwhile, inflation, interest rates, and the value-added tax have significantly eroded the initial \$108 billion down to between \$54 billion and \$76 billion.<sup>24</sup> Additionally, after Defense Minister Christine Lambrecht resigned in January 2023, sources revealed that despite sending Ukraine more than \$1 billion in military aid, only

<sup>18</sup> Alexandra Marksteiner, "Explainer: The Proposed Hike in German Military Spending," Stockholm International Peace Research Institute, March 25, 2022.

<sup>19</sup> Marksteiner, 2022.

<sup>20</sup> German Bundestag, "Etat 2023: Umschichtungen im Verteidigungshaushalt" ["Budget 2023: Reallocations in the Defense Budget"], press release, November 11, 2022b.

<sup>21</sup> German Federal Ministry of Defense, "Haushaltsausschuss beschließt Verteidigungsetat und Plan zum Sondervermögen 2023" ["Budget Committee Approves Defense Budget and Special Fund Plan for 2023"], November 11, 2022b.

<sup>22</sup> NATO Public Diplomacy Division, "Defense Expenditure of NATO Countries (2014–2023)," press release, July 7, 2023.

<sup>23</sup> Hubertus Bardt, Désirée I. Christofzik, Dirk Meyer, Martin Junkernheinrich, Martin Jacob, Silke Übelmesser, Florian Dorn, and Marcel Schlepper, "Haushaltspolitik im Zeichen der 'Zeitenwende'—auf was müssen wir zugunsten der Verteidigung verzichten?" ["Budget Policy at a 'Turning Point': What Do We Have to Forgo in Favor of Defense?"], *Ifo Schnelldienst*, Vol. 76, No. 7, 2023.

<sup>24</sup> Ben Knight, "What Happened to the German Military's €100 Billion Fund?" Deutsche Welle, March 2, 2023.



\$54 million was allocated to replenish the fund.<sup>25</sup> As a result, the special fund is expected to run dry in 2026, at which point total defense spending will drop to the core budget level.<sup>26</sup> The lack of certainty beyond 2026 makes it difficult for the German defense industry to plan for the long run.

For a sustainable commitment to higher defense spending, the core defense budget itself would need a gradual boost until 2026. If Germany waits until the special fund is depleted before topping off the defense budget, Berlin will face the daunting task of either raising \$22 billion at once or falling \$22 billion below the 2-percent target for 2027.<sup>27</sup> In 2023, the core defense budget was, in fact, cut by \$216 million, likely because of a reliance on the special fund, exacerbating efforts to meet defense spending targets. This cut has led sources to question Germany's commitment to maintaining a higher defense budget once the fund is emptied.<sup>28</sup> In August 2023, more doubts were raised regarding the German leadership's dedication to reaching NATO's targets after the government dropped the legally binding commitment to spend 2 percent of GDP on defense from a new budget financing law.<sup>29</sup>

Figure 3.2 shows past German defense spending through 2022 (in euros), along with the corresponding share of GDP, which consistently hovers around 1.4 percent. Figure 3.3 shows both past spending and projected spending inclusive of the special fund (also in euros). In addition, Figure 3.3 illustrates that Germany will reach its 2-percent defense spending target in 2024 and 2025 but revert to its prior goal thereafter.

## Germany's Political, Economic, Structural, and Cultural Barriers

There are significant political, economic, and cultural barriers to increasing Germany's defense spending. There will need to be a deeper evolution in how the German public perceives the country's role in Europe and the world, including its involvement in military actions. Increasing defense spending will require support from both the Bundestag and the German public.

German public attitudes toward foreign policy and the justification of increased military expenditures remain divided. There are regional divergences of attitudes toward policies on Russia; East Germans show lower support for Germany's efforts to meet NATO's defense

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<sup>25</sup> Peter Carstens, "Bundeswehr bestellt Ukraine-Material kaum nach" ["Bundeswehr Rarely Replaced Military Equipment Sent to Ukraine"], *Frankfurter Allgemeine*, January 26, 2023.

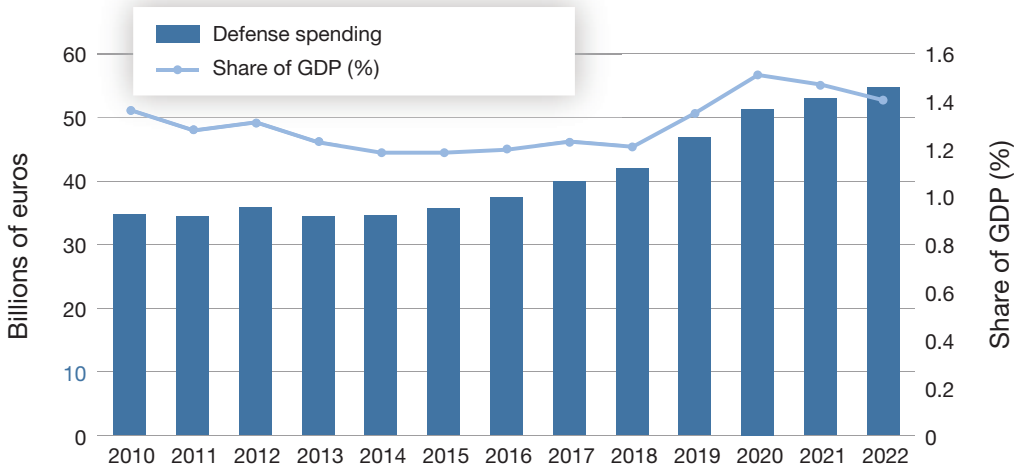
<sup>26</sup> Jan Techau, as quoted in Judy Dempsey, "Is Germany Getting Serious About Security and Defense?" *Carnegie Europe*, June 22, 2023.

<sup>27</sup> Liana Fix, as quoted in Dempsey, 2023.

<sup>28</sup> Peter Wilke, "Germany U-Turns on Commitment to Meet NATO Spending Target Annually," *Politico*, August 16, 2023.

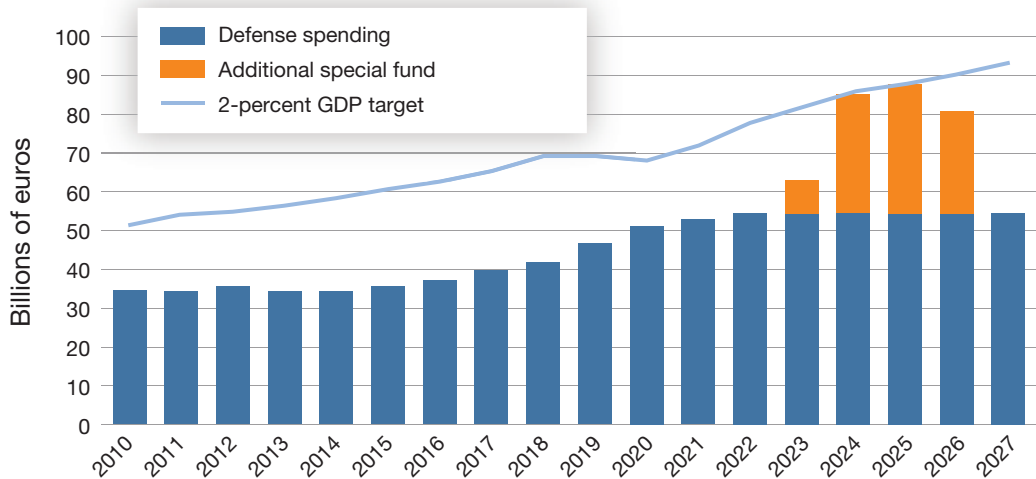
<sup>29</sup> Holger Hansen, "Germany Walks Back Plan to Meet NATO Spending Target on Annual Basis," *Reuters*, August 16, 2023.

**FIGURE 3.2**  
**German Defense Spending, 2010–2022**



SOURCE: Adapted from Klaus-Heiner Röhl, Hubertus Bardt, and Barbara Engels, *A New Era for the Defense Industry? Security Policy and Defense Capability After the Russian Invasion of Ukraine*, German Economic Institute, February 2023, p. 5, Figure 2-1.

**FIGURE 3.3**  
**Projected German Defense Spending with the Special Fund Through 2027**



SOURCE: Adapted from Röhl, Bardt, and Engels, 2023, p. 8, Figure 2-4.  
 NOTE: This figure shows hypothetical expenditure to reach the 2-percent target.

spending target than citizens in the rest of the country by 8 to 21 percentage points.<sup>30</sup> Furthermore, according to polling by the European Council on Foreign Relations, around half of the German public views China as a competitive rival or conflict-prone adversary, while a slightly smaller portion sees China as a necessary partner or ally.<sup>31</sup>

For decades, German foreign policy has been driven by economic growth, which has served the country's economy well—for as long as the geopolitical environment remained favorable and there were no major challengers to the U.S.-led international order. However, as the world gradually adopted a more critical view of the risks posed by economic dependencies on authoritarian states, Germany clung to the idea of positive economic interdependence, neglecting its defense capabilities. This trend continued after the war in Ukraine began in 2014.<sup>32</sup> Development of the Nord Stream 2 gas pipeline from Russia to Germany was finally suspended in 2022 after Russia's full-scale invasion. This history points to the continued prioritization of economic interests over defense in Germany, although the 2022 *Zeitenwende* speech marks a notable shift in defense spending priorities.

German ambitions to boost defense spending through the special fund are facing structural barriers affecting procurement and acquisition processes. Sources suggest, for example, that the German defense industry suffers from considerable inefficiencies and a culture of “perfectionism,” in which obedience to regulation ironically often means that the armed forces do not receive the appropriate supplies and that acquisitions are delayed (e.g., soldiers have waited decades for helmets or rifles).<sup>33</sup> Regional interests also inhibit efficiency, such as when Bavarian officials push for Bavarian aviation firms to win contracts at the expense of cost-effectiveness. Such pressure may come informally through individual defense industry lobbying groups or more formally through the *Länder* themselves via the Bundesrat.

The German defense industry is very strong and continues to be one of the world's largest and most technically advanced, encompassing 135,000 workers and \$30 billion in annual revenues.<sup>34</sup> However, sources suggest that the defense ministry's cautious attitude toward offering multiyear contracts to German defense firms is hampering effective cooperation.<sup>35</sup>

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<sup>30</sup> German Marshall Fund, *Transatlantic Trends 2022: Public Opinion in Times of Geopolitical Turmoil*, September 29, 2022.

<sup>31</sup> Jana Puglierin and Pawel Zerka, *Keeping America Close, Russia Down, and China Far Away: How Europeans Navigate a Competitive World*, European Council on Foreign Relations, June 7, 2023.

<sup>32</sup> Kristi Raik and Martin Quencez, *Whose Zeitenwende? Germany Cannot Meet Everyone's Expectations*, German Council on Foreign Relations, June 2023.

<sup>33</sup> Mike Szymanski, “Zehn Jahre Vorlauf für neue Fliegerhelme” [“Ten Years Lead Time for New Pilot Helmets”], *Süddeutsche Zeitung*, March 14, 2023.

<sup>34</sup> Till Bücker, “Wie die Rüstungsindustrie dasteht” [“How the Arms Industry Is Doing”], *Tagesschau*, February 3, 2023.

<sup>35</sup> Franz-Stefan Gady, “German Defense Companies Could Be Europe's Arsenal of Democracy,” *Foreign Policy*, July 6, 2023.

Nonetheless, since the *Zeitenwende* speech, evidence has emerged to suggest that this cautious culture and red tape are gradually being remedied. Reforms to simplify the procurement process have passed through the Bundestag. The Bundeswehr has pursued accelerated procurement mechanisms with an emphasis on quickly selecting procurement proposals under a new chief of the German defense procurement agency.<sup>36</sup> A proposed coalition bill intends to speed up the Bundeswehr's procurement process by allowing several partial or specialist lots to be awarded together, if justified by economic, technical, or time needs.<sup>37</sup> The resolution adopted by parliament aims to interpret the term *military equipment* so broadly that it also includes software in an attempt to lower the hurdles for defense technology companies.<sup>38</sup>

The special fund is earmarked to fill capability gaps and to enable sustainment and modernization of current capabilities. Of the greenlit expenses in 2022, many have lengthy timelines, such as an order of 35 F-35s, which will not be fulfilled until 2029. Germany also approved \$5 billion for 60 Chinook heavy transport helicopters to arrive in 2025 at the earliest.<sup>39</sup> Longer-term spending plans include equipping three new medium brigades with the heavy weapon carrier version of the Boxer armored vehicle in 2025–2030, as well as procurement of an airborne weapon carrier in the 2030s to replace the Wiesel. The Bundeswehr also aims to replace its M113 short-range mortar carriers between 2027 and 2030. There are plans to replace artillery in the coming decades, possibly including both the Panzerhaubitze 2000 with the Boxer-mounted Remote Controlled Howitzer and the Multiple Launch Rocket System.<sup>40</sup> Sources suggest that \$20.5 billion of the special fund has been dedicated to the Navy, \$18.3 billion to the ground forces, and \$44.3 billion for the Air Force, although inflation and interest payments could hamper these plans.<sup>41</sup>

Successive German cabinets have strongly emphasized innovation in defense technology. In 2015, a government strategy paper advocated for expanded funding for research.<sup>42</sup> Germany's 2016 white paper similarly acknowledged that (1) constant innovation is needed for the Bundeswehr to be a capable force in light of adversary capabilities and technological change, (2) Germany's conventional deterrence capabilities have gradually eroded, and (3) greater

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<sup>36</sup> German Bundestag, "Bundestag beschleunigt Beschaffungswesen bei der Bundeswehr" ["Bundestag Accelerates Procurement for the Bundeswehr"], July 2022a; Riham Alkousaa, "German Defence Procurement Chief Sees Boom in Equipment Orders—Table Media," Reuters, June 4, 2023.

<sup>37</sup> German Bundestag, 2022a; Alkoussaa, 2023.

<sup>38</sup> German Bundestag, 2022a; Alkoussaa, 2023.

<sup>39</sup> Riham Alkousaa, "Germany to Buy 60 Heavy Transport Helicopters from Boeing, Bild am Sonntag reports," Reuters, April 23, 2022.

<sup>40</sup> Nicholas Fiorenza, "IAV 2023: German Army's Share of *Zeitenwende* Special Fund Focuses on Armoured Vehicles," Janes, January 27, 2023.

<sup>41</sup> Peter Hille and Nina Werkhäuser, "The German Military's New Shopping List," Deutsche Welle, March 6, 2022.

<sup>42</sup> Federal Government of Germany, *Strategy Paper of the Federal Government on Strengthening the Defence Industry in Germany*, July 8, 2015.

cooperation is warranted with the new drivers of innovation, particularly those in the digital sector, the information economy, communication technologies, and startups.<sup>43</sup> Likewise, the 2023 National Security Strategy promises greater investment in innovation in general and in the Federal Agency for Disruptive Innovation in particular. The 2023 document also establishes the German Agency for Transfer and Innovation to promote cross-regional research and development (R&D) partnerships.<sup>44</sup>

However, despite having an extremely vibrant technology sector and strong research institutions, Germany faces a systemic cultural barrier between civilian and defense innovation. Many Germans object to R&D for the defense industry to the extent that some universities reject funding from the Bundeswehr. This separation has also become institutionalized within government. While the defense ministry seeks greater innovation cooperation, the Ministry for Education and Research has traditionally refused to consider the military applications of cutting-edge technology. Instead, most of the military innovation stems from research in the defense ministry's armaments division or in cooperation with obliging research groups, such as the Franco-German Research Institute Saint-Louis, the German Aerospace Center, and the Fraunhofer Society for the Promotion of Applied Research. The lack of integration between military and civilian research centers leads to duplicated innovation and wasted investment.

A potential workaround to German opposition to defense-based innovation is to reach out to defense innovation opportunities across the European Union (EU). Former Chancellor Merkel pushed for such a strategy through greater defense industry cooperation with France. On the other hand, some European defense agencies, such as the Lithuanian Ministry of Defense, have found it difficult to cooperate with Germany on defense innovation because German arms exports can be delayed by volatile debates in the Bundestag on the ethics of the defense industry.<sup>45</sup>

In 2017, the Bundeswehr founded the Cyber Innovation Hub, which aims to break the military-civilian technology divide. Between 2005 and 2018, the hub committed almost \$3.2 million to startups with potential defense applications.<sup>46</sup> Since then, the German Federal Ministry of Defense has continued to invest in emerging technology research centers, including the Center for Digitization and Technology Research, the Federal Agency for Disruptive Innovation, and the Cybersecurity Agency.<sup>47</sup> Critics have raised concerns that Germany's

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<sup>43</sup> Federal Government of Germany, 2016, p. 132.

<sup>44</sup> Federal Government of Germany, *National Security Strategy*, June 2023, p. 58.

<sup>45</sup> Christian Mölling, *Defense Innovation and the Future of Transatlantic Strategic Superiority: A German Perspective*, German Marshall Fund of the United States, March 2018.

<sup>46</sup> Mölling, 2018.

<sup>47</sup> Christian Mölling and Torben Schütz, *Defence Innovation: New Models and Procurement Implications: The German Case*, French Institute for International and Strategic Affairs, May 2021.

defense innovation projects have too narrowly prioritized digitization and left blind spots in robotics, doctrine, and training reform.<sup>48</sup>

Within the German defense budget, the proportion dedicated to R&D and testing has gradually risen in recent years, from \$1.3 billion in 2019 to \$2.1 billion in 2022. This increase is disproportionately large relative to the overall defense budget increase in 2022, suggesting that innovation has taken on a higher priority in the Ministry of Defense. Looking at the core budget for 2023, research spending is set to decrease to \$2 billion; however, this does not consider the additional spending of \$9 billion from the special fund, part of which could boost R&D.<sup>49</sup>

## Overview of Germany's Budgeting Process

### Germany's Public Finance Management Cycle

The budget process typically begins in November with a tax estimation, which involves (1) representatives from BMF, the Ministry of Economic Affairs, the 16 ministries of finance of the Bundesländer, and the Deutsche Bundesbank (Germany's central bank) and (2) experts from six research institutes. Drawing on this quantitative analysis, BMF establishes the baselines for the new budget, which takes effect two years ahead of the budgeting process. The baselines include expected revenue, expenditures, inflation rates, and civil service salary increases. In December, the line ministries ask their units to submit their financial needs and outline their policy priorities to BMF, and the chancellor's office can also express its preferences.<sup>50</sup> In January and February, BMF attempts to incorporate any policy changes into the budget. If any of the planned costs cannot fit into the budget, the cabinet (and, ultimately, the chancellor) can resolve any trade-offs between expenses. Preliminary figures are published in March. In April, the figures are vetted to ensure that they follow EU medium-term fiscal guidance.

In-depth discussions between BMF and the line ministries begin after the first figures are published in March and continue until the budget plan and related documents are approved by the cabinet in its last meeting before the summer break (around June or July). The federal budget is then submitted to both the Bundestag and the Bundesrat simultaneously. In the Bundestag, the Budget Committee discusses spending with the line ministries and proposes amendments. The Bundestag adopts the budget bill after three readings starting in Septem-

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<sup>48</sup> Mölling and Schütz, 2021.

<sup>49</sup> German Federal Ministry of Defense, *17. Bericht des BMVg zu Rüstungsangelegenheiten [17th Report of the Ministry of Defense on Armament Matters]*, June 2023b.

<sup>50</sup> *Line ministries* are defined by the Organisation for Economic Co-operation and Development (OECD) as “[c]entral government organisations responsible for designing and implementing policies in line with wider Government policies, and for the direction of Agencies/Executive Units under their authority” (OECD, “2022 OECD Survey on the Governance of Infrastructure: Glossary,” 2022).

ber. By December, the budget is signed into law by the German president. Before the budget can be approved at the national level, a draft must be submitted for EU consideration, which usually occurs in October.

The budget is implemented on January 1, and BMF issues detailed decrees on where spending is to be directed. Although there is a considerable level of granularity to directed spending, this can be adjusted independently through virement, enabling flexibility in the budgetary process. If revenue falls short of expectations, however, BMF can order a spending freeze or other measures to reduce expenditures. The budget year ends on December 31, and institutions can carry forward remaining spending allowances into the next year only with a special executive permit of transfer. BMF grants permits of transfer on a case-by-case basis—and only if carrying over will promote the “efficient and economical use” of the budget.<sup>51</sup>

In addition to the annual budget, there is a federal financial plan: an internal government planning document covering a five-year period. The first year represents the current budget year, the second the upcoming budget year, and so on. The budget law and budget plan are revised every year, adjusting for current economic developments. The cabinet usually approves the financial plan and the draft of the upcoming year’s budget at the same time.<sup>52</sup> The financial plan is used primarily as the starting point for each year’s budgetary negotiations and is nonbinding. Nevertheless, the financial plan has traditionally had a considerable influence on budgetary policy and is significantly transformed only when there is an unexpected fiscal shock. Just like the annual budget, the financial plan is negotiated between BMF and the line ministries and is subject to debt compliance regulations and EU scrutiny. However, unlike the annual budget, the financial plan is nonbinding and does not require the legislature’s approval.<sup>53</sup>

Beyond the annual federal budget and the five-year financial plan, German public financing involves special funds, or *Sondervermögen*. The special funds, which are meant for programs or projects with bespoke objectives and predetermined timelines, do not need to be renegotiated annually. Special funds can therefore be dedicated to longer-term funding for a particular goal. Historically, special funds have been used to support German reconstruction after World War II, the public railway and post office (prior to privatization in the 1990s), and infrastructure improvements after reunification in 1990.<sup>54</sup>

With the introduction of the debt brake (*Schuldenbremse*) into Article 109 of the German Basic Law in 2009, borrowing cannot exceed 0.35 percent of GDP per year, except in the case of natural disasters or “extraordinary emergencies beyond the control of the state,” as

<sup>51</sup> German Federal Ministry of Justice, “Budgetary Principles Act (Haushaltsgrundsatzgesetz),” webpage, undated.

<sup>52</sup> Sylvia Börner and Christina Moritz, “Verteidigungshaushalt: Wie finanziert sich eine schlagkräftige Bundeswehr?” [“Defense Budget: How Is a Capable Bundeswehr Financed?”], German Federal Ministry of Defense, March 23, 2022.

<sup>53</sup> OECD, “Budget Review: Germany,” *OECD Journal on Budgeting*, Vol. 2014, No. 2, 2015.

<sup>54</sup> Murau and Thie, 2022.

occurred with COVID-19.<sup>55</sup> However, the rigidity of the debt brake has not impeded the Bundeswehr's special fund. In 2022, two-and-a-half weeks after Scholz's announcement of the draft federal budget, Finance Minister Christian Lindner presented a revised draft budget for 2022, along with two draft laws. The first proposed the 2022 special fund itself; the second proposed a constitutional amendment to Article 87a of the Basic Law authorizing the federal government to set up a Bundeswehr special fund independent of the federal budget, covering expenditures of up to €100 billion. The dual rationale for the constitutional amendment was to (1) guarantee that the defense special fund would be spent on military preparedness and could not be redirected to pensions in a few years and (2) circumvent the debt brake, because it is contested whether the need to revamp the military fits the requirements for a special fund (i.e., natural disasters or extraordinary emergencies). The purposes of the defense special fund are to strengthen alliances and defense capabilities and to finance significant equipment projects to reach an average of 2 percent of GDP spending on defense within a five-year period while circumventing the debt brake requirements.

Typically, in German defense spending, sustaining capability takes priority over increasing capability or undertaking modernization efforts and new measures. The special fund enables modernization and procurement of new capabilities. "Expenditures for complex multi-year measures to equip the armed forces will be made from the special fund," according to the draft from BMF, which manages the special fund under scrutiny from the Federal Court of Audit.<sup>56</sup> The result is far less transparent than the standard defense budget, which must disclose details of the weapon systems that are being procured (except for classified purchases).<sup>57</sup>

## Ministry of Defense Annual Budget Cycle

Germany's annual defense spending covers personnel, equipment, and operations. As described earlier, the federal government presents the annual budget law as a draft law along with a budget plan. The Bundestag discusses and decides on the annual budget, including the defense budget, known as the Individual Plan 14 (Einzelplan 14). According to Article 110 of the Basic Law, the budget must be prepared annually, and its expenditures and commitments apply only to the year in question. This ensures the reliability and regularity of the assessment of needs and resources, as well as flexibility from year to year, if necessary.<sup>58</sup> Figure 3.4 provides an overview of Germany's annual defense budget cycle.

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<sup>55</sup> Murau and Thie, 2022.

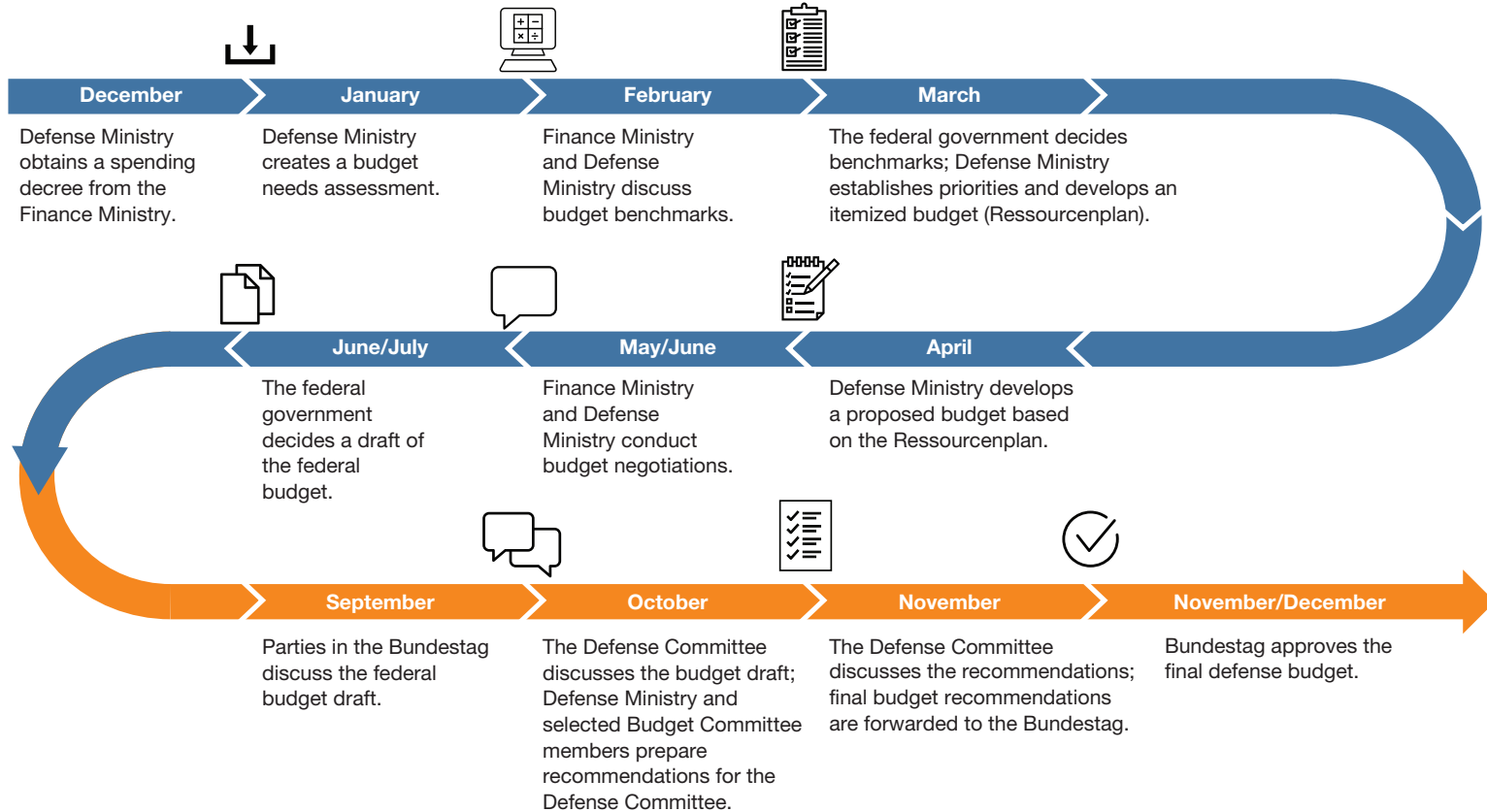
<sup>56</sup> Manfred Schäfers, "So will die Regierung das Sondervermögen der Bundeswehr einrichten" ["The Government Wants to Set Up a Bundeswehr Special Fund"], *Frankfurter Allgemeine*, March 15, 2022.

<sup>57</sup> OECD, 2015, pp. 47–51.

<sup>58</sup> Börner and Moritz, 2022.



**FIGURE 3.4**  
**Germany's Annual Defense Budget Cycle**



SOURCE: Adapted from Börner and Moritz, 2022.

NOTE: Blue indicates internal government proceedings; orange indicates parliamentary proceedings.

## Spending Controls

The Bundesrechnungshof, or Federal Court of Audit, contributes to Germany's fiscal discipline at virtually every stage of the budgeting process. In December or January, the court can give recommendations to address problems that might emerge in specific line ministries or projects, based on previous budgets. The court is then present to advise line ministries when they submit bids to BMF. When BMF prepares its consolidated budget accounts by the end of February, they are transferred to the Federal Court of Audit. When the Federal Court of Audit delivers its annual report to parliament in October, parliament's Audit Committee, a subcommittee of the Budget Committee at the federal level, examines the Federal Court of Audit's report. In November or December, the Federal Court of Audit releases the report's content publicly, at which point parliament's Audit Committee also releases an audit. This audit report grants discharge to the government and specifies whether the budgeting accounts are sufficiently substantiated with receipts and payments. It also notes any failures of regulation, criticisms of substance that the audit process has exposed, and recommendations for the next budgetary cycle. The public release frequently exposes government inefficiencies and thereby attracts considerable media attention and criticism. Any action that affects the federal budget—including special funds, public corporations, and programs with sensitive information—is subject to court audit. The court's mandate is not to judge policy but, rather, to promote conformity to regulation and value for money to avoid waste.<sup>59</sup>

Armament investments are subject to political control in Germany. Bundeswehr procurement and development contracts of €25 million (\$27 million) or more require separate approval from the Bundestag's Budget Committee before the contracts can take effect.<sup>60</sup> Since Russia's invasion of Ukraine, there have been efforts to streamline the armaments procurement process and legislative review: In 2022, the Bundestag passed the Bundeswehr Procurement Acceleration Act to speed up weapon purchases and better integrate Germany with the defense industries of other EU members.<sup>61</sup> The act facilitated faster and easier awarding of contracts for a limited period, with auditing. The acceleration includes the ability to deviate from the German Anti-Trust Act provisions if justified by economic, technical, or time-related factors.<sup>62</sup>

Still, the Bundeswehr cannot finalize contracts with industry and service providers for procurement or development projects until the Bundestag decides on the individual projects. For each project of \$27 million or more, the Ministry of Defense submits a proposal to BMF.

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<sup>59</sup> OECD, 2015, pp. 47–51.

<sup>60</sup> Alexander Schröder, "Beschaffung: Die 25-Millionen-Euro-Vorlagen?" ["Procurement: The 25 Million Euro Templates?"], German Federal Ministry of Defense, undated.

<sup>61</sup> German Federal Ministry for Economic Affairs and Climate Action, "Federal Cabinet Approves Simplified Procurement Act—Faster Awarding of Contracts for the German Bundeswehr," press release, June 21, 2022.

<sup>62</sup> Federal Government of Germany, "Faster Procurement Process for the Federal Armed Forces," July 8, 2022.

Using the defense ministry's submission, BMF prepares a €25 million (\$27 million) template and forwards it to the Bundestag's Budget Committee. The Bundeswehr can finalize these contracts only after the Budget Committee has given approval.<sup>63</sup>

## Features of Germany's Budgeting Process

In this section, we describe the internal features of the PPBE-like processes in Germany's defense sector, including the Federal Ministry of Defense and the Bundeswehr. We focus, in turn, on key decisionmakers and stakeholders, planning and programming processes, budgeting and execution processes, and oversight.

### Decisionmakers and Stakeholders

Germany's Federal Ministry of Defense is a federal authority with the defense minister at the top, supported by state secretaries, the Chief of Defense, and the management department. The head of the Federal Ministry of Defense holds political responsibility and has command authority over the armed forces during peacetime and is the highest superior and top disciplinary superior of all German service members.<sup>64</sup>

Two parliamentary state secretaries represent the defense minister in the political arena. One represents issues related to cyber and information security, leading armed forces strategy and deployment and human resources. That state secretary also represents the ministry in certain Bundestag committees, including the Foreign Affairs Committee and the Defense Committee. The other state secretary provides support in the areas of international armaments, budget and planning, law, environmental services, and infrastructure and (in the Bundestag) leads the defense ministry on the financial side as a member of the Budget and Audit Committees.<sup>65</sup>

Meanwhile, two state secretaries support the defense minister in the technical management of the ministry and in the exercise of command authority.<sup>66</sup>

The primary responsibility of the Chief of Defense of the Bundeswehr (also known as the Inspector General) is to provide military advice to the defense minister on the overall direction of armed forces doctrine.<sup>67</sup> This role includes overseeing the conception, preparation, execution, and follow-up of Bundeswehr operations. Directly below the Chief of Defense are

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<sup>63</sup> Schröder, undated.

<sup>64</sup> German Federal Ministry of Defense, "Struktur und Organisation" ["Structure and Organization"], webpage, undated-f.

<sup>65</sup> German Federal Ministry of Defense, "Staatssekretärinnen und Staatssekretäre" ["State Secretaries"], webpage, undated-e.

<sup>66</sup> German Federal Ministry of Defense, undated-f.

<sup>67</sup> German Federal Ministry of Defense, undated-f.

the departments of Planning, Armed Forces Command, and Strategy and Operations, as well as the Deputy Chief of Defense, who leads reservist matters.<sup>68</sup>

The five officers of the defense ministry who report to the defense minister—that is, the two parliamentary state secretaries, the two state secretaries, and the Chief of Defense—manage the ministry’s ten departments that are located in Bonn and Berlin.<sup>69</sup> The ten departments and their responsibilities are as follows:

- The **Policy Department** designs and coordinates the security, defense, and arms control policy and designs the strategic guidelines. This department is primarily responsible for the National Security Strategy.
- The **Equipment Department** is responsible for the planning, management, and control of national and international armaments. It bears overall responsibility for military equipment and its use.
- The **Cyber and Information Security Department** plans and controls national and international activities in the cyber field and information technology (IT).
- The **Planning Department** carries out integrated planning. With its three subdepartments—Planning I (Strategic Control of Planning), Planning II (Strategic Skills Development), and Planning III (Planning Implementation)—the department performs technical work as part of the planning process.
- The **Armed Forces Department** supports the Chief of Staff of the Bundeswehr as the immediate superior of the armed forces and holds the role of the highest-ranking soldier in the Bundeswehr.<sup>70</sup> In particular, the department ensures the readiness of the armed forces.
- The **Strategy and Operations Department** is responsible for preparing, planning for, and managing deployments. The department also supports the Chief of Defense in their role as Germany’s highest military representative in international bodies.
- The **Budget and Oversight Department** prepares documents for financial planning, drafts the defense department budget, and implements the budget after it comes into force. The department designs budget controls, defines strategic goals, and measures their success.
- The **Legal Department** is responsible for all areas of law related to security and defense policy and Bundeswehr operations. The department handles all matters of legal relevance to the Ministry of Defense and the Inspector General of the Bundeswehr.

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<sup>68</sup> German Federal Ministry of Defense, “Generalinspekteur der Bundeswehr” [“Inspector General of the Bundeswehr”], webpage, undated-c.

<sup>69</sup> German Federal Ministry of Defense, “Die Abteilungen des Verteidigungsministeriums” [“The Departments of the Ministry of Defense”], webpage, undated-a.

<sup>70</sup> The Chief of Staff of the Bundeswehr is a separate role from the Chief of Defense (also known as the Inspector General) of the Bundeswehr, referenced earlier.

- The **Personnel Department** bears responsibility for human resources management, including recruitment, planning, development, payment, welfare, training, and education.
- The **Infrastructure, Environmental Protection, and Services Department** controls the assessment, provision, and operation of Bundeswehr properties in Germany, abroad, and on deployment. The department is responsible for catering, managed care, travel, environmental protection, occupational safety, nature conservation, public law supervision, and fire protection.

The structure of these departments and the overarching hierarchy was substantially amended by successive defense ministers during the Merkel administration, partly to cut costs following the 2008 financial crisis. Until 2012, there had been three additional centralized command staffs: the Armed Forces Staff (to review the ministry's guidance and assess its effect on the Bundeswehr), the Inspector General's Staff (to advise the ministry on military matters), and the Planning and Management Staff (to provide the military with political tools to detect and target conflicts early). These staffs were abolished in 2012, and sources suggest that these changes confused and decentralized the military chain of command.<sup>71</sup> In May 2023, Defense Minister Boris Pistorius re-created the Planning and Management Staff and appointed Brigadier General Christian Freuding as its head. Its mandate is to fill the gaps left by the abolition of the previous staffs and to ensure greater involvement by military leaders in the ministry's decisionmaking. The staff is to be composed of members from the previous offices of the state secretaries and Chief of Defense.<sup>72</sup>

This new Planning and Management Staff aims to foster cross-department collaboration, which has been a challenge in the Ministry of Defense since 2012. As noted, the Chief of Defense has authority over only three of the departments; the remaining seven (including the Budget and Oversight Department) fall under the authority of the four state secretaries. Reports suggest that the Chief of Defense and military leaders are often ignored in defense ministry decisions, even if those decisions have an immediate and significant impact on the Bundeswehr and the Chief of Defense's direct responsibilities. The Equipment Department, Personnel Department, and Infrastructure, Environmental Protection, and Services Department are also the result of Merkel-era reforms, and critics have accused these departments of being inefficient and enforcing unnecessary regulations.<sup>73</sup>

The defense planning process is carried out in the Ministry of Defense by the Directorate-General for Planning in collaboration with the Directorate-General for Budget and Over-

<sup>71</sup> Matthias Gebauer and Konstantin von Hammerstein, "An Examination of the Truly Dire State of Germany's Military," *Spiegel International*, January 17, 2023.

<sup>72</sup> German Federal Ministry of Defense, "Schneller zur Zeitenwende: Pistorius schafft neuen Planungs- und Führungsstab" ["Faster to the Turning Point: Pistorius Creates New Planning and Management Staff"], April 20, 2023a.

<sup>73</sup> Gebauer and von Hammerstein, 2023.

sight. It is not clear from publicly available information how these directorates interact with the Planning Department in the Ministry of Defense or what the role of that department will be after the 2023 ministry reforms take effect. The Bundeswehr's Office for Defense Planning also participates in planning for the Federal Ministry of Defense.

In addition to this civilian defense structure, the armed forces are organized into services and supporting organizations. The services are the Army, Air Force, and Navy; they are supported by the Joint Medical Service, Joint Support and Enabling Service, and Cyber and Information Domain Service.<sup>74</sup>

## Planning and Programming

The Merkel administration's reforms to cut the cost of the armed forces (2009–2022) substantially reduced the influence of military leaders in the budgeting process. The Minister of Defense became the primary decisionmaker on the defense budget, and leading Bundeswehr commanders were increasingly sidelined. In the ministry today, there is a designated budget officer who leads the Bundeswehr Office for Defense Planning, and this officer is accountable only to the Minister of Defense.

The Bundeswehr's contributions to PPBE are led by the Bundeswehr Office for Defense Planning, which is responsible for delivering integrated plans (i.e., between the Bundeswehr services and agencies) with a 15-year planning horizon.<sup>75</sup> The office is staffed by approximately 400 military and civilian personnel and is organized into four units as follows:

- **Unit I (Objectives and Innovation)** is dedicated to tracking and characterizing strategic trends, analyzing Germany's strategic environment, and assessing lessons from exercises and deployments. Unit I develops a capability blueprint (*Blaupause*), outlining what the Bundeswehr "should be able to do by when" through sovereign capability or in partnership with others.<sup>76</sup>
- **Unit II (Capability Management)** captures capability gaps in three subunits: the first for classifying gaps for possible closure (taking into account financial planning), the second for assessing capability needs (whether existing financial resources are sufficient or whether new investments need to be made), and the third for coordinating with relevant stakeholders and producing a requirements document to be presented to the Federal Office of Bundeswehr Equipment, Information Technology, and In-Service Support.<sup>77</sup>

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<sup>74</sup> Bundeswehr, "How the Bundeswehr Is Organised," webpage, undated-f.

<sup>75</sup> Bundeswehr, "Bundeswehr Office for Defence Planning," webpage, undated-a.

<sup>76</sup> Bundeswehr, "Directorate I—Objectives and Innovation," webpage, undated-b.

<sup>77</sup> Bundeswehr, "Directorate II—Capability Management," webpage, undated-c.

- **Unit III (Resources and Implementation)** assists the Budget and Oversight Department by performing the following functions:
  - Identifying the Bundeswehr’s needs and producing a “requirement update” through which the Bundeswehr makes capability requests and records all requirements in a confidential Bundeswehr database. This update is the first step in developing the defense budget. The unit then conducts quality assurance in partnership with numerous experts in the Bundeswehr, including major organizational elements and resource offices. Although quality assurance involves verifying the accuracy of the reported figures, the primary focus is on reviewing whether individual requests are still reasonable in a functionally coherent, Bundeswehr-wide context.
  - Overseeing the integrated planning process and the main planning process for implementing enabling functions, such as software. The primary focus is on providing technical assistance to establish consistent IT support for the planning process.
  - Developing planning support methods for life-cycle cost management, risk management, and resource estimation in the planning process.
  - Managing the Provide Mission-Ready Forces process, which involves technical development, implementation, and analysis of operational readiness to support the Directorate-General for Forces Policy in the Ministry of Defense.<sup>78</sup>
- **Unit IV (Scientific Support and Interoperability)** addresses research and analytical requests from defense stakeholders, including through simulations and modeling. Unit IV also analyzes opportunities to improve interoperability with allies and partners. It administers NATO standardization agreements and holds a permanent place in the U.S. Joint Staff directorate.<sup>79</sup>

## Budgeting and Execution

Annual defense spending appears in the federal budget’s Section 14, which itemizes the earmarks for military equipment acquisition, personnel, infrastructure, and operating expenses, including training, exercises, spare parts, and other services.<sup>80</sup> At the start of the fiscal year on January 1, each ministry receives the entirety of its allotted annual funding approved by the cabinet and the Bundestag. In general, the defense ministry releases monthly cash installments to the subsidiary agencies, while BMF monitors monthly expenditures to check for irregularities and potential liquidity concerns.<sup>81</sup>

The federal budget consists of roughly 6,600 line items, of which 5,500 are expenditure-related. These items are then gathered into chapters, which are assigned to each ministry. In

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<sup>78</sup> Bundeswehr, “Directorate III—Resources and Implementation,” webpage, undated-d.

<sup>79</sup> Bundeswehr, “Directorate IV—Scientific Support and Interoperability,” webpage, undated-e.

<sup>80</sup> Bundeswehr, undated-d.

<sup>81</sup> OECD, 2015, p. 26.

the case of the defense ministry, there are 11 chapters with a total of around 300 headers with subordinate items. The 11 chapters (with example subordinate items) are as follows:

- **command authorities and troops, social security contributions, welfare measures, and support for soldiers:** pensions, medical equipment, and transportation costs
- **accommodation:** barrack maintenance and construction
- **federal armed forces administration, federal armed forces universities, and military chaplaincy:** salaries for civilian employees and administration costs of research institutions
- **maintenance of Bundeswehr equipment:** maintenance and repair
- **other Bundeswehr operations:** training exercises and Bundeswehr cultural programs
- **military procurement:** purchasing new equipment and ammunition
- **centrally budgeted administrative income and expenses:** legal services and IT support
- **obligations within the framework of membership in NATO and other international institutions, as well as measures related to international operations:** NATO contributions and peacekeeping missions
- **military research, development, and testing:** R&D programs
- **federal Office for the Military Counterintelligence Service:** counterterrorism operations
- **other appropriations:** disaster relief efforts, military museums.<sup>82</sup>

The division of funds among these items is first set out in the federal budget by the defense minister in collaboration with the Office for Defense Planning and then subsequently approved by BMF and legislators. The division of funds is determined at the federal budget level, but in reality, there is considerable flexibility in each ministry: Although BMF can monitor each ministry's spending and how closely it follows the federal budget, it rarely intervenes when the distribution of expenses differ (provided total spending by each ministry does not exceed its funding). Virement (whereby funding is shifted between items) has virtually no limits within the chapters, and there is a 20-percent leeway for budgets to transfer funds between chapters within each ministry. Beyond this 20-percent threshold, BMF approval is required. Funds can also be carried over into the next year without a specified limit, if either there is a contractual obligation to do so or the carryover is said to promote the "efficient and economical use" of funds and is authorized by the Bundestag.<sup>83</sup>

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<sup>82</sup> German Federal Ministry of Finance, "Entdecken Sie den Bundeshaushalt interaktiv" ["Discover the Federal Budget Interactively"], webpage, undated.

<sup>83</sup> OECD, 2015, pp. 25–27.



## Oversight

The federal budget and the designated defense spending is scrutinized primarily by the Bundestag. During the early preparatory stage of the budget process, the legislature plays an informal role, asking questions and speaking frequently with ministry officials. Once the draft budget is presented to the Bundestag and Bundesrat in late August or early September, the Budget Committee and the Defense Committee can scrutinize all 300 defense budget headers and their subordinate items.<sup>84</sup> Critics have raised concern that the budget process, in its current state, goes into too much detail, given the eventual flexibility of the line items through virement.<sup>85</sup>

The Budget Committee is composed exclusively of Bundestag members, although the Bundesrat can offer advice (which the committee is free to ignore). The Budget Committee appoints a lead rapporteur and three assistant rapporteurs so that each political party can scrutinize the Ministry of Defense budget proposal in cooperation with representatives of the Defense Committee. These rapporteurs guide their respective parties on their approaches to the various ministerial proposals, which leads to parliamentary questioning. The Budget Committee also includes a small number of specialists who provide expert analysis, but there are fewer experts in the Bundestag than are available to the federal cabinet. As a result, the legislature is often dependent on information provided by the federal cabinet to scrutinize the cabinet's proposals.

During the Bundestag oversight phase of the budgetary process, there are roughly 1,000 amendments adopted to the budget bill.<sup>86</sup> Legislative review occurs from September until the end of the year, when the budget must be approved. The Bundestag's review also coincides with EU-level evaluation of the budget, which begins in October.

To monitor the implementation of the annual budget, BMF "mirror units"—designed to oversee spending within the various line ministries—are assigned to each federal ministry to track spending. Each month, ministries report their expenses to their mirror unit in BMF. In most cases, BMF grants considerable freedom to the ministries in terms of how they appropriate their budgets, but in exceptional circumstances, it can freeze a ministry's expenditures until an issue is resolved. For especially contentious expenses, during the budget approval process, the Bundestag can flag the expenditure so that the ministry is closely watched as it spends the allotted funds. If the Bundestag disapproves of how the flagged funds are being implemented, then the funds can be frozen.<sup>87</sup>

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<sup>84</sup> German Federal Ministry of Defense, "Entwicklung und Struktur des Verteidigungshaushalts" ["Development and Structure of the Defense Budget"], webpage, undated-b.

<sup>85</sup> OECD, 2015, p. 26.

<sup>86</sup> It is unclear from the open-source literature how many of these amendments are defense related during an average budgetary cycle.

<sup>87</sup> OECD, 2015, p. 26.

## Analysis of Germany's Budgeting Process

### Strengths

Germany's budgetary process is highly structured and includes significant checks and balances to ensure that there is sufficient oversight. The theme of accountability to the taxpayer carries throughout budgetary processes and is grounded firmly in German principles and attitudes toward public spending. Although this careful approach to spending has its drawbacks, Germany has historically held a budget surplus and economically outstrips many of its counterparts in Europe. Public spending decisions generally focus on social programs; around one-third of German economic output is spent on social benefits, putting the nation in the lead among industrialized countries.<sup>88</sup> Moreover, the German state intervenes more in income distribution than in many other nations, driving down income inequality.<sup>89</sup> In turn, this means that the economy is better equipped to navigate crises, such as the COVID-19 pandemic or other economic shocks.

Parliamentary engagement is robust in the German budgetary system, and the Budget Committee actively scrutinizes the executive budget proposal. This scrutiny includes the use of rapporteurs who lead the examination of ministry-specific allocations and have the power to revise allocations or block specific budget lines by setting conditions.<sup>90</sup> The Bundesländer (the 16 German states) are also represented in decisionmaking on the federal budget and defense spending. This system also ensures a link to lower levels of the Bundeswehr (e.g., to local commands) and that capability gaps identified across different parts of the Bundeswehr can be addressed.

There is ample opportunity for independent (or semi-independent) institutions to provide input into fiscal policy and budget planning. For example, the Council of Economic Experts consists of five president-appointed economic experts from academia who publish an annual report on the state of the German economy with analysis on long-term sustainability of public finances. By law, the government must respond to the council's annual report in parliament within eight weeks of its publication.<sup>91</sup> In addition to increased oversight, this approach lends greater validation and diversity of thought and expertise to the budgeting process.

The German government's regular spending reviews are designed to help ensure that public funds are used effectively and efficiently to achieve their intended results. In 2014, when the OECD conducted an in-depth review of Germany's federal budget system, it found that the system did not feature performance budgeting to the extent deemed necessary.<sup>92</sup> In response to these recommendations, Germany's budget management has become increas-

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<sup>88</sup> German Economic Institute, "Distribution and Public Finances," webpage, undated.

<sup>89</sup> German Economic Institute, undated.

<sup>90</sup> OECD, 2015, pp. 63–68.

<sup>91</sup> OECD, 2015, pp. 43–44.

<sup>92</sup> OECD, 2015, pp. 38–39.

ingly focused on targets and outcomes, using standardized performance budgeting instruments, such as effectiveness requirements, subsidy policy guidelines, and spending reviews.<sup>93</sup> The goal is to translate the policy objectives of funding programs into clearly defined, measurable, and impact-based indicators with fixed evaluation deadlines, starting at the political decisionmaking stage. Regular and comprehensive evaluations of effectiveness and efficiency, particularly through spending reviews, help ensure the intended performance of the federal budget while enabling the creation of fiscal space for new measures.

Chancellor Scholz's *Zeitenwende* speech signaled a turning point in defense spending and an overall cultural shift in attitudes toward German defense prioritization. Although the momentum of the turning point was admittedly short-lived, a renewed focus on modernizing the Bundeswehr and increasing spending to gradually replenish the defense budget because of historical funding cuts marked a move away from a long-held hesitance to acknowledge defense needs. This cultural shift is particularly pertinent considering Germany's complicated history surrounding military power. As a marked end to the prolonged postwar phase of Germany's military, the *Zeitenwende* speech and subsequent supply of military equipment and vehicles to Ukraine could set a precedent for future activity and support to allies and partners.

## Challenges

In general, cultural attitudes toward military spending are shaped by Germany's history in World War II, which has led to public scrutiny of defense expenditures and a hesitance to reform the system in its currently constrained form. The tightly structured budgetary process and emphasis on accountability contributes to an inflexible budgetary process in which decisionmaking through parliamentary and independent contributions can lead to delays or disagreement, which are typical in election years. Should the budget not be passed ahead of the new fiscal year, the Basic Law allows for necessary expenditures to be made to maintain existing institutions, meet the legal obligations of the country, and continue to deliver ongoing projects and services at the rate of the previous year. Germany's unique coalition politics are also seen as constraining the implementation of long-term reforms and greater coherence of its national security strategy. The annual budget cycle amplifies challenges to implementing long-term defense programs when funding becomes available on short notice and is unpredictable in value.

Despite provisions that relieve special defense funding from the constitutional debt brake (*Schuldenbremse*), regular defense budgets are under pressure. The OECD has flagged that the use of the special funds (*Sondervermögen*) mechanism might limit the transparency of federal spending and the credibility of the debt brake because spending through special funds does not appear in the federal budget. Correspondingly, the OECD has recommended devising a more flexible use of the debt brake and incorporating special funds into standard bud-

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<sup>93</sup> German Federal Ministry of Finance, "Spending Reviews in the Federal Budget," webpage, May 25, 2023.

getary processes to foster spending flexibility.<sup>94</sup> Indeed, the representation of special funds outside the core federal budget could undermine spending transparency and fiscal credibility. Germany's Federal Court of Audit recently released a report in which it criticized the use of special funds, describing this shadow budget as "hidden debt."<sup>95</sup>

Although the €100 billion special fund offered seemingly limitless potential at its announcement in early 2022, it appears that, in reality, there is simply not enough money to finance the extensive needs of the Bundeswehr. It seems that certain key items—such as the second batch of K-130 corvettes, two additional F-126 frigates, two U-212C/D submarines, the second set of Puma infantry fighting vehicles, and the replacement of Fuchs nuclear, biological, and chemical reconnaissance vehicles—will not be delayed but rather canceled entirely.<sup>96</sup> At the same time, there is a reliance on using large special funds to fulfill government needs rather than increasing the regular budget, which raises questions about future funding, as well as the legitimacy of the special fund. Furthermore, the special fund is financed by debt, meaning that interest needs to be paid, depleting the initial amount of funding. By the time that the Bundeswehr's special defense fund is drained in 2027, more than €13 billion in interest will have been paid and deducted from the fund's initial €100 billion.<sup>97</sup> This loss generates pressure to spend the special fund quickly to maximize the available money.

There is an ongoing need to balance agility in acquisition with the risk of rapid implementation of special funds, which could fall short of addressing long-term capability gaps and present planning and investment risks. There is a risk that the pressure to spend money will lead to it being spent on ill-suited equipment. On the other hand, the slow process by which the special fund is being realized and translated into contracts could also be a cause for concern. When the chancellor announced the establishment of the special fund, there did not seem to be any preparations, such as a list of equipment, proposals, or contracts. Consequently, it took time before parliament received the first requests for procurement projects and approved them.

Foreign orders seem to be the easiest to approve through the U.S. government's FMS program, versus the extensive red tape in Germany's own industry, something that could explain why the German defense industry has seen few significant deals so far.<sup>98</sup> However, there has been some political pushback within Germany and among other European countries against the portion of defense funds currently earmarked for imports from the United States, such as the F-35s, of which the fuselage will be built in Germany. There is strong pressure from

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<sup>94</sup> OECD, *OECD Economic Surveys: Germany 2023*, May 2023.

<sup>95</sup> Laura Hülsemann, "Germany's Audit Court Slams Lindner's 'Special Funds'—Again," *Politico*, August 29, 2023.

<sup>96</sup> Alistair Davidson, "Germany's €100 Billion Special Fund: The Great Illusion," *Defense Aerospace*, March 2, 2023.

<sup>97</sup> Davidson, 2023.

<sup>98</sup> Davidson, 2023.

German industry to produce at home, but this priority faces certain challenges. The German defense industry specializes in complex, multipurpose platforms, which makes it difficult to scale up production. Additionally, experts have recognized the need for Germany to develop the political will, commit to long-term defense industry financing plans, and reduce bureaucratic red tape to streamline and professionalize procurement processes.<sup>99</sup>

## Applicability

Germany has a unique history, which shapes current attitudes toward military spending, as well as public spending more broadly. Nonetheless, Germany is geopolitically located at the heart of Europe, where it plays a core role in ensuring European collective security, particularly against Russia's motives in the region. Although Germany possesses a sizable economy, its defense spending is limited by various political and economic factors, grounded in historical reasons, which set the nation apart from the United States and other allies.

PPBE-like mechanisms are similarly unique to Germany, particularly the emphasis on accountability and oversight, which results in unusual arrangements, such as the special fund to overcome the debt brake. Nonetheless, in the following sections, we outline some lessons from the German budgeting process that may be applicable to the U.S. context. Further lessons on Germany's approach to defense resource management could be shared or discussed through existing bilateral U.S.-Germany forums or through NATO cooperation, which promotes the exchange of good practice.

## Lessons from Germany's Budgeting Process

German defense budgeting processes could hold useful insights for DoD in several areas. The following lessons are summarized in Table 3.1.

### Lesson 1: Germany's Defense Planning Restructuring Aims to Address Inefficiencies

After cuts and restructuring during the 2008 financial crisis, Defense Minister Boris Pistorius ushered in a new structure for the Ministry of Defense in 2023, with the aims of fostering cross-department collaboration and addressing inefficiencies in the old structure. The decision to reduce unnecessary regulation and to streamline reporting to government indicates a move away from a decade of cutbacks, with a renewed focus on efficiency that could yield improved results for the Ministry of Defense.

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<sup>99</sup> Lorraine Mallinder, "A Defence Market Boggled Down by Red Tape," *Politico*, July 9, 2008.

## Lesson 2: German Defense Planning Emphasizes Parliamentary and Expert Input, as Well as Representation at the State Level

Germany's defense planning requires parliamentary engagement at various stages, as well as scrutiny of the executive budget proposal and ministry-specific allocations. Independent institutions, such as the Council of Economic Experts, also provide input on fiscal policy and budget planning. Moreover, the Bundesländer are represented in decisionmaking on the federal budget and defense spending. This level of engagement at various stages of planning ensures that wider interests beyond the Bundeswehr's needs are taken into account at the federal level and helps guide senior decisionmaking.

## Lesson 3: Germany's Special Fund Offers a Separate Pot for Additional Defense Procurement

Although Germany's defense budget is largely spent on upholding existing capabilities rather than modernization or developing new capabilities, the creation of the special fund has set aside a lump sum for additional projects. The fund has been impeded by a lack of clarity and planning, but it has also presented a unique opportunity for the Bundeswehr to procure new equipment and systems that would otherwise be deprioritized. The creation of a separate fund earmarked for modernization or capability development could also generate momentum for innovation in the defense industry, as long as it is accompanied by clear information on the intended use of the fund.

## Lesson 4: Germany's Defense Budgeting Processes Benefit from Built-In Flexibility Through Virement and the Ability to Carry Over Funds

German defense budgeting and execution features virement, whereby funding can be shifted between line items. Virement has virtually no limits within the administrative groupings of expenditures as designated in the budget document, and there is 20-percent leeway for budgets to transfer funds between groupings (provided that these sit within the same chapter of the departmental budget). Beyond this threshold, approval from BMF is required. Funds can also be carried over into the next annual year, provided that they are dedicated to the same line item as authorized by the Bundestag.<sup>100</sup> To reduce the impact on budgetary plans and public finances, carryover funds are also subject to the condition that such expenditures in the second year are explicitly financed through savings in other areas of the departmental budget. Germany's approach to virement and carryover funds ensures flexibility for defense budgeting while maintaining oversight.

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<sup>100</sup> OECD, 2015, pp. 26–27.

## Lesson 5: Germany's Mirror Units Provide Additional Oversight to the Ministry of Finance

BMF contains mirror units of each federal ministry to track spending and monitor the implementation of the annual budget. Each month, ministries report their expenses to their mirror unit in BMF. In most cases, flexibility is built in to allow ministries to decide how to appropriate their budgets; in exceptional circumstances, the finance minister can freeze a ministry's expenditure if concerns are raised. In some cases, the Bundestag can flag the expenditure, with the option to freeze those funds. This oversight mechanism ensures that the ministries are sufficiently accountable and limits the risk of misusing funds.

**TABLE 3.1**  
**Summary of Lessons from Germany's Budgeting Process**

| Theme                    | Lesson Learned  | Description  |
|--------------------------|---|--|
| Planning and programming | Lesson 1: Germany's defense planning restructuring aims to address inefficiencies.  | Restructuring and a renewed focus on efficiency could yield improved results for Germany's defense planning.   |
|                          | Lesson 2: German defense planning emphasizes parliamentary and expert input, as well as representation at the state level.              | Engagement at various stages of planning ensures that wider interests beyond the military's needs are taken into account at the federal level and helps guide senior decisionmaking.   |
| Budgeting and execution  | Lesson 3: Germany's special fund offers a separate pot for additional defense procurement.  | The creation of a separate fund earmarked for modernization or capability development could generate momentum for innovation in the defense industry.  |
|                          | Lesson 4: Germany's defense budgeting processes benefit from built-in flexibility through virement and the ability to carry over funds. | Current rules allow a 20-percent leeway to transfer budgets between chapters within each ministry, with further virement possible with approval. This ensures flexibility for defense budgeting while maintaining oversight. |
| Oversight                | Lesson 5: Germany's mirror units provide additional oversight to the Ministry of Finance.   | This oversight mechanism ensures that the ministries are sufficiently accountable and limits the risk of misusing funds.   |





# Japan

*Andrew Dowse, Naoko Aoki, and Phoebe Felicia Pham*

Japan is a constitutional monarchy; its governance is shaped by a 1947 constitution that established a separation of powers. The legislative (the Diet), executive (the prime minister's cabinet), and judicial branches undertake their respective functions while limiting each other's power through checks and balances, as shown in Figure 4.1.<sup>1</sup>

The national Diet consists of two houses—the House of Representatives and the House of Councillors—and members are elected by both proportional and single-seat constituencies.<sup>2</sup> Although the two houses share power, the House of Representatives predominates in producing legislation on several matters, including the nation's budget, which the House of Representatives can approve even if it is rejected by the House of Councillors.<sup>3</sup> In Japan's 47 prefectures, local governments have limited autonomy and depend on resources from the national government.<sup>4</sup>

In this system, Japan's Ministry of Defense (MOD) is responsible for preventing and repelling aggression and safeguarding Japan's independence and peace.<sup>5</sup> The MOD and the Self-Defense Forces (SDF) form a single organization, with the MOD largely responsible for the administrative aspects of defense and the SDF being the operational units.<sup>6</sup> The MOD organizational chart is shown in Figure 4.2.

Until 2022, the MOD's annual budget was derived from the Medium-Term Defense Program, which had been developed in pursuit of defense capabilities prescribed in the National

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<sup>1</sup> House of Representatives (Japan), "Separation of Powers," webpage, undated.

<sup>2</sup> Prime Minister of Japan and His Cabinet, undated.

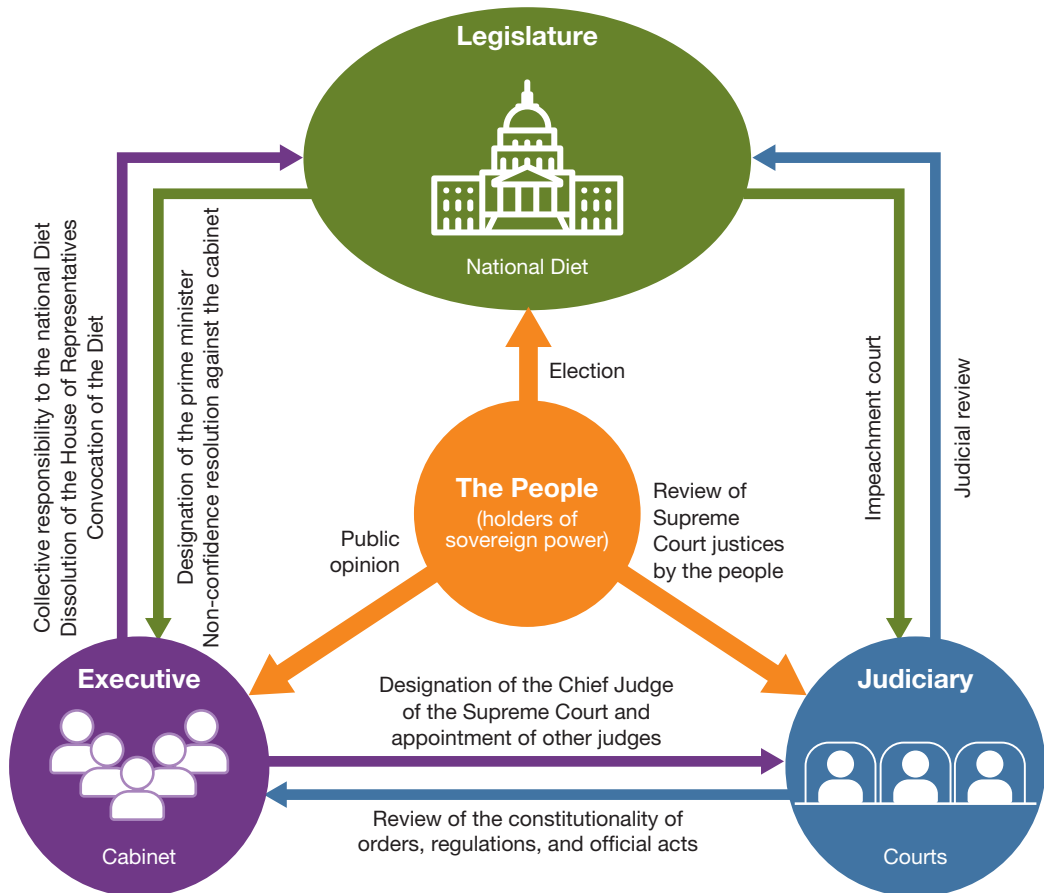
<sup>3</sup> Ministry of Foreign Affairs of Japan, *Governmental Structure: Changing with the Times*, Web Japan, undated.

<sup>4</sup> Enrico D'Ambrogio, *Japan's Parliament and Other Political Institutions*, European Parliamentary Research Service, December 2020.

<sup>5</sup> Ministry of Defense (Japan), "Overview and Fundamental Concepts of National Defense," webpage, undated-d.

<sup>6</sup> Ministry of Defense (Japan), 2023a, p. 275.

**FIGURE 4.1**  
**Separation of Powers in Japan**



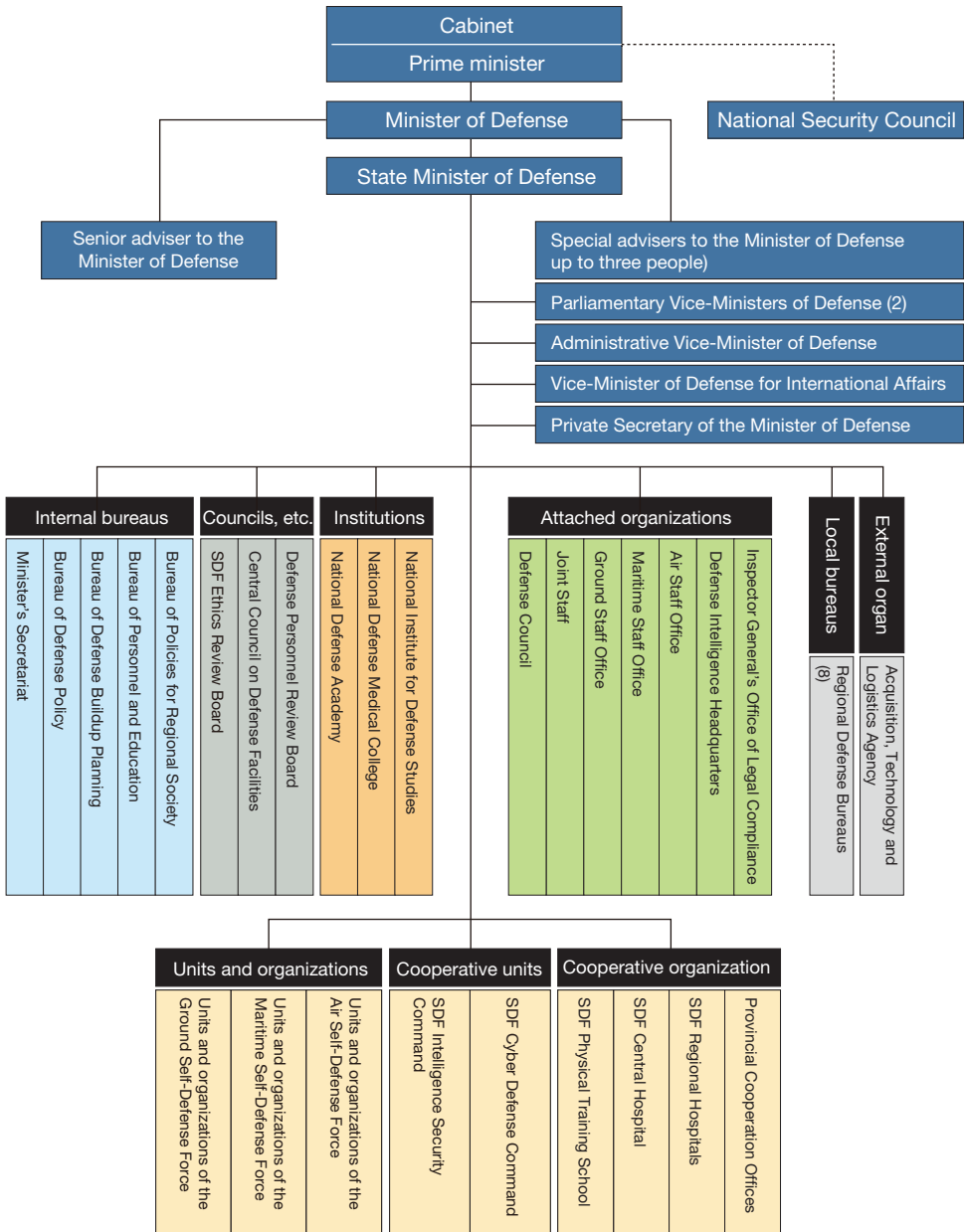
SOURCE: Adapted from House of Representatives (Japan), undated.

Defense Program Guidelines, which, in turn, have been based on Japan’s National Security Strategy (NSS) since 2013.<sup>7</sup> Under the guidelines, Japan’s defense architecture historically rested on three pillars: SDF capability, an alliance with the United States, and security cooperation with other partners.

For decades, Japan’s defense budget was kept under an informal restraint of no more than 1 percent of GDP. The restraint was put in place in 1976 by the prime minister, who has purview over the MOD, both to allay domestic concerns about increased defense spending and

<sup>7</sup> Ministry of Defense (Japan), 2022a, p. 195.

**FIGURE 4.2**  
**Japan's MOD Organization**



SOURCE: Adapted from Ministry of Defense (Japan), *Defense of Japan 2023*, 2023a, p. 275.

NOTE: This chart is as of May 2023 and excludes temporary or special positions.

to signal internationally that Japan was not becoming a military power again.<sup>8</sup> The restraint was abolished in 1987 by then-Prime Minister Nakasone Yasuhiro, but the defense budget has only occasionally breached the 1-percent of GDP threshold.<sup>9</sup> With Japan's economic slowdown in the 1990s, defense spending stagnated. The country's defense budget increased by only 9 percent in the nearly 25 years leading up to FY 2021.<sup>10</sup> A 2022 defense white paper acknowledged that Japan had the lowest defense budget as a percentage of GDP of the Group of Seven and partner nations, as well as the lowest defense expenditure per capita.<sup>11</sup>

But in recent years, Japan's worsening security environment has led to calls for an increase in the defense budget. Japan's concerns include China's rapid military modernization and assertiveness in the region, as well as North Korea's continued expansion and enhancement of its nuclear and missile arsenals, which have spurred Japan to expand its defense capabilities under its long-standing policy to focus exclusively on self-defense. Many in Japan also viewed Russia's 2022 invasion of Ukraine with alarm and as an example of a revisionist power changing the status quo unilaterally through military force, which could have major implications for East Asia, particularly given China's claims over Taiwan.<sup>12</sup>

Against this backdrop, in December 2022, the Japanese government released three landmark documents that signaled a departure from its previous defense strategy: a new NSS,<sup>13</sup> a National Defense Strategy (NDS),<sup>14</sup> and a plan for its Defense Buildup Program (DBP).<sup>15</sup> The 2022 NSS focuses on growing threats from China, North Korea, and Russia; threat indicators over the past decade, such as scrambles against aircraft incursions and increasing North Korean weapon activity, are summarized in Figure 4.3.

The NSS articulates a requirement for "comprehensive national power" containing diplomatic, defense, economic, technological, and intelligence capabilities. Of note is the require-

<sup>8</sup> Darling, 2022; Tsuruoka, 2023. Technically, the policy at the time used gross national product rather than GDP to discuss the 1-percent restraint. See, for example, Kutsunugi, 2017.

<sup>9</sup> "What Is the Defense Budget? Cabinets Have Kept Defense Spending Within Roughly 1% of GDP" ["防衛費とは 歴代内閣はGDP比はほぼ1%以内に"], 2021.

<sup>10</sup> Jeffrey W. Hornung and Christopher B. Johnstone, "Japan's Strategic Shift Is Significant, but Implementation Hurdles Await," *War on the Rocks*, January 27, 2023.

<sup>11</sup> Ministry of Defense (Japan), 2022a, p. 221.

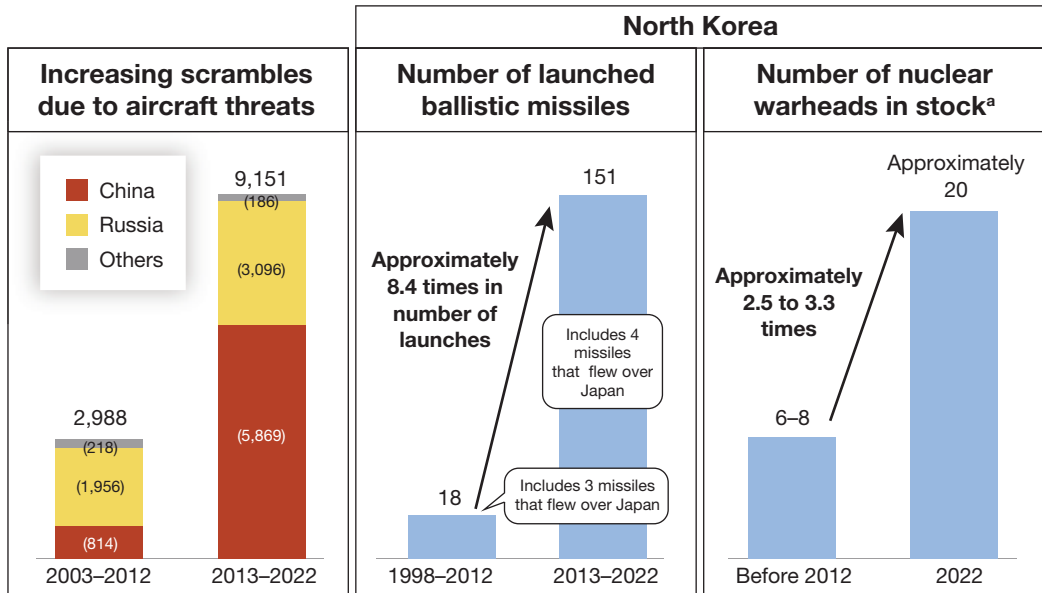
<sup>12</sup> For Japan's general threat perception, see Ministry of Defense of Japan, 2023a. For Japanese public sentiment regarding Russia's invasion of Ukraine and the possibility of China invading Taiwan, see, for example, "87% 'Worried' About Russia's Invasion, 89% 'Worried' About China's Invasion of Taiwan, Mainichi Shimbun Public Opinion Poll" ["露の侵攻「不安」87%中国の台湾侵攻「不安」89% 毎日新聞世論調査"], *Mainichi Shimbun*, March 20, 2022.

<sup>13</sup> Ministry of Foreign Affairs (Japan), *National Security Strategy of Japan*, December 2022.

<sup>14</sup> Ministry of Defense (Japan), *National Defense Strategy*, December 16, 2022d.

<sup>15</sup> Ministry of Defense (Japan), 2022c.

**FIGURE 4.3**  
**Threats to Japan's Security**



SOURCE: Adapted from Ministry of Defense (Japan), 2023a, pp. 1–2.

<sup>a</sup> According to SIPRI, *SIPRI Yearbook 2022: Armaments, Disarmament, and International Security*, Oxford University Press, 2022.

ment to significantly boost defense capabilities, with the SDF taking primary responsibility against the growing threats.<sup>16</sup>

The NDS reiterates the need to advance Japan's defense objectives (of shaping the security environment and deterring and responding to threats) by strengthening the three pillars of SDF capability, the U.S. alliance, and security cooperation. However, the NDS departs from Japan's previous strategy by specifying key capability priorities that will support these objectives. The NDS identifies seven such priorities, which represent the MOD's major programs: standoff capabilities, integrated air and missile defense, uncrewed systems, cross-domain capabilities, command and control and intelligence, mobility, and sustainability and resiliency.<sup>17</sup> The NDS priorities represent a continuation of the shift from a land-dominant, tank-based force to a missile-focused denial strategy, recognizing Japan's maritime environment as

<sup>16</sup> Robert Ward and Yuka Koshino, "Japan Steps Up: Security and Defence Policy Under Kishida," in Tim Huxley and Lynn Kuok, eds., *Asia-Pacific Regional Security Assessment 2023: Key Developments and Trends*, International Institute for Strategic Studies, June 2023.

<sup>17</sup> Ministry of Defense (Japan), 2022d.

critical to its national security and economic viability.<sup>18</sup> The NDS highlights such capabilities in terms of the nation's ability to deter and respond to aggression, with a particular emphasis on counterstrike capabilities.

The ten-year DBP replaced the five-year Medium-Term Defense Program to allow the government to better plan for its defense needs over the longer term. The ten-year term aligns better with the NSS and NDS, which also span the period of ten years.<sup>19</sup> The DBP breaks the seven capability priorities down into specific programs to guide acquisition and procurement activities. The priorities are framed by two five-year epochs to ensure flexibility over the ten-year time frame. Near-term efforts focus on increasing readiness and resiliency to defend against aggression, while the ten-year aspirations center on building a modernized force that can exploit advanced technologies to defeat aggression "earlier and at a further distance."<sup>20</sup> The DBP fleshes out its capability plans with appendixes that match objectives with procurement quantities and force structure targets.

Section 13 of the DBP addresses funding assumptions for the future force and calls for an expenditure of ¥43 trillion (\$293.5 billion) over the five years, with the defense budget rising to ¥8.9 trillion (\$60.7 billion) in FY 2027.<sup>21</sup> According to the plan, DBP implementation will depend on certain expenditure and revenue measures, including the use of the surplus from previous annual budgets, expenditure reforms, nontax revenues, and tax measures.

Some of these measures are progressing, including the enactment of a law to create a funds pool using nontax revenue and the partial redirection of the national budget surplus to the defense budget.<sup>22</sup> Yet there remains concern as to whether the full defense budget can be achieved, and there are particular concerns around the prospect of tax increases. Although the Japanese public generally supports an increase in defense spending, polling has also shown that a large majority of Japanese constituents oppose tax increases to fund the defense

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<sup>18</sup> Jonathan D. Caverley and Peter Dombrowski, "A Bumpy Road to Normalcy," in *Policy Roundtable: The Future of Japanese Security and Defense*, Texas National Security Review, October 1, 2020, pp. 7–10.

<sup>19</sup> "Defense Buildup to Become a Ten-Year Plan, Change from 5-Year MDTP" ["防衛力整備10年計画に5年ごとの「中期防」を変更"], *Nihon Keizai Shimbun*, November 24, 2022.

<sup>20</sup> Ministry of Defense (Japan), 2022c, p. 14.

<sup>21</sup> Ministry of Defense (Japan), 2022c, p. 48.

<sup>22</sup> "Japan Parliament Enacts Law to Create Defense Funds Pool," *Kyodo News*, June 16, 2023; "Japan Logs 2.6 Tril. Yen Budget Surplus in FY2022," *NHK World Japan*, July 4, 2023.

budget.<sup>23</sup> Alternatives include raising corporate taxes.<sup>24</sup> At any rate, there are indications that tax increases may be deferred to 2025.<sup>25</sup> Decisions to defer tax increases at a time of increased spending cannot be taken lightly, especially in a nation that has, by far, the world's largest government debt as a percentage of GDP.<sup>26</sup>

Another key factor for the planning phase of Japan's PPBE-like process is its aging demographic: 30 percent of its population is over the age of 65.<sup>27</sup> This factor translates to an SDF personnel challenge: The SDF has consistently missed its recruitment goals over the past ten years, and it currently has a shortfall of 16,000 personnel.<sup>28</sup> This challenge is reflected in the new strategy documents, which prioritize initiatives to recruit and retain workforce, as well as to optimize the SDF workforce through the use of automation and uncrewed assets.

A final consideration for PPBE planning is the capacity of Japan's defense industry to support the DBP. Section 9 of the DBP identifies industry as an integral part of defense capability, articulating general and capability-specific efforts for production and the support of future systems. These efforts will need to overcome the longtime erosion of Japan's defense industry, which is due to underinvestment and previous export limitations. An industrial reinvigoration could require facilitating exports, international investment, and direct subsidies.<sup>29</sup> It could also require the nationalization of facilities owned by companies that manufacture indispensable products but that find their business unprofitable and unsustainable.<sup>30</sup>

## Overview of Japan's Budgeting Process

Japan's budgets are formulated by the prime minister's cabinet and approved by the Diet. As is the case with some other parliamentary systems, the legislature's power to make major changes to the budget plan is relatively limited, meaning that the cabinet's initial plan plays a

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<sup>23</sup> "80% in Japan Oppose Tax Hike Plan to Cover Defense Spending, Poll Finds," *Japan Times*, May 7, 2023. Despite opposition to tax increases, in multiple media opinion polls, more than half of respondents supported an increase in the defense budget. See, for example, "Increase in Defense Spending, '2% or More of GDP' 55% in Favor, 33% Against, Nihon Keizai Shimbun Poll" ["防衛費増額「GDP比2%以上」賛成55%、反対33% 本社世論調査"], *Nihon Keizai Shimbun*, April 25, 2022, and "Increase in Defense Spending, 'in Favor' 51%, Nuclear Power Plant Extension 'in Favor' 51%, Yomiuri Shimbun Poll ["防衛費増額「賛成」51%、原発延長「賛成」51% 読売新聞世論調査"], *Yomiuri Shimbun*, December 4, 2022.

<sup>24</sup> Kana Inagaki and Leo Lewis, "Who Is Going to Pay for Japan's Military Build-Up?" *Financial Times*, December 14, 2022.

<sup>25</sup> "Japan to Consider Delaying Defense Spending Tax Hike to 2025 or Beyond," *Asahi Shimbun*, June 13, 2023.

<sup>26</sup> World Economics, undated.

<sup>27</sup> Tatsumi, 2023.

<sup>28</sup> Porter, 2023.

<sup>29</sup> Rubinstein, 2023.

<sup>30</sup> "Japan Enacts Bill to Nationalize Defense Equipment Facilities," 2023.

crucial role in shaping the nation's budget.<sup>31</sup> This is a key difference from the U.S. budgetary system, in which Congress has primary constitutional responsibilities over decisions regarding spending, revenue, and borrowing.<sup>32</sup>

The Japanese budget uses a single-year and cash accounting system. *Cash-based* accounting recognizes a transaction when cash is collected or spent. This is opposed to *accrual-based* accounting, which recognizes anticipated revenues and expenditures ahead of payments being received or issued.<sup>33</sup> The Japanese constitution requires the cabinet to “prepare and submit to the Diet for its consideration and decision a budget for each fiscal year.”<sup>34</sup> Japan's fiscal year runs from April 1 to March 31. The formulation, execution, and settlement of the budget spans a three-year time frame; the formulation starts about a year before the new fiscal year, and the settlement of accounts takes place in the year after the budget's execution.<sup>35</sup>

One of the first steps that the cabinet takes in the budget formulation process is to adopt basic spending policy guidelines for the next fiscal year. Around June, the Council on Economic and Fiscal Policy, staffed by cabinet ministers and outside advisers and led by the prime minister, draws up the guidelines.<sup>36</sup> The guidelines are usually adopted by the cabinet shortly thereafter.<sup>37</sup> This adoption paves the way for the cabinet to set limits on budget requests from each ministry; the limits are usually approved in July (see Figure 4.4).<sup>38</sup>

A major step in the budget formulation process is the submission of budget requests to the Ministry of Finance (MOF) by all government ministries, which takes place at the end of August. Once the MOF receives all the requests, it assesses them, holds meetings with officials from the respective ministries, and adjusts the proposed budgets as needed.<sup>39</sup> The MOF then draws up a draft plan and presents it back to the ministries. The ministries may choose to negotiate with the MOF at this stage to recoup funds that the MOF had cut from their

<sup>31</sup> Hiromitsu Ishi, “Budgets and the Budgetary Process in Japan,” *Hitotsubashi Journal of Economics*, Vol. 37, No. 1, June 1996.

<sup>32</sup> U.S. Constitution, Article I, Section 8.

<sup>33</sup> Jón R. Blöndal, “Issues in Accrual Budgeting,” *OECD Journal on Budgeting*, Vol. 4, No. 1, 2004.

<sup>34</sup> Prime Minister of Japan and His Cabinet, “The Constitution of Japan,” webpage, May 3, 1947.

<sup>35</sup> Ministry of Defense (Japan), “Flow of Budget Formulation for FY 2019” [“令和元年度予算編成等の流れ”], 2019, Not available to the general public. The three-year time frame includes the time from when budget formulation begins to when the cabinet submits the settlement of the accounts to the Diet. The deliberations and approval in the Diet take place later.

<sup>36</sup> Cabinet Office (Japan), “Council on Economic and Fiscal Policy,” webpage, undated.

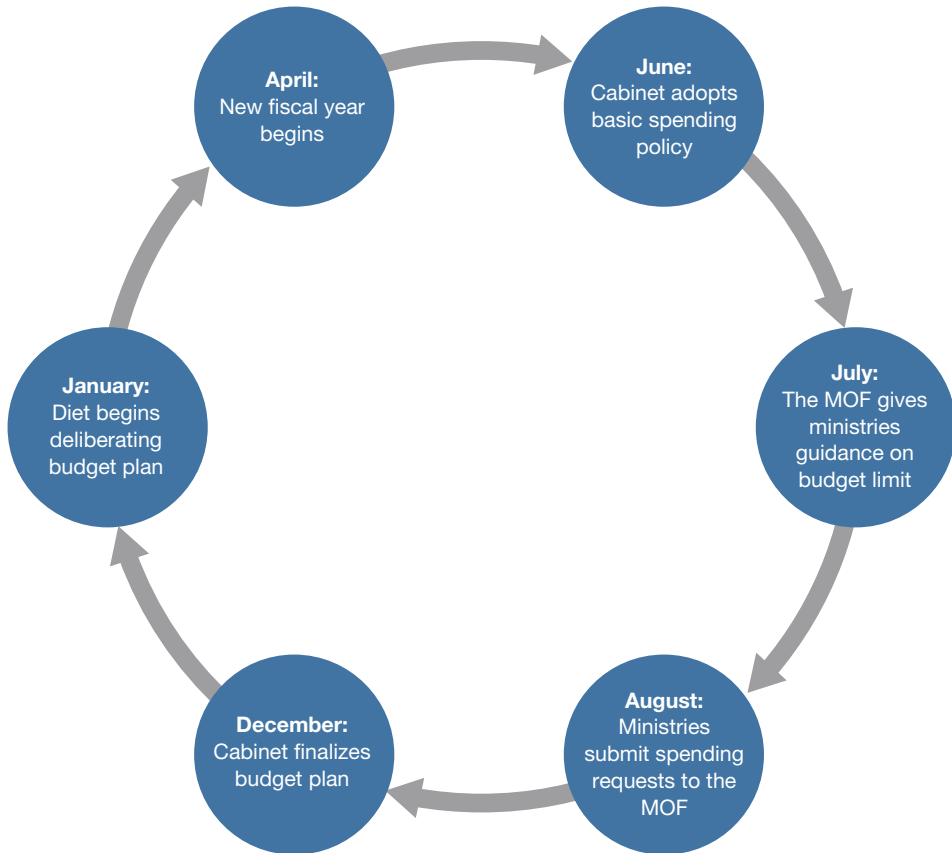
<sup>37</sup> For example, see “Cabinet Approves Fiscal Policy, Indicates Delaying Defense Tax Hike, Many Spending Increases” [“政府、骨太の方針を閣議決定 防衛増税後ろ倒し示唆、歳出増ざらり”], *Asahi Shimbun*, June 16, 2023.

<sup>38</sup> Ministry of Finance (Japan), “FY 2024 Budget” [“令和6年度予算”], webpage, undated-b.

<sup>39</sup> Economic Legal Research Institute, *National Budget System* [国の予算の仕組み], undated; Ministry of Defense (Japan), 2019.



**FIGURE 4.4**  
**Flowchart of the Budgeting Process in Japan**



SOURCE: Features information from Nakabayashi Mieko, "Japan's Budget Process," Research Institute of Economy, Trade and Industry, February 4, 2003.

budget proposals. This process, known as *revival negotiations*, can involve either senior ministry officials or the ministers, depending on how contentious the issues are.<sup>40</sup> Once the budget plan is finalized, the finance minister submits it to the entire cabinet for approval, usually in late December. If approved, the budget plan is submitted to the House of Representatives, also known as the lower house, during the regular Diet session that begins in January. The budget plan is first deliberated in the House of Representatives by its budget committee. When it passes the committee, the budget plan is put to a vote in the plenary session of the lower house. It is then deliberated in the House of Councillors, following a similar process. But the predominance of the House of Representatives means that once the majority of the chamber votes in favor of the budget plan, its passage is ensured. If the House of Councillors

<sup>40</sup> "Word BOX, Revival Negotiation" [ワードBOX 復活折衝], *Nishinihon Shimbun*, December 21, 2003.

fails to approve the budget plan within 30 days of receipt, the lower house's decision prevails. If the House of Councillors votes against the budget plan, the two chambers try to reconcile their differences in a joint committee attended by selected members of both houses. Failure to bridge the differences leads to the approval of the House of Representatives' plan.<sup>41</sup>

A key difference from the United States is that, by the time the government's budget plan reaches the Diet in January, most of the substantive negotiations have been completed. As mentioned, these negotiations include those between MOF officials and officials from other ministries in the run-up to cabinet approval in December. MOF officials also brief influential lawmakers in the process, particularly those on the House of Representatives Committee on Financial Affairs, to ensure that these legislators have a sufficient understanding of the direction of the budget. In the case of the defense budget, MOD officials often brief legislators who have influence over defense issues, particularly those on the House of Representatives Committee on National Security, to ensure that they are aware of the defense budget plan.<sup>42</sup> Parliamentary deliberations on the budget are broadcast by the nation's public broadcaster; perhaps because substantive negotiations are carried out before the budget plan reaches the Diet, parliamentary deliberations tend to focus on political issues, such as scandals, rather than matters of policy.<sup>43</sup>

Because the budget ultimately passes with a majority of the vote in just the House of Representatives, the budget process tends to be smooth whenever the ruling party or coalition holds a majority in the lower house. How smoothly the budget moves through the Diet also depends on politics within the ruling bloc: The prime minister, who heads the ruling party, needs to secure support from the various factions within the party.<sup>44</sup> In theory, the parliament can change the budget plan during the approval process, but such developments are extremely rare. As long as amicable political conditions are in place, the budget approval process is relatively stable. This has been the case for most of the past two decades because Japanese politics have been dominated by the ruling Liberal Democratic Party and its junior coalition partner Komeito for all except three years since 1999.<sup>45</sup> As of October 2023, the ruling coalition held 294 of the 465 seats in the House of Representatives, or 63 percent of the chamber.<sup>46</sup>

However, there have been cases in the past, including political gridlock, when the budget did not pass the Diet in time for the new fiscal year. In all these cases, the cabinet formu-

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<sup>41</sup> Ishi, 1996; Economic Legal Research Institute, undated; Ministry of Defense (Japan), 2019.

<sup>42</sup> Japan subject-matter experts, interviews with the authors, July-August 2023.

<sup>43</sup> Nakabayashi, 2003.

<sup>44</sup> Japan subject-matter experts, interviews with the authors, July-August 2023.

<sup>45</sup> "Illustration of Politics 20 Years of LDP-Komeito Coalition" ["図解政治 自公連立20年のあゆみ"], *Jiji News*, October 2019.

<sup>46</sup> House of Representatives (Japan), "Strength of the In-House Groups in the House of Representatives," webpage, last updated October 4, 2023.

lated a temporary budget, which was passed by the Diet. According to the Japanese Public Finance Law, the cabinet can pass a temporary budget as needed, and that budget expires once the main budget is passed by the Diet.<sup>47</sup> The last time this took place was in 2015, when a temporary budget was formed to fund the government for 11 days because of a delay in the budget process related to a general election in late 2014.<sup>48</sup> Although there are no legal restrictions against including new projects in a temporary budget, fiscal policy scholars argue that it should fund only items that are necessary to run the government on a temporary basis, and comments by government officials indicate that they agree that that should be the basic policy.<sup>49</sup>

Japan's national budget for FY 2023 was ¥114.4 trillion (\$780.8 billion), its largest ever, reflecting increased spending on defense and measures to support the economy. The FY 2023 defense budget reached ¥6.8 trillion (\$46.4 billion), the largest on record, accounting for 5.9 percent of the total national budget.<sup>50</sup> To fund the defense budget, the Japanese government directed half of the 2023 settlement surplus to defense, with ¥1.4 trillion (\$9.6 billion) for the FY 2023 defense budget and a further ¥3.4 trillion yen (\$23.2 billion) to establish the Defense Reinforcement Fund, which pools nontax revenues for future defense budgets.<sup>51</sup>

With Japan's public finances on a single-year basis, a bill was passed in June 2023 to permit funds to be set aside for future years.<sup>52</sup> This measure was intended, in part, to ensure the funding necessary to support the five-year spending target set by the DBP. The five-year DBP spending of ¥43 trillion (\$293.5 billion) from FY 2023 to FY 2027 represents an increase over the five years of total spending under the previous Medium-Term Defense Program, which amounted to ¥27.5 trillion (\$190 billion in constant 2018 dollars) from FY 2019 to FY 2023.

Any proposed contracts during the fiscal year that require payments in future years, such as for acquisition projects, are included in the MOD's annual budget request. In approving the budget proposal, the Diet commits the government to such future obligations. However, such contracts are included in subsequent year budgets as obligatory outlays.<sup>53</sup>

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<sup>47</sup> Japanese Public Finance Law, 1945, as amended September 1, 2021, Article 30.

<sup>48</sup> "FY 2015 Provisional Budget Passed, 5,759.3 Billion Yen in 11 Days" ["15年度暫定予算が成立、11日間で5兆7593億円"], *Nihon Keizai Shimbun*, March 30, 2015.

<sup>49</sup> Hoshi Masahiko [星正彦], "Issues Related to the Timing of Budget Establishment" ["予算の成立時期に関わる諸問題"], *Economic Prism*, No. 172, October 2018.

<sup>50</sup> "Japan's Parliament Enacts Record ¥114.4 Trillion Budget for Fiscal 2023," *Japan Times*, March 28, 2023.

<sup>51</sup> Ryosuke Hanada, "Fighting to Fund Japan's Historic Defense Budget Increase," *East Asia Forum*, May 17, 2023.

<sup>52</sup> "Japan Parliament Enacts Law to Create Defense Funds Pool," 2023.

<sup>53</sup> Japan subject-matter experts, interviews with the authors, July-August 2023.

## Decisionmakers and Stakeholders

There are several key stakeholders in the Japanese defense budget cycle, including the MOD, the MOF, the Council on Economic and Fiscal Policy, the prime minister, the cabinet, legislators, and the Board of Audit of Japan. We discuss each of these stakeholders in turn in the following sections.

### Ministry of Defense

The internal bureaus of the MOD play critical roles in the budget formulation, execution, and settlement process. For budget formulation, two of the bureaus—the Minister’s Secretariat and the Defense Buildup Planning Bureau—lead discussions within the MOD to formulate the ministry’s budget request. These bureaus interact with staff offices and the Acquisition, Technology, and Logistics Agency and assess the ministry’s needs.<sup>54</sup> The internal bureaus also play a key role in the intragovernmental negotiation process, engaging with the MOF on how the MOD’s spending request fits into the government’s overall budget plan. The MOD’s internal bureaus, its staff offices, and the Acquisition, Technology, and Logistics Agency are staffed by career bureaucrats and SDF members. In contrast, the MOD’s top officials—including the defense minister, state minister of defense, and parliamentary vice ministers of defense—are Diet members who are appointed to the posts by the prime minister.<sup>55</sup> Whereas the internal bureaus exercise significant power in consolidating budget requests and ensuring alignment with strategy, the ultimate decisionmaker is the defense minister.<sup>56</sup>

### Ministry of Finance

The MOF Budget Bureau performs a key role in the budget formulation process. The bureau’s main responsibility is to collect budget requests from all the ministries and incorporate them into a budgetary framework while assessing the requests, negotiating with the ministries, and making adjustments as needed.<sup>57</sup> The finance minister submits the budget to the cabinet once the MOF draft is completed.<sup>58</sup> The finance minister could be involved in negotiations, particularly if there are “revival negotiations” after the formulation of the MOF draft but before the government plan is finalized.<sup>59</sup> The finance minister also approves payment plans in the execution phase.<sup>60</sup> The MOF Budget Bureau is staffed by career bureaucrats, whereas the finance minister is an elected legislator appointed to the role by the prime minister.

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<sup>54</sup> Japan subject-matter experts, interviews with the authors, July–August 2023.

<sup>55</sup> Ministry of Defense (Japan), “About Ministry,” webpage, undated-a.

<sup>56</sup> Japan subject-matter experts, interviews with the authors, July–August 2023.

<sup>57</sup> Nakabayashi, 2003.

<sup>58</sup> Economic Legal Research Institute, undated.

<sup>59</sup> “Word BOX, Revival Negotiation” [“ワードBOX 復活折衝”], 2003.

<sup>60</sup> Japanese Public Finance Law, 2021, Article 24.

## Council on Economic and Fiscal Policy

As an advisory panel to the prime minister, the Council on Economic and Fiscal Policy sets the tone for overall government spending through the annual Basic Policy on Economic and Fiscal Management and Reform, which is usually drafted in June and subsequently adopted by the cabinet. The panel is chaired by the prime minister and consists of five cabinet ministers, the governor of the Bank of Japan, and four outside experts, including a university professor and prominent businesspeople.<sup>61</sup> The panel was established in 2001 as part of an effort to strengthen the prime minister's power over budget-making, which was seen as being dominated by bureaucrats, particularly staff from the MOF Budget Bureau.<sup>62</sup>

## Prime Minister

From a policy perspective, the prime minister sets the direction of the budget through the adoption of the Basic Policy on Economic and Fiscal Management and Reform, as noted. From a political perspective, the prime minister needs to ensure that the ruling party or coalition has enough support in the Diet to pass the budget. Even when the ruling party or coalition has a majority in the House of Representatives (which has the ultimate vote on the budget), there could be differing views on spending needs and fiscal policy, and negotiations within the ruling party or between coalition partners could be necessary to secure a majority of votes for the budget.<sup>63</sup>

## Cabinet

The cabinet's approval is required at key points in the budget formulation process. The cabinet approves both the basic spending guidelines drafted by the Council on Economic and Fiscal Policy around June and the limits on ministry budget requests around July, prior to the formulation of the government's budget plan. Once that plan is formulated later in the year, the cabinet approves the plan and submits it to the Diet in January.

## Legislators

Ruling party or coalition lawmakers who have served in MOD leadership positions in the past or who belong to relevant Diet committees, particularly the Committee on Financial Affairs and the Committee on National Security, often play key roles in shaping the defense budget because of their political influence over the spending.<sup>64</sup> Their influence matters most, however, in the budget formulation process before the budget plan reaches the Diet. As noted above, the budget plan usually does not change after it reaches the Diet, and discussions in the budget committees, which vote on the plan before the full chambers, often involve more-

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<sup>61</sup> Cabinet Office (Japan), undated.

<sup>62</sup> Ko Mishima, "The Failure of Japan's Political Reform," *World Policy Journal*, Vol. 22, No. 4, Winter 2005–2006.

<sup>63</sup> Japan subject-matter experts, interviews with the authors, July–August 2023.

<sup>64</sup> Japan subject-matter experts, interviews with the authors, July–August 2023.

general political issues. The influence of the lawmakers is often difficult to observe from the outside. But an example of this influence is the successful effort by lawmakers who wanted to strengthen the Japanese defense industry through the domestic development of a new fighter aircraft to pressure the MOD to seek R&D funds for the effort in the FY 2020 budget, even as the ministry was considering options to jointly develop the aircraft with other countries, such as the United States and the UK, to reduce costs.<sup>65</sup>

### Board of Audit of Japan

The Board of Audit of Japan, an independent agency, audits government spending, including the defense budget, and submits its report to the Diet. The Board of Audit of Japan consists of a three-member audit commission, which is the decisionmaking leadership of the institution, and the general executive bureau, which has over 1,200 personnel, many of whom are auditors. The three members of the audit commission are appointed by the cabinet and approved by both chambers of the parliament. The general executive bureau is divided into offices that are responsible for auditing specific public entities.<sup>66</sup> If the board finds inappropriate activities, it can immediately demand ministries and agencies to rectify the situation. It can also recommend legal and other changes if it finds structural problems.<sup>67</sup>

### Planning and Programming

Japan has a long history of publishing strategic and program documents that explain its national priorities and objectives, including threats to its security. *Defense of Japan* white papers—intended to provide transparency on Japan’s security environment and planned defense activities and investments, as well as to promote understanding and cooperation by Japan’s public and the international community—have been published annually since 1970.

Defense policy became a feature of planning guidance with the National Defense Program Guidelines in 1976; Japan’s first NSS was published in 2013. Whereas these documents offer higher-level strategy information and guidance, the most important document for the purposes of planning and programming is the DBP, the multiyear capability guidance that has superseded the Medium-Term Defense Program.

The three strategic documents released in December 2022—the NSS, NDS, and DBP—represent a hierarchy of objectives, with the NSS at the pinnacle, providing the country’s foreign and security policy *direction* over ten years. The NDS focuses on defense *policies and capabilities* over ten years. The DBP sets both *the level of defense capability* that Japan should possess and the *defense equipment necessary* to achieve that level. Although it addresses a ten-

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<sup>65</sup> “In Consideration of Lawmakers with Influence on Defense Matters, Ministry of Defense Aims to Include Development Fees for Domestically Made Stealth Aircraft” [“防衛省、国防族に配慮 国産ステルス機開発費の計上狙う”], *Asahi Shimbun*, August 30, 2019.

<sup>66</sup> Board of Audit of Japan, “About Us,” webpage, undated-a.

<sup>67</sup> Board of Audit of Japan, “Audit Activities,” webpage, undated-b.

year horizon, the DBP provides details on the expenditures and quantities of major procurement programs for a five-year period.<sup>68</sup>

The NDS is built on the following eight precepts:

1. The fundamental driver of capability is Japan's ability to take primary responsibility to disrupt and defeat an invasion of its territory.
2. Such capability should be based on persistent sensing of the area, activities to deter aggression, and an ability to respond swiftly to intrusions.
3. Japan should adapt to new ways of warfare.
4. To deter invading forces at longer distances, Japan must strengthen standoff and integrated air and missile defense capabilities.
5. Changes in threats are difficult to predict, but Japan must accelerate to make the best use of its current equipment while working to strengthen capabilities for future operations.
6. Establishing required capabilities will involve significant costs and increases in personnel strength, but higher budgets must be accompanied by efficiency improvements and greater optimization.
7. The goal of increasing Japan's defense capability is to deter changes to the status quo by force.
8. Missile defense is not enough; Japan needs effective counterstrike capabilities to deter adversaries.<sup>69</sup>

In formulating the DBP, the MOD undertook a series of simulations to assess the effectiveness of responses to potential adversaries' capabilities and new ways of fighting. Officials considered adversary courses of action, including missile attacks and air and maritime incursions into Japanese territory. The MOD also considered these adversaries' potential future capabilities, including asymmetrical and coordinated hybrid warfare, the use of uncrewed systems, and capabilities in the space, cyber, and electromagnetic domains.<sup>70</sup>

The DBP incorporates these simulations and refines operational concepts to determine which capabilities will optimally fulfill Japan's defense strategy. It then links the necessary capabilities with the seven major programs and outlines the investments needed to achieve the targeted capability levels at the five- and ten-year points. These capability targets are budgetarily important because the formulation of annual budgets must account for the timelines needed to achieve the capability enhancements. For example, if a program will take four years to reach operational capability and is associated with a capability target for FY 2027, it should be launched in FY 2023, the DBP's first year. Funding programs must also account for the capacity of industry, the SDF, and the Acquisition, Technology, and Logistics Agency to

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<sup>68</sup> Ministry of Defense (Japan), "Defense Policy," webpage, undated-b.

<sup>69</sup> Ministry of Defense (Japan), 2022d.

<sup>70</sup> Japan subject-matter experts, interviews with the authors, July–August 2023.

implement change and must be designed so that the defense buildup progresses in “a stable and sustainable manner.”<sup>71</sup> This planning inherent in the DBP addresses these requirements, including engagement with industry on production costs and capacity.<sup>72</sup>

Planning and programming activities thus feed into the annual budget preparation, which combines budget priorities from the MOD staff offices and the DBP. This activity unifies and consolidates potentially diverging requirements from the SDF services, and our engagement with Japanese stakeholders did not address whether there were underlying challenges in such consolidation. Budget preparation also needs to be consistent with cabinet guidelines for budget requests, reflecting government priorities and policies. Nominally, the aggregate of the five annual budgets associated with the DBP should be similar to the five-year expenditure target identified in the DBP, although this symmetry can be influenced by strategic and economic changes in the environment.

The DBP breaks down the seven major programs further into 15 capability programs, with expenses identified over the five years to achieve the target levels. Following approval of the FY 2023 budget, the MOD identified contracts and expenditures for each of the capability programs to achieve FY 2027 objectives, as shown in Table 4.1. The simulation efforts specifically identified the most immediate priorities as standoff capability and sustainment and resiliency.

## Budgeting and Execution

Budget execution begins on April 1 if the budget passes the Diet in time for the new fiscal year. The MOF approves the implementation and payment plans for all ministries, including those of the MOD. The heads of each ministry and agency are responsible for executing the budget. There are flexibility mechanisms for current-year and future-year budgets.

### Flexibility Mechanisms for Current-Year Budgets

The MOD usually assesses whether it needs additional funding during the current fiscal year around September.<sup>73</sup> If additional funds are needed for the current year, the MOD has three options: a supplementary budget, emergency reserve funds, or a reallocation of funds.

- **Supplementary budget:** The MOD could seek to have the additional needs addressed in a supplementary budget, which requires Diet approval. According to the Public Finance Law, supplementary budgets can be compiled by the cabinet and submitted to the Diet when additional funds are needed for legal, contractual, or other obligations; when events that took place after the budget’s passage necessitate extra outlays; or when there

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<sup>71</sup> Ministry of Defense (Japan), 2022c, p. 49.

<sup>72</sup> Japan subject-matter experts, interviews with the authors, July–August 2023.

<sup>73</sup> Ministry of Defense (Japan), 2019.



TABLE 4.1

## Program Allocations in Japan's Defense Budget for FY 2023

| Category   | Area   | Total program expenses for five years<br>(Contract basis)                  | Program expenses for FY2023<br>(Contract basis)                              | Program expenses for FY2023<br>(Annual expenditure basis)                    |
|--|--|--|--|--|
| Stand-off defense capability                           |  | Approx. 5 trillion yen   | Approx. 1.4 trillion yen   | Approx. 0.1 trillion yen   |
| Integrated air and missile defense capabilities        |  | Approx. 3 trillion yen   | Approx. 1 trillion yen   | Approx. 0.2 trillion yen   |
| Unmanned defense capabilities                          |  | Approx. 1 trillion yen   | Approx. 0.2 trillion yen   | Approx. 0.02 trillion yen  |
| Cross-domain<br>operation capabilities                 | Space  | Approx. 1 trillion yen   | Approx. 0.2 trillion yen   | Approx. 0.1 trillion yen   |
|  | Cyberspace   | Approx. 1 trillion yen   | Approx. 0.2 trillion yen   | Approx. 0.1 trillion yen   |
|  | Vehicles, ships, aircraft, etc.  | Approx. 6 trillion yen   | Approx. 1.2 trillion yen   | Approx. 1.1 trillion yen   |
| Command and control and intelligence-related functions |  | Approx. 1 trillion yen   | Approx. 0.3 trillion yen   | Approx. 0.2 trillion yen   |
| Mobile deployment capabilities/civil protection        |  | Approx. 2 trillion yen   | Approx. 0.2 trillion yen   | Approx. 0.1 trillion yen   |
| Sustainability and<br>resiliency                       | Ammunition, guided missiles  | Approx. 2 trillion yen<br>(Approx. 5 trillion yen including other areas)   | Approx. 0.2 trillion yen<br>(Approx. 0.8 trillion yen including other areas) | Approx. 0.1 trillion yen<br>(Approx. 0.3 trillion yen including other areas) |
|  | Maintenance and upgrade expenses for<br>equipment, etc., and ensuring mobility | Approx. 9 trillion yen<br>(Approx. 10 trillion yen including other areas)  | Approx. 1.8 trillion yen<br>(Approx. 2.0 trillion yen including other areas) | Approx. 0.8 trillion yen<br>(Approx. 1.3 trillion yen including other areas) |
|  | Improving the Resiliency of Facilities   | Approx. 4 trillion yen   | Approx. 0.5 trillion yen   | Approx. 0.2 trillion yen   |
| Reinforcing Defense Production Base                    |  | Approx. 0.4 trillion yen<br>(Approx. 1 trillion yen including other areas) | Approx. 0.1 trillion yen<br>(Approx. 0.1 trillion yen including other areas) | Approx. 0.1 trillion yen<br>(Approx. 0.1 trillion yen including other areas) |
| Research and development                               |  | Approx. 1 trillion yen<br>(Approx. 3.5 trillion yen including other areas) | Approx. 0.2 trillion yen<br>(Approx. 0.9 trillion yen including other areas) | Approx. 0.1 trillion yen<br>(Approx. 0.2 trillion yen including other areas) |
| Base measures  |  | Approx. 2.6 trillion yen   | Approx. 0.5 trillion yen   | Approx. 0.5 trillion yen   |
| Education and training expenses, fuel expenses, etc.   |  | Approx. 4 trillion yen   | Approx. 0.9 trillion yen   | Approx. 0.7 trillion yen   |
| Total  |  | Approx. 43.5 trillion yen  | Approx. 9 trillion yen   | Approx. 4.4 trillion yen   |

SOURCE: Reproduced from Ministry of Defense (Japan), 2023a, p. 265.

are changes other than simple additions to a project after the budget's compilation.<sup>74</sup> Supplementary budgets usually pass the Diet within two to three months.<sup>75</sup> The Diet has passed at least one supplementary budget per year in recent years, including three such budgets in 2020 to extend necessary funding to address the COVID-19 pandemic.<sup>76</sup>

- **Emergency reserve funds:** The MOD could tap into the emergency reserve funds that are included in the main budget for contingencies, with cabinet approval. To use the funds, the heads of ministries must submit a form to the finance minister stating the needs, along with reasons and a basis for the request. The finance minister assesses the request and submits it to the cabinet for approval, unless the request pertains to an emergency fund that the finance minister is authorized to approve unilaterally.<sup>77</sup>
- **Reallocation of funds:** The MOD could reallocate existing funds. This is an exception to the principle that expenditures cannot be used for purposes other than those appropriated in the budget.<sup>78</sup> One way to reallocate funds is to change the budget's implementation plan. The second is to reallocate funds within a single subcategory. For example, MOD travel funds are a subcategory in the MOD budget. If the MOD wants to reallocate travel funds for doing research to travel funds for bringing in outside experts, it can likely do so without MOF approval. But if it needs to reallocate funds between MOD building maintenance fees and MOD travel funds, that is likely to require MOF approval.<sup>79</sup>

### Flexibility Mechanisms for Future-Year Budgets

Japan follows a single-year cash-accounting principle for its budget, but there is multiyear flexibility, which is particularly important for the MOD. Mechanisms for leveraging this flexibility include multiyear contractual commitments and carryover funds.

Multiyear contractual commitments could be necessary in the case of, for example, purchases of vessels and aircraft. In these cases, the MOD can enter into a multiyear contract with a commitment to pay expenses over those years. The funds that are to be paid in the remaining years of the contract are recorded as "future obligations."<sup>80</sup> These obligations are included in future budgets as obligatory outlays, one of three expense categories; the other two categories are activity expenses and personnel and provision expenses.

<sup>74</sup> Japanese Public Finance Law, 2021, Article 29.

<sup>75</sup> Japan subject-matter experts, interviews with the authors, July–August 2023.

<sup>76</sup> Ministry of Finance (Japan), "FY 2020 Budget" ["令和2年度予算"], webpage, undated-a.

<sup>77</sup> Japanese Public Finance Law, 2021, Article 35.

<sup>78</sup> Ishi, 1996.

<sup>79</sup> Japan subject-matter experts, interviews with the authors, July–August 2023; Ministry of Defense (Japan), 2019. The example cited is from Ministry of Defense (Japan), *FY 2023 Ministry of Defense General Account Expenditure Specifications of Each Item* [令和5年度防衛省所管一般会計歳出予算各目明細書], undated-c.

<sup>80</sup> Ministry of Defense (Japan), *Defense Programs and Budget of Japan: 'First Year' Budget for Fundamental Reinforcement of Defense Capabilities: Overview of FY2023 Budget*, December 2022b.

Although most unspent allocations at the end of a fiscal year are directed to a governmentwide surplus settlement, the Public Finance Law allows some unused funds to be carried over to avoid inefficiencies that could result from the mechanical implementation of the single-year system.<sup>81</sup> There are four exceptions to the government's single-year budget system, allowing a ministry's budgeted funds to be carried over to the following year:

- **Carry forward:** When a ministry determines that it is unlikely to spend the allocated budget by the end of a fiscal year because of unavoidable problems, it can obtain Diet approval to carry over the funds to the following year. For example, if the Foreign Ministry is unable to pay Japan's United Nations (UN) contributions because of a delay in UN decisions, the ministry can request to carry over the funds.
- **Accidents:** When a ministry begins to spend its budget on a project, but external shocks prevent it from completing the project within the fiscal year, the ministry can seek to carry over funds.
- **Continuation expenses:** Whereas the funds that a ministry spends on a multiyear project in a single fiscal year are determined by that year's budget, leftover funds from that year can be used for the same project until the project's completion.
- **Special account budgets:** Special account budgets are separate from the general account budget and are designed to manage specific programs, such as those for running national hospitals. Carryover funds are allowed for some special account budgets, such as one for maintaining national forests.<sup>82</sup>

## Oversight

Some information about Japan's defense budget process is available to the public. For example, the MOD posts its budget request to the MOF on the MOD website. The MOD's 540-page budget request for FY 2024, along with summaries, was provided in downloadable form on the MOD website on the day of the request's submission to the MOF.<sup>83</sup> The summary of the defense budget that passed the Diet, including the principles behind the spending, is also downloadable from the MOD website.<sup>84</sup>

The Diet is informed of the government's budget plan after cabinet approval.<sup>85</sup> All legislators receive a booklet of about 1,000 pages as part of this process. There is some criticism

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<sup>81</sup> Japanese Public Finance Law, 2021, Article 24.

<sup>82</sup> Ministry of Finance (Japan), "Carryover Guidebook" ["繰越しガイドブック"], June 2020.

<sup>83</sup> Ministry of Defense (Japan), "Budget Request Form" ["概算要求書"] webpage, last updated August 31, 2023e.

<sup>84</sup> Ministry of Defense (Japan), "Overview of Previous Budgets" ["これまでの予算の概要"], webpage, last updated August 31, 2023f.

<sup>85</sup> Ministry of Defense (Japan), "Specifications of Each Item" ["各目明細書"], webpage, last updated January 26, 2023b.

among lawmakers that, although this booklet appears to disclose a great deal of information, it is not necessarily presented in a format that is easily understood.<sup>86</sup> The budget settlement begins shortly after the end of the fiscal year. All ministries, including the MOD, must finalize a settlement report around July.<sup>87</sup>

Ministry budgets undergo two forms of review: one external and the other internal. The external review is conducted by the Board of Audit of Japan, which is independent of the cabinet, Diet, and courts.<sup>88</sup> The board conducts on-site inspections at the MOD that include document reviews and interviews that are conducted usually twice a year (in February and June).<sup>89</sup> The board submits its report to the Diet, together with the settlement of accounts, in November.<sup>90</sup>

The government mandates ministries to conduct internal reviews of all its programs, with the purpose of increasing efficiency and eliminating waste. The ministries are required to explain their programs' implementation, outputs, and outcomes using a form that satisfies the government's criteria.<sup>91</sup> The results are reported to the Ministry of Internal Affairs and Communications and are also made available to the public.<sup>92</sup>

For the review of the FY 2022 MOD budget (which was conducted in 2023), the review forms were created in mid-April 2023. Internal reviews were conducted in April by the internal bureaus.<sup>93</sup> The reviewed programs included one focused on security-related R&D and another that supported SDF reserve components. Several subject-matter experts, including university professors and heads of businesses, were invited to the public sessions, which were streamed online. The summaries of the programs, the standardized program assessments, and the transcripts of these proceedings were posted to the MOD website.<sup>94</sup> Also in June, a team of officials from across the MOD and outside experts examined the internal reviews. The results of the assessments were supposed to have been reflected in the FY 2024 budget request, which was submitted to the MOF in late August 2023. At the time of this writing, the MOD planned to post the forms that were used to evaluate the programs on its website in September 2023.<sup>95</sup>

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<sup>86</sup> Japan subject-matter experts, interviews with the authors, July–August 2023.

<sup>87</sup> Ishi, 1996.

<sup>88</sup> Board of Audit of Japan, undated-a.

<sup>89</sup> Japan subject-matter experts, interviews with the authors, July–August 2023.

<sup>90</sup> Ministry of Defense (Japan), 2019.

<sup>91</sup> Cabinet Secretariat (Japan), “Administrative Project Review,” [“行政事業レビュー”], webpage, undated.

<sup>92</sup> Japan subject-matter experts, interviews with the authors, July–August 2023.

<sup>93</sup> Ministry of Defense (Japan), “Action Plan for Administrative Project Review Implementation at the Ministry of Defense in FY 2023” [“令和5年度防衛省における行政事業レビュー実施のための行動計画”], May 31, 2023c.

<sup>94</sup> Ministry of Defense (Japan), “FY 2023 Ministry of Defense Disclosure Process” [“令和5年度防衛省公開プロセス”], webpage, last updated on August 10, 2023d.

<sup>95</sup> Ministry of Defense (Japan), 2023c.

## Analysis of Japan's Budgeting Process

### Strengths

Our analysis has identified two key strengths in Japan's budgeting processes: (1) the country's effort to ensure a clear alignment of resources with objectives through a strategies-to-tasks framework and the compilation of strategic planning and budgeting documents and (2) the design of the budget processes, which is intended to support consolidated decisionmaking and ensure relatively smooth approval of spending, as well as ensure reasonable oversight.

Notable in Japan's defense resource planning processes is the strong top-down approach, with characteristics of a strategies-to-tasks framework. The approach reflects best practice in modernization planning, including alignment with higher-level national objectives, consideration of new operational concepts, identification of emerging technologies and their application, development of programs to achieve selected operational concepts, and prioritized decisionmaking to allocate resources to such programs.<sup>96</sup>

Consistent with a strategies-to-tasks framework, Japan's government released three strategic documents in December 2022: a hierarchy of a national strategy (the NSS), a defense strategy (the NDS), and the DBP. There is a coherent thread through these and subordinate annual documents that reinforces the contribution of planned investments to higher objectives.<sup>97</sup> There are explicit links in the documents between these objectives and their capability priorities, as well as between the priorities and their respective investments, including target capability levels. Our discussions with Japanese stakeholders revealed that analysis and simulation activities were used to assess optimal capabilities to support the defense strategy.<sup>98</sup>

These strategic documents indicate the government's ten-year objectives, including the five-year program of capability targets and funding expectations, which are intended to provide confidence for planning, programming, and budgeting, although they are still subject to the Diet's approval. The DBP, in particular, is intended to provide a high level of certainty about future acquisitions and resource management, which is another strength.

Japan's budget formulation processes are characterized by decentralized inputs and centralized decisionmaking on priorities. The success of these processes is aided by informal communication between stakeholders prior to and during the formal interaction between organizations.<sup>99</sup> Our interviewees noted that increasing the defense budget to align with the deteriorating security environment was an added strength: Past practice had been to base budgets on previous year's spending with only minor incremental change, whereas the latest increase allowed for greater flexibility and capability. Budgets are typically approved in a

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<sup>96</sup> Kent and Thaler, 1993.

<sup>97</sup> Examples of the subordinate documents are *Defense of Japan 2023* (Ministry of Defense [Japan], 2023a) and *Defense Programs and Budget of Japan* (Ministry of Defense [Japan], 2022b).

<sup>98</sup> Japan subject-matter experts, interviews with the authors, July–August 2023.

<sup>99</sup> Japan subject-matter experts, interviews with the authors, July–August 2023.

timely manner prior to the beginning of a fiscal year, although there have been exceptions in the past. Factors that facilitate the budget approval process include the current dominance of the ruling party, the constitutional ability for budgets to be passed by the lower house of the legislature alone, and the management of exceptions through the use of temporary budgets without disrupting ongoing activities. During the fiscal year, there are workable ways in which supplementary budgets or emergency funds can be sought for unforeseen events, allocations can be reprogrammed, and funding can be carried over if justified. Most substantive changes require approval by the MOF; this is not seen as onerous, but it can take some time to obtain approval.<sup>100</sup>

The oversight process is fairly thorough, involving outside experts—specifically, the Board of Audit of Japan—as well as an internal process mandated for all government agencies. At least parts of the process are open to the public, and the Board of Audit submits a report to the Diet.

Our engagement with stakeholders indicated that there is a general culture of responsible resource management in the MOD. This culture is facilitated by a shared commitment to optimizing processes and reducing costs, an understanding of the settlement process, and the integration of an independent audit process, which is reviewed by the Diet. Although this feedback reflected a positive culture, our engagement with Japanese stakeholders did not facilitate dissenting opinions or measure the efficacy of the centralized process in pursuit of responsible resource management.<sup>101</sup>

## Challenges

Our analysis identified several challenges with Japan's defense budgeting processes:

- a lack of public debate on defense priorities and defense spending, which contributes to the opacity of the decisionmaking process
- the possibility that stronger defense could cease being a priority for the public, which could make it difficult for the government to maintain robust defense spending levels
- the need to balance force modernization with preparedness, both of which could be in tension with each other
- Japan's reliance on cash-based budgets, which has its challenges
- execution risks associated with industry capacity to deliver capabilities
- the difficulty of achieving the stated goal of retaining the SDF workforce because of national demographic changes.

One potential challenge in Japan's budget process is that there is a lack of public and parliamentary debate on defense strategy and expenditures compared with other democ-

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<sup>100</sup> Japan subject-matter experts, interviews with the authors, July–August 2023.

<sup>101</sup> Japan subject-matter experts, interviews with the authors, July–August 2023.

racies.<sup>102</sup> This lack of open debate is the flipside of the budget's relatively smooth approval process; it exists because the process is dominated by the ruling coalition and the bureaucracy, particularly the MOF's Budget Bureau, which plays a crucial role. The influence of the ruling party and coalition lawmakers, which is rarely visible from the outside, adds to the lack of clarity in the process. However, there is a paradox related to government transparency. Although there is a lack of open debate, strategic publications—especially the annual *Defense of Japan* report—are public documents that are intended to explain and rationalize defense investments, primarily for a domestic audience. Moreover, prior to these documents' publication, the deteriorating security in Japan's region led to strong public support for the increased defense spending that these documents reflect, with majority support for increasing the defense-related budget to 2 percent of GDP.<sup>103</sup> As mentioned earlier, the MOD also makes available many documents regarding the budget's formulation, settlement, and review on its website.

The paradoxical role of government transparency might contribute to one specific challenge: Even with strong public backing for an increase in defense-related spending, there are widespread public concerns about tax hikes to fund a larger defense budget. Thus, whereas there is no indication that the tensions in the external security environment that led to the increased budget will dissipate, there is a possibility that public support for increased investment in defense will. Japan's government faces the difficult choices of losing popularity, reducing investment in defense, or further increasing the public debt, with all indications suggesting that the latter is most likely.<sup>104</sup> A challenge therefore is that defense spending might not remain a top public priority. Even if the government's commitment remains, there are risks that funding for the defense budget could depend on settlement surpluses and internal savings from trade-offs elsewhere.

The MOD also faces tension between the need to increase its current level of preparedness and the need to modernize, although the DBP makes the general distinction that the focus of the next five years will be on preparedness. Concurrently, R&D and acquisition activities will be undertaken with a view to modernizing in the second five-year epoch. While this is a reasonable approach, there is the potential challenge in substantially changing the force structure during that second epoch in that the transition could disrupt readiness.

Although there is a trend for governments to favor accrual-based accounting,<sup>105</sup> Japan maintains a cash-based budget and settlement requiring approval by the Diet. Cash-based

<sup>102</sup> Japan subject-matter experts, interviews with the authors, July–August 2023.

<sup>103</sup> For example, “Increase in Defense Spending, ‘2% or More of GDP’ 55% in Favor, 33% Against,” *Nihon Keizai Shimbun Poll* [“防衛費増額「GDP比2%以上」賛成55%、反対33% 本社世論調査”], 2022, and “Increase in Defense Spending, ‘in Favor’ 51%, Nuclear Power Plant Extension ‘in Favor’ 51%, *Yomiuri Shimbun Poll* [“防衛費増額「賛成」51%、原発延長「賛成」51% 読売新聞世論調査”], 2022.

<sup>104</sup> Daisuke Akimoto and Purnendra Jain, “Doubling the Defense Budget Won’t Be Easy for Japan,” *The Diplomat*, January 21, 2023.

<sup>105</sup> Rob Whiteman, “Improving Accountability Around the World Through Accruals,” *Forbes*, June 17, 2021.

budgets are mandated by the Public Finance Law according to the belief that they confer certainty, objectivity, and clarity.<sup>106</sup> Still, the MOF acknowledges the advantages of accrual-based accounting in understanding the government's financial position, and accrual-based accounting is used in financial statements to provide supplemental information on the settlement process.<sup>107</sup>

Japan's defense has received a relatively low level of funding until the 2022 security and defense strategies, so there could be structural impediments to the MOD and industry delivering at a higher tempo—potentially resulting in underachievement against planned objectives and expenditures. The invigoration of Japan's defense industry could also depend on exports. The MOD could mitigate potential shortfalls in industry capacity by closely managing the progress of projects and intervening as necessary.<sup>108</sup>

One further challenge is the ability to expand the SDF, given its recruitment and retention difficulties, underscored by both the public's indifference to service in the SDF and Japan's aging population.<sup>109</sup> Although the budget includes initiatives to arrest these downward trends in recruitment and retention, as well as to increasingly automate capabilities and optimize processes, these initiatives might not be sufficient.

## Applicability

There are two key factors that constrain the applicability of Japan's defense budgeting processes to the U.S. context. First, Japan's political system (as well as the existing situation in which the ruling party has a majority in the lower house) means that the MOD and government services are unlikely to be disrupted by the budget approval process. This continuity comes from the primacy of the lower house in budget approval and the current majority in that house, as noted earlier in the "Overview of Japan's Budgeting Process" section. Second, Japan's defense strategy is focused on threats to the nation. Although it can use the SDF for other purposes, such as disaster relief, the immediate threat of an attack on Japan is the primary force structure determinant. To some extent, this focus can simplify the process of aligning resources to objectives.

The dominance of the governing coalition, together with the deteriorating regional security environment, suggests that there should be stability in Japan's defense budget. However, until very recently, the defense budget was below 1 percent of a relatively stagnant GDP; the increase in the budget coincided with an increase in domestic public opinion that Japan needs to increase its defense spending. There are indications that public and political support

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<sup>106</sup> Masahiro Sonoda and Ryota Kaneko, "Overview of the Japanese Government Accrual-Based Information," presentation to the Mini Symposium on Comparative Government Accounting in Asia, Tokyo, June 29, 2022.

<sup>107</sup> Sonoda and Kaneko, 2022.

<sup>108</sup> Japan subject-matter experts, interviews with the authors, July–August 2023.

<sup>109</sup> Ward and Koshino, 2023, p. 129.



for this increase would dissipate if taxes have to be raised to pay for it. Thus, as discussed, the fragility of Japan's defense commitment even in the face of multiple military threats is a system that the United States and other countries might not wish to emulate.

Notwithstanding these differences, there are other aspects of Japan's defense budgeting process that could be relevant to the United States.

## Lessons from Japan's Budgeting Process

From our assessment of Japan's PPBE-like processes, we identified five lessons for DoD related to strategic alignment, industry investment, capability outcomes, informal communication, and force optimization. These lessons are summarized in Table 4.2.

### Lesson 1: There Are Benefits to Consistent Strategic Alignment Between Objectives and Resources

Japan's three strategic documents, in conjunction with its annual white papers and budget documents, lay out a hierarchy of objectives that explain the contributions of certain capabilities and activities to security objectives. The DBP describes each of the country's capability areas and associated procurement intentions. The defense budget breaks down allocations by capability program and presents program costs and explanations of how these resources contribute to higher-level plans.

The consistency across the documents represents a robust strategies-to-tasks framework. Previous strategic planning efforts established similar frameworks, although arguably not as developed nor unified. The main shortfall was that the plans were not fully implemented. In establishing capability targets at five- and ten-year milestones, the new strategic documents provide a foundation for capability, acquisition, and resource managers to plan efforts to measurably meet those targets. Equally, the documents provide the basis for managers to agree on which activities are not priorities. The value of the strategic documents will be determined by whether there will be ongoing commitment at the political and departmental levels to deliver these outcomes.

The public documents are quite comprehensive; only detailed operational concepts, requirements, and specific acquisition activities are omitted. This might seem an overshare, especially in comparison with other national case studies. However, any security risks in providing such detail can be more than offset by the advantages in improving deterrence, public support, and understanding of SDF priorities and correlated investments.

Adopting such an integrated approach to planning and programming could be advantageous as a means of unifying and harmonizing efforts. Arguably, such an approach for a force with more-diverse threats and missions could be challenging; nevertheless, the apparent value of clearly aligned plans and programs is a potential lesson for DoD.

## Lesson 2: Industry Is Integral to Defense Capability and Requires Investment

Japan's defense industry is central to sustaining the force, and the DBP identifies initiatives to improve ammunition availability and increase weapon system availability through out-sourced maintenance and performance-based logistics contracting.<sup>110</sup> The defense industry has responsibilities across equipment life cycles, and Japan now characterizes industry as an integral part of its defense capabilities.<sup>111</sup> Thus, defense budget investments not only support current systems and acquire future systems but also strengthen the domestic defense technology and production bases for the purposes of force modernization and surge capacity.

The DBP balances domestic and foreign-sourced (typically U.S. FMS) equipment with an apparent general strategy of acquiring mature systems needed now from foreign sources—especially in key areas of standoff capability, missile defense, and interoperability.<sup>112</sup> This shorter-term focus is complemented by plans to bolster the domestic production base to support in-service systems and build future systems, as well as to commission the domestic technology base to focus on systems for future warfare. The MOD is encouraging domestic industry participation in U.S. FMS supply chains and pursuing co-development and coproduction arrangements with U.S. industry.

The objectives in Japan's strategy and program documents require the invigoration of a stagnant local defense industry. Historically, Japanese companies have seen the defense sector as unattractive, and more than 100 companies have left the sector in the past two decades.<sup>113</sup> Japan's defense strategy identifies initiatives to reinforce the domestic production and technology bases. These initiatives include a new profit margin calculation to ensure that its domestic industry is viable, funding for defense R&D and for leveraging advanced civilian technologies, and efforts to facilitate defense technology transfers.

The Diet considered legislation in June 2023 to support these initiatives, including supply chain requirements for defense equipment, financial measures to support domestic industry, a review of defense equipment transfer principles, and measures to protect sensitive information about defense technology.<sup>114</sup> The Diet also passed legislation to allow the nationalization of manufacturing facilities, in which the government could temporarily acquire assets of crit-

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<sup>110</sup> Ministry of Defense (Japan), 2022c, pp. 16–17.

<sup>111</sup> Ministry of Foreign Affairs (Japan), 2022, p. 21.

<sup>112</sup> This includes FY 2023 funds allocated to purchases of F-35A, Joint Strike Missile, Joint Air-to-Surface Stand-Off Missile, Tomahawk, SM-3, SM-6, E-2D, air defense radar and Aegis capabilities; see Ministry of Defense (Japan), 2022b, pp. 11–15.

<sup>113</sup> Ministry of Defense (Japan), 2022c, pp. 34–35; Yusuke Takeuchi, “Japan Passes Defense Subsidy Bill to Stop Industry Bleeding,” *Nikkei Asia*, June 8, 2023.

<sup>114</sup> Ministry of Defense (Japan), 2023a, p. 213.

ical facilities that have become unviable but then outsource the operation of manufacturing (to reduce the burden of initial investments for successor companies).<sup>115</sup>

Japan could have taken a different path that did not include such interventions to subsidize and rebuild its industry. Instead, Japan's revised approach to its defense budget recognizes that industry is integral to defense and requires investment. The potential for near-term conflict combined with the current inadequacy of the industry's development, production, and maintenance capabilities justify this approach. The U.S. defense industry is more robust, yet there remains a gap between an industry base that is efficiently scaled to peacetime needs and one that is required to support a major conflict. In this respect, Japan's deliberate decision to consider industry implications and interventions in its planning and budgeting processes could represent a lesson for DoD to consider the adequacy of defense industry capacity to provide support in near-term scenarios.

### Lesson 3: Budget Priorities Are Mapped to Capability Programs

The NDS, DBP, and budget all emphasize capability programs as links between strategy and resources. However, these programs are not featured in the structure of the budget, which is based on a hierarchy of organizations and purposes. Budget requests are formulated to support those programs, but the programs are not part of the budget structure.

This approach requires budget priorities to be mapped to the capability programs they support. Such an approach is pivotal in strategic alignment, providing a clear rationale for defense expenditures and allowing the MOD to track cumulative investments in each capability program. Not being part of the formal budget structure provides some flexibility to change capability programs without changing budget items. The use of key capabilities as an organizing framework for the defense budget may offer DoD some insights. Specifically, capabilities are used to provide greater clarity of strategic alignment and internal measurement of achievement of outcomes, but they do not create inflexibility because these programs are not part of the budget structure.

### Lesson 4: Informal Communication Supports Formal Processes

The budget formulation process gives the appearance of being strongly transactional and disciplined. Given the potential for disagreement over priorities (between internal bureaus and staff offices or between the MOD and the MOF), the internal bureaus are central to the MOD's negotiations with the MOF, how staff office input is integrated, and overall budget plans. The defense minister is ultimately responsible for the MOD's budget request that is submitted to the MOF.

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<sup>115</sup> "Bill to Strengthen Support for the Defense Industry Passed . . . Nationalization of Production Lines Possible When Business Continuity Is Difficult" ["防衛産業への支援強化法案が可決 . . . 事業継続困難時に製造ライン国有化可能に"], *Yomiuri Shimbun Online*, June 7, 2023.

Japan's defense budget process is enhanced by informal exchanges between stakeholders about priorities and associated budget allocations.<sup>116</sup> These interactions are followed by more-formal interviews. These interactions include those between the MOD and the MOF to align defense needs with limits on overall spending, as well as briefings by MOD and MOF officials to lawmakers in financial affairs and national security committees in the Diet.<sup>117</sup> Budget items are also informed by independent capability and cost analyses, ensuring that budget information is objective and accurate. A potential lesson for DoD is that centralized decisionmaking on budgets relies on supporting processes; informal exchanges about priorities among stakeholders is especially of relevance.

## Lesson 5: Internal Governance Arrangements Can Promote Force Optimization

Internal governance arrangements can promote the responsible use of funding. Specifically, a scrap-and-build approach, centralized decisionmaking, and what appears to be a culture of responsible financial management all contribute to Japan's optimization of resources and a reduction in unnecessary spending.

In 2022, the prime minister's advisory panel on defense capabilities recommended that the MOD conduct a thorough scrap-and-build program. Such a program would review existing capabilities against operational requirements to eliminate old, inefficient, or unnecessary systems and consider future systems that might provide a greater advantage.<sup>118</sup> Subsequently, Japan's NDS called for using this approach to optimize SDF organization, personnel, and equipment. Each SDF service will be required to optimize and rationalize its force structure. Japan's ground forces could carry much of the reduction burden, with attack and observation helicopters replaced by uncrewed air vehicles, the 203-mm self-propelled Howitzer being eliminated, tanks being offset by wheeled armored vehicles, and personnel billets being transferred to other services.<sup>119</sup> The MOD characterizes the scrap-and-build approach as a commitment to "deal boldly on the optimal allocation of resources."<sup>120</sup>

One potential risk with a scrap-and-build approach is that it might optimize the force for a specific threat and mission set. In the current context, the focus is clearly on threats to Japan's territory. Additionally, workforce resources will be directed to new missions, including cyber missions, through existing units and external contracted labor. Although there is the chance that such optimization could impede the force's flexibility to address other con-

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<sup>116</sup> Japan subject-matter experts, interviews with the authors, July–August 2023.

<sup>117</sup> Japan subject-matter experts, interviews with the authors, July–August 2023.

<sup>118</sup> Kenta Kamimura and Hirotaka Kuriyama, "Securing Deterrence Quickly Will Require Japan to Take a Multistep Approach," *Japan News*, November 23, 2022.

<sup>119</sup> Ministry of Defense (Japan), 2022c, pp. 26, 47; Ministry of Defense (Japan), 2022b, p. 53; Kaigo Narisawa, "War in Ukraine Sparks Debate on Role of Tanks in Japan's Defense," *Asahi Shimbun*, July 6, 2022.

<sup>120</sup> Japan subject-matter experts, interviews with the authors, July–August 2023.

tingencies, this risk is acceptable according to Japan's strategic guidance. The MOD asserts that there is no risk in this approach of reducing flexibility.<sup>121</sup>

The MOD has also identified a variety of streamlining initiatives to reduce costs, including more-efficient procurements, fewer SDF-unique specifications, suspended use of equipment whose importance has decreased, and fewer projects with low cost-effectiveness or—in the case of R&D—low prospects of results.<sup>122</sup> The savings from such initiatives are critical because they are assumed to be achievable within the planned budget.

The power in planning and resource management is primarily wielded by the internal bureaus of the MOD. Whereas the staff offices provide budget request inputs to the process, the internal bureaus determine the overall priorities. The internal bureaus conduct reviews in conjunction with the Board of Audit of Japan after the fiscal year, in preparation for the settlement report. Strengthening oversight, these management functions are performed at the ministry level rather than within individual staff offices (in contrast with the structure outlined in Title 10 of the U.S. Code).

*Optimization* is a term that is used throughout PPBE-like processes in Japan's MOD. The desire to achieve efficiencies across these processes indicates a culture of responsible resource management and compliance with relevant finance and procurement laws and regulations. This extends to the settlement process, in which a surplus could be viewed as a positive outcome rather than a use-it-or-lose-it problem, as is evident in other organizations' use of single-year budgets. Such a mindset of optimization in combination with the ministry-level coordination of priorities and the transparency of defense budget processes could contribute to good governance and oversight and could usefully inform improvements to DoD PPBE arrangements. However, the perception of a positive culture of optimization is based primarily on our engagement with Japanese stakeholders most knowledgeable about the central agencies of the MOD; engagement and frank discussions with stakeholders more knowledgeable about other branches of the SDF might have identified contrary views.

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<sup>121</sup> Japan subject-matter experts, interviews with the authors, July–August 2023.

<sup>122</sup> Ministry of Defense (Japan), 2022c, p. 49.

**TABLE 4.2**  
**Summary of Lessons from Japan’s Budgeting Process**

| Theme                    | Lesson Learned   | Description   |
|--------------------------|--|---|
| Planning and programming | Lesson 1: There are benefits to consistent strategic alignment between objectives and resources. | Japan’s strategic documents provide clear links between resource expenditures and the objectives that they support, which facilitate planning and programming.  |
|                          | Lesson 2: Industry is integral to defense capability and requires investment.                    | Cognizant of industry’s importance as an integral element of capability, the MOD has included domestic industry in its plans, programs, and budgets to ensure industry’s viability.                       |
| Budgeting and execution  | Lesson 3: Budget priorities are mapped to capability programs.                                   | The MOD uses capability programs as an organizing structure to inform budget formulation and to indicate the material costs of these outcomes, but the budget structure is independent of these outcomes. |
|                          | Lesson 4: Informal communication supports formal processes.                                      | Centralized decisionmaking about priorities requires formal processes and authorities but is enhanced by informal communication among stakeholders.   |
| Oversight                | Lesson 5: Internal governance arrangements can promote force optimization.                       | A scrap-and-build approach, centralized decisionmaking, and a commitment to optimizing resources contribute to good governance and oversight.   |

# Singapore

*Austin Wyatt and Jade Yeung*

The Republic of Singapore has a unicameral parliamentary system of government based on the Westminster system. The president is the head of state, while the prime minister is chief executive of the government and the leader of the governing party in parliament. The prime minister chooses the cabinet from elected members of parliament (MPs). The cabinet is responsible for the government's central direction, policy, and decisionmaking.

The Singaporean Constitution allows for parliament to include not just elected MPs but also non-constituency members (MPs from opposition parties that receive a high number of votes but not enough to win a seat) and nominated members (independents appointed by the president for a two-and-a-half-year term), all with the aim of broad representation of community perspectives. However, non-constituency members do not have voting rights in budget matters. Given the dominance of the ruling People's Action Party (PAP) and the fact that Singapore's three prime ministers since 1959 have each served multiple successive terms, Singapore's government has been characterized by stability and continuity.

The Ministry of Defence (MINDEF) encompasses the Singapore Armed Forces (SAF). The SAF contains four service branches: the Army, the Navy, the Air Force, and the Digital and Intelligence Service (DIS), which was established in 2022. The mission of MINDEF is to "enhance Singapore's peace and security through deterrence and diplomacy, and should these fail, to secure a swift and decisive victory over the aggressor."<sup>1</sup>

Singapore (sometimes referred to as *the Lion City*, a reference to the linguistic roots of its name) is an island city-state located at the intersection of the Malacca Strait and the South China Sea, where one of the world's key shipping routes connects the Indian and Pacific Oceans.<sup>2</sup> Not surprisingly, therefore, key strategic imperatives for Singapore include maritime security, cyber defense, and counterterrorism.<sup>3</sup> The most vulnerable of Singapore's inter-

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<sup>1</sup> MINDEF Singapore, 2019.

<sup>2</sup> MINDEF Singapore, "Safeguarding Singapore's Maritime Trade and Industry," fact sheet, April 19, 2018.

<sup>3</sup> MINDEF Singapore, "A Restructured SAF to Better Meet New Security Threats," fact sheet, March 20, 2020b.

ests are arguably the long sea lines of communication through its territorial waters, through which vital trade transits. Singapore's economic reliance on uninterrupted, secure use of the sea lines of communication in the region, even beyond its territorial waters, could make it vulnerable to an aggressive nation-state or to gray-zone operations. As for cyber defense, the DIS (the newest SAF branch) focuses on cyber capabilities and the integration of existing command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) structures.<sup>4</sup> Both piracy and terrorism threaten maritime trade in the region, thus posing direct threats to the Singaporean economy. Within Singapore itself, the terrorism threat is deemed to be high;<sup>5</sup> hence, counterterrorism intelligence and response is a major strategic and operational priority.

Singapore lacks significant natural resources, has a far smaller population than its neighbors, and, as a city-state, has virtually no strategic depth to its geography. The lack of natural resources means that Singapore is totally reliant on trade not just for prosperity but also for basic resources. The small population (fewer than 6 million) is a key driver of the SAF's pursuit of technological advantage—a demand that has been reinforced as the population ages. The lack of strategic depth has pushed the city-state to develop a two-pillar strategy of deterrence and diplomacy: demonstrating the capacity to project hard power while fortifying diplomatic ties within the region. Because Singapore recognizes the limitations in its resources, manpower, and size, deterrence and diplomacy remain central tenets of its defense policy.<sup>6</sup> One academic described this dual approach of deterrence and diplomacy as “mailed fists and velvet gloves.”<sup>7</sup>

In terms of deterrence, the SAF holds that maintaining regional deterrence through a clear technological advantage is crucial for maintaining good relations with its closest neighbors. Singapore prefers to procure high-technology systems from the United States and to focus its domestic industry on niche upgrades. The need for a technology-based capability offset is likely driving the SAF's interest in increasingly autonomous systems. At the center of Singapore's deterrence posture is the Total Defence model, which involves “every Singaporean playing a part, individually and collectively, to build a strong, secure and cohesive nation.”<sup>8</sup> Another key component of Singapore's deterrence is a conscription policy that mandates service in the SAF, civil defence force, or police force. Overall, Singapore prioritizes both smart power and forward deterrence, offsetting its smaller size and lack of strategic

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<sup>4</sup> MINDEF Singapore, “The Digital and Intelligence Service,” fact sheet, October 28, 2022b.

<sup>5</sup> MINDEF Singapore, 2020b.

<sup>6</sup> MINDEF Singapore, “Defence Policy and Diplomacy,” webpage, last updated April 6, 2021a.

<sup>7</sup> See Seng Tan, “Mailed Fists and Velvet Gloves: The Relevance of Smart Power to Singapore's Evolving Defence and Foreign Policy,” *Journal of Strategic Studies*, Vol. 38, No. 3, 2015.

<sup>8</sup> MINDEF Singapore, “Total Defence,” webpage, last updated April 6, 2021b.



depth with a demonstrated capability to preemptively strike and degrade an aggressor on its own territory.<sup>9</sup>

In terms of diplomacy, Singapore supports the international rules-based order and works to maintain regional stability,<sup>10</sup> including strong relationships with both China and the United States. Singapore views the United States as a “reassuring and stabilizing force” and an important security partner.<sup>11</sup> Between 2018 and 2022, Singapore accounted for 1.4 percent of global arms imports, and 51 percent of its arms imports came from the United States.<sup>12</sup> Singapore has become a significant client for U.S. FMS; active cases currently total \$8.38 billion. Recent acquisitions include F-35B Short Take-Off and Vertical Landing aircraft and Harpoon missiles. The city-state also leverages the Direct Commercial Sales (DCS) system, in which the United States authorized \$26.3 billion in DCS transactions between 2019 and 2021. Singapore hosts U.S. vessels and participates in training exchanges and military exercises to improve its compatibility with the United States on security matters.

However, Singapore also attempts to maintain good relations with China as a vital economic partner. Although the city-state is not directly threatened by China’s military modernization and is not a claimant in the South China Sea disputes, its engagement with China—both bilaterally and multilaterally through the Association of Southeast Asian Nations—demonstrates a recognition of the importance of international norms and international law for preserving Singapore as a middle power.

## Singapore’s Defense Budgeting Ecosystem

Within MINDEF’s organizational structure (see Figure 5.1), the policy and administration departments (highlighted in blue) are particularly important to the PPBE-like process. These departments include the Defence Finance Organisation, which is responsible for managing the defense budget and long-term financial planning. MINDEF also encompasses the SAF (highlighted in orange) and the Defence Technology Community (DTC).<sup>13</sup> The DTC contains the seven organizations highlighted in gray in Figure 5.1, which are defined in detail in Figure 5.2.

Within the DTC, there are three organizations—the Future Systems and Technology Directorate (FSTD), the Defence Science and Technology Agency (DSTA), and the Defence Science Organisation (DSO) National Laboratories—of particular relevance to the PPBE process, as highlighted in light blue in Figure 5.2.

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<sup>9</sup> Tan, 2015.

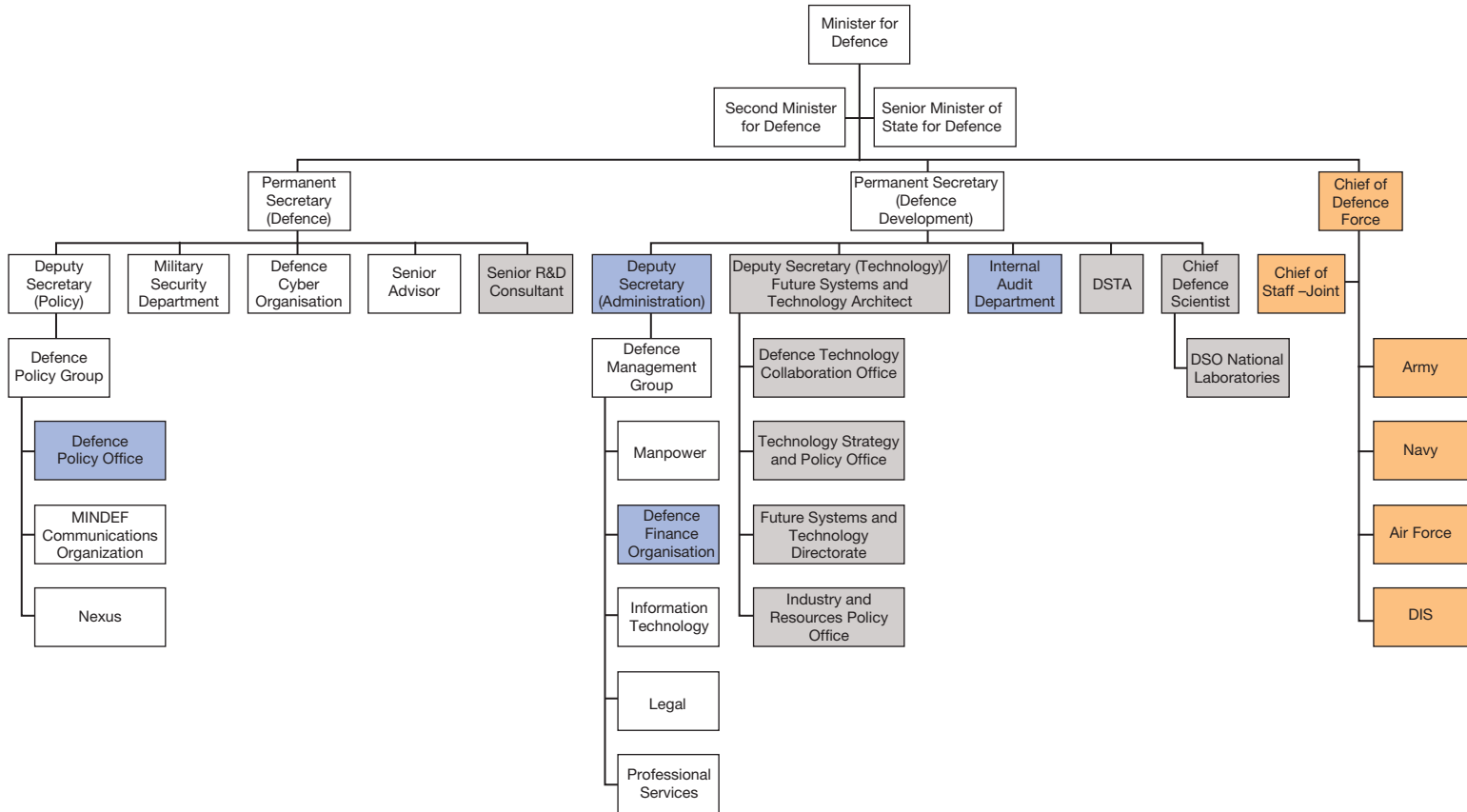
<sup>10</sup> Dexian Cai, “Hedging for Maximum Flexibility: Singapore’s Pragmatic Approach to Security Relations with the US and China,” *Pointer: Journal of the Singapore Armed Forces*, Vol. 39, No. 2, 2013.

<sup>11</sup> Goh, 2000.

<sup>12</sup> The next largest sources were France (12 percent) and Italy (4 percent).

<sup>13</sup> MINDEF Singapore, “Defence Science and Technology,” webpage, last updated February 7, 2023a.

**FIGURE 5.1**  
**MINDEF Organizational Structure (Estimated)**



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NOTE: This figure is an approximation based on open-source information.

FIGURE 5.2

## Singapore's Defense Technology Community

|   |  |
|---|--|
| <b>Future Systems and Technology Directorate</b>  | <ul style="list-style-type: none"> <li>• Responsible for master-planning and managing the research and technology requirements of MINDEF and SAF</li> <li>• Established as an internal disruptor to promote SAF's ability to innovate at speed</li> <li>• FSTD's leader (referred to as the Future Systems and Technology Architect) is the dual-hatted Deputy Secretary (Technology)</li> </ul>   |
| <b>Technology Strategy and Policy Office</b>      | <ul style="list-style-type: none"> <li>• Develops technology policies, capability development roadmaps, and long-term planning for the DTC</li> <li>• In charge of working on the DTC ecosystem to optimize defense technology resources and capabilities for MINDEF and SAF</li> </ul>  |
| <b>Industry and Resources Policy Office</b>       | <ul style="list-style-type: none"> <li>• Oversees the local defense industry, MINDEF land use, logistics, technology security, defense exports, and procurement</li> </ul>   |
| <b>Defence Technology Collaboration Office</b>    | <ul style="list-style-type: none"> <li>• Responsible for strategizing and implementing policies and plans for defense technology-related engagements with local research institutions and international partners on behalf of the DTC</li> </ul>   |
| <b>DSTA</b>                                       | <ul style="list-style-type: none"> <li>• Implements defense technology plans, acquires defense material, and develops defense infrastructure for MINDEF</li> <li>• Lead procurement agency for MINDEF</li> <li>• Provides leading-edge technological solutions to the SAF by tapping the best technologies and fostering an environment of creativity and innovation for defense applications</li> <li>• Responsible for all SAF and MINDEF procurements, for managing technology plans, and for building science and technology capability</li> </ul> |
| <b>DSO</b>  | <ul style="list-style-type: none"> <li>• Singapore's largest defense R&amp;D organization; it is charged with the critical mission of developing technological solutions to sharpen the cutting edge of Singapore's national security</li> <li>• Responsible for developing technological solutions, with a particular focus on early-stage innovation and research</li> </ul>   |
| <b>Centre for Strategic Infocomm Technologies</b> | <ul style="list-style-type: none"> <li>• A technical agency in MINDEF that harnesses cutting-edge digital technologies to support such missions as cyber defense, counterterrorism, and counter-hostile information operations; it develops capabilities and conducts deep technical investigations to provide threat intelligence to meet Singapore's security needs</li> </ul>   |

SOURCES: Features information from MINDEF Singapore, 2023a; MINDEF Singapore, "Future Systems and Technology Directorate," webpage, last updated March 9, 2023c; Government of Singapore, "Singapore Government Directory: Ministry of Defence," webpage, last updated August 23, 2023.

The conglomerate ST Engineering is Singapore's dominant defense contractor. Although ST Engineering is a publicly traded company, its largest shareholder—with 51 percent of shares as of December 2022—is Temasek Holdings, which is owned by the Singaporean government.<sup>14</sup> In addition to being majority state-owned, ST Engineering maintains its close relationship with the SAF by a high level of institutional interdependence and government encouragement of former SAF personnel transitioning to the defense industry following their retirement. This close relationship ensures that ST Engineering remains responsive principally to the requirements and plans of the SAF. The relationship also builds mutual trust between industry and MINDEF, while MINDEF's strong regulatory oversight ensures that accountability is maintained.

Despite Singapore's comparatively small size, its defense industry is globally competitive.<sup>15</sup> In 2021, ST Engineering ranked 57th on SIPRI's list of the top 100 arms-producing and military services companies worldwide, with its arms sales valued at \$2.2 billion.<sup>16</sup> While defense remains its core business (servicing the needs of the SAF in particular), ST Engineering also operates commercially and has over 200 subsidiaries.<sup>17</sup> Its commercial revenue supports its military capability development.<sup>18</sup> In fact, ST Engineering's military sales accounted for only 35 percent of its total income in 2017.<sup>19</sup>

Rather than aiming to produce a variety of platforms, ST Engineering's predominant focus is on developing and producing niche and technologically sophisticated defense systems to be integrated with procured foreign platforms. This focus on niche production and services reflects Singapore's view of basic defense self-sufficiency and technological advantage as a "strategic necessity,"<sup>20</sup> in recognition of its limited size and resources. ST Engineering plays a major collaborative role in procuring foreign platforms.<sup>21</sup> It also plays roles in retrofitting, upgrading, and maintaining those platforms and in guaranteeing the sovereignty and secu-

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<sup>14</sup> ST Engineering, "FAQ," webpage, undated.

<sup>15</sup> Andrew T. H. Tan, "Singapore's Defence Industry: Its Development and Prospects," *Security Challenges*, Vol. 9, No. 1, 2013.

<sup>16</sup> Lucie Béraud-Sudreau, Xiao Liang, Diego Lopes da Silva, Nan Tian, and Lorenzo Scarazzato, "The SIPRI Top 100 Arms-Producing and Military Services Companies, 2021," fact sheet, Stockholm International Peace Research Institute, December 2022.

<sup>17</sup> Ron Matthews and Nellie Zhang Yan, "Small Country 'Total Defence': A Case Study of Singapore," *Defence Studies*, Vol. 7, No. 3, 2007.

<sup>18</sup> Tan, 2013.

<sup>19</sup> Aude Fleurant, Alexandra Kuimova, Nan Tian, Pieter D. Wezeman, and Siemon T. Wezeman, "The SIPRI Top 100 Arms-Producing and Military Services Companies, 2017," fact sheet, Stockholm International Peace Research Institute, December 2018.

<sup>20</sup> Tan, 2013.

<sup>21</sup> Ron Matthews and Collin Koh, "Singapore's Defence-Industrial Ecosystem," in Keith Hartley and Jean Belin, eds., *The Economics of the Global Defence Industry*, Routledge, 2019.

rity of military supply—specifically of ammunition and various small arms, artillery, and armor.<sup>22</sup>

## Overview of Singapore’s Budgeting Process

Singapore’s budget process has been the subject of limited analysis in the scholarly literature, and there is even less open-source information available on the specific processes applicable to MINDEF.<sup>23</sup> However, our open-source literature review and subject-matter expert interviews suggest that the overall budget process has not significantly changed over the past 20 years.<sup>24</sup> Thus, the following observations primarily reflect our open-source literature review and our corroborating interviews with experts on Singapore and Singaporean policymakers.

Singapore operates on a cash-based budget model.<sup>25</sup> Departments can commit to multi-year funding allocations, generally for major procurements. Each department is assigned a funding cap each year as a percentage of GDP, which allows for flexibility without a public commitment of a specific dollar amount.<sup>26</sup> Singapore has no provision for a continuing resolution,<sup>27</sup> and we have not found any instance in which the Singaporean Parliament has ever blocked the passage of a defense budget, which comports with the country’s decades-long political stability and electoral dominance of the PAP.

The Singaporean constitution contains fiscal rules that reflect a fiscally conservative government culture run by experienced civil servants. The constitution enshrines three key fiscal rules. First, each Singaporean government is prohibited from drawing on accumulated surpluses from before its time in office (a maximum of five years), effectively ensuring that each government must have a budget-neutral full term. In practice, this rule has had limited impact because the PAP has remained consistently in power since Singapore achieved self-governance in 1959. Second, the government can consider only half of the income netted from Singapore’s sovereign wealth funds in its budgeting; the remainder is reinvested in those funds. Third, a clause known as the “two-key safety mechanism” necessitates that the government secure consent from the president before it can draw on past reserves or engage in deficit financing.<sup>28</sup>

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<sup>22</sup> Tan, 2013.

<sup>23</sup> The description and analysis of Singapore’s budget process is based on the extant literature; key factors were cross-checked with data taken from interviews with academic experts on Singapore.

<sup>24</sup> Huxley, 2000; Singapore subject-matter experts, interviews with the authors, June–September 2023.

<sup>25</sup> Singapore Statutes Online, 1990.

<sup>26</sup> Blöndal, 2006.

<sup>27</sup> Singapore subject-matter experts, interviews with the authors, June–September 2023.

<sup>28</sup> Blöndal, 2006.

At the ministerial level, the Singaporean fiscal system imposes multiyear spending caps that are linked to GDP. Meanwhile, the public service imposes centralized manpower controls to restrain the size of departments.<sup>29</sup> The Manpower Management Framework incentivizes each ministry to “only take its fair share of the labour force.”<sup>30</sup> If a ministry breaks the manpower cap, it is charged a nominal fee per offending “head.”<sup>31</sup> In 2014, the Ministry of Finance’s (MOF’s) Director of Fiscal Policy boasted that the Singaporean public service accounted for only 3.6 percent of the labor force.<sup>32</sup> (MINDEF appears to be largely exempt from the staffing caps.)

The Singaporean budget year runs from April 1 to March 31. Budget formulation begins in June, and the budget for the following year is approved by March 31 in the form of a Supply Act.<sup>33</sup> Singapore’s MOF coordinates the national budget, combining budgets from all government ministries into a single supply bill. Ministry staff develop the ministry budgets through a series of MOF consultations between June and November, as outlined in the box on the next page. In these consultations, MOF officials meet with each ministry’s permanent secretary and senior finance officers for bilateral annual strategic reviews of each line department. The purpose of these reviews is to highlight key strategic challenges and priorities for each department, reflecting an institutional belief within the MOF that “ministries know their operations best.”<sup>34</sup>

The bilateral meetings inform the top-line budget allocations for each department (as a percentage of GDP). The MOF submits the top-line allocations to the departmental finance units (for MINDEF, the Defence Finance Organisation) for the units to decide how to spend their allocations, resulting in departmental *block budgets*. Although the GDP allocations can change, they are generally multiyear and not a surprise to the senior departmental leadership.<sup>35</sup> In the case of MINDEF, the exact ceiling each year is classified, but the government has publicly committed to a goal of 3 to 4 percent of GDP,<sup>36</sup> which it has begun to reconsider following the COVID-19 pandemic. Goh Keng Swee, Singapore’s first minister for defence, set a cap on future defense spending of 6 percent of GDP,<sup>37</sup> although Singapore has never

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<sup>29</sup> Blöndal, 2006.

<sup>30</sup> Richard Hartung, “When Less Is More,” *Challenge*, July 2, 2014.

<sup>31</sup> Blöndal, 2006.

<sup>32</sup> Hartung, 2014.

<sup>33</sup> Blöndal, 2006.

<sup>34</sup> Ministry of Finance Singapore, “Balanced Budget,” *Building Our Future Through Finance*, 2009.

<sup>35</sup> Blöndal, 2006.

<sup>36</sup> MINDEF Singapore, “Speech by Minister for Defence, Dr Ng Eng Hen, at the Committee of Supply Debates 2023,” speech transcript, February 24, 2023b.

<sup>37</sup> Bernard F. W. Loo, “More Musings on Singapore Defence Expenditure,” *Military Studies at RSIS*, March 7, 2012.

### Singapore's Annual Budget Formulation Calendar

|           |  |
|-----------|--|
| June      | <ul style="list-style-type: none"> <li>• Annual strategic review: Bilateral meetings are held with each line ministry.</li> <li>• Economic assumptions are calculated.</li> </ul>  |
| July      | <ul style="list-style-type: none"> <li>• Each ministry's budget ceiling is established.</li> </ul>   |
| August    | <ul style="list-style-type: none"> <li>• Whole-of-government/sectoral meetings: Joint meeting is held with groups of line ministries.</li> </ul>   |
| September | <ul style="list-style-type: none"> <li>• Ministries submit their Reinvestment Fund bids.</li> </ul>  |
| October   | <ul style="list-style-type: none"> <li>• Ministries submit the allocations of their budget ceilings.</li> <li>• Decisions on Reinvestment Fund bids are announced.</li> <li>• Budget review meeting: Bilateral meetings are held with each line ministry.</li> </ul> |
| November  | <ul style="list-style-type: none"> <li>• Ministries refine their final allocations.</li> </ul>   |
| December  | <ul style="list-style-type: none"> <li>• Budget is finalized.</li> </ul>   |
| January   | <ul style="list-style-type: none"> <li>• Budget is submitted to cabinet.</li> </ul>  |
| February  | <ul style="list-style-type: none"> <li>• Budget is submitted to parliament.</li> </ul>   |

SOURCE: Adapted from Blöndal, 2006, p. 58.

NOTE: Given the secrecy around Singapore's defense and national security, it is not clear whether MINDEF is exempt from any of these meetings.

committed more than 5.7 percent of GDP to defense (a level it reached only in 1977 and 1985).<sup>38</sup>

For additional project funding, departmental finance units must bid for funds from the Reinvestment Fund. The Reinvestment Fund is a system of budget extractions, or minor spending cuts, which are then reinvested based on a competitive bidding process. This money is pooled into a central fund to finance new projects.<sup>39</sup> Originally implemented in response to consistent overbudgeting in the Singaporean system, the fund also acts as an incentive for departments to work across traditional boundaries and pursue innovative projects. By September, each department submits its bids for funding, and the MOF presides over a selection process. Interestingly, MINDEF appears to be the only ministry that is exempt from this process.<sup>40</sup>

<sup>38</sup> World Bank, "Military Expenditure (% of GDP)—Singapore," dataset, 2022b.

<sup>39</sup> Ministry of Finance Singapore, 2009.

<sup>40</sup> Blöndal, 2006.

At the end of October, permanent secretaries with overlapping areas of responsibility (such as national security) are brought together to discuss priorities and to deconflict funding requests. These multidepartmental senior-level meetings aim to reduce duplication and promote high-level cooperation. Given that Singapore rotates senior public servants throughout their careers, permanent secretaries have experience across multiple departments. For example, the current Permanent Secretary (Defence) previously served as both the Permanent Secretary for Health and the Permanent Secretary for Social and Family Development.<sup>41</sup>

Late October is also set aside for budget review meetings, during which each department's budgetary performance during the previous fiscal year is reviewed with MOF representatives.<sup>42</sup> These meetings could be opportune times to discuss any adverse financial management findings from MINDEF's Internal Audit Department or the AGO.

Following a public consultation period, the department finance units can revise their budget requests, which are then combined by the MOF into a full budget submission in December. This budget is then submitted to the cabinet for consideration in January. Once the cabinet approves the budget in February, the Minister for Finance presents to parliament a budget statement that introduces the Supply Bill. In total, there are three readings of the Supply Bill, with the Committee of Supply debate occurring after the first reading.

During the Committee of Supply debate, MPs review the plans of each ministry and can raise any policy or program queries or concerns,<sup>43</sup> to which the relevant ministers respond. Although parliament votes to pass the Supply Bill, parliament has a limited purview over the budget specifics—particularly with respect to MINDEF—because the details of its expenditures are not published. Although there is time for questions, there is no process for parliament to scrutinize individual items in the budget in detail or propose any increases or alternative allocations of funds.<sup>44</sup> Traditionally, the budget for defense and national security is approved with little debate.<sup>45</sup> Once parliament has voted to pass the Supply Bill, the president's approval is required for the bill to be enacted as the Supply Act by March 31, before the new fiscal year. Figure 5.3 focuses on the steps in the final two months of the budgeting process (February and March).

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<sup>41</sup> Tham Yuen-C, "Changes in Permanent Secretary Appointments for Foreign Affairs, Health, Defence and Law," *Straits Times*, November 1, 2019; Sher Maine Wong, "Change Is Difficult but Inevitable," *Challenge*, July 2, 2014.

<sup>42</sup> Blöndal, 2006.

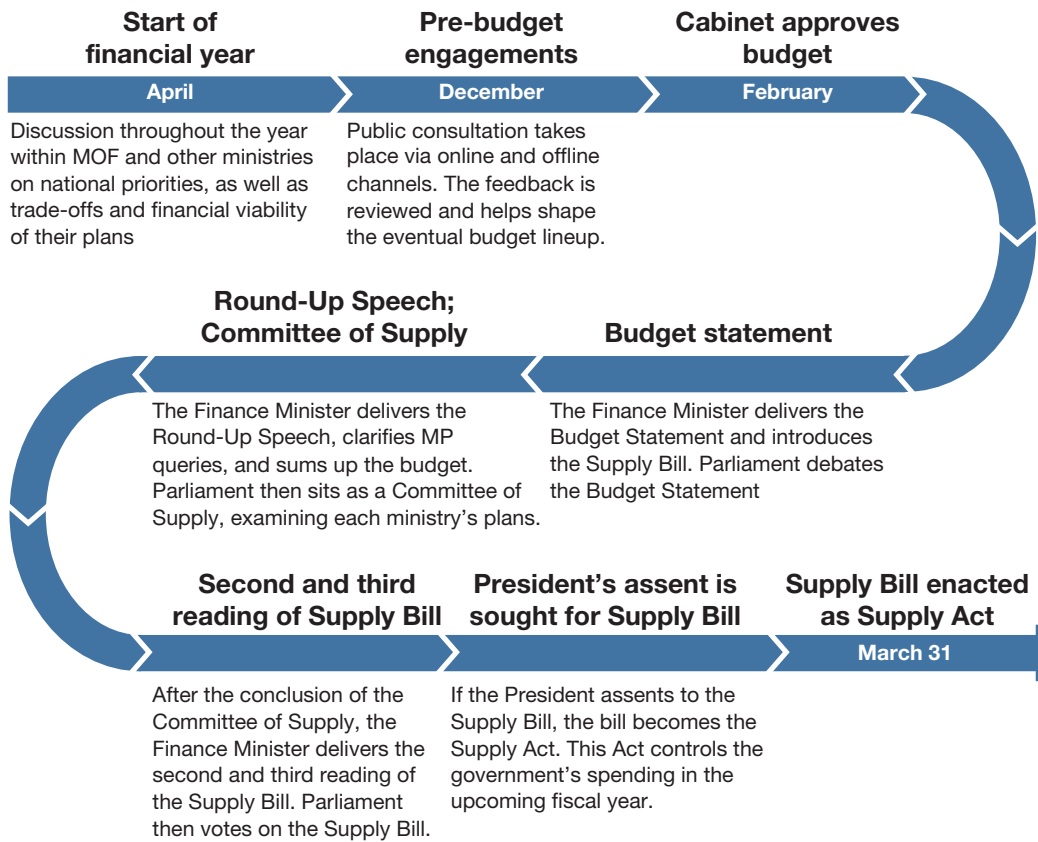
<sup>43</sup> To do so, MPs must first propose a nominal cut of Singapore dollar (SGD) 100 (approximately \$73). See Nigel Chua and Tan Min-Wei, "MS Explains: Why MPs Are Proposing S\$100 Cuts to Ministries' Billion-Dollar Budgets," *Mothership*, March 1, 2023.

<sup>44</sup> Blöndal, 2006.

<sup>45</sup> Singapore subject-matter experts, interviews with the authors, June–September 2023.



**FIGURE 5.3**  
**Flow Chart of Singapore's Budgeting Process**



SOURCE: Adapted from Ministry of Finance Singapore, "About Budget," webpage, last updated December 2, 2022.

## Singapore's Defense Budgeting Process

Having summarized the national budget planning and approval process, we now explore Singapore's defense expenditures in the context of its national expenditures. Singapore's level of investment in defense reflects the country's status as a trade-reliant middle power and the entrenched belief that an effective military deterrent is a vital precondition for its continued success. Despite its reputation as a modern international bazaar focused on high finance and global trade, Singapore aims for steady-state military spending of around 3 to 4 percent of GDP, as noted.<sup>46</sup> This steady commitment to defense reflects both the importance of a safe and stable region to Singapore's economic prosperity, with external trade valued at 3.5 times

<sup>46</sup> MINDEF Singapore, 2023b.

GDP,<sup>47</sup> and the sense of existential threat that has featured in Singaporean national thought since its independence.

The COVID-19 pandemic, and the associated effect on global trade and travel, had a severe economic impact. In 2020, Singapore's economy shrank by 4.1 percent, the worst full-year contraction since independence.<sup>48</sup> Singapore responded with a major stimulus campaign, which significantly boosted national government expenditure. For example, more than SGD 28.1 billion was disbursed between 2020 and 2022 for the Jobs Support Scheme alone.<sup>49</sup> The result was that government debt peaked in 2020 at more than 10 percent of GDP.<sup>50</sup> The 2023 budget returned to a pre-pandemic focus on lower spending and a stronger economic outlook, with overall debt expected to fall to 0.5 percent of GDP in 2023.<sup>51</sup>

The 2023 Singapore national budget contained SGD 104 billion (approximately \$77 billion) of total government expenditure, which equated to 15.3 percent of GDP. Total government spending includes both operating expenditures (the running costs of government, as well as transfers to other individuals and entities) and development expenditures (longer-term investments or property expenses).<sup>52</sup> The 2023 split was SGD 83.62 billion for operating expenditures and SGD 20.52 billion for development expenditures. The latter was a larger percentage of the total than it had been in prior years because the government chose to rebuild sovereign trust funds that it uses for certain social services.<sup>53</sup>

Singapore further divides its spending across four broad categories: security and external relations (25 percent), social development (51 percent), government administration (4 percent), and economic development (20 percent). Defense expenditures accounted for 67 percent of the security and external relations allocation, equating to 17.3 percent of the total government expenditure (which also represents about 3 to 4 percent of Singapore's GDP).

The 2023 Singapore national budget allocated SGD 17.98 billion (approximately \$13.4 billion) to defense.<sup>54</sup> This figure was a 5.6-percent increase over the revised FY 2022 defense budget of SGD 17.02 billion, well above MINDEF's "steady and prudent approach" of tying MINDEF funding to 3 to 4 percent of GDP.<sup>55</sup> Here, too, the COVID-19 pandemic had a notable

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<sup>47</sup> MINDEF Singapore, 2023b.

<sup>48</sup> Singapore Public Sector Outcomes Review, "Economy and Labour Market," webpage, last updated December 6, 2022.

<sup>49</sup> Singapore Public Sector Outcomes Review, 2022.

<sup>50</sup> James Guild, "Breaking Down Singapore's 2023 Budget," *The Diplomat*, March 1, 2023.

<sup>51</sup> Guild, 2023.

<sup>52</sup> Department of Statistics Singapore, "Glossaries: Public Finance," webpage, last updated June 14, 2023.

<sup>53</sup> Guild, 2023.

<sup>54</sup> Jon Grevatt and Andrew MacDonald, "Singapore Boosts 2023 Defence Budget by Nearly 6%," *Janes*, February 27, 2023.

<sup>55</sup> Grevatt and MacDonald, 2023; MINDEF Singapore, "Defence Spending," webpage, last updated December 27, 2017. The initially approved 2022 budget of SGD 16.36 billion was, in turn, 6.5-percent higher in

impact, having driven spending below 3 percent in the 2020 budget. The spending increases in 2022 and 2023 were significant in nominal terms and returned spending to pre-pandemic levels (in constant 2015 U.S. dollars), although the 2023 budget devoted only 2.61 percent of GDP to defense.<sup>56</sup>

As with all Singaporean government budgeting, defense expenditure is divided into operating and development expenses.<sup>57</sup> For FY 2023, these expenses were estimated to be SGD 17.11 billion (95.2 percent of total defense expenditure) and SGD 871 million (4.8 percent), respectively. Operating expenditures include personnel, operations, maintenance, and procurement.<sup>58</sup> Most operating expenditures in the MINDEF budget are allocated to the SAF, with around 0.4 percent reserved for civilian salaries and other MINDEF operating costs at headquarters.<sup>59</sup> Development expenditures are longer-term investments in capital assets, infrastructure, and land development, such as buildings or roads.<sup>60</sup> The larger-than-average developmental expenditures in 2022 and 2023 reflected efforts to catch up on several infrastructure projects that had been delayed by the pandemic.<sup>61</sup> Singapore has also been watching the rise in defense spending across the region, which has pushed the SAF to accelerate its modernization plans by, for example, purchasing modern submarines and exercising the option to purchase eight more F-35B aircraft.<sup>62</sup>

Singapore provides only top-line budget data to the public. In the MINDEF budget for 2023, for example, “military expenditure” is the only descriptor for a line item that accounts for 99.6 percent of the operating expenditures, which equate to 94.8 percent of total defense

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nominal terms than the 2021 expenditure (Jon Grevatt, “Singapore Announces 6.5% Increase in 2022 Defence Budget,” *Janes*, February 21, 2022).

<sup>56</sup> International Institute for Strategic Studies, *Military Balance+*, database, undated.

<sup>57</sup> *Operating expenses* include payments for military equipment purchases, equipment and camp maintenance, and allowances and salaries for full-time national service members, operationally ready national service members, and regular service members (Ministry of Finance Singapore, “Head J, Ministry of Defence Budget,” *Revenue Expenditure Estimates: Expenditure Estimates by Head of Expenditure*, 2023).

<sup>58</sup> MINDEF Singapore (2023b) states that its “operating expenditure” includes procurement, equipment maintenance, personnel budgets, and operations.

<sup>59</sup> Ministry of Finance Singapore, 2023.

<sup>60</sup> Ministry of Finance Singapore, 2023. Specifically, development expenditures can include the following:

- construction, improvement, acquisition, or replacement of capital assets (e.g., buildings, vehicles, aircraft, machinery, rolling-stock, roads) required in respect of or in connection with the economic development or general welfare of Singapore
- acquisition of land and of any right or interest in or over land and in respect of the use of any invention
- grants and loans to—or investments in any public authority or corporation for—any of the purposes [related to the development expenditure’s funding sources]. (Department of Statistics Singapore, 2023)

<sup>61</sup> Grevatt and MacDonald, 2023; MINDEF Singapore, 2023b.

<sup>62</sup> MINDEF Singapore, 2023b; Grevatt and MacDonald, 2023.

spending.<sup>63</sup> There is far less secrecy on the public service (i.e., civilian) side of MINDEF, for which detailed cost estimates and even a list of senior executive salaries are provided. Detailed cost estimates for the salaries of civilian staff and MINDEF administration (0.4 percent of operating expenses) and for development expenditures (the remaining 4.8 percent of the total budget) are publicly available.<sup>64</sup> The remainder of the budget specifics are kept confidential as government policy.

## Decisionmakers and Stakeholders

Singapore's unusual (for the region) civilian-dominant, civil-military relationship determines the allocation of defense resources. Overall, the Singaporean system is broadly consistent with Westminster parliamentary systems of government, placing significant reliance on long-established and formalized processes rather than prioritizing agility or organizational flexibility. As in other Westminster-style democracies, the governance of Singapore's defense is split among three groups: political leadership, civil service leadership, and uniformed SAF leadership.

As for the political leadership, the President of Singapore, while largely a ceremonial function, serves as the "fiscal guardian" of government funds (although this power has never been used) and as the overall authority for certain anti-corruption investigations.<sup>65</sup> Within the cabinet, political oversight and accountability for Singapore's defense rests with the Minister for Defence (since 2011, Ng Eng Hen),<sup>66</sup> who is supported by two Senior Ministers of State for Defence.<sup>67</sup> In addition, there is a provision for a second minister to be appointed at the cabinet's discretion, but this position has been vacant since 2021.<sup>68</sup> Singapore also has a provision for the appointment of a senior minister, an advisory role that is filled by former prime ministers and deputy prime ministers. The current senior minister is a former Chief of Navy and deputy prime minister who is dual-hatted as the Coordinating Minister for National Security.

As for the civil service leadership, the Minister for Defence holds ultimate responsibility and decisionmaking authority within MINDEF and the SAF and is supported by a civil service hierarchy within MINDEF (see Figure 5.1). Unusually, the civil side of MINDEF is led by two permanent secretaries who work in tandem. The Permanent Secretary for Defence is described as the "Chief Executive of the entire Defence Organisation" and has oversight

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<sup>63</sup> MINDEF Singapore, 2023b.

<sup>64</sup> Ministry of Finance Singapore, 2023.

<sup>65</sup> Blöndal, 2006; Rebecca Ratcliffe, "Singapore to Choose New President Amid Rare Political Scandals," *The Guardian*, September 1, 2023.

<sup>66</sup> MINDEF Singapore, "Dr Ng Eng Hen, Minister for Defence," webpage, last updated May 9, 2022a.

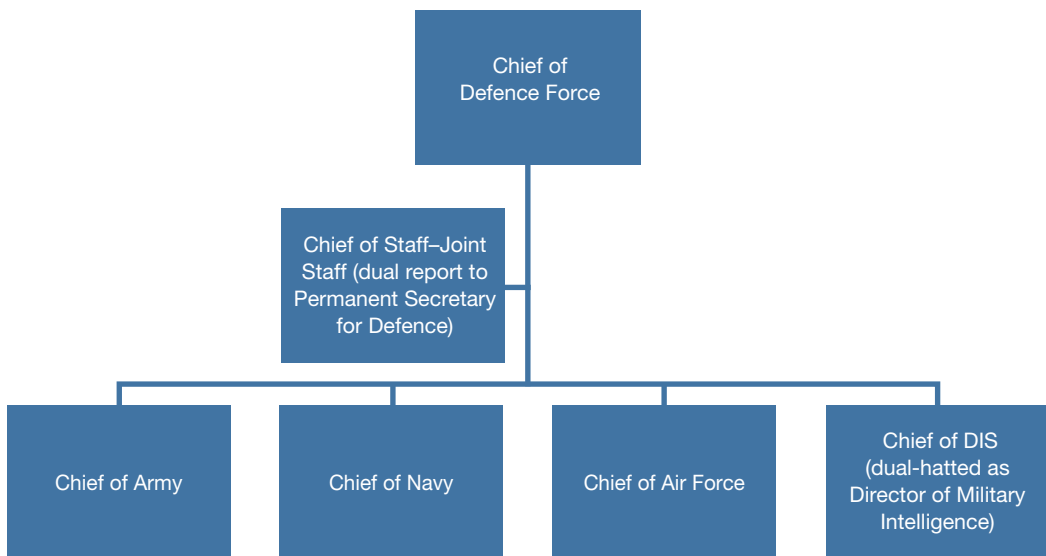
<sup>67</sup> MINDEF Singapore, "Leadership Biographies," webpage, last updated March 24, 2023d.

<sup>68</sup> Prime Minister's Office Singapore, "Mr Ong Ye Kung," webpage, last updated September 22, 2023b.

over policy decisions, as well as the finances and operations of the ministry.<sup>69</sup> In contrast, the Permanent Secretary for Defence Development is responsible for forward planning, procurement, and technological development. The current Permanent Secretary for Defence Development (appointed June 1, 2023) transferred into the role the day after his retirement as Chief of Defence Force, underscoring the rotating nature of leadership positions, both civilian and military, throughout the Singaporean government. The permanent secretaries reportedly work closely together rather than in siloes.<sup>70</sup>

As for the uniformed SAF leadership, it reports through the Permanent Secretary for Defence to the Minister for Defence, as well as directly to the Security Committee of the cabinet. The SAF command structure is similar to that of the U.S. military, with the Chief of Defence Force (a three-star billet) leading a group of service branch heads, as shown in Figure 5.4. However, the chief of the newly created DIS is dual-hatted as the Director of Military Intelligence. The DIS is responsible for all cyber and C4ISR capabilities for the SAF and for raising, training, and sustaining a cyber operations capability.<sup>71</sup> The DIS has three directorates and four departments, integrating digital and intelligence capabilities across the SAF as a stand-alone operational command. The final member of the SAF leadership group is the Chief of Staff–Joint Staff, a one-star position currently dual-hatted as the Inspector General and Chief Sustainability Officer.

**FIGURE 5.4**  
**SAF Leadership Structure**



<sup>69</sup> Chinniah Manohara, “Defence Procurement and Industry Policy—A Singapore Perspective,” *Defence and Peace Economics*, Vol. 9, Nos. 1–2, 1998.

<sup>70</sup> Singapore subject-matter experts, interviews with the authors, June–September 2023.

<sup>71</sup> MINDEF Singapore, 2022b.

Taken together, these leadership groups direct a joint and centralized decisionmaking process. Within MINDEF, DSTA guides procurement, the Defence Finance Organisation runs budgeting, and the Defence Policy Office (DPO) acts as the strategic adviser for the minister. Each of these groups reports to a deputy secretary, who reports to the Minister for Defence. While each organization has a role in the PPBE process, the Minister for Defence has final decisionmaking authority and is advised through a process coordinated by the DPO.

As in similar Westminster systems, the Minister for Defence bridges the gap between the executive and legislative branches of government for defense spending. The Committee of Supply debate process in parliament involves both the Government Parliamentary Committee on Defence and Foreign Affairs and the Public Accounts Committee (legislative bodies composed of elected MPs). There is a cultural norm that discourages public criticism of MINDEF within open sessions of parliament; instead, MPs generally air concerns in private to the Minister for Defence.<sup>72</sup> Importantly, neither MINDEF nor any SAF branch has a mechanism for presenting unfunded requirements to parliament, and parliament never forces earmarks on money appropriated for MINDEF.

According to the open-source literature, Singapore does not formally involve industry in its budgeting process. However, ST Engineering (the major defense prime contractor that is also majority state-owned) likely has some insight into the strategic planning of MINDEF because the company is included in Singapore's defense-technology ecosystem in support of SAF capability priorities.<sup>73</sup> Unlike in the United States, there is also a well-established, government-supported practice of senior military officers crossing over into industry (both civil and defense) or into civil service following their retirement. What might be deemed a "revolving door" in the United States is seen as a mechanism for the SAF to both encourage closer collaboration with industry and to share its "highly trained manpower resources with the rest of society."<sup>74</sup>

## Planning and Programming

Attempting to explain the SAF strategic planning process is complicated by an entrenched institutional norm in favor of classifying, or at least not declaring, internal workings. One interviewee used the metaphor of a "black box" to describe certain MINDEF policies and procedures.<sup>75</sup> Indeed, a MINDEF official told us that it was government policy to refuse to discuss internal procedures.

Singapore does not publish defense strategy documents or plans, nor does it publish defense white papers. The most recent Singaporean defense white paper was released in 2000. Although it is public knowledge that Singapore is investing heavily in the next-generation

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<sup>72</sup> Singapore subject-matter experts, interviews with the authors, June–September 2023.

<sup>73</sup> Tan, 2013, pp. 68, 76.

<sup>74</sup> Tan, 2013.

<sup>75</sup> Singapore subject-matter experts, interviews with the authors, June–September 2023.

SAF,<sup>76</sup> and although some of its capabilities have been promoted in government materials, there is very little open-source information on the specifics of this modernization plan.

The closest thing to a formal statement of defense strategy is the commitment to the dual pillars of diplomacy and deterrence.<sup>77</sup> The former reflects the need to leverage diplomacy and the international rules-based order to protect Singaporean interests and build diplomatic, rather than geographic, strategic depth—because “small states can survive and thrive only in a world where sovereignty is respected and where interactions between states are governed by the rule of law.”<sup>78</sup> The latter reflects one of the earliest strategic truisms embraced by the SAF: Singapore’s stability and security depends on its ability to credibly deter potential aggressors, as expressed in 1982 by the SAF Chief of Staff (and now prime minister): “If you come, I’ll whack you, and I’ll survive.”<sup>79</sup>

As for procurement planning, each SAF service branch maintains rolling five-year capability plans, and the DPO plays an important role in determining the overall SAF posture and strategy, but these plans are not made public. According to civilian researchers and the occasional reference in a ministerial speech, Singapore has a philosophical preference for buying where it can, building only as necessary, absorbing technology, and domestically undertaking sustainment, maintenance, and upgrades of existing capabilities.

The FSTD has established itself as the creative disruptor within MINDEF, challenging orthodoxies and entrenched practices. The FSTD is led by the Future Systems and Technology Architect, who is also the Deputy Secretary (Technology). The FSTD’s Systems and Concepts Group plays an active role in strategic concept development, while the SAF Centre for Military Experimentation formulates long-term force development.<sup>80</sup> These organizations likely feed information to the Defence Policy Group to inform its advice to the Minister for Defence.

Using interviews with civilian academics familiar with Singaporean defense processes, along with open-source literature, we identified six steps in the Singaporean process of linking plans to procurement budgets:

1. A capability gap is identified, generally by the service branches, although other elements of MINDEF (particularly the DPO, DSTA, and the FSTD) also conduct horizon scans.

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<sup>76</sup> This has also been referred to in the open-source literature as “4th Gen SAF” and “SAF 2040.”

<sup>77</sup> MINDEF Singapore, 2021a.

<sup>78</sup> MINDEF Singapore, 2021a.

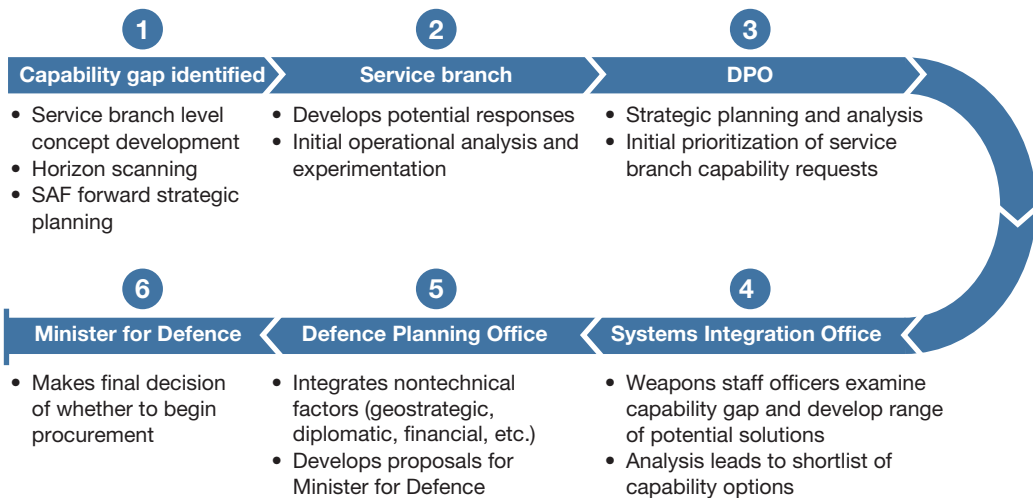
<sup>79</sup> Wirawan Wicaksono, *Strategic Planning or Innovation Institutionalization? The Case of Singapore Armed Forces’ Modernization*, Naval Postgraduate School, June 2020.

<sup>80</sup> Phil Budden and Fiona Murray, *Defense Innovation Report: Applying MIT’s Innovation Ecosystem and Stakeholder Approach to Innovation in Defense on a Country-by-Country Basis*, MIT Office of Innovation, May 2019.

2. An identified gap goes through a standard process of operations analysis within a service branch, and the requirements are fleshed out.
3. The gap and proposed solution are submitted to the DPO, which is the gatekeeper for the Minister for Defence. The DPO is responsible for the initial prioritization of submissions.
4. Once a gap is prioritized, the DPO hands the problem set to the weapons staff officers of the Systems Integration Office. These officers examine the capability gap and develop potential solutions. These are capability-type solutions rather than explicit platforms; for example, a type of capability solution for persistent aerial surveillance could involve either a high-altitude long-endurance uncrewed aerial vehicle or a small satellite. The Systems Integration Office whittles down the options to two recommendations, which go back to the DPO. The Systems Integration Office considers only the technical aspects of capability options, placing geopolitical and financial factors aside.
5. The DPO brings the non-technical considerations (the geopolitical and financial factors) to bear on the recommendations before presenting options to the Minister for Defence.
6. The Minister for Defence makes the final decision on whether to begin a procurement process to fill the capability gap.

Figure 5.5 illustrates the process flow from capability identification to ministerial approval.

**FIGURE 5.5**  
**Capability Gap to Procurement Process in MINDEF**



SOURCES: Authors' analysis of open-source information; Singapore subject-matter experts, interviews with the authors, June–September 2023.



Once ministerial approval is given, a program budget is developed under the auspices of the permanent secretaries, and DSTA (the chief agency in MINDEF's procurement process) is brought in to oversee the process. One interviewee described DSTA as the "clearing house for procurement and R&D."<sup>81</sup> The majority of DSTA staff either focus on procurement or are directly involved in R&D, and DSTA has a comparatively skeleton administrative staff.<sup>82</sup> Because DSTA prefers to buy advanced capabilities where it is more efficient, most of its operations entail acquisitions, but as an integral part of the DTC, DSTA is also capable of indigenously developing advanced defense capabilities when necessary.<sup>83</sup> MINDEF agencies are required to publish the results of their procurements, but only the name of the winner and the top-line cost are typically published, and those notices are taken down after a month. Thus, although DSTA thoroughly documents its procurement procedures and regulations—and even offers a professional education course on its assessment methodology<sup>84</sup>—it does not make public the details of specific projects.

A capability gap that becomes a DSTA procurement project is assigned a multidisciplinary project management team (PMT). A PMT is composed largely of DSTA officers, although representatives from industry, policy, and the SAF are generally consulted. The PMT develops the capability gap requirements (as identified by the Systems Integration Office and the DPO) into criteria suitable for procurement and then manages the acquisition pipeline. At any given time, there are many PMTs operating within DSTA.<sup>85</sup>

Because DSTA is bound by government procurement transparency regulations, it must conduct its procurement through GeBIZ, a whole-of-Singapore-government procurement portal. Therefore, DSTA will issue either an Invitation to Tender (if the expected value is above SGD 70,000—approximately \$51,400—excluding the goods and services tax) or an Invitation to Quote (if the expected value falls below SGD 70,000). To bid on projects advertised on GeBIZ requires registration as a government supplier, which validates a supplier's capacity to undertake government contracts and binds them to a code of conduct. Violations of this code can result in criminal prosecution or disbarment from future government tenders (or both).

Once bidding is closed, MINDEF implements a robust and highly regulated assessment, based on the analytical hierarchy process (AHP). At this point, DSTA separates the PMT into different teams to guard against any conflict of interest. Separate subteams are given responsibility for assessing the submission through the AHP, undertaking the purchase of the chosen system or verifying that purchase decision.<sup>86</sup>

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<sup>81</sup> Singapore subject-matter experts, interviews with the authors, June–September 2023.

<sup>82</sup> Singapore subject-matter experts, interviews with the authors, June–September 2023.

<sup>83</sup> Budden and Murray, 2019.

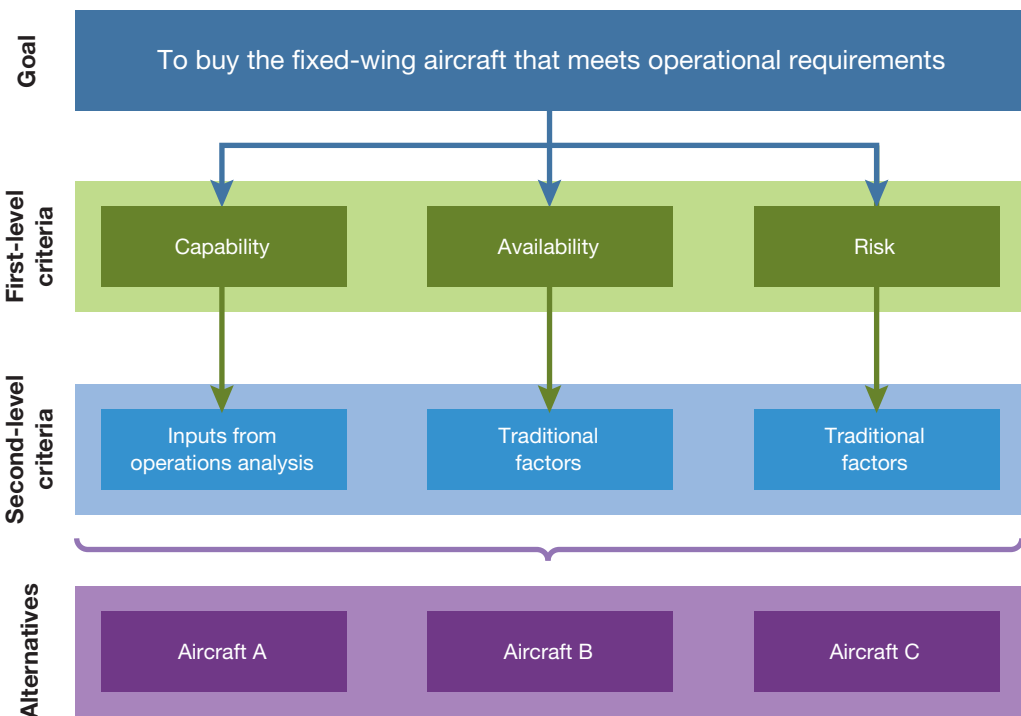
<sup>84</sup> Singapore subject-matter experts, interviews with the authors, June–September 2023.

<sup>85</sup> Singapore subject-matter experts, interviews with the authors, June–September 2023.

<sup>86</sup> Donatas Palavenis, "Critical Factors Influencing the Development of Singapore's Defence Industry," *Security and Defence Quarterly*, Vol. 38, No. 2, 2022.

The AHP was originally developed in the 1970s, but DSTA uses a version that has been enhanced by operations analysis.<sup>87</sup> In a basic AHP, weights are assigned to pairs of criteria that are important to a capability. For example, if availability is considered more important than survivability, the former is assigned a higher number than the latter. In the enhanced AHP model, the first-level criteria are followed by second-level criteria that incorporate factors from operations analysis (see Figure 5.6).<sup>88</sup> The levels of criteria and their outputs are synthesized with eigenvectors to create relative weights.<sup>89</sup> Using these weights, each capability alternative is compared to determine which one has the highest score and is thus the preferred alternative.<sup>90</sup>

**FIGURE 5.6**  
**Singapore’s Analytical Hierarchy Process**



SOURCE: Adapted from Kwok and Lim, undated.

<sup>87</sup> Kwok Yoong Fui and Lim Hang Sheng, *Using Analytic Hierarchy Process with Operations Analysis in Project Evaluation*, Singapore Defence Science and Technology Agency, undated.

<sup>88</sup> Kwok and Lim, undated.

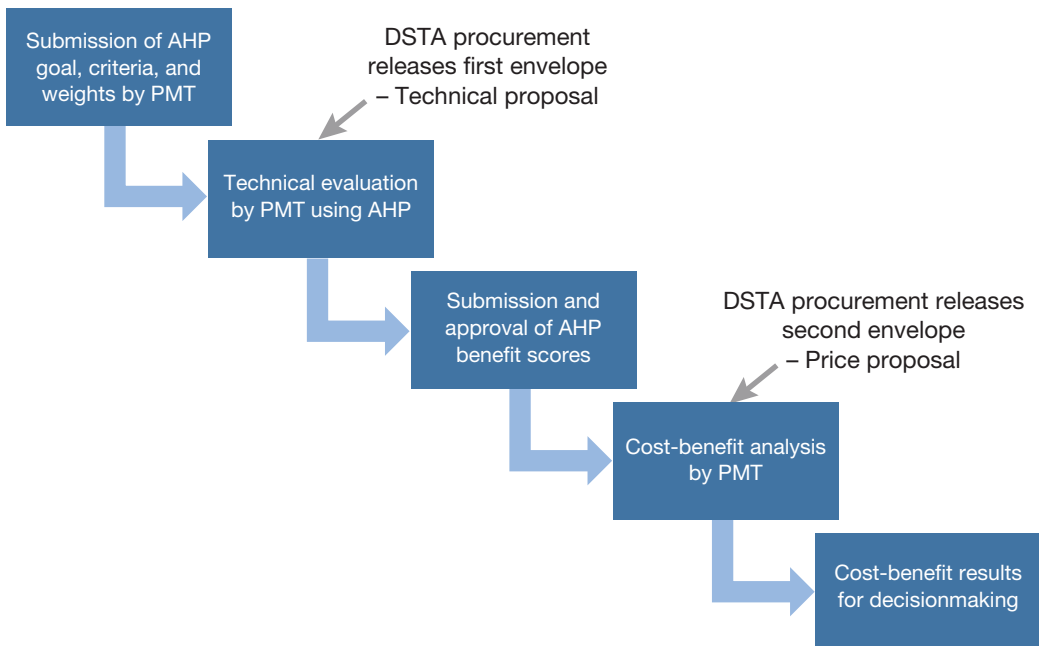
<sup>89</sup> Kwok and Lim, undated.

<sup>90</sup> Kwok and Lim, undated.

As depicted in Figure 5.7, the two-envelope tender evaluation model entails first the technical evaluation using AHP and then a cost-benefit analysis, both conducted by the PMT. The price of each tender is not subject to assessment until the AHP generates a shortlist of preferred tender responses based on a purely technical review. The PMT can then undertake a largely traditional cost-benefit analysis of the shortlisted tender responses, the results of which are provided to the decisionmaker. DSTA staff have publicly argued that separating the technical evaluation from the cost information “ensures a more objective and fair evaluation.”<sup>91</sup>

One aspect of this process that is both a strength and a potential limitation is its rigidity. As a further anticorruption measure, DSTA staff are routinely rotated out of procurement-related positions.<sup>92</sup> The highly regulated AHP process, which DSTA has used for well over two decades, means that the process can continue uninterrupted because the rotating civil servants can quickly familiarize themselves with where their new projects are in the AHP process. Consistency is also maintained in the assessment process regardless of which individuals compose the PMT for a given procurement, even when the rotating DSTA personnel are not versed in the relevant domain. Having relied on AHP for more than 20 years, though,

**FIGURE 5.7**  
**Singapore’s Two-Envelope Tender Evaluation Model**



SOURCE: Adapted from Kwok and Lim, undated.

<sup>91</sup> Kwok and Lim, undated.

<sup>92</sup> Singapore subject-matter experts, interviews with the authors, June–September 2023.

there is a danger of complacency with, and dependence on, the process. Its longtime practitioners often state, reasonably, that the system is robust and reliable, and are thus disincentivized from attempting to “reinvent the wheel.” On the other hand, the capacity of the system to naturally evolve and improve could be limited. It is not surprising that there is no evidence that Singapore uses any special assessment processes or budget tools for higher-technology procurements.

## Budgeting and Execution

The Singaporean budget execution process reflects both MINDEF’s highly regulated nature and comparatively smaller size. As with all Singaporean government departments, MINDEF’s budget is divided between operating and development funds, which are broader than DoD colors of money. (As noted above, operating expenditures—which include procurement, sustainment, and personnel—totaled SGD 17.11 billion in FY 2023, while development funds—which are allocated for major capital works and long-term investments—totaled SGD 871 million.)

Although there is far less open-source detail about the funding split within these two broad categories of funds than there is in the U.S. system, MINDEF does split the two funds into similar colors of money as is done in the U.S. system. The first MINDEF bucket is for *investments in human capital* (i.e., personnel), which includes training and salary costs for regular and national service forces. The second bucket is for *operating and development*, which refers to maintaining SAF readiness, supporting infrastructure, and conducting international deployments (which have historically been largely training missions). The final bucket is for *investments in new capabilities*, which covers both procurement and R&D. Unfortunately, apart from civilian personnel maintenance costs, these buckets are aggregated in public budgets, and major procurements are very rarely announced. As expressed by the Minister for Defence during the 2023 Committee of Supply debate, this aggregation of funds extends to the public debate in Singapore’s Parliament:

By design, as Members have noted, MINDEF does not give detailed information in the Budget Book. Members here know the reason. It is not in our security interest to do so. Just as we do not give the detailed cost figures for acquisition of planes, submarines, and Army platforms, because they provide an indication of capabilities, and similarly we also do not want to provide an aggregated amount for our acquisitions. Because you can guess—if your capability development budget is this [and] collected over the years—what you are spending it on.<sup>93</sup>

Although this aggregation makes it difficult to determine how much money is allocated to each bucket (outside of third-party estimates from, say, Janes Defense), the OECD noted in a 2006 report that Singapore’s budget allocations were “fully fungible,” and departments were

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<sup>93</sup> MINDEF Singapore, 2023b.

allocated only an overall ceiling during the initial budget process.<sup>94</sup> Department financial units, such as MINDEF's Defence Finance Organisation, could then transfer money between buckets before the budget was sent to parliament. Similarly, the OECD report found that "no special expenditures are ring fenced" within MINDEF's budget allocations as part of the negotiation process.<sup>95</sup> An important caveat is that the OECD report was released in 2006, and it does not provide evidence for these statements, nor does it make clear whether MINDEF operates under the same rules as other Singaporean government departments.

By law, Singapore prohibits off-budget spending.<sup>96</sup> Agility is achieved instead through a supplementary budget estimate process, whereby departments submit an updated budget request to parliament during the fiscal year. Singapore's government approved three updated budgets in FY 2021, but this was partially because of unexpected fiscal outlays associated with its COVID-19 response. The MOF likely aggregates supplemental expenses from multiple departments into combined requests to streamline the parliamentary approval process. There is also likely a mechanism within the service branches for reallocating funds. And although the MOF has put in place a "budget marksmanship" system, whereby ministries that spend less than 95 percent of their budgets suffer a one-off budget adjustment in the following year, this penalty does not appear to apply to MINDEF. Moreover, money does not expire at the end of the fiscal year, which allows projects to have guaranteed funding across multiple years.

## Oversight

One of the challenges in the Singaporean budgeting system is that accountability is achieved largely through regulatory rather than legislative means. MINDEF is subject to both internal audits (by MINDEF's Internal Audit Department) and external audits (by the Auditor-General's Office, or AGO). There is also parliamentary oversight provided by the Estimates Committee, the Public Accounts Committee, and the Parliamentary Committee on Defence and Foreign Affairs.<sup>97</sup> There is no formal mechanism for implementing the results of these audits into future budgets, but their findings are publicly tabled in parliament, and criminal penalties can be imposed on individuals found to have acted inappropriately or negligently. Indeed, there is a Corrupt Practices Investigation Bureau (CPIB), which has been described in interviews and media articles as akin to the "sword of Damocles," always hovering in the back of the minds of public servants. While this accountability system appears effective, multiple

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<sup>94</sup> Blöndal, 2006.

<sup>95</sup> Blöndal, 2006, p. 53.

<sup>96</sup> *Off-budget spending* refers to spending that has not been previously authorized by parliament through the formal budget process.

<sup>97</sup> Cheryl Siew, *Power of the Purse in Singapore: Who Controls the Controllers?* Harvard Law School, Briefing Paper No. 71, May 2019.

interviewees noted a need for greater transparency in a system that is largely reliant on regulatory oversight.

The Government Parliamentary Committee on Defence and Foreign Affairs, which consists of PAP MPs appointed by the party, can scrutinize legislation and programs.<sup>98</sup> The committee's remit is limited, however, in that it cannot "review or amend policy, scrutinise procurement decisions, or conduct long-term investigations."<sup>99</sup> Additionally, parliament appoints a select committee called the Public Accounts Committee, composed of MPs, to support the AGO in scrutinizing MINDEF's execution of its budget.<sup>100</sup>

Given the long-established dominance of the PAP, parliamentary oversight of its own policies may be of dubious potency. Rather, oversight is enforced through the regulatory means with a rigorous system of processes and stringent checks and balances that place a strong emphasis on anti-corruption and fiscal prudence. One example is the widespread job rotation, whereby civil servants are regularly rotated to different departments to minimize corruption.<sup>101</sup>

MINDEF's well-defined system of audits ensures that processes and internal controls are adhered to and that there is accountability across the ministry.<sup>102</sup> MINDEF uses a Three Lines Model, which is adapted from the model developed by the Institute of Internal Auditors. This model describes three lines of defense. The first line occurs at the individual (personal) level in MINDEF departments and SAF units on a day-to-day basis. Staff are responsible for adhering to established internal controls. This adherence is assessed using Risk and Internal Control Evaluation checklists, which have been developed by MINDEF's Internal Audit Department.

The second line consists of procedural monitoring at the departmental level, performed by various oversight committees and steering groups internal to MINDEF. Some examples include the Enterprise Risk Management Steering Committee and groups that conduct safety audits, such as the SAF Inspector-General's Office and the services' Safety Inspectorates.<sup>103</sup>

The third line consists of internal and independent external auditors that conduct regular audits of MINDEF and the SAF. MINDEF's Internal Audit Department conducts audits across functions, including finance, procurement, logistics, and human resources.<sup>104</sup> The out-

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<sup>98</sup> Parliament of Singapore, "Glossary: Government Parliamentary Committee (GPC)," webpage, last updated November 27, 2018.

<sup>99</sup> Transparency International, "Country Brief: Singapore," in *Government Defence Integrity Index 2020*, October 2021, p. 4.

<sup>100</sup> MINDEF Singapore, "System of Audits," webpage, last updated November 15, 2022c.

<sup>101</sup> Singapore subject-matter experts, interviews with the authors, June–September 2023; Jak Jabes and Frederic Wehrlé, *Anti-Corruption Policies in Asia and the Pacific: Self-Assessment Report Singapore*, ADB/OECD Anti-Corruption Initiative for Asia-Pacific, 2003.

<sup>102</sup> MINDEF Singapore, 2022c.

<sup>103</sup> MINDEF Singapore, "Ensuring a Robust Training Safety System," fact sheet, March 2, 2020a.

<sup>104</sup> MINDEF Singapore, "Internal Audit Department," webpage, last updated November 16, 2022d.

comes of regular audits and reviews are presented quarterly at MINDEF Audit Committee meetings, chaired by the permanent secretary. Annually, a report on the status of MINDEF's processes is submitted to the Minister for Defence. The Internal Audit Department's remit includes special investigations into cases of mismanagement. The AGO, Singapore's national auditor, is an independent body that has a mandate to audit the accounts of government and to ensure that public funds are being managed responsibly and accountably. The AGO's remit includes "system weaknesses, non-compliance with control procedures or legislation, and instances of excess, extravagance, or gross inefficiency leading to waste in the use of public funds and resources."<sup>105</sup> The Auditor-General is appointed by the president.<sup>106</sup> The Public Accounts Committee of parliament assists the AGO as required. An annual Report of the Auditor-General is submitted to the president and tabled in parliament. These audits and reports are publicly available.<sup>107</sup>

In addition to being subject to these oversight mechanisms, MINDEF is subject to the jurisdiction of the powerful CPIB, which is an independent law enforcement agency that reports to the prime minister's office.<sup>108</sup> The CPIB's role is to investigate any cases of corruption in both the public and private sectors—and across all branches of government, industry, and nongovernment organizations—"safeguarding the integrity of the public service and encouraging corruption-free transactions in the private sector."<sup>109</sup> The CPIB can investigate any offenses subject to arrest, as uncovered by corruption probes.<sup>110</sup> It can review processes and recommend ways to improve practices in public bodies in which corruption has been found.<sup>111</sup> The CPIB reports directly to the prime minister, although it could go directly to the president if the prime minister attempts to block an investigation. An average of 138 official warnings were issued annually between 2017 and 2021, and there were 139 prosecutions during that period.<sup>112</sup> In July 2023, Minister for Transport S. Iswaran was arrested in relation to a CPIB investigation. Although he has been released on bail, he has been required to take a leave of absence as the investigation continues.<sup>113</sup>

<sup>105</sup> AGO, "Who We Are: Overview," webpage, undated-b.

<sup>106</sup> AGO, "FAQ: General," webpage, undated-a.

<sup>107</sup> MINDEF Singapore, 2022c.

<sup>108</sup> MINDEF Singapore, "Anti-Corruption Policy," webpage, last updated December 13, 2022e.

<sup>109</sup> Prime Minister's Office Singapore, "About Us," webpage, last updated September 22, 2023a.

<sup>110</sup> *Arrestable offenses* (or *seizable offenses*) occur when the perpetrators can be arrested without an arrest warrant. *Non-arrestable* (or *non-seizable*) offenses are those for which a warrant must be obtained before the arrest can be made. See CPIB, "FAQ: General Enquiries," webpage, undated.

<sup>111</sup> Prime Minister's Office Singapore, 2023a.

<sup>112</sup> Louisa Tang, "How Did CPIB Come About and What Powers Does It Have in Investigating Corruption in Singapore?" CNA, July 15, 2023.

<sup>113</sup> Shynn Ong, "PSP's Hazel Poa Files Motion to Suspend Transport Minister S Iswaran from Parliament Amid CPIB Probe," CNA, September 8, 2023; Samuel Devaraj, "Transport Minister Iswaran Arrested on

## Analysis of Singapore's Budgeting Process

### Strengths

The first strength of the Singaporean defense budget process is the set of mechanisms that ensure a high level of certainty around MINDEF resourcing. Singapore's leaders have a public and enduring commitment to ensuring a steady investment in defense expenditure, generally between 3 and 4 percent of GDP but not above 6 percent. This commitment reflects a policy stance that defense spending should not suffer from volatility and that there should be no major spikes or furrows in MINDEF's resourcing. This stance extends even to a willingness to invest further in MINDEF's budget to counteract the effect of any broader economic downturn. A high level of certainty in future defense spending allows MINDEF and industry to make long-term planning and investment decisions. Thus, although Singapore's comparatively small economy limits the range of its capabilities, industry—led by ST Engineering—can take more-significant corporate risks to achieve higher-end future capabilities.

Second, Singapore has legislated robust formal processes for ensuring the legitimacy of its procurement decisionmaking. The segmentation of procurement teams and the regular rotation of personnel protect against empire-building or corruption of the process by a single public servant, regardless of seniority. The potential associated risk—that the process becomes disjointed—is minimized by strict adherence across MINDEF to the AHP methodology. Adherence to formal processes and to the minimization of individual discretion are perceived as mechanisms for demonstrating fairness to both smaller industry actors and the general public.

The third related strength of Singapore's system is its strong regulatory framework for preventing, deterring, and punishing corrupt conduct by public servants. Singaporean public servants operate under a strict—and publicly touted—enforcement regime. Oversight is based on the Three Lines Model. The first line is individual staff responsibility, bolstered by MINDEF's commitment to investing in the training and professional education of its staff. The second line consists of procedural guardrails within MINDEF, such as those audited by the SAF Inspector-General's Office. The third line consists of an interlocking system of internal (Internal Audit Department) and external (AGO and other) audits and inspections. Sitting atop these measures is the CPIB, which has the power to investigate and prosecute any public servant. MINDEF staff perform their duties knowing that corrupt behavior is likely to be detected and that they could be subject to criminal—rather than solely professional—sanctions if caught.

The fourth strength is Singapore's civilian-dominant civil-military relationship and the unquestioned political neutrality of the SAF, which is notable in the region. Despite its centrality to Singapore's budget, the security forces have historically remained firmly under the guidance of the civilian political leadership. This is particularly unusual given the fact that,

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Tuesday and Released on Bail: CPIB," *Straits Times*, July 15, 2023; "Singapore Arrests Cabinet Minister in Top-Level Corruption Probe," *The Guardian*, July 15, 2023.



with the continuation of National Service, all male members of parliament have some experience with the SAF. Even the current prime minister is a former senior SAF officer who retired at the rank of brigadier general in 1984. Interestingly, whereas SAF officers are required to retire at 50 (or 55 for warrant officers and certain specialists), the senior leaders of MINDEF are deeply seasoned public servants with decades of experience. For example, the Minister for Defence has been in place since 2011, while the Permanent Secretary for Defence Development is the recently retired Chief of Defence Force. Far from a quirk of fate, this deeply entrenched civil-military relationship is the result of early policy direction by Singapore's founding leadership. Left without a reliable military after Singapore's separation from Malaysia, former Prime Minister Lee Kwan Yew placed a civilian economist in charge of the nascent SAF, and many of the SAF's early officer class were civil servants.<sup>114</sup> As the SAF matured, it never gained independent political power, unlike in neighboring Indonesia, for example. Even today, the SAF makes a concerted effort to provide its promising junior officers with strong professional education, and many officers end up undertaking public service or corporate roles under the dual-career scheme first established in the early 1980s.<sup>115</sup> Combined with the electoral strength of the PAP, this scheme has evolved into a "civil-military fusion" in which the SAF remains firmly subordinated to the civilian leadership.<sup>116</sup>

## Challenges

The Singaporean system faces five key challenges, which are apparent in the open-source data. The most relevant for this assessment is the lack of transparency regarding MINDEF processes and procedures. Limited detail is made available to the public about internal processes, ongoing procurements, and the budget itself, for which comprehensive spending data, even in aggregate, is made publicly accessible for only about 5 percent of defense expenditures. Nor does MINDEF publish official strategy documents at the level of detail expected of the U.S. military. The overall result is that a lack of public discussion has become ingrained; MINDEF decisions are shrouded in institutional confidentiality as a matter of course.

This lack of transparency is reinforced by the Singaporean system's limited parliamentary oversight of the defense budget. MINDEF is one of the few ministries whose budget requests are generally not questioned in significant detail by MPs.<sup>117</sup> Civil society actors, including civilian researchers, must make do with educated estimates prepared by third parties, such as Janes Defense. Multiple interviewees flagged the overall lack of transparency and lack of parliamentary inquiry as an area in which Singapore could improve, citing the importance of public accountability to deliver on the country's historical preference for regulatory oversight.

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<sup>114</sup> Evan A. Laksmana, "Threats and Civil-Military Relations: Explaining Singapore's 'Trickle Down' Military Innovation," *Defense and Security Analysis*, Vol. 33, No. 4, 2017.

<sup>115</sup> Laksmana, 2017.

<sup>116</sup> Laksmana, 2017.

<sup>117</sup> Siew, 2019.

The second challenge is Singapore's highly risk-averse corporate and government cultures, which have shaped the perspectives of MINDEF's civil servants and, to a lesser extent, the SAF. This issue was flagged in a 2021 journal article that compared the Singaporean and Israeli military innovation cultures, arguing the former was both risk-averse and organizationally sedentary.<sup>118</sup> Public servants in Singapore are generally highly educated but, particularly within MINDEF, are required to operate within strict procedures designed to minimize risk and maximize accountability. Furthermore, the practice of rotating public servants among departments encourages reliance on existing *procedures* at the expense of in-depth *experience*. Although it encourages consistency and accountability, this practice can lead to institutional inertia.

Such inertia is further aggravated by the third challenge, which is the strongly hierarchical organizational culture and rigid internal power structure of MINDEF. This kind of organizational culture is not unusual in Singapore, in which leading organizations are generally either state-owned or have highly concentrated internal decisionmaking power, with cultures that disincentivize disruptive experimentation.<sup>119</sup> Within MINDEF, this rigidity manifests itself in both the established procedures and the regulatory prohibitions imposed to maintain accountability (e.g., the prohibition of off-budget spending). This tendency is deeply engrained in Singaporean society, which is highly hierarchical and stratified, and government and corporate actors generally defer to a top-down governance model.<sup>120</sup> The Singaporean government is certainly aware of these challenges and is taking steps to try to encourage organizational agility. The FSTD, for example, was intended primarily as an internal disruptor and organizational change agent.

## Applicability

Although several lessons can be drawn from the Singapore case study to inform future U.S. PPBE reforms (as itemized in the next section), four key aspects are specific to Singapore and likely would not transfer well to the U.S. context. The first is simply the comparatively smaller size and budget of Singapore. While the SAF is widely considered to be the best-equipped armed forces in Southeast Asia, its total budget is roughly equivalent to the amount that the U.S. Congress authorized for cybersecurity deterrence in the 2024 National Defense Authorization Act.<sup>121</sup> With DoD being a far larger and more complex entity than MINDEF, apply-

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<sup>118</sup> Richard A. Bitzinger, "Military-Technological Innovation in Small States: The Cases of Israel and Singapore," *Journal of Strategic Studies*, Vol. 44, No. 6, 2021.

<sup>119</sup> Bitzinger, 2021.

<sup>120</sup> Bitzinger, 2021.

<sup>121</sup> Grevatt and MacDonald, 2023; Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, *Defense Budget Overview: United States Department of Defense Fiscal Year 2024 Budget Request*, U.S. Department of Defense, March 2023.

ing the same proscriptions on decisionmaking would likely be extremely complex in the U.S. PPBE system.

Second, Singapore has a distinct—albeit largely unspoken—social contract in place, whereby the public largely accepts that only limited transparency will be allowed in matters of state security. This acceptance extends even to legislators outside the electorally dominant PAP, who adhere to a norm against publicly challenging MINDEF or SAF expenditures. Major procurements are undertaken with minimal public disclosure. Details are not made public on more than 95 percent of the annual defense budget. Despite this secrecy, the government has secured enduring public support for significant defense spending, even in the absence of a clear state-based threat. The level of opacity in the Singaporean system simply would not be tolerated in the United States.

Third, and closely related to the second, is the limited role of parliament in oversight of the budget process. Unlike in the U.S. system, there is no mechanism for MPs to insist that security agencies make a specific investment or pursue a specific capability.<sup>122</sup> Nor would a SAF service branch be allowed to approach an opposition MP to secure funding that the cabinet had rejected. Unlike U.S. legislative oversight mechanisms, Singapore's oversight mechanisms rely principally on bureaucratic audit agencies, which then present their results to parliament. Singapore's approach of ensuring stringent regulatory mechanisms—rather than allowing civil society actors or MPs to pursue detailed public examinations—would complicate the adoption of MINDEF mechanisms by any U.S. agency.

Fourth, Singapore's defense-technology ecosystem, particularly the dominance of the majority state-owned ST Engineering conglomerate, limits the applicability of this case study to the U.S. system. Combined with the state policy goal of aiming for niche production, sustainment, and upgrade capabilities, Singapore's defense industry is heavily populated with former SAF officers, and ST Engineering has senior government figures on its board. These factors ensure a responsiveness to MINDEF's direction that is not the case with independent defense primes. Moreover, whereas defense contractors in the U.S. system are increasingly incentivized to disruptively innovate and seek additional markets, the Singaporean ecosystem is focused largely on integrating foreign-sourced capabilities and supporting SAF's core requirements, and exports constitute only a minor portion of the business model.

## Lessons from Singapore's Budgeting Process

From our assessment of Singapore's PPBE processes, we have identified five lessons for DoD related to long-term certainty of defense funding, robust regulatory procedures, stronger deterrence, centralized communication of budget decisions, and integrated accountability. These lessons are summarized in Table 5.1.

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<sup>122</sup> Siew, 2019.

## Lesson 1: Long-Term Certainty of Defense Funding Offers Important Benefits

The first lesson from the Singaporean PPBE-like system is the value of long-term certainty of defense funding. Singapore has publicly committed to maintaining a defense expenditure of 3 to 4 percent of GDP, which Singapore has begun to re-approach following a decline during the COVID-19 pandemic. What is particularly useful for the United States to consider is Singapore's public commitment to avoiding drastic shifts in its defense expenditure in either direction. At the high end, Singapore places a spending cap on MINDEF of 6 percent of GDP; at the low end, Singapore commits to supplementing defense funding in the event of economic downturns, ensuring that its ability to meet its stated objectives is not hindered by broader economic headwinds. These additional investments are approved through the supplemental budget request system, which the United States could also potentially benefit from emulating. Certainty of future funding allows military and industry planners to make investment and capital decisions in the absence of published defense strategic plans. This certainty is particularly important for industry, given Singapore's reliance on imports for major defense acquisitions, which its domestic industry must then maintain.

## Lesson 2: Robust Regulatory Procedures Offer Important Benefits

Singapore's PPBE-like system is characterized by robust and publicly outlined procurement and budgeting procedures. Two of these procedures could be of value to U.S. policymakers.

First, adopting a variation of Singapore's requirement that PMTs for major procurement projects be segmented based on core tasks could potentially help DoD further minimize the risk of corruption. DoD is large enough that it could generate enough specialized procurement personnel in each of the core combat domains to reap the benefits of regular procurement personnel rotation without having to draw on other federal departments.

Second, the enhanced AHP used by DSTA for its procurement assessments demonstrates the value of a single assessment model for major procurements. It allows government departments to ensure that decisions are made fairly and without corruption, even for classified procurements. Another aspect of the AHP that could be valuable to DoD is the two-envelope system. By withholding cost data from an assessment team until after it shortlists any project proposals, DoD could have greater confidence that costs would not play an outsized role but rather that the chosen system would be technically and meritocratically one of the superior options.

## Lesson 3: Stringent Prioritization and Selective Ambiguity Strengthen Deterrence

It is instructive how Singapore works with its DTC to stringently prioritize investments, how Singapore deters potential adversaries through its procurement ambiguity, and how the stringent prioritization contributes to the procurement ambiguity. The DTC organizations

develop and produce niche capabilities. The SAF's technology edge stems principally from the development of bleeding-edge technologies that are integrated into imported platforms. Although Singapore's defense industry, chiefly ST Engineering, engages in some advanced system production (and collaborates with DSO National Laboratories on developing new technologies), most of its efforts are focused on sustaining, maintaining, and upgrading the SAF's inventory.<sup>123</sup>

This focus requires MINDEF and the Minister for Defence to practice stringent prioritization in identifying whether an emergent military technology should be acquired from domestic industry or from overseas or if it should not be acquired at all. The United States has historically struggled to defund programs to prioritize emerging capabilities and thus could benefit from integrating aspects of Singapore's apolitical and ruthless willingness to prioritize its investments, even if that means abandoning a particular capability.

Singapore assesses that its stringent prioritization helps it develop an indigenous technology edge that can act as a deterrent—as long as the country keeps the specifics of its bleeding-edge capabilities secret both to retain asymmetrical advantage against potential adversaries and to fuel uncertainty among them.<sup>124</sup> Although the U.S. system is under far greater public scrutiny, there is value in retaining confidentiality or ambiguity regarding exactly *how advanced* certain emerging and disruptive capabilities are.

## Lesson 4: Centralized Communication Between the SAF and MPs Promotes Top Priorities

Singapore's PPBE-like processes demonstrate the value of a single line of communication to the legislature. MINDEF's DPO acts as both the adviser and gatekeeper for the Minister for Defence regarding proposed investment priorities, while MINDEF's Defence Finance Agency leads budget development. The Minister for Defence then communicates directly to parliament, representing the SAF. Unlike in the U.S. system, there are strong prohibitions against the SAF proposing unfunded requirements to parliament or the MPs forcing earmarks onto the MINDEF budget. A potential lesson for DoD is the value of a centralized formal communication stream between the legislature and the military when determining which institutional priorities should be funded. By limiting or formalizing the interactions between service branches and individual lawmakers, the U.S. budgeting system could streamline the administration's efforts to prioritize resources away from politically sensitive legacy systems.

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<sup>123</sup> Matthews and Koh, 2019.

<sup>124</sup> Matthews and Koh, 2019.

## Lesson 5: Integrated Accountability Deters Espionage and Corruption

Singapore's integrated accountability framework could provide useful lessons. Although MINDEF's budget appears less subject than other departmental budgets to legislative scrutiny, MINDEF's internal processes are still subject to the Three Line accountability model. MINDEF has constructed a credible first line of defense against espionage and corruption among individual staff. Singapore also draws on its early and consistent investments in public servants and military personnel, who are capable of transitioning between sectors throughout their careers.

For the second line of defense (of departmental guardrails), Singapore has embedded into MINDEF a variety of internal oversight organizations, such as the SAF Inspector-General's Office. These organizations are charged with ensuring adherence to established policies and procedures. While the United States has auditor general units, what is valuable to learn is that Singapore's units encourage whistleblowing and have installed rigorous protections for those who expose corruption or incompetence within MINDEF, as well as within industry.

For the third line of defense, MINDEF's Internal Audit Department and the AGO are staffed by qualified accountants and auditors. In a departure from the institutional preference for secrecy, reports from these audit agencies are presented publicly to parliament. This presentation acts as a strong deterrent for career civil servants, reinforced by the possibility of criminal charges.

As the final pillar in the accountability framework, the CPIB has demonstrated a willingness and an ability to level criminal charges against public servants up to the level of minister. The threat of a CPIB investigation appears to be a strong deterrent. The willingness of those within the Singaporean system to investigate and impose criminal sanctions on both public servants and industry partners appears to have had the desired effect of rooting out and deterring corruption. The United States could potentially draw lessons from this system for its own contracting and PPBE processes if it wants to further increase oversight in defense resource management.

**TABLE 5.1**  
**Summary of Lessons from Singapore's Budgeting Process**

| Theme                           | Lesson Learned   | Description  |
|---------------------------------|--|--|
| Planning and programming        | Lesson 1: Long-term certainty of defense funding offers important benefits.          | Strong commitment to consistent and politically secure funding levels (potentially as a percentage of GDP) assists both military and industry planners.                |
| Budgeting and execution         | Lesson 2: Robust regulatory procedures offer important benefits.                     | Placing greater emphasis on transparent and evidence-based methods for selecting procurements promotes public trust and accountability for higher defense investments. |
|                                 | Lesson 3: Stringent prioritization and selective ambiguity strengthen deterrence.    | A formalized evidence-based system for prioritizing defense investments helps justify hard decisions and also contributes to deterrence.                               |
| Decisionmakers and stakeholders | Lesson 4: Centralized communication between the SAF and MPs promotes top priorities. | A centralized formal communication stream between the legislature and the military helps shift funding away from legacy systems.                                       |
| Oversight                       | Lesson 5: Integrated accountability deters espionage and corruption.                 | A strong accountability system and potential criminal sanctions appear to have rooted out and deterred corruption.   |





# Sweden

*Mattias Eken, Charlotte Kleberg, Turner Ruggi, and Erik Silfversten*

Sweden is a parliamentary constitutional monarchy. King Carl XVI Gustaf's position as head of state is purely ceremonial and symbolic.<sup>1</sup> Executive power lies with the national cabinet (Regering), consisting of various ministers and headed by the prime minister. The 349-member parliament (Riksdag) holds legislative power in conjunction with the agencies that perform the day-to-day work of the government.

Whereas Swedish government ministries are headed by cabinet ministers and set policy, Swedish government agencies are freestanding entities that enjoy a high degree of autonomy to carry out day-to-day business and legislative directives.<sup>2</sup> This distinction between ministries and agencies is quite unique, setting Sweden's governance system apart from others in Europe. The ministries determine the preconditions for agency operations—including annual appropriation directives, preconditions by ordinance, and other decisions—but they are not involved in the day-to-day activities of the agencies. The Swedish Parliament (the legislative branch) is responsible for ensuring that ministers abide by this convention against direct ministerial rule over the agencies.<sup>3</sup>

As of 2023, there were eight political parties in Sweden's parliament. MPs are elected every four years, and the parliamentary speaker nominates the prime minister. As shown in Figure 6.1, parliament can both initiate legislation and approve it.<sup>4</sup> Most legislative proposals laid before parliament are initiated by the cabinet. However, bills may also be introduced by MPs or by government agencies, usually via the responsible minister. Sweden is also governed by four constitutional laws known as the Basic Laws of Sweden (*Sveriges grundlagar*): the Instrument of Government, the Fundamental Law on Freedom of Expression, the Freedom of the Press Act, and the Act of Succession. These laws form the basis of Sweden's political

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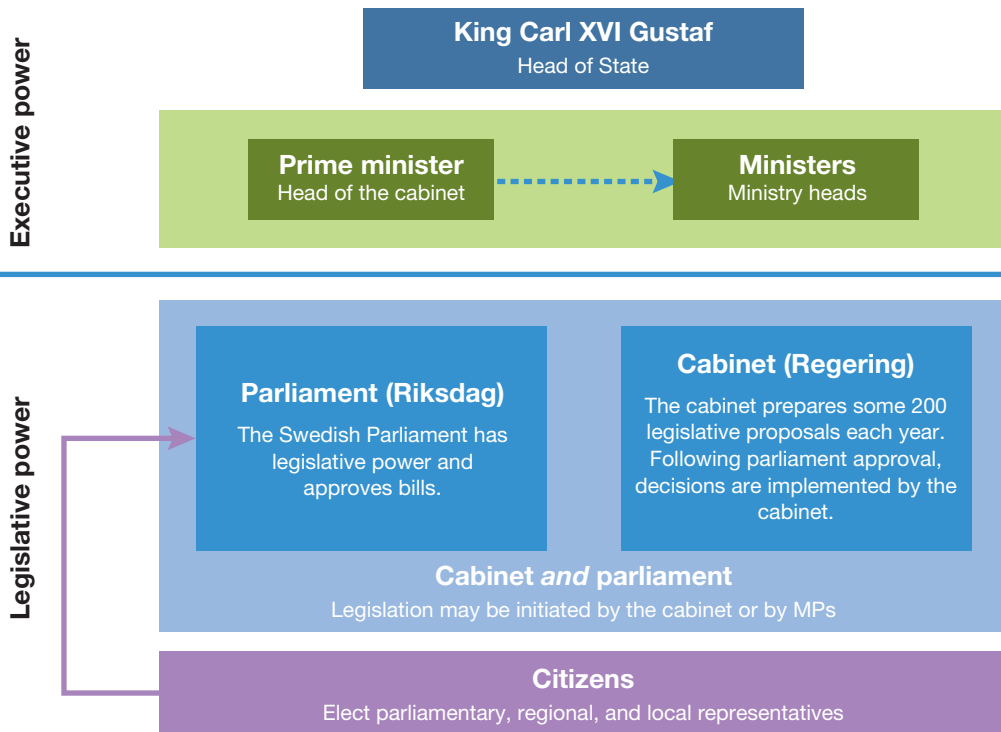
<sup>1</sup> Government Offices of Sweden, 2015a.

<sup>2</sup> Swedish Armed Forces (SwAF), 2023e.

<sup>3</sup> SwAF, 2023e.

<sup>4</sup> Government Offices of Sweden, 2015a.

**FIGURE 6.1**  
**Structure of the Swedish Government**



system and set out the relationship between legislative and executive power, as well as determine the freedoms and rights enjoyed by the country’s citizens.<sup>5</sup>

Sweden has four levels of government: local, regional, national, and European. At the local level, each of Sweden’s municipalities has an elected council that decides on local matters.<sup>6</sup> This council appoints a municipal executive board to lead and coordinate work at the local level. At the regional level, political tasks are undertaken by the regional councils, the members of which are elected directly by the citizens of their respective counties. Regional councils are aided by county administrative boards and liaise with the national government via the Swedish Association of Local Authorities and Regions.<sup>7</sup> At the national level, citizens are represented by parliament, which holds legislative power, and by Sweden’s executive branch. The executive branch both implements parliament’s decisions and proposes new laws and amendments to parliament.<sup>8</sup> As a member of the EU, Sweden is represented at the European

<sup>5</sup> Government Offices of Sweden, 2015a.

<sup>6</sup> Government Offices of Sweden, “The Swedish Model of Government Administration,” webpage, last updated March 11, 2015b.

<sup>7</sup> Government Offices of Sweden, 2015b.

<sup>8</sup> Government Offices of Sweden, 2015b.

Council of Ministers, which coordinates EU policy across member states.<sup>9</sup> In practice, this means that Sweden participates in EU decisionmaking processes and helps draft new EU-wide legislation. The EU has increasingly taken on much greater responsibility with regard to Swedish defense planning and procurement, including through Sweden's use of the EU Tenders Electronic Daily (TED) platform for defense procurement.<sup>10</sup>

## Sweden's Defense Structure and Leadership

Sweden has two politically appointed defense ministers: the Minister for Defence, who is responsible for Sweden's military defense, and the Minister for Civil Defence, who is responsible for crisis preparedness and civil defense. Figure 6.2 illustrates the structure and organization of Sweden's defense leadership. This division of authority reflects Sweden's commitment to *total defense*, an official term and concept used by the Swedish government to describe its approach to national defense.<sup>11</sup> Total defense underpins all Swedish national defense policy and involves an all-of-society national defense effort, including military, civil, economic, and psychological elements.<sup>12</sup> The psychological elements of total defense focus on fostering a will to defend, an aspect of the total defense effort that has taken on increasing importance. In 2022, the government launched the Swedish Psychological Defence Agency. The agency's origins lie in the Cold War era, when building public will to defend one's country was a crucial part of total defense efforts. Of course, the threat landscape is vastly different today: Social media and disinformation campaigns play increasingly prominent roles in modern conflicts. The agency's focus on researching and countering these types of campaigns is therefore a timely and important development.<sup>13</sup>

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<sup>9</sup> EU, "Council of the European Union, webpage, undated.

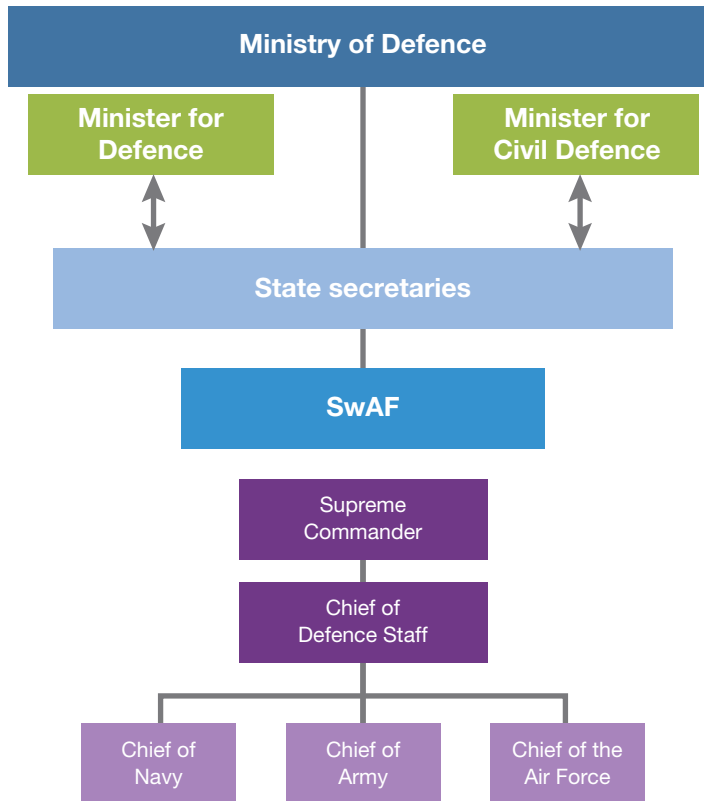
<sup>10</sup> Government Offices of Sweden, "Sweden in the EU," webpage, undated-b. According to the Publications Office of the EU, "TED is the online version of the 'Supplement to the Official Journal' of the EU, dedicated to European public procurement . . . TED provides free access to business opportunities from the EU, the European Economic Area and beyond" (Publications Office of the European Union, "About TED," webpage, undated). Registered users can search the more than 3,000 procurement notices published each week. Sweden participates in TED by publishing calls for tender from the SAAF, the Swedish Defence Materiel Administration, and other government organizations.

<sup>11</sup> Government Offices of Sweden, "Ministry of Defence: Organisation," webpage, last updated February 9, 2023a.

<sup>12</sup> Swedish Ministry of Defence, 2020.

<sup>13</sup> Bengt Sundelius and Jan Eldeblad, "Societal Security and Total Defense: The Swedish Way," *PRISM*, Vol. 10, No. 2, March 2023.

**FIGURE 6.2**  
**Swedish Defense Structure**



According to Articles 13 and 14, Chapter 15, of the Instrument of Government, the authority to commit armed forces lies with parliament and the government.<sup>14</sup> In the event of a direct armed attack or to prevent a violation of Swedish territory, the government may commit the armed forces in accordance with international law without parliamentary consent. Furthermore, unless there is a direct armed attack on Sweden, the government may not declare war without the consent of parliament.<sup>15</sup> The SwAF is subordinate to the cabinet via the Minister for Defence and to parliament and is headed by the Supreme Commander, also known as the Chief of Defence (Överbefälhavaren), who is based at SwAF headquarters in

<sup>14</sup> Swedish Parliament, Instrument of Government, 1974. Again, the Instrument of Government is one of the four fundamental laws of Sweden, with the other three being the Fundamental Law on Freedom of Expression, the Freedom of the Press Act, and the Act of Succession.

<sup>15</sup> Swedish Parliament, 1974.

Stockholm.<sup>16</sup> The role of the Chief of Defence is to supervise the armed forces and to balance their responses to short-term problems against long-term strategic objectives.<sup>17</sup>

The Chief of Defence is aided by the Director-General (Generaldirektören), who acts as the civilian deputy commander of the armed forces and whose role was established in 2005 to strengthen the financial management of the SwAF. The Director-General is responsible for the logistics and finances of the SwAF, and in practice, the Chief of Defence and Director-General lead the development of the SwAF together, both contributing their respective competencies.<sup>18</sup> SwAF headquarters is the highest level of SwAF command and control. It is tasked primarily with commanding operations but is also responsible for military strategy, overall development of the SwAF, and serving as the primary means of contact with the cabinet.<sup>19</sup>

Because of Sweden's focus on delivering on its total defense concept, Sweden has a system of collective decisionmaking at the ministerial level, and this system is a notable strength in the country's defense planning and budgeting process.<sup>20</sup> This approach ensures that decisions are made with broad support and buy-in from key stakeholders, which can help to prevent potential conflicts or disagreements down the line. Additionally, the tightly regulated and transparent budget cycles in Sweden help ensure that there is a clear understanding of the budget process and that decisions are made in a strategic and informed manner. The Swedish annual budget is part of a multiannual chain of decisions that is designed to promote financial sustainability.<sup>21</sup> This approach recognizes that budgeting decisions made in one year can have implications for future years and that it is important to take a long-term view when it comes to financial planning and management on issues of importance to national security and defense.

Another strength is the SwAF's long-term financial planning and strategic analysis because it allows for a more comprehensive and forward-looking approach to defense planning.<sup>22</sup> This approach can help ensure that resources are allocated in a way that is aligned with long-term goals and objectives. The close partnership and cooperation between the civilian and military side, as well as between state and industry, is another strength that can facilitate a coordinated and effective approach to defense planning and implementation.<sup>23</sup> This type of collaboration helps ensure that resources are used efficiently and effectively and that all relevant stakeholders are involved in the decisionmaking process. DoD could learn from Sweden's well-structured and collaborative approach to defense planning and budget-

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<sup>16</sup> SwAF, 2023f.

<sup>17</sup> SwAF, 2023f.

<sup>18</sup> SwAF, "Generaldirektören" ["Director-General"], webpage, last updated September 8, 2021.

<sup>19</sup> SwAF, "Armed Forces Headquarters," webpage, last updated April 27, 2023c.

<sup>20</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>21</sup> Downes, Moretti, and Shaw, 2017, pp. 27–28.

<sup>22</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>23</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

ing that is focused on long-term planning and strategic analysis. These strengths ensure that resources are allocated in a way that is aligned with national objectives and that the country is well prepared to address potential threats and challenges.

## Overview of Sweden's Budgeting Process

Sweden's budgeting process was substantially reformed in the late 1990s after a severe budgetary crisis. Under the current system, the fiscal year begins on January 1. Sweden uses a multiyear budget framework that projects three years into the future and is updated annually. This framework provides greater transparency between parliament and the agencies on general macroeconomic trends. Unlike other states (such as Germany) that employ a multiyear framework as a rough guide, the Swedish framework is legally binding and must be approved by parliament each year. For the sake of flexibility, the multiyear framework includes upper- and lower-bound budget margins to account for forecasting errors, which grow in size the further ahead the budget is predicted.<sup>24</sup> This system has historically come under pressure, such as during the refugee crisis of 2015–2016, and in recent years, the budget has consistently been at its maximum permitted leeway within the margins.<sup>25</sup> Unlike other countries for which funding is directly distributed to ministries, Sweden divides funding into expenditure areas (EAs), which subsequently fall under the remit of various ministries—and occasionally multiple ministries.<sup>26</sup>

The yearly Swedish budgetary process can be seen in Figure 6.3. The process involves two separate bills passing through cabinet discussions and then parliament: the Spring Fiscal Policy Bill (spring bill) and the final budget bill. The spring bill outlines the maximum spending for the government in the coming three years (not including the ongoing fiscal year) and is an update to the multiyear financial framework.<sup>27</sup> Rather than attempt to balance spending between different policy areas, the spring bill exists to manage macroeconomic trends and provide stable medium-term fiscal management. Additionally, the spring bill creates an agreed-on expenditure cap that helps build a foundation for when the budget bill is debated and passed.<sup>28</sup> In exceptional cases, the passing of the spring bill can be accompanied by a modification to the budget of the ongoing fiscal year in so-called amending budgets. This mechanism was used during the COVID-19 pandemic and after Russia's full-scale invasion of Ukraine in February 2022 because the government had to rapidly adjust current spending in response to the changing environment. However, the spring bill cannot set specific

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<sup>24</sup> Downes, Moretti, and Shaw, 2017, pp. 27–28.

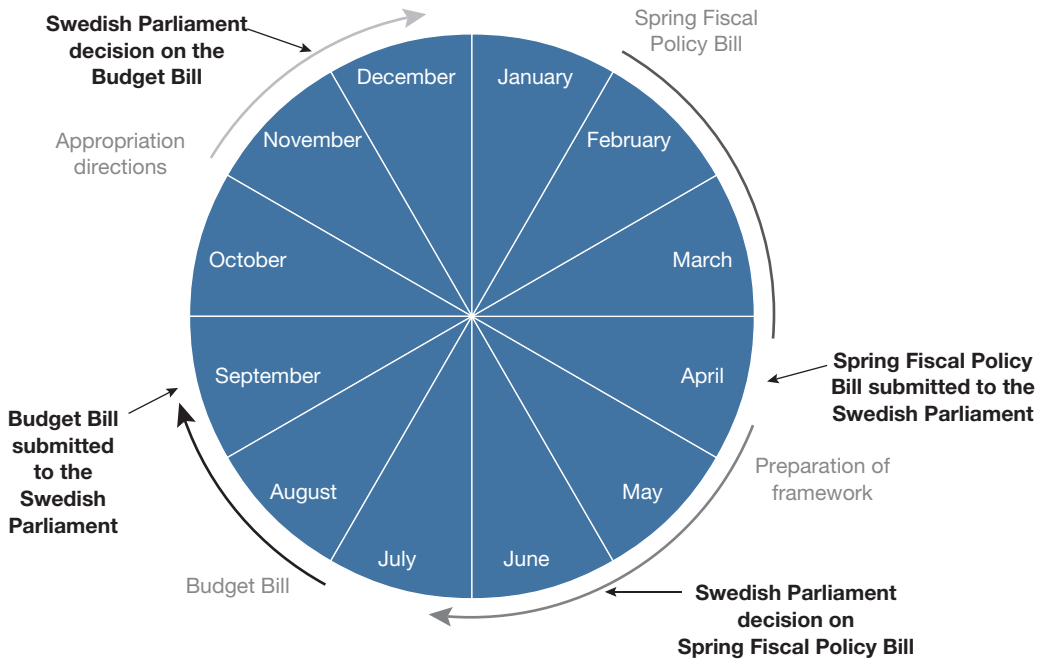
<sup>25</sup> Downes, Moretti, and Shaw, 2017, pp. 27–28.

<sup>26</sup> Downes, Moretti, and Shaw, 2017, pp. 38–39.

<sup>27</sup> Downes, Moretti, and Shaw, 2017, p. 36.

<sup>28</sup> Downes, Moretti, and Shaw, 2017, p. 36.

**FIGURE 6.3**  
**Outline of Swedish Budget Process**



SOURCE: Adapted from Downes, Moretti, and Shaw, 2017, p. 22, Figure 2.1.

expenditures for the coming year, and ministers can raise objections or amendments related only to overall fiscal policy in the aggregate.<sup>29</sup>

Government agencies, including the SwAF, are required to submit their annual reports assessing the previous year's expenditure to the ministries by the end of February, usually no later than February 22.<sup>30</sup> These reports are given to their respective ministers in the cabinet. The spring bill is debated within the cabinet in March during a two-day cabinet meeting. The spring bill is then presented to parliament by April 15. By this stage in the process, the cabinet has traditionally released indicative information on how the national expenditure will be divided across the 27 EAs, and the opposition has subsequently offered their alternative distribution. The decision to release indicative information is entirely voluntary on the part of the cabinet and is not binding whatsoever on the eventual budget because the spring bill only sets the aggregate spending boundaries.<sup>31</sup> The cabinet has been known to amend the eventual distribution of the budget depending on feedback to the initial proposals in parliament.

<sup>29</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>30</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>31</sup> Downes, Moretti, and Shaw, 2017, pp. 36–40.

Within parliament, the spring bill is examined primarily by the Finance Committee and then debated by MPs.<sup>32</sup> In 2007, Sweden also introduced the Swedish Fiscal Policy Council, which consists of six academic economists.<sup>33</sup> This group evaluates the cabinet's proposals in relation to stated objectives, such as sustainability, surplus targets, expenditure ceilings, and stabilization policies. On occasion, the council offers recommendations to the cabinet.<sup>34</sup>

Once the spring bill has been passed in parliament, the cabinet will negotiate how to divide the approved budget across the EAs. Ministers are given an opportunity to negotiate with the finance minister to expand funding in specific EAs. Collective decisionmaking and responsibility define Sweden's budget process, whereby all ministers must agree on the amount allocated to each EA (including defense), providing joint accountability.<sup>35</sup> Although collective decisionmaking promotes transparency in expenditures, it is a process that can significantly slow down the budgeting process at large.<sup>36</sup> Once the EA funding allocations have been established in the cabinet, the spending ministries are given two months to outline the individual programs within the EAs at which funding will be directed. It is unclear whether ministries conduct any earlier planning to inform their initial EA funding requests. In Sweden, the budget is conducted entirely top down; therefore, the cabinet must decide how much spending is to be directed not only to the 27 EAs but also to the 500 potential appropriations within the ministries—and then must have this approved by parliament.<sup>37</sup>

Once the cabinet has completed this process, the resulting budget bill is presented to parliament in September. The bill distributes the spring bill's aggregate value across the 27 EAs and divides the funds directed to each EA among the numerous appropriations and agencies. Defense is funded through EA 6, titled Defence and Society's Preparedness. In certain scenarios, the budget bill can be larger than the proposal in the spring bill but only if macroeconomic circumstances have evolved considerably since April.<sup>38</sup> During the discussions of the budget bill in the fall, there is a second chance to amend the budget of the ongoing fiscal year in extenuating circumstances, as was the case during the COVID-19 pandemic and following Russia's invasion of Ukraine.<sup>39</sup> Parliament's Finance Committee generally proposes amendments to the finance minister first to shift expenditures among the 27 EAs; once these amendments are finalized, the subject-specific committees coordinate with their respective ministers to adjust funding within a specific EA. By December, the budget bill is

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<sup>32</sup> Downes, Moretti, and Shaw, 2017, pp. 36–40.

<sup>33</sup> Swedish Fiscal Policy Council, "Information About the Council," webpage, undated-b.

<sup>34</sup> Swedish Fiscal Policy Council, "Council Members," webpage, undated-a.

<sup>35</sup> Downes, Moretti, and Shaw, 2017, pp. 22–38.

<sup>36</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>37</sup> Downes, Moretti, and Shaw, 2017, pp. 22–38.

<sup>38</sup> Downes, Moretti, and Shaw, 2017, pp. 22–38.

<sup>39</sup> Sweden subject-matter experts, interviews with the authors, August 2023.



settled and approved by parliament and is ready to be implemented on January 1, the start of the fiscal year.<sup>40</sup>

## Defense Spending

Figure 6.4 illustrates the trends in Swedish defense expenditure. During the Cold War, Sweden had consistently strong military spending compared with that of its peers, and the defense budget averaged around 3 percent of GDP.<sup>41</sup> As in many European countries after the end of the Cold War, military expenditure fell precipitously as the SwAF oriented toward new missions. The absence of a serious threat from Russia during the post-Cold War period caused a dramatic reduction in national defense capabilities as the emphasis shifted toward joint international operations.<sup>42</sup> In contrast with neighboring Finland, Sweden significantly downsized its armed forces, shifted toward civil defense and crisis management, and decreased its investments in stockpiles. With Russia's return as a major security threat following its full-scale invasion of Ukraine in 2022, Sweden has refocused efforts on having a strong national defense, reiterated the importance of total defense, and begun to secure vital supplies.<sup>43</sup> Sweden joining NATO marks a fundamental shift in defense policy orientation, given Sweden's historical commitment to military nonalignment.<sup>44</sup>

From 1990 to 2013, the Swedish military budget fell from 2.5 percent of GDP to 1.1 percent. During this period, the military expenditure fluctuated between \$4.5 billion and \$6.5 billion. After Russia's 2014 annexation of Crimea, the Swedish government increased the military budget gradually to \$7.9 billion by 2021, or 1.3 percent of GDP.<sup>45</sup> Since Russia's full-scale invasion of Ukraine and the 2022 Swedish election, the government has pledged to raise military spending to 2 percent of GDP, the NATO target, by 2026 as part of Sweden's admission process to NATO. In 2022, the government allocated 7.5 percent of government spending on defense, totaling 84 billion Swedish krona (SEK) (\$7.8 billion). The defense budget for 2023 is SEK 94 billion (\$8.7 billion), making defense the fourth largest EA, behind grants to local government, health services, and financial security for families and the elderly.<sup>46</sup> An additional SEK 660 million (\$61 million) was introduced in the 2023 Spring Amending Budget, and the

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<sup>40</sup> Downes, Moretti, and Shaw, 2017, pp. 22–38.

<sup>41</sup> World Bank, "Military Expenditure (% of GDP)—Sweden," dataset, 2021.

<sup>42</sup> Swedish Ministry of Defence, 2020.

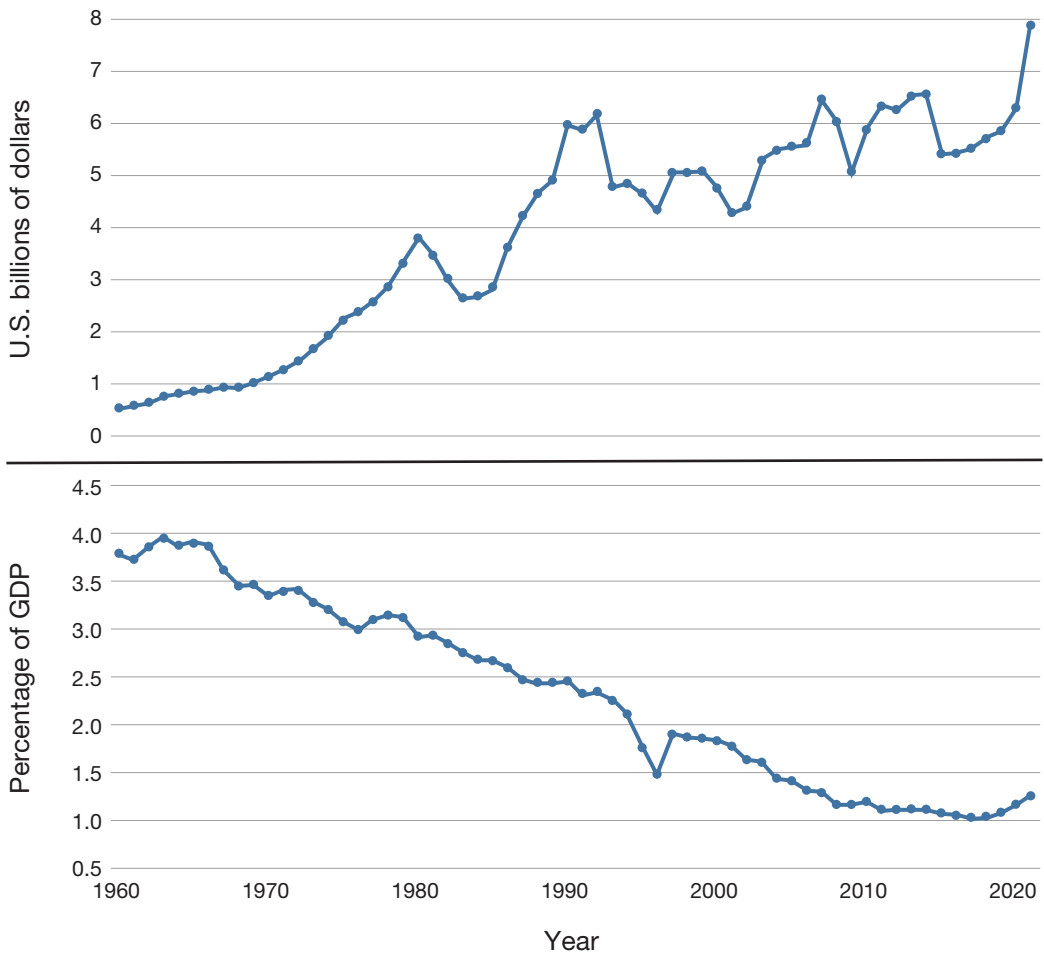
<sup>43</sup> Swedish Ministry of Defence, 2020.

<sup>44</sup> Maddy Savage, "Sweden Hails Historic Step as Turkey Backs NATO Bid," BBC News, July 11, 2023.

<sup>45</sup> World Bank, 2021.

<sup>46</sup> Government Offices of Sweden, "Statens budget i siffror" ["The State Budget in Figures"], webpage, undated-a.

**FIGURE 6.4**  
**Swedish Defense Spending in U.S. Dollars and as a Percentage of Swedish GDP**



SOURCE: Features information from World Bank, 2021.

NOTE: The chart represents in-year spending in U.S. dollars.

SwAF’s authorization to place orders was increased by SEK 16.78 billion (\$1.53 billion).<sup>47</sup> As recognized by the 2021–2025 Total Defence Bill, which outlines the overall strategic direction of Swedish defense, the rebuilding of military capacity will demand vast resources and take a long time to achieve given the lack of funding and resources since the 1990s.<sup>48</sup> Nevertheless, Sweden has illustrated a strong commitment to achieve the 2-percent of GDP goal. In

<sup>47</sup> Government Offices of Sweden, “Strengthening Sweden’s Military Defence and Preparations for NATO Membership,” press release, April 5, 2023b.

<sup>48</sup> SwAF, “Försvarsmaktens förslag för förmågetillväxt mot två procent av BNP” [“The Armed Forces’ Proposal for Capacity Growth Towards 2 Percent of GDP”], BU24: *Försvarsmaktens budgetunderlag for 2024*

September 2023, Sweden announced it would raise defense spending by an impressive SEK 120 billion (\$10.7 billion)—a 28-percent increase—from 2023 to 2024.<sup>49</sup>

Sweden's admission to NATO raises important questions about how the NATO Defense Planning Process might inform Sweden's own defense planning process. Currently, Sweden's and NATO's planning processes are not aligned; they each have different time frames for implementation periods and budgetary cycles. As a result, the Swedish Ministry of Defence will need to assess how joining NATO will affect the country's PPBE-like processes and budgetary cycle.<sup>50</sup> Possible solutions to this challenge include aligning the scheduling of Sweden's defense bills with NATO's defense planning process and amending Sweden's budgetary cycle.<sup>51</sup> But the impact of NATO membership on Sweden's PPBE-like processes remains unclear. While Sweden's NATO membership could open new possibilities for collaboration and coordination on standardization, materiel demands, and development of emerging technologies, these opportunities would need to be weighed against the priorities and principles outlined in Sweden's national strategies, goals, and objectives.<sup>52</sup> Thus, the impact of NATO membership on Sweden's PPBE processes will depend on a variety of factors, including the specific terms of Sweden's membership and the country's broader strategic priorities.

## Decisionmakers and Stakeholders

Historically, Sweden was heavily influenced by the U.S. Planning, Programming, and Budgeting System (PPBS); the Swedish System for Finance, Planning, and Economic Management that emerged in the 1970s can be seen as broadly analogous to the PPBS. (In 2003, DoD renamed the PPBS system to PPBE, in part to emphasize the need to better manage the execution of budget authority provided by Congress.)

In the Swedish System for Finance, Planning, and Economic Management, defense planning and budgeting were primarily conducted by the SwAF, as directed by the Ministry of Defence, with limited engagement from parliament.<sup>53</sup> The defense minister exercised con-

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*med särskilda redovisningar [BU24: The Swedish Armed Forces' Budget Documents for 2024 with Separate Accounts]*, February 28, 2023a.

<sup>49</sup> Elizabeth Braw, "Sweden Awakes from Defense Slumber," Center for European Policy Analysis, September 14, 2023.

<sup>50</sup> Swedish Ministry of Defence, "Svar på remiss av betänkande materieförsörjningsstrategi för vår gemensamma säkerhet, SOU 2022:24" ["Response to Referral: Materiel Supply Strategy for Our Common Security, SOU 2022:24"], October 28, 2022.

<sup>51</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>52</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>53</sup> Government Offices of Sweden, *Materieförsörjningsstrategi: För vår gemensamma säkerhet [Materiel Supply Strategy: For Our Common Security]*, May 19, 2022.

siderable control over the budgeting and planning process.<sup>54</sup> This deference to the SwAF and to the defense minister would later change in the wake of a series of reforms set off by the financial crisis of the early 1990s, during which Sweden struggled with national debt and budget deficits. Intended to achieve savings and rationalization, the reforms were inspired by the ideas of New Public Management. These ideas included changes to the fiscal framework, the introduction of framework appropriations, expenditure ceilings, and surplus targets.<sup>55</sup> Defense-specific reforms were implemented not only to improve transparency and parliamentary oversight of defense planning through a more active engagement but also to streamline defense decisionmaking.<sup>56</sup> These reforms established a Defence Commission (Försvarsberedningen) to serve as a forum for ongoing consultations between the government and political party representatives from parliament.<sup>57</sup> The commission aims to ensure that a broad consensus on Sweden's defense policy is reached and closely monitors developments occurring in Europe and Sweden's immediate neighborhood.<sup>58</sup> The commission also issues reports that inform the cabinet as it prepares proposals for parliamentary approval, such as the annual budget and the five-year defense bills.<sup>59</sup>

One of the most prominent reforms introduced to Sweden's defense budgeting system in the 1990s was the introduction of a client-contractor model. This model allocates most budget appropriations for military defense to the SwAF, which then proceeds to purchase services from other government agencies.<sup>60</sup> Compared with most of its European neighbors, Sweden allocates a relatively large proportion of the total defense budget toward procuring new military equipment, coming in at just above 20 percent in 2016.<sup>61</sup> The development of materiel and technology is governed by the decisions made by parliament and the cabinet as set out in the state budget. Following from the budget directives, three separate agencies that are coordinated by the Ministry of Defence jointly carry out the allocation of resources, materiel acquisitions, and planning. The three agencies are the Swedish Defence Materiel Administration (Försvarets Materielverk, or the FMV), the Swedish Defence Research Agency

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<sup>54</sup> Peter Nordlund, "Sweden and Swedish Defence—Introduction to the Special Issue," *Defence and Peace Economics*, Vol. 33, No. 4, 2022.

<sup>55</sup> Government Offices of Sweden, 2022.

<sup>56</sup> Nordlund, 2022.

<sup>57</sup> Nordlund, 2022.

<sup>58</sup> Government Offices of Sweden, "Swedish Defence Commission," webpage, last updated April 20, 2023c.

<sup>59</sup> Nordlund, 2022.

<sup>60</sup> Nordlund, 2022. These services include research and studies purchased from FOI, officer education secured from the Swedish Defence University, premises rented from the Fortifications Agency, and defense procurement by the FMV on behalf of the SwAF.

<sup>61</sup> Nordlund, 2022.

(Totalförsvarets Forskningsinstitut, or FOI), and the SwAF. The FMV is tasked specifically with acquiring and delivering military equipment for the SwAF.<sup>62</sup>

The FMV was originally established in 1968 as an independent civil authority under the Ministry of Defence and is comparable to the U.S. Defense Logistics Agency.<sup>63</sup> Led by a board of directors that is held accountable to the cabinet, the FMV functions as a specialist defense procurement agency. Although ultimately responsible for procurement, the leadership of an agency in Sweden cannot be held accountable for results in relation to performance directives that sit beyond the direct control of the agency itself.<sup>64</sup> The independence of the FMV is regarded as crucial to ensure objectivity throughout the procurement process and prevent direct ministerial rule.<sup>65</sup> Government agencies, such as the FMV and the SwAF, are given considerable freedom of action within the confines of the financial frameworks set out by parliament.<sup>66</sup> However, while the FMV's annual reports and informal meetings are used to assess effectiveness, Sweden lacks a systematic analytical approach to inform decisionmaking. The country lacks evaluation measures, follow-up studies, and clear key performance indicators (KPIs) on the impact of defense materiel investments, which makes it difficult to measure how defense readiness has improved as a result of defense equipment purchases.<sup>67</sup>

Because the FMV is a public procurement authority, it must adhere to a set of rules and principles. In line with the Public Procurement Act of 2016 and the Law for the Procurement of Defence and Security, military procurement takes place in competition between several suppliers. The basic principles of both laws are competition and objectivity.<sup>68</sup> These frameworks also include rules about procurement, tendering, confidentiality, bid opening, the qualification of tenderers, and the award of contracts. For example, the FMV must check that a new supplier is registered for the value-added tax and does not have tax liabilities.<sup>69</sup> Although there are no general requirements for participation, there are usually specific requirements set for each individual procurement, including (where necessary) security requirements.<sup>70</sup> Following delivery, the FMV carries out quality control checks, after which the equipment is delivered to operational units via the Swedish Defence Logistics Organization (Försvarsmaktens Logistik).<sup>71</sup>

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<sup>62</sup> SwAF, "Financial Overview," webpage, last updated April 27, 2023d.

<sup>63</sup> Martin Auger, *Defence Procurement Organizations Worldwide: A Comparison*, Library of Parliament, Canada, April 28, 2020.

<sup>64</sup> Downes, Moretti, and Shaw, 2017, pp. 22–38.

<sup>65</sup> Nordlund, 2022.

<sup>66</sup> SwAF, "Materielförsörjning" ["Materiel Supply"], webpage, last updated October 31, 2022b.

<sup>67</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>68</sup> SwAF, "Swedish Armed Forces Procurements," webpage, last updated February 4, 2019; SwAF, 2022b.

<sup>69</sup> Swedish Defence Materiel Administration, "Procurement," webpage, last updated May 5, 2020.

<sup>70</sup> SwAF, 2019.

<sup>71</sup> SwAF, 2022b.

From 2013 to 2018, the SwAF referred all matters of procurement directly to the FMV.<sup>72</sup> However, as of January 1, 2019, the SwAF is once again a contracting government agency. In many areas, framework agreements are signed for all government agencies, and the SwAF will make orders within those frameworks. In other cases, agreements have been signed specifically for the armed forces, with the SwAF as the contracting agency. The overall objective is to generate cost-effective business transactions for government agencies and to minimize the possibility of corruption and misuse of state funds.<sup>73</sup> FMV-led procurements are often for the longer term and tend to include weapon systems and larger platforms, such as aircrafts, ships, and tanks.<sup>74</sup> By contrast, the SwAF's procurements include the purchase of goods and services for the agency's own activities, such as IT-related goods and services, construction contracts, and printing services.<sup>75</sup>

As seen in Figure 6.5, which outlines a typical Swedish supply chain, both the SwAF and the FMV can be considered as “retailers” buying from private manufacturers on behalf of military unit end-users, collaborating extensively throughout the procurement process to consider both inbound and outbound logistics.<sup>76</sup> To confirm whether it can carry out the proposed procurements identified in the budget planning stage, the FMV provides a consensus statement that assesses its capacity to take on the procurements.<sup>77</sup> Within the FMV, the Market and Procurement Division is responsible for liaising with industry and issuing requests for information and requests for proposals. The Market and Procurement Division hosts industry days to promote innovation, provides information to potential suppliers about upcoming tenders, and facilitates networking between industry and FMV personnel.<sup>78</sup>

Sweden's 2022 Materiel Supply Strategy (Materielförsörjningsstrategi) aims to ensure that the materiel and related services required for defense are developed in a secure, sustainable, and cost-effective way.<sup>79</sup> Sweden's approach to materiel supply is closely linked to its total defense concept, whereby endurance is fundamental, and the aim is for Sweden to be capable of withstanding a crisis for at least three months.<sup>80</sup> Instrumental to total defense and to security of supply is the business sector, and despite significant cuts to defense spending fol-

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<sup>72</sup> SwAF, 2019.

<sup>73</sup> SwAF, 2019.

<sup>74</sup> Swedish Defence Materiel Administration, 2020.

<sup>75</sup> SwAF, 2019.

<sup>76</sup> Thomas Ekström, Per Hilletoft, and Per Skoglund, “Towards a Purchasing Portfolio Model for Defence Procurement—A Delphi Study of Swedish Defence Authorities,” *International Journal of Production Economics*, Vol. 233, March 2021.

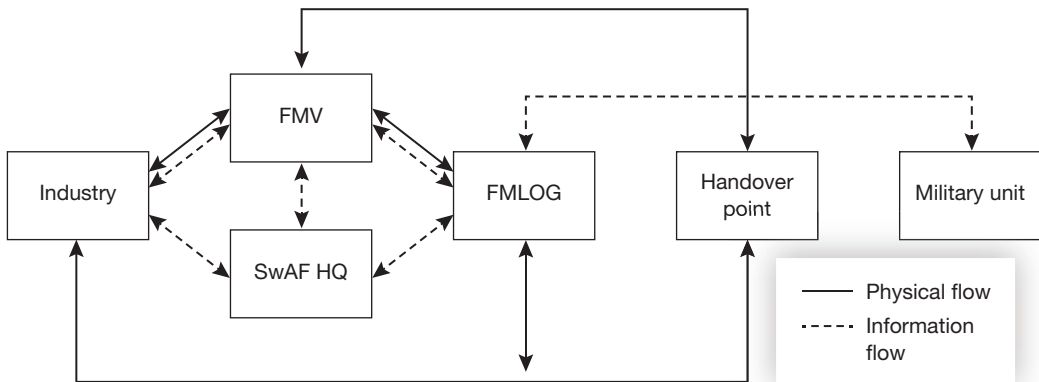
<sup>77</sup> Government Offices of Sweden, 2022.

<sup>78</sup> Swedish Defence Materiel Administration, 2020.

<sup>79</sup> Government Offices of Sweden, 2022. Materiel supply covers the entire life cycle of the equipment, from capability requirements to decommissioning.

<sup>80</sup> Government Offices of Sweden, 2022.

**FIGURE 6.5**  
**An Overview of a Generic Swedish Supply Chain**



SOURCE: Adapted from Ekström, Hilletoft, and Skoglund, 2021, Figure 2 (CC BY 4.0).

NOTE: FMLOG = Swedish Defence Logistics Organization; HQ = headquarters.

Following the end of the Cold War, Sweden maintains a well-developed defense industry with a considerable domestic manufacturing base. Of the EU states that report to the European Defence Agency, Sweden has the third-largest military equipment procurement budget as a proportion of defense spending.<sup>81</sup> Sweden's historical focus on maintaining national arms production to ensure armed neutrality and its long tradition of nonalignment mean that Sweden's defense industry has remained relatively large compared with the size of its defense expenditure.<sup>82</sup>

In 2023, the Swedish defense industry amounted to a market worth of \$8.7 billion, including such well-established leading firms as Saab and the Swedish division of BAE Systems.<sup>83</sup> The Swedish defense industry is known for world-leading fixed-wing combat aircraft (JAS Gripen), *Gotland*- and *Västergötland*-class submarines, and *Visby*-class corvettes, as well as sophisticated missile technology and defense systems.<sup>84</sup>

Nevertheless, because it is both expensive and time-consuming to develop new military equipment, identifying opportunities for defense cooperation and joint procurement is viewed as critical, and Sweden cooperates extensively with other European states to minimize costs.<sup>85</sup> Examples of Sweden's military equipment that have been either foreign-sourced or

<sup>81</sup> Linda Åkerström, "14 Empty Airframes: Public-Private Relations in the Swedish Arms Industry," *Economics of Peace and Security Journal*, Vol. 15, No. 1, 2020.

<sup>82</sup> Åkerström, 2020.

<sup>83</sup> GlobalData, *Sweden Defense Market Size and Trends, Budget Allocation, Regulations, Acquisitions, Competitive Landscape, and Forecast to 2028*, March 10, 2023.

<sup>84</sup> GlobalData, 2023.

<sup>85</sup> SwAF, 2023d; SwAF, 2022b.

foreign-developed—in conjunction with such countries as the United States, Finland, and Germany—include helicopters (HKP 14 NH-90 and HKP 15 Black Hawk), main battle tanks (Strv 122 Leopard 2), multirole vehicles (Prgb-360 XA-360), the Patriot surface-to-air missile system, and the Meteor and IRIS-T air-to-air missile systems.<sup>86</sup>

Following the end of the Cold War and the ensuing shift in defense policy, Sweden's defense industry was fully privatized and opened to foreign ownership. Between 1997 and 2005, there were considerable acquisitions from abroad.<sup>87</sup> These included the acquisitions of Hägglunds by the British Alvis plc in 1997, Kockums by German HDW (Howaldtswerke-Deutsche Werft) in 1998, and Bofors by U.S.-owned United Defense in 2001. British BAE Systems went on to acquire both Alvis plc in 2004 and United Defense in 2005, thereby merging with Hägglunds and Bofors.<sup>88</sup> During this time, Swedish defense industrial giant Saab also expanded to dominate the landscape, accounting for 70 percent of the total revenues from the Swedish arms industry in 2018.<sup>89</sup>

Although the trend since 2007 (with the introduction of an updated military procurement strategy) has largely been on upgrading and sustaining existing equipment, exceptions include the acquisition of new capabilities considered vital to Sweden's security interests.<sup>90</sup> These include fighter jets, undersea capabilities, command and control systems, and munitions—four areas that Sweden has designated as vital security interests for purposes of maintaining domestic capabilities.<sup>91</sup> For procurements related to these vital security interests, the SwAF can bypass the usual procurement route and deal directly with a specific developer. This alternate route applies, for example, to submarine production for which the government—not the industry partner undertaking the development and production—owns the intellectual property.<sup>92</sup>

To promote specific innovations, there is also a special R&D appropriation for the SwAF, and the cabinet is currently developing a Defence Innovation Program.<sup>93</sup> Overall, there is extensive cross-sector and agency collaboration on R&D, innovation, and future resource needs.<sup>94</sup> However, as Sweden's rigorous materiel acquisitions process is tailored toward big and high-technology platforms and systems, including submarines and fighter aircraft, the

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<sup>86</sup> Martin Lundmark, "The Evolution Towards the Partial Strategic Autonomy of Sweden's Essential Security Interests," *Defence and Peace Economics*, Vol. 33, No. 4, 2022.

<sup>87</sup> Åkerström, 2020.

<sup>88</sup> Lundmark, 2022.

<sup>89</sup> Åkerström, 2020.

<sup>90</sup> Åkerström, 2020.

<sup>91</sup> Åkerström, 2020.

<sup>92</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>93</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>94</sup> Sweden subject-matter experts, interviews with the authors, August 2023.



rigor of the process itself is relatively ill-suited to more-urgent and newer high-technology innovations.<sup>95</sup>

## Planning and Programming

The armed forces are required to submit an annual evaluation report of operations and finances to the cabinet in February. Beyond reporting the expenditures of the previous annual budget, the annual report feeds into the budget discussions ahead of the spring bill and budget bill. Once the budget bill has been approved, appropriation letters are granted via the Ministry of Defence to the SwAF to coordinate production management, as well as to establish objectives and targets for the operations of individual units.<sup>96</sup>

A core tenet of the Swedish government is the sharp separation between ministries and agencies: While the former outline the policies and tasks, the latter are given freedom on how to execute these policies and tasks. Most government employees work in the agencies, and the ministries remain quite small.<sup>97</sup> The small size of the ministries allows for easier and faster communication between agency leaders (such as the Chief of Defence) and their respective ministries on future budgets and tasks. Interviews with subject-matter experts indicate that there is virtually constant communication between the ministries and the agencies, which encourages transparency between the two.<sup>98</sup> Agency activities and results are continuously assessed, and a formal government-led evaluation is held each year to ensure that the agencies are executing their orders efficiently.<sup>99</sup> To evaluate the activities and performance of agencies, there is a continuous government-agency feedback cycle throughout the year with formal meetings between the Minister of Defence and agency heads that takes place between April and June.<sup>100</sup> Spending reviews as a specific form of government evaluation are also used to get a more comprehensive overview of public spending. The regular steering of agency finances is carried out by the Swedish National Financial Management Agency (*Ekonomistyrningverket*), to which agencies send their budget execution reports electronically on a monthly basis for quality controls, after which the data and analysis are passed on to the Ministry of Finance.<sup>101</sup> Agency evaluations, however, do not have a uniform approach and can take various forms with no direct link to the budgetary process. The varying approaches include commissions of inquiry, whereby new laws are examined before the parliament, agency per-

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<sup>95</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>96</sup> SwAF, "Areas of Responsibility and Appropriation Direction," webpage, last updated October 18, 2022a.

<sup>97</sup> Government Offices of Sweden, *Regeringskansliets årsbok 2022 [Government Offices Yearbook 2022]*, May 25, 2023d.

<sup>98</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>99</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>100</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>101</sup> Downes, Moretti, and Shaw, 2017, p. 59.

formance audits are carried out by the National Audit Office, and agency-specific evaluations are carried out by inspectorate agencies.<sup>102</sup>

In the case of the Ministry of Defence and the SwAF, for example, the planned activities of the SwAF are directed by the SwAF's ten-year operational Swedish Armed Forces Activities Plan (Försvarsmaktens Verksamhetsplan, or FMVP). In addition, the SwAF releases a 12-year investment plan, designed to complement the Ministry of Defence's acquisition orders and improve Sweden's long-term strategic planning. The FMV is highly influential in this process because it carries out most of the defense procurements and offers a consensus statement on the 12-year investment plan. Both the FMVP and investment plan require parliamentary oversight and are approved every five years in defense bills, whereas the annual budgeting process of the various defense agencies must follow the specifications of the defense bill (with some room for annual adjustments). Additionally, the Ministry of Finance must approve defense procurements over SEK 200 million (\$18 million), even if the new acquisitions are replacing older materiel. This requirement has been criticized as slowing down the procurement process, particularly as Swedish defense capabilities rapidly expanded after Russia's invasion of Ukraine.<sup>103</sup>

Defense planning relies on studies from such agencies as FOI, the FMV, and the SwAF. The most important study for the Defence Commission is the Armed Forces Development Plan, created annually by the SwAF but with a ten-year perspective. The Armed Forces Development Plan, along with the SwAF's annual report, are the primary tools for the SwAF to influence defense planning, procurement, and budgeting.<sup>104</sup> The annual report includes a summary of the previous year's activities, financial performance, and security context, whereas the development plan offers long-term recommendations to improve Swedish defense capabilities, such as through prioritizing certain technologies. Everything outlined in the development plan must be fully funded to ensure any expenditure remains feasible for the long term and is consistent with budgeting expectations, thereby operating within the stable predictions of the Swedish economic forecast. The development plan aims for efficiency gains by promoting regional and local coordination between garrisons, as well as cooperation with other countries. The close cooperation between the government and the armed forces through these documents and in long-term planning ensures that there is strong military input (rather than purely political considerations) in Swedish defense policy.<sup>105</sup>

Alongside the analysis undertaken by defense agencies, such as FOI, the Ministry of Defence assesses the feasibility of proposals and then submits the defense bill to parliament. Parliament must approve the overall strategic direction for Swedish defense every five years; the current defense bill covers the period 2021–2025 and includes a preliminary look

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<sup>102</sup> Downes, Moretti, and Shaw, 2017, pp. 32–35.

<sup>103</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>104</sup> SwAF, "Strategisk Planering" ["Strategic Planning"], webpage, last updated February 11, 2020.

<sup>105</sup> SwAF, 2020.

at defense planning for the subsequent five-year span of 2026–2030. The Ministry of Defence and the defense agencies then implement the defense budget on a yearly basis, with annual appropriation letters given to the agencies in line with the defense bill and the budget bill.<sup>106</sup> Each government agency is required to have a dialogue with its corresponding minister once per year between late April and early June. Other informal meetings and check-ins between the ministries and agencies are common throughout the year, but only one is specifically mandated.<sup>107</sup> In the case of special investments, it is common for the agencies to produce reports outlining progress and any feedback.<sup>108</sup>

The most up-to-date fiscal indicators are required for the forward-looking fiscal framework. There are four points during the fiscal year at which economic trends are updated and budget planning within the finance ministry is reassessed: March, May, July, and October. During the September budgetary debates in parliament, the most recent information from October must be incorporated into the planning, resulting in very tight deadlines and negotiations.<sup>109</sup> Because the annual budget projects only three years ahead—whereas defense bills project five years ahead—reports suggest that there is often a discrepancy between the two; defense planners are incentivized to focus on short-term budget items rather than longer-term planning.<sup>110</sup>

Long-term strategic planning, which is carried out by SwAF headquarters command staff, consists of three parts: defense planning, defense forces planning, and “perspective” planning.<sup>111</sup> Defense planning is divided into two areas: preparatory planning and crisis planning. Preparatory planning, in turn, is divided into basic operational planning (daily preparedness) and recurrence planning (supporting the ability to handle scenarios or events that could develop over time).<sup>112</sup> Scenarios developed for recurrence planning account for possible actors and their intentions, the possible development of events, the combat forces that the adversary might have time to acquire, and the SwAF’s preparedness and availability. Crisis planning is focused on preparing the SwAF to handle ongoing or imminent challenges and threats in real time, whereas recurrence planning has a longer time frame.<sup>113</sup>

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<sup>106</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>107</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>108</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>109</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>110</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>111</sup> SwAF, 2020.

<sup>112</sup> SwAF, 2020.

<sup>113</sup> SwAF, 2020.

The aim of defense forces planning is to achieve a long-term balance between the requirements for operational capability and allocated financial resources. The central document for this comprehensive planning is, again, the Armed Forces Development Plan.<sup>114</sup>

Perspective planning is the process by which the SwAF assesses military-strategic trends, the nature of future conflicts, and deployment environments over the next 20 years. SwAF headquarters conducts a yearly analysis to determine which technical, strategic, and political developments can be discerned in the long term. The goal is to provide the SwAF with tentative assessments of the capabilities it will need and how to acquire them in a timely fashion.<sup>115</sup> Planners conduct traditional external monitoring of the global political situation and assess how other states are developing their capabilities and why. The SwAF receives support in the analysis phase of this planning from FOI and the Swedish Defence University.<sup>116</sup>

## Budgeting and Execution

As a tax-funded authority, the SwAF's annual budget is determined by parliament, and the scope of activities is set out by the cabinet, via the Ministry of Defence, through annual appropriation letters that form the basis for defense materiel acquisitions from other authorities and suppliers.<sup>117</sup> The armed forces begin their reviews of the previous year's budget and their formulations of next-year requests and recommendations toward the end of the financial year (November to December) as part of a process that culminates in the spring submission of both the SwAF annual report and the Armed Forces Development Plan to the cabinet and parliament.<sup>118</sup> The defense budget underpins the long-term strategic vision and direction of the armed forces, as set out in the defense bill that is passed every five years.<sup>119</sup>

Investments in equipment and related services are financed mainly through appropriations in the national budget.<sup>120</sup> Parliament decides on revenues and expenditures and exercises financial power through annual decisions on the national budget, including deciding on appropriation purposes and frameworks, ordering authorizations, and making investment plans.<sup>121</sup> The defense budget is divided into EAs for which parliament decides on specific

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<sup>114</sup> SwAF, 2020.

<sup>115</sup> SwAF, 2020.

<sup>116</sup> SwAF, 2020.

<sup>117</sup> SwAF, 2023d.

<sup>118</sup> SwAF, 2020.

<sup>119</sup> Gerard O'Dwyer, "Sweden Boosts Defense Spending, NATO Goal in Mind," *DefenseNews*, November 22, 2022.

<sup>120</sup> Government Offices of Sweden, 2022.

<sup>121</sup> SwAF, "Försvarsmaktens budgetunderlag för 2024" ["Appendix 2: The Armed Forces' Budget Basis for 2024"], *BU24: Forsvarsmaktens budgetunderlag för 2024 med särskilda redovisningar [BU24: The Swedish Armed Forces' Budget Documents for 2024 with Separate Accounts]*, February 28, 2023b.

purposes and allocates appropriations, allowing parliament to better monitor progress.<sup>122</sup> Thus, the armed forces receive different types of appropriations: one for procurement, one for training and exercise, one for R&D, one for operations abroad, and so on.<sup>123</sup> Table 6.1 breaks down the 2023–2024 SwAF budget by EA.

Sweden’s budgeting process has been tightened since the reforms of the 1990s; it has become a top-down process subject to firm fiscal policy regulation.<sup>124</sup> While defense planning is long term and the budgeting process is highly regulated in Sweden, there is built-in flexibility, especially with respect to procurement.<sup>125</sup> This flexibility has been on increased display during the COVID-19 pandemic and Russia’s invasion of Ukraine. In the first year

**TABLE 6.1**  
**SwAF Budgetary Breakdown, by Expenditure Area, 2023–2024**

| Expenditure Area   | Amount in SEK<br>(millions) | Amount in<br>U.S. Dollars<br>(millions) |
|--|-----------------------------|---|
| EA 6: 1.1 ap. 1—Unit Activities and Preparedness           | 27,411                      | 2,493                                   |
| EA 6: 1.1 ap. 2—State Pension Fees                         | 125                         | 11                                      |
| EA 6: 1.1 ap. 3—Maintenance of Equipment and Facilities    | 17,663                      | 1,608                                   |
| EA 6: 1.1 ap. 4—Military Intelligence and Security Service | 1,323                       | 120                                     |
| <b>EA 6 1.1 total</b>                                      | <b>46,522</b>               | <b>4,232</b>                            |
| EA 1.2 ap. 1—Armed International Operations of the SwAF    | 945                         | 85                                      |
| EA 1.2 ap. 2—Other International Operations of the SwAF    | 378                         | 34                                      |
| <b>EA 1.2 total</b>  | <b>1,323</b>                | <b>120</b>                              |
| EA 1.3—Acquisition of Equipment and Facilities             | 6,237                       | 567                                     |
| <b>EA 1.3 total</b>  | <b>6,237</b>                | <b>567</b>                              |
| EA 1.4—Research and Technology Development                 | 822                         | 74                                      |
| <b>EA 1.4 total</b>  | <b>822</b>                  | <b>74</b>                               |
| EA 1.5—The SwAF  | 47                          | 4                                       |
| <b>EA 1.5 total</b>  | <b>47</b>                   | <b>4</b>                                |
| <b>Sum total</b>   | <b>54,952</b>               | <b>4,998</b>                            |

SOURCE: Features information from SwAF, 2023b, Table 5.

NOTE: ap. = appropriation item.

<sup>122</sup> Government Offices of Sweden, 2022.

<sup>123</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>124</sup> Downes, Moretti, and Shaw, 2017, pp. 22–38.

<sup>125</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

of the pandemic, 22 additional special budget bills were passed by parliament.<sup>126</sup> If reprioritization or replanning is required, the SwAF has an annual balancing process for updates and budget submissions to the SwAF's FMVP (ten-year operational plan).<sup>127</sup> The Ministry of Defence can also present extra budget bills in response to changing or emerging conditions in the security environment, as well as invest directly in defense equipment up to SEK 200 million.<sup>128</sup> Because of limited resources, however, Sweden cautions against major pivots in budget planning, including any reprioritization, unless considered necessary, and the benefits of such changes must be weighed against the costs of delaying other needs.<sup>129</sup> The Swedish annual budget is thus part of a multiannual chain of decisions designed to promote financial sustainability.<sup>130</sup>

The formal process to revise the state budget happens through the tabling of amending budgets alongside the spring fiscal bill and the fall budget bill. However, recent events have prompted extra budget bills to be introduced and the state budget to be amended outside these sessions.<sup>131</sup> Since the most recent defense bill was passed in 2020, there have been several adjustments to the budget, and resource levels have significantly increased. Sweden and the SwAF have provided several military aid packages to Ukraine following Russia's full-scale invasion in 2022. As a result, the Ministry of Defence has allocated additional funds to acquire new materiel and has offset the loss of materiel donated to Ukraine.<sup>132</sup> It has therefore become essential to maintain a distinction between budget additions—in the form of Ukraine support packages—and the defense budget as passed in its original version.<sup>133</sup>

Although there is considerable freedom and flexibility for the SwAF to reprogram resources within EAs, appropriation funds may finance expenses only within the confines of the appropriation's purpose. Within the appropriations, there is a flexibility rate of 2 percent to save or reallocate credits.<sup>134</sup> Should the SwAF wish to reallocate any resources between appropriations, parliamentary approval is required through the Defence Commission and is executed in a supplementary budget as an amendment to the ongoing fiscal year.<sup>135</sup> The government therefore cannot, without parliamentary consent, take out loans or make other

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<sup>126</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>127</sup> Government Offices of Sweden, 2022.

<sup>128</sup> Government Offices of Sweden, 2022.

<sup>129</sup> Government Offices of Sweden, 2022.

<sup>130</sup> Downes, Moretti, and Shaw, 2017, pp. 22–38.

<sup>131</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>132</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>133</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>134</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>135</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

financial commitments on behalf of the state.<sup>136</sup> Goods and services that will incur expenses in the coming budget year can, however, be ordered by the relevant agency as a form of advance spending on the condition that such orders stay within the purpose and maximum amount as stipulated in the authority's regulatory letter for the current budget year.<sup>137</sup> Sweden has special-order authorization regulations in place to enter financial commitments that bind the state budget for more than one year, often including orders of complex and large numbers of military equipment and weapons systems. It is up to parliament to approve spending authorizations based on the government's budget proposition.<sup>138</sup> Although there is some short-term flexibility within ministries to reprogram funds for different goods and services, the funding must adhere to the long-term purpose of each EA.<sup>139</sup>

There are also budget allocations and authorizations that allow the government to accrue debt for long-term investments, including defense projects and infrastructure.<sup>140</sup> There is a process in place that applies to investments in platforms or capabilities that are either new or are to be replaced and that exceed SEK 200 million. The Ministry of Finance and Ministry of Defence are currently exploring the possibility of increasing this amount to SEK 500 million. In this instance, it is the government, independent of parliament, that decides on the spending cap.<sup>141</sup> These measures were added in 2015 to provide the government and the ministries more-detailed information on specific expenses and how they are spent.<sup>142</sup> This flexibility also applies to defense infrastructure investments up to SEK 40 million.<sup>143</sup> Both measures are intended to better track larger expenditures and improve efficiency on long-term investments.<sup>144</sup>

## Oversight

Sweden has a tradition of collective policy preparation through cross-ministry collaboration, whereby the Ministry of Finance works closely with other ministries in preparing the budget and developing fiscal policy.<sup>145</sup> This approach contrasts with the tradition of other countries, such as Germany, in which significant powers are devolved to individual government ministries. Whereas parliament and the Ministry of Finance retain strong directives to ensure

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<sup>136</sup> Government Offices of Sweden, 2022.

<sup>137</sup> Government Offices of Sweden, 2022.

<sup>138</sup> Government Offices of Sweden, 2022.

<sup>139</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>140</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>141</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>142</sup> Government Offices of Sweden, 2022.

<sup>143</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>144</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>145</sup> Downes, Moretti, and Shaw, 2017, pp. 22–38.

a smooth annual budget process and fiscal discipline, the execution of government policy is handled predominantly by Sweden's 350 state agencies, which enjoy significant autonomy.<sup>146</sup> Agencies are guided by their respective government ministries through ordinances that provide medium- or long-term strategic direction, mandates, powers, and general guidelines. The annual budget appropriation letters specify the financial terms for each agency's operations and provide direction on short-term objectives.<sup>147</sup> Because ministry officials are prohibited from intervening in an agency's day-to-day operations, the following agencies and institutions assist the Ministry of Finance in achieving oversight of the budget:

- **National Audit Office (Riksrevisionen):** As Sweden's supreme audit institution and with full statutory independence under parliament, this office is responsible for auditing the government's annual report and conducting performance audits of the budget bill.
- **Fiscal Policy Council (Finanspolitiska rådet):** This independent fiscal institution serves as a watchdog regarding compliance with fiscal regulation and provides critical commentary on fiscal policy.
- **National Institute for Economic Research (Konjunkturinstitutet):** This agency, under the supervision of the Ministry of Finance, prepares independent economic forecasts and analyses, which feed into plans and policy impact analyses.
- **National Financial Management Authority (Ekonomistyrningsverket):** This agency develops national public financial management tools and accounting rules, provides guidance on financial management more generally (including of EU funds), and contributes to monitoring and forecasting government expenditures.
- **National Debt Office (Riksgälden):** This office issues debt, monitors risk, and handles banking services for the central government.<sup>148</sup>

## Analysis of Sweden's Budgeting Process

### Strengths

Sweden's budgeting process has some key strengths. The first identified strength is the reliance on a system of collective decisionmaking at the ministerial level. All government ministers must agree collectively and therefore share responsibility for decisions made. The ministers make joint decisions on all government business at weekly cabinet meetings.<sup>149</sup> For example, both the Minister of Defence and the Minister of Finance must agree on defense budgeting and planning. The requirement for consensus decisions in the cabinet and the

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<sup>146</sup> Downes, Moretti, and Shaw, 2017, pp. 22–38.

<sup>147</sup> Downes, Moretti, and Shaw, 2017, pp. 22–38.

<sup>148</sup> Downes, Moretti, and Shaw, 2017, pp. 22–38.

<sup>149</sup> Sweden subject-matter experts, interviews with the authors, August 2023.



parliament has shielded the medium-term budget from political fluctuations, such as if the governing party changes. In terms of PPBE, this ensures broad support and buy-in for PPBE processes and decisions at the executive level. The second strength is the tightly regulated and transparent budget cycle, which means that there is broad understanding and support for the process, underpinned by long-term financial planning and strategic analysis through the SwAF's development plan and perspective planning.<sup>150</sup> The process is thus buttressed by transparency—with macroeconomic data publicly available—and strict regulation. This transparency makes for a wide acceptance of the PPBE process throughout the government agencies involved in defense planning. A third strength is the three-year medium-term financial planning horizon in the budget bill that gives agencies advance warning on spending trends.<sup>151</sup> Although this long-term structure might appear to lock the SwAF into financial decisions that could turn out to be less than optimal, Sweden retains a significant degree of flexibility in its financial planning by having two points in the year at which amending budgets can be introduced.

A fourth strength is the parliamentary outline of long-term defense planning by voting on the defense bill every five years. Only defense and infrastructure projects have these long-term planning arrangements.<sup>152</sup> This long-term defense planning, coupled with medium-term financial planning, enables government agencies to foresee what will happen in five or ten years and what the overall goal is.<sup>153</sup> Five-year planning, as outlined in the defense bill, is thus seen as an enormous asset because it makes the whole system less vulnerable to changes in administration or political leadership. For example, Sweden changed from a center-left government to a center-right government in 2022. Yet this shift did not have a great impact on the priorities for the defense budget because the 2021–2025 defense bill had already been passed in parliament.<sup>154</sup>

A final strength of Sweden's budgeting process identified is the benefits from close partnerships and cooperation between the civilian and military sides, as seen in the joint civilian-military leadership of the SwAF with the Chief of Defence and Director-General. This cooperation extends to partnerships between the state and industry as part of wider total defense efforts. Sweden's NATO membership also represents an opportunity to pool collective resources, as well as increased opportunities for the Swedish defense industry. However, it is unclear exactly how NATO will affect Sweden's PPBE processes.<sup>155</sup>

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<sup>150</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>151</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>152</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>153</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>154</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>155</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

## Challenges

Sweden's PPBE-like process is also facing several challenges. A key challenge is the provision of defense materiel supply, much of which has been caused by a paradoxical short-term mindset on long-term processes. The SwAF is facing a deteriorating security situation in its immediate neighborhood, while much of its existing military equipment is reaching the end of its service life and needs to be replaced. Defense cuts of the 1990s and the acquisition of equipment for international operations in the early 2000s have yielded to a renewed focus on national defense. This shift has led to an extensive need for renewed capabilities, such as stronger air defenses, modernized control systems, and improved logistics. Rapid technological development fueled completely new needs for investments, such as in cyber capabilities.<sup>156</sup> Although there is broad political agreement in Sweden on the need to increase defense spending to strengthen Sweden's military capability, cutbacks after the Cold War have resulted in considerable equipment backlogs and deficiencies. A related challenge is the risk of Sweden's various defense agencies becoming wasteful as budgeting and resources are increased. The defense agencies are not used to considerable budget growth and consequently need to learn how to adapt with increased capacity and to spend additional funds while avoiding waste.<sup>157</sup>

A third challenge lies in the increased costs for increasingly advanced equipment. This will make it difficult for Sweden to procure new equipment to replace aging stock, especially against the backdrop of a weakening Swedish krona. In addition, historical cutbacks to defense budgets have greatly affected the size of the Swedish defense industry, which has lacked regular orders since the 1990s.<sup>158</sup> The focus on immediate security issues has meant that Sweden, like many other countries, lacks clear KPIs for how it might be improving its military preparedness. Because follow-up studies are not always carried out after significant defense purchases, it is hard to compare how different platforms and equipment have affected defense preparedness.<sup>159</sup>

A fourth challenge lies at the micro level, where despite widespread understanding and support for the budgeting and planning process, there are inconsistencies and discrepancies in how this process is carried out. For example, the SwAF is mandated to cost everything at a fixed price in its budget planning. However, the Ministry of Defence and Ministry of Finance use variable pricing when proposing the state budget. This discrepancy makes it harder to account for the effects of high inflation over the long-term planning cycles that are used in

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<sup>156</sup> Per Olsson, "Long-Term Challenges for Sweden's Materiel Supply," in Niklas H. Rossbach, Josefin Öhrn-Lundin, Daniel K. Jonsson, Anna Sundberg, Sofia Olsson, Jakob Gustafsson, and Camilla Trané, eds., *Strategic Outlook 8: Sweden's Total Defence—Challenges and Opportunities*, Swedish Defence Research Agency, September 2019.

<sup>157</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>158</sup> Olsson, 2019.

<sup>159</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

defense planning.<sup>160</sup> One of the reasons for this discrepancy is that the state budget bills are based on a three-year cycle, whereas defense bills span five years, creating a mismatch.<sup>161</sup> This mismatch would be somewhat mitigated if both the state budget bills and defense bills were based on variable pricing, although the time frames would still be different. Interview participants stated that, ideally, the national budget cycles would be longer to better account for the long-term processes required for defense acquisition while acknowledging that it would be unrealistic to amend the entire national budget cycle based on the needs of the Ministry of Defence.<sup>162</sup> Nevertheless, to address this issue somewhat, the Ministry of Defence in 2023 released a long-term economic planning directive to all the defense agencies outlining how the ministry sees the budget evolving over the coming decade, allowing the agencies to plan better accordingly. However, because this action was taken by the Ministry of Defence, it is consequently not a parliamentary decision. The Swedish Parliament still maintains ultimate approval over the state budget, which retains a three-year and variable-price outlook.<sup>163</sup>

Given that Sweden joined NATO, the fifth challenge is to address how the NATO Defense Planning Process will inform and align with Sweden's own defense planning process. Currently, the processes are not aligned. For example, NATO's national capability targets have implementation periods between seven and 19 years.<sup>164</sup> This contrasts with Sweden's budgetary process, which, as stated above, has a three-year time span. The Swedish Ministry of Defence will consequently need to assess how joining NATO will affect Sweden's budgetary cycle. Possible solutions include aligning Sweden's five-year defense bills with NATO's four-year defense planning process and amending Sweden's budgetary cycle.<sup>165</sup> Interview participants consistently stated that Sweden is aware that joining NATO will affect defense planning, but the ways in which it will do so remain unclear.<sup>166</sup> Furthermore, NATO membership will undoubtedly affect materiel supply by imposing commitments to NATO's collective defense. However, the NATO Defense Planning Process also represents an opportunity for deepened engagement and coordination on standardization work, including on NATO's ambitions to develop emerging and critical technologies. A Swedish NATO membership opens new possibilities for PPBE collaboration, but these collaborations will have to be weighed against the priorities and principles outlined in Sweden's national strategies.<sup>167</sup> Therefore, it remains too soon to tell how NATO membership will affect Sweden's PPBE-like processes.

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<sup>160</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>161</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>162</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>163</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>164</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>165</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>166</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>167</sup> Swedish Ministry of Defence, 2022.

A sixth challenge relates to flexibility. The Swedish PPBE process is, by design, tailored mostly for controlled and long-term development of operational capabilities. It is consequently not very appropriate for quick strategic adjustments or reprogramming of the whole process.<sup>168</sup> However, some flexibility is still built into the system. An example of this is the phasing out of the practice of spending any remaining budget that is not already spent by the FMV at the end of the financial year. This practice is expected to be phased out by 2027 and will be replaced by a new principle that will instead prioritize actual deliveries of needed military equipment rather than focusing on what is left in the budget, while still taking into account the remaining resources.<sup>169</sup> However, Sweden's long-term planning processes in general create expectations at the local unit level, and occasionally these expectations are not met, such as when defense equipment becomes more complicated to acquire or expensive to produce. A related challenge is thus to balance the needs and priorities across different units in Sweden's PPBE system.<sup>170</sup> National, economic, and local aspects all create obstacles to implementing the plan as precisely as intended. One interviewee stressed that the main problem revolves around how to create an environment that incentivizes lower commanders to perform well. Currently, well-performing units that are meeting or exceeding all the operational goals set by SwAF headquarters might see their resources diverted away to less well-performing units in subsequent budget years. The final challenge facing Sweden's PPBE system is thus to create a culture of excellence in which it becomes worthwhile to meet or exceed objectives continuously.<sup>171</sup>

## Applicability

There are several aspects of Sweden's PPBE-like process that could be applicable to other systems. First, the Swedish approach of using the spring bill to manage macroeconomic trends and provide stable medium-term fiscal management could be a useful model for other countries, including the United States. By focusing on broader economic goals and objectives, and by setting agreed-on caps for specific expenditures, this approach can help to ensure that resources are allocated in a way that is sustainable over the long term. Second, in the United States, the budgeting process can often be contentious and subject to political gridlock, which can lead to uncertainty and inefficiency in the allocation of resources. Adopting a more collaborative and forward-looking approach, as is done with the Swedish spring bill, could help to mitigate some of these challenges and ensure that resources are allocated in a way that is aligned with broader economic goals and objectives. The agreed-on cap for expenditures created by the spring bill can also help to provide a foundation for the ultimate budget bill debate

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<sup>168</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>169</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>170</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

<sup>171</sup> Sweden subject-matter experts, interviews with the authors, August 2023.

and passage. Additionally, the agreed-on cap can help provide a foundation for the budgeting process and ensure that spending remains within reasonable limits.

A third consideration is Sweden's system of collective decisionmaking and responsibility in the budget process, in which all ministers must agree on the amount allocated to each EA, including defense. This is a notable strength in terms of ensuring transparency and joint accountability. However, as seen in the United States, this approach can also slow down the budgeting process because it requires a high degree of collaboration and consensus-building among key stakeholders. The need for consensus-building and collaboration can be particularly challenging in the context of defense spending, in which there may be competing priorities and differing views on the appropriate level of investment. Nevertheless, the Swedish approach of collective decisionmaking and responsibility, which might be viewed as unrealistic in U.S. culture, was frequently viewed as a key strength by interview participants because it can help ensure that all relevant stakeholders are involved in the process and that decisions are made with broad support and buy-in.

A final consideration is the requirement that everything outlined in the Swedish Armed Forces Development Plan must be fully funded. This is another important attribute that can provide stability and predictability in the defense planning process and is thus another useful lesson for DoD. By ensuring that all elements of the development plan are fully funded, the SwAF can have greater confidence in its ability to execute its strategic objectives and meet its operational requirements. This approach can also help ensure that resources are allocated in a way that is aligned with broader national goals and objectives, as outlined in the plan. With this stability and predictability of defense funds, the SwAF can better plan and make informed decisions about resource allocation. Ensuring that everything in the development plan is fully funded can be challenging, particularly given competing priorities and limited resources. For these reasons, Sweden cautions against major pivots in budget planning unless deemed necessary, with the benefits outweighing the costs of delaying other needs. However, this requirement helps ensure that the SwAF can maintain a high level of readiness and effectiveness and is thus a useful lesson for DoD.

## Lessons from Sweden's Budgeting Process

The following lessons from Sweden's budgeting process are summarized in Table 6.2.

### Lesson 1: Close Partnerships and Joint State-Industry Developments Are Important Parts of the Wider Defense Effort

Sweden places great emphasis on close relationships between the state and industry as part of its total defense plan, which encompasses all of society in the national defense effort. This effort includes social cohesion and psychological defense as integral components, as outlined in the 2021–2025 Total Defence Bill. The joint military-civilian leadership of the SwAF, through its Chief of Defence and Director-General, is a good example of the total

defense approach, characterized by close cooperation between the military and civilian sides throughout Sweden's PPBE-like process. The civilian Director-General has been a central figure in steering the processes toward improved financial planning, streamlined operational activities, and expedited materiel purchasing and logistics. These improvements provide the SwAF with greater opportunities for rapidly building and strengthening the organization in line with the government's directives.

## **Lesson 2: Routine Collective Decisionmaking at the Ministerial Level Encourages Buy-In and Accountability**

Participants in interviews noted that Sweden's overall strength lies in its system of collective decisionmaking at the ministerial level. Although this practice could be seen as slowing down the decisionmaking process, the widespread acceptance of the process and the weekly cabinet meetings that are used to conduct the process ensure that decisions are made on a continual basis. The process of collective decisionmaking means that all government ministers must agree collectively and share responsibility for all the decisions made by the government. For instance, both the Minister of Defence and the Minister of Finance must agree on defense budgeting and planning, ensuring broad support and buy-in for the PPBE process at the executive level.

## **Lesson 3: An Agile PPBE System Is No Guarantee to Fast-Tracking the Achievement of Changing Strategic Priorities**

The Sweden case study illustrates the potential challenges that come with adopting a short-term mindset to the defense resource management process. Having based its Cold War national defense on a heavily armed neutrality to safeguard its sovereignty, Sweden experienced a reduction in its defenses because of the post-Cold War absence of a significant Russian threat. With Russia once again a major security threat in the region, Sweden is reiterating the importance of a strong national defense. However, gaps in the defense and industrial capacity created by decades of reduced resources and funding will take years, if not decades, to rebuild. Because of the long recovery times from defense cuts, the PPBE process needs to be as immune as possible to a changing security environment. However, it can still take significant time for new priorities to be achieved as strategic priorities change even in PPBE systems that are agile enough to accommodate such changes.

## **Lesson 4: Transparent and Well-Regulated Defense Budgetary Processes Promote Stability**

Sweden has tightly regulated and transparent budget cycles, which foster broad understanding and support for the process. This process is further supported by long-term financial planning and strategic analysis through the SwAF's development plan and perspective planning, which allow key stakeholders to know the long-term objectives. Sweden's PPBE-like

process is characterized by medium-term financial planning and long-term strategic planning, which lead to stability throughout the process and make it less prone to fluctuations brought on by changes in government.

## Lesson 5: Discrepancies Between Fixed and Variable Pricing Are Detrimental to Defense Budgeting

Interview participants noted that, at the micro-level, there are inconsistencies and discrepancies in Sweden's PPBE-like process, despite widespread understanding and support for it. For instance, the SwAF is required to cost everything as a fixed price in its budget planning, whereas the Ministry of Defence and Ministry of Finance use variable pricing when proposing the state budget.

## Lesson 6: A Lack of Clear KPIs Hinders Defense Preparedness

Sweden's tendency to focus on immediate issues has resulted in a lack of clear KPIs for measuring improvements in military preparedness. Follow-up studies are not always conducted after significant defense purchases, making it difficult to compare the impacts of different platforms and equipment on defense preparedness and to determine their usefulness.

**TABLE 6.2**

### Summary of Lessons from Sweden's Budgeting Process

| Theme                           | Lesson Learned  | Description   |
|---------------------------------|---|---|
| Decisionmakers and stakeholders | Lesson 1: Close partnerships and joint state-industry developments are important parts of the wider defense effort. | Joint state-industry developments allow for close cooperation and awareness of priorities when procuring new equipment.   |
|                                 | Lesson 2: Routine collective decisionmaking at the ministerial level ensures buy-in and accountability.             | Collective decisionmaking ensures buy-in and broad consensus on PPBE and defense procurement matters.   |
| Planning and programming        | Lesson 3: An agile PPBE system is no guarantee to fast-tracking the achievement of changing strategic priorities.   | The PPBE process needs to be as immune as possible to a changing security environment because defense cuts can take decades to recover from.                                    |
| Budgeting and execution         | Lesson 4: Transparent and well-regulated defense budgetary processes promote stability.                             | Transparent and tightly controlled budgetary processes ensure broad acceptance of the financial planning framework.   |
|                                 | Lesson 5: Discrepancies between fixed and variable pricing are detrimental to defense budgeting.                    | When different stakeholders use fixed versus variable pricing, it is difficult to account for inflation in long-term defense financing, and it creates budgeting discrepancies. |
| Oversight                       | Lesson 6: A lack of clear KPIs hinders defense preparedness.  | The lack of clear KPIs to measure defense preparedness means that the outcomes of defense procurement efforts are not easily grasped.   |





## Key Insights from Case Studies of Selected Allied and Partner Nations

The 2022 U.S. NDS focuses on strengthening relationships with allied and partner nations. In this chapter, we distill our insights into how the defense resource planning processes of selected highly capable allies and partners—France, Germany, Japan, Singapore, and Sweden—operate and how this understanding might support the pursuit of shared strategic goals.

This is the third volume dedicated to the PPBE-like processes of other countries. In Volume 1, we discussed how China and Russia conduct defense resource planning, programming, budgeting, execution, and oversight—and the strengths and challenges of their approaches, albeit with data access constraints. For Volume 2, we had ample documentation to describe in detail how these processes are executed by three Five Eyes partners: Australia, Canada, and the UK. In this volume, we analyzed the internal processes of a broader group of highly capable allies and partners. For most countries, we had ample available open-source information, but we faced an uneven level of access to currently serving government personnel.<sup>1</sup>

In this final chapter, we summarize our takeaways from all these country-level case studies. As part of this analysis, we used an initial set of standard questions from the Commission on PPBE Reform, focusing on core areas related to resource planning, to ensure some degree of comparability across cases. We begin this chapter by distilling important themes for the Commission on PPBE Reform from the case studies presented in this volume. These diverse case studies have similarities and notable points of divergence from the defense resource planning processes of the United States and other Five Eyes partners, and they offer multiple insights.

We conclude this discussion by reviewing the applicability and potential utility of these insights for the DoD PPBE System, directly addressing the commission's mandate.

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<sup>1</sup> For more on partnering approaches with highly capable U.S. allies and partners, see Jennifer D. P. Moroney, Stephanie Pezard, David E. Thaler, Gene Germanovich, Beth Grill, Bruce McClintock, Karen Schwindt, Mary Kate Adgie, Anika Binnendijk, Kevin J. Connolly, Katie Feistel, Jeffrey W. Hornung, Alison K. Hottes, Moon Kim, Isabelle Nazha, Gabrielle Tarini, Mark Toukan, and Jalen Zeman, *Overcoming Barriers to Working with Highly Capable Allies and Partners in the Air, Space, and Cyber Domains: An Exploratory Analysis*, RAND Corporation, RR-A968-1, 2023.

## Key Insights

### Key Insight 1: France, Germany, Japan, Singapore, and Sweden Are Highly Capable U.S. Partners That Share Some Strategic Concerns and Priorities

The security concerns of France, Germany, Sweden, Japan, and Singapore are shaped by the need to counter some strategic threats shared with the United States. Although these countries have unique histories that have shaped the size and nature of their defense establishments since World War II (especially in the cases of Germany and Japan), they have all demonstrated a capability and commitment to participating in multinational exercises and supporting U.S. and international security, including financially or by deploying personnel to Afghanistan over the 20-year period of coalition military operations. This convergence presents opportunities for co-development and broader opportunities to work toward shared goals, but it also requires the United States and its allies and partners to develop plans and processes to facilitate effective partnerships.

The defense priorities of these partners are shaped to a degree by security challenges in Europe and the Indo-Pacific region. The three NATO partners (France, Germany, and Sweden) have demonstrated invigorated commitments to European security and to bolstering and modernizing the alliance in the aftermath of Russia's aggression in Ukraine. This commitment includes a push to develop new capabilities, modernize legacy infrastructure, and boost industrial capacity, which will require substantially larger financial commitments to defense. China's rapid military modernization and assertiveness and North Korea's growing nuclear ambitions have spurred Japan to expand its defense capabilities under its long-standing policy to focus exclusively on self-defense. Although Singapore maintains positive relationships with China and diverges from U.S. policy in some important ways, it is an important security cooperation partner for the United States as a leading voice in multinational forums and through its investment in U.S. defense equipment, commitment to supplying resources to international efforts (including Afghanistan and Ukraine), and willingness to provide access for U.S. activities in the Indo-Pacific region.

### Key Insight 2: Foreign Military Sales Are an Important Mechanism for Advancing Shared Goals, but This Support Is Balanced by Initiatives to Maintain Domestic Industrial Capacity

These five countries maintain relatively robust industrial capabilities, but most of them also invest in U.S. FMS to strengthen relationships, develop critical capabilities, and foster interconnectedness, interoperability, and interchangeability. As noted in the 2022 U.S. NDS, prioritizing "interoperability and enabl[ing] coalitions with enhanced capabilities" are critical for strengthening and sustaining deterrence.<sup>2</sup> Strengthening interoperability is also a key

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<sup>2</sup> DoD, 2022, p. 14.

priority for NATO.<sup>3</sup> However, as indicated in these case studies, FMS as a contributor to these objectives needs to be balanced with maintaining domestic industrial capabilities.

Especially notable given its size, Singapore has more than \$8 billion in active FMS cases, including F-35s. However, Singapore makes strategic decisions about where to source advanced capabilities to meet specific capability needs. It has imported materiel from other countries, including France and Italy, and our evidence suggests that it maintains niche capabilities to produce, sustain, and upgrade systems domestically.

Germany will also be an F-35 partner (and will build the fuselage domestically), but its decision to import the platform rather than build it entirely at home has led to some domestic political criticism. For Germany, as for other partners, an additional consideration is whether its domestic industrial capacity and its acquisition timelines can meet its mission needs as rapidly and effectively as an FMS investment can.

In the case of Japan, the importance of FMS is reflected in the fact that the United States accounts for 90 percent of Japanese defense imports.<sup>4</sup> This equates to more than \$20 billion in active FMS cases, including 105 additional F-35 Joint Strike Fighters (approved in 2020), KC-46 refueling tankers, and Global Hawk unmanned aerial vehicles.<sup>5</sup> This amount is in addition to the \$12.5 billion of direct commercial sales that the United States has exported to Japan since 2015.<sup>6</sup> Although Japan has committed to expanding its domestic defense industrial base, it faces resource constraints. Thus, the Japanese government must strike a difficult balance between domestic investment in capability development and continuing this level of acquisition from the United States.

France is keen on maintaining its sovereign capabilities and supporting a strong defense industrial base. For example, French exports of weapons accounted for about 8 percent of total global arms exports in 2015–2019, according to SIPRI.<sup>7</sup> This was a 72-percent increase from the prior five-year period and contributed to France’s ability to support its own defense.<sup>8</sup>

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<sup>3</sup> Paul Belkin, *NATO: Key Issues for the 117th Congress*, Congressional Research Service, R46066, June 3, 2021.

<sup>4</sup> Bureau of Political-Military Affairs, “U.S. Security Cooperation with Japan,” fact sheet, U.S. Department of State, January 20, 2021.

<sup>5</sup> Bureau of Political-Military Affairs, 2021.

<sup>6</sup> Bureau of Political-Military Affairs, 2021.

<sup>7</sup> SIPRI, 2020.

<sup>8</sup> Mackenzie, 2020.

### Key Insight 3: Several Countries Recently Signaled an Intent to Increase Their Overall Defense Spending, but There Will Be Countervailing Pressures on Top-Line Budgets

Complex security challenges have led four of these allies and partners to take concrete steps toward increasing their defense budgets.<sup>9</sup> For the NATO partners, these developments come in the context of a decade of efforts to encourage alliance members to spend at least 2 percent of their GDP on defense.<sup>10</sup> Although France currently falls short of that target, French leaders have increased the defense budget in real terms over the past decade and have committed to reaching the 2-percent goal by 2025. France's long-term plan calls for a substantial increase (40 percent over the previous plan) to develop new capabilities, advance modernization priorities, and grow its force structure, among other investments. Germany also falls significantly below the 2-percent target, but at least since 2016, German political leaders have indicated plans to increase spending. The war in Ukraine proved to be a major impetus for upward pressure on German defense spending both in the core budget and with the introduction of the special fund to support Ukraine. With the boost from this short-term fund, German leaders had anticipated that Germany would be able to meet the 2-percent target (temporarily), but since August 2023—when the legally binding target was removed from the budget financing law—this outcome has looked increasingly less likely. Sweden has pledged to increase its defense spending as necessary to meet the 2-percent of GDP target. Japan's postwar history has long been defined by a narrow interpretation of the self-defense mission and a defense budget restraint of no more than 1 percent of GDP. However, in 2022, it advanced efforts to substantially increase its defense spending by introducing a new National Security Strategy (NSS), a National Defense Strategy (NDS), and a Defense Buildup Program (DBP).

These and other efforts to increase defense spending will likely face several challenges. There is a question of whether governments can maintain domestic support for more spending on defense, especially if it comes at the risk of tax increases or adding to the public debt. As of August 2023, Germany's national commitment to the 2-percent goal appeared to be faltering. Moreover, if that target were to be met only temporarily via special funding to avoid Germany's debt brake, it would not be sustainable. Although there appears to be domestic support for defense spending increases in Japan, there is opposition to tax increases to pay for it. Increased spending could also have to contend with external shocks or unanticipated contingencies (e.g., inflation, high interest rates, pandemics, wars, terrorist attacks) that could alter national priorities. There is also the question of the absorptive capacity of defense institutions and the industrial base to support large increases in defense spending. For example, it is not clear that Japan's industrial capacity and capability can meet its ambitious DBP targets after years of underinvestment and export limitations. In Sweden, there is domestic sup-

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<sup>9</sup> Although Singapore significantly increased defense spending in 2022 and 2023 in nominal terms, it largely returned the defense budget to pre-pandemic levels.

<sup>10</sup> Paul Belkin, *Previewing NATO's 2023 Vilnius Summit*, Congressional Research Service, IN12192, July 5, 2023, p. 2.

port for increased defense spending but also uncertainty about whether the country's defense institutions were up to the challenge of ensuring using that increased investment efficiently and effectively.

#### **Key Insight 4: Although the Countries' Political Systems Are Diverse, There Is Limited Friction Between the Executive and Legislative Branches in Their Budgeting Processes**

Despite the diversity across the political systems considered in this volume, the interactions between executive and legislative bodies over budgetary priorities appeared to be more streamlined than in the United States. In Volume 2 (which examined Australia, Canada, and the UK), we attributed this trend to parliamentary systems in which the executive had the power of the purse. This was also seen in the case of Singapore. But even with the greater diversity of the government structures in this volume, we found that budgets were generated in an orderly manner, and in no case did we find examples of budget turbulence emerging from political friction between branches of government to the same degree as is experienced in the United States.

In France, the president has strong control over the defense program and budgets. While a no-confidence vote is technically an option, it requires the agreement of divergent opposition parties and is, in practice, difficult to execute. By contrast, we found substantial parliamentary participation in Germany, along with input from independent experts on budgeting and from fiscal planning stakeholders at the state level. There are indications that this input helps inform the process, and we did not find evidence that competing stakeholders could prevent a budget from moving forward on schedule. Reforms in Sweden in the 1990s increased parliamentary participation and oversight via the establishment of the Defense Commission, but we did not find that exercising this authority resulted in budget gridlock.

In Japan, the legislature's ability to affect the cabinet's budget is relatively limited, and budgets again tend to be approved in a relatively streamlined manner. However, the extent to which this is true is also a function of the political landscape; in recent decades, the ruling Liberal Democratic Party has been electorally dominant. When there is political friction in Japan, there can be delays in funding the government, requiring a temporary spending measure similar to a continuing resolution in the United States. In Japan, this last occurred in 2015 when a temporary spending measure was put in place for 11 days.

In Singapore, the longevity and electoral dominance of the ruling PAP likely plays a role in the apparent absence of budgetary gridlock. We did not find any evidence that the Singaporean Parliament has ever exercised its ability to block a defense budget. Another feature of the Singaporean system that might expedite budget development is the use of a single line of communication. The DPO is the gatekeeper for the Minister for Defence when it comes to policy decisions. The minister is the link between MINDEF and parliament. This single line of communication prevents activities that can greatly complicate resource planning in the

United States, such as direct engagement between the military services and legislators or the introduction of earmarks.

### **Key Insight 5: The Countries Place Greater Emphasis on Budget Predictability and Stability Than on Agility**

As evidenced throughout the budget processes described in this volume, these highly capable allies and partners prioritize predictability and stability to advance their long-term objectives. This stability is seen as a strength to the extent that it extends to industry, enables fiscal planning, and provides steady support for long-term objectives.

For example, France's LPM projects spending four to seven years into the future. Although the law is not binding (and its implementation has frequently diverged from plans), it provides a public-facing framework for budget and program planning. Similarly, Japan's three nested key strategic documents, adopted in December 2022, are not binding year to year but provide five- and ten-year budget horizons to facilitate planning and offer predictability to industry.

Singapore adopts ministerial budget targets on a percentage-of-GDP basis to maintain stability in its fiscal commitment to specific government functions. For MINDEF, the government has publicly committed to spending 3 to 4 percent of GDP. This policy approach is seen as a mechanism to provide stability and certainty to the ministries and industrial partners to enable longer-term investments and planning. However, Singapore provides very little additional public information on its defense plans, programs, and budgets.

### **Key Insight 6: Despite the Common Emphasis on Stability, Each System Provides Some Budget Flexibility to Address Unanticipated Changes**

Although the partners and allies considered in this volume share a policy preference for stability and predictability to advance long-term priorities, they also have mechanisms to retain agility and respond to emerging needs.

Several countries have mechanisms for changing budgets during a fiscal year. For example, Singapore does not allow off-budget spending, but it does have provisions for considering a supplemental request during the year. We also identified mechanisms for shifting resources within a ministry's appropriation (e.g., between the military services) and for carrying over money into the next year, avoiding suboptimal use-it-or-lose-it behavior. Japan also has mechanisms for carrying forward money at the end of a fiscal year, subject to some constraints. Sweden has provisions for supplemental requests during the year—mechanisms that have been exercised in response to unexpected requirements associated with the COVID-19 pandemic and Russia's invasion of Ukraine. Sweden also provides mechanisms for reprogramming within EAs, but requests to redirect resources toward different purposes than originally intended require parliamentary approval. France appears to grant broad authority to redirect resources to meet emerging needs. In this system, resources can be moved within a program, across programs, or even across ministries. Budgetary buffers at the program level

provide flexibility to mitigate against unforeseen changes. Germany's provisions for virement similarly provide flexibility to move resources within the ministry budget, subject to threshold requirements and other constraints, and funds can be carried over to the following fiscal year.

Several of these countries include provisions for special funding outside regular budget processes (and fiscal constraints) to support emerging military needs. Germany's system of special funds, for example, was a critical enabler of its support for wartime contingencies in Ukraine and its erstwhile support for hitting NATO's spending target, at least in the near term. And France amended its finance law in 2022 to establish a special fund to support Ukraine's acquisition of military equipment.

Two countries use institutions or retain resource planning agility specifically to foster innovation or enable new development. Specifically, Singapore has institutionalized its FSTD to play a role in shaping military R&D investments. Sweden's system provides flexibility for the defense ministry to make procurement investments in new or modernized platforms or capabilities, under a given monetary threshold.

### **Key Insight 7: There Are Varied Approaches to Oversight for Ensuring Transparency, Efficiency, and Accountability but Fewer Mechanisms for Evaluating Effectiveness**

In accordance with their overall structured resource planning processes and generally fiscally conservative policy preferences, most of these countries have robust oversight mechanisms to ensure that resources are spent on their intended purposes. Germany uses regular spending reviews to track performance against established indicators to ensure that public funds are spent efficiently and effectively. Japan leverages both external and internal oversight of government spending. Externally, the independent Board of Audit of Japan conducts on-site inspections, reviews documents, and conducts interviews twice a year. The board's report to the Diet informs the settlement of accounts at the end of the year. Internally, Japan mandates that ministries review their programs and activities. These reviews can be elaborate, including input from subject-matter experts and public comment, and the proceedings are released to the public. Singapore uses a three-line accountability system. The first line is individual and peer responsibility. The second line is conventional internal regulatory processes. The third, and most interesting, consists of internal and external audits (including by the independent AGO), with the powerful CPIB able to conduct criminal investigations when necessary. Singapore operates under a largely process-driven regulatory framework, which maintains public trust despite a comparative lack of transparency.

However, evaluation processes to assess whether spending has advanced strategic objectives as intended appear to be less mature in a few cases. This concern might be less applicable to Germany's spending reviews, which reportedly *do* look at performance toward measurable, impact-based indicators. In Singapore, evaluations of spending are conducted largely

within the MINDEF, although the AGO leads a limited external review. Singapore relies on its established processes to guard against waste, with audit agencies serving as a backstop.

Overall, these case studies illustrate a variety of approaches to ensuring efficient and accountable expenditures by defense institutions. They also support the conclusion that independent audit agencies with mandated access to spending information can be effective oversight mechanisms. However, these case studies highlight the difficulty of evaluating whether specific types of spending achieve strategic outcomes.

## Applicability of Selected Allied and Partner-Nation Insights to DoD's PPBE System

The Commission on PPBE Reform was asked to look for lessons from the PPBE-like processes of selected allied and partner nations to improve DoD's PPBE System. Relative to the Five Eyes countries considered in Volume 2, the cases in this volume are more diverse and have some notable differences relative to the United States. For example, the postwar history of Germany and Japan have given these U.S. partners unique political cultures that influence their defense spending and the scale of their defense goals, which, in turn, shape the legal frameworks and domestic politics around resource planning for defense. Domestic politics, geography, economics, and other considerations equate to diversity in threat perceptions and how these countries approach the strategic environment and their defense priorities. We selected these countries, in part, because they maintain significant industrial capacities, but how each country engages with its defense industrial base and decides which capacities and capabilities to maintain varies significantly. There are also significant differences in the sizes of each country's overall military commitments. For example, the city-state of Singapore might be a highly capable U.S. partner, but it is also small in terms of the financing, range, and complexity of its military capabilities.

Despite these differences, we identified the following similarities between these countries and the United States in their general approaches to defense resource management:

- Processes are structured and formalized, and they include a variety of well-defined decisionmakers and stakeholders.
- Strategic planning is a key input that is used to explicitly connect priorities to how much is spent to address military threats.
- There are ongoing discussions between the defense organizations and decisionmakers who control the power of the purse to justify how forces and programs will use their funding.
- Defense organizations receive and spend funding according to agreed-on appropriations rules and then use certain mechanisms, if plans change, to move or carry over funding.
- Oversight is a key mechanism for ensuring that what is budgeted is appropriately spent, even if mechanisms for exercising oversight vary significantly.



It was particularly noteworthy that, in these case studies, there was no equivalent of key features that are often raised in public discussions about PPBE reform in the United States. For example, friction between the executive and legislative branches in budget execution—from continuing resolutions to potential government shutdowns to threats of budget sequestration, as in the United States—did not appear to be a substantial concern in these cases. Available evidence suggests that the levers for reprogramming were manageable and that the colors of money and periods of availability for funds did not significantly constrain these countries’ defense organizations in pursuing their priorities. Furthermore, the U.S. focus on a need to foster processes to enable innovation, agility, and responsiveness to a changing threat environment was not a primary animating feature of these cases. All these countries maintained processes to adjust budgets for unanticipated contingencies, such as the COVID-19 pandemic or the invasion of Ukraine, but, overall, they placed a high priority on budget stability, predictability, and certainty as features of their fiscal policies, offering steady signals to industry partners and supporting long-term plans.

## Summary of the Defense Governance and Budgetary Systems of the United States and Comparative Nations

In Tables 7.1 through 7.10, we summarize the defense governance and budgetary systems of the near-peer, allied, and partner nations that we assessed alongside the U.S. defense governance and budgetary systems.<sup>11</sup> These tables are organized first by governance systems (Tables 7.1 and 7.2) and then by the four budgetary functions of planning (Tables 7.3 and 7.4), programming (Tables 7.5 and 7.6), budgeting (Tables 7.7 and 7.8), and execution (Tables 7.9 and 7.10).

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<sup>11</sup> Information presented in these tables is derived from multiple sources and materials reviewed by the authors and cited elsewhere in this report and in Volumes 1 and 2. See the references lists of all three volumes for full bibliographic details.

**TABLE 7.1**

**Governance: U.S. and Comparative Nation Government Structures and Key Participants**

| Country       | Structure of Government or Political System   | Key Governing Bodies and Participants  |
|---------------|---|--|
| United States | Federal presidential constitutional republic  | <ul style="list-style-type: none"> <li>• President of the United States</li> <li>• Office of Management and Budget (OMB)</li> <li>• Congress (House of Representatives and Senate)</li> <li>• U.S. Department of Defense (DoD)</li> <li>• Secretary of Defense and senior DoD leadership</li> <li>• Joint Chiefs of Staff</li> </ul>   |
| China         | Unitary one-party socialist republic          | <ul style="list-style-type: none"> <li>• Politburo Standing Committee</li> <li>• National People's Congress (NPC)</li> <li>• Central Military Commission (CMC)</li> </ul>  |
| Russia        | Federal semi-presidential republic            | <ul style="list-style-type: none"> <li>• President of Russia</li> <li>• Federal Assembly (State Duma and the Federation Council)</li> <li>• President's Security Council</li> <li>• Ministry of Defense (MoD)</li> <li>• Military-Industrial Commission (VPK)</li> <li>• Rostec (Russian state-owned defense conglomerate headquartered in Moscow)</li> </ul>  |
| Australia     | Federal parliamentary constitutional monarchy | <ul style="list-style-type: none"> <li>• Prime minister</li> <li>• Governor-general</li> <li>• Parliament (House of Representatives and Senate)</li> <li>• Minister for Defence</li> <li>• Department of Defence</li> </ul>  |
| Canada        | Federal parliamentary constitutional monarchy | <ul style="list-style-type: none"> <li>• Prime minister</li> <li>• Governor general</li> <li>• Parliament (House of Commons and Senate)</li> <li>• Department of National Defence (DND)</li> <li>• Minister of Finance</li> <li>• Minister of National Defence</li> <li>• Deputy Minister of National Defence</li> </ul>   |
| UK            | Unitary parliamentary constitutional monarchy | <ul style="list-style-type: none"> <li>• Prime minister</li> <li>• Parliament (House of Commons and House of Lords)</li> <li>• Ministry of Defence (MoD)</li> <li>• Secretary of State for Defence</li> <li>• Permanent Under-Secretary of State for Defence</li> </ul>  |
| France        | Unitary semi-presidential republic            | <ul style="list-style-type: none"> <li>• President</li> <li>• Prime minister</li> <li>• Parliament (National Assembly and Senate)</li> <li>• National Defense and Security Council</li> <li>• Ministry of the Economy, Finance, and Digital Sovereignty (MinFin)</li> <li>• Ministry of Armed Forces (MinArm), including the Chief of Defense Staff (CEMA) and the Directorate General of Armaments (DGA)</li> <li>• Armament Engineering Corps</li> </ul> |

**Table 7.1—Continued**

| Country   | Structure of Government or Political System   | Key Governing Bodies and Participants   |
|-----------|---|---|
| Germany   | Federal parliamentary republic                | <ul style="list-style-type: none"> <li>• Federal President</li> <li>• Chancellor</li> <li>• Parliament (Bundestag and Bundesrat)</li> <li>• Federal Ministry of Defense</li> <li>• Federal Ministry of Finance (BMF) and Ministry of Economic Affairs</li> <li>• Bundeswehr (German armed forces)</li> <li>• Chief of Defense (also known as the Inspector General)</li> </ul>  |
| Japan     | Unitary parliamentary constitutional monarchy | <ul style="list-style-type: none"> <li>• Prime minister</li> <li>• Diet (House of Representatives and House of Councillors)</li> <li>• Council on Economic and Fiscal Policy</li> <li>• Cabinet</li> <li>• Ministry of Finance</li> <li>• Ministry of Defense (MOD), inclusive of the Self-Defense Forces (SDF)</li> </ul>  |
| Singapore | Unitary dominant-party parliamentary republic | <ul style="list-style-type: none"> <li>• Prime minister</li> <li>• President, as the “fiscal guardian” of government funds</li> <li>• Parliament (unicameral)</li> <li>• Cabinet-level Minister for Defence</li> <li>• Ministry of Defence (MINDEF), inclusive of the Singapore Armed Forces (SAF)</li> <li>• Two Civilian Permanent Secretary for Defence positions: the Permanent Secretary (Defence) and the Permanent Secretary (Defence Development)</li> <li>• Chief of Defence Force</li> </ul>  |
| Sweden    | Unitary parliamentary constitutional monarchy | <ul style="list-style-type: none"> <li>• Prime minister</li> <li>• Riksdag (parliament)</li> <li>• Defence Commission</li> <li>• Cabinet-level ministries, including the Ministry of Defence (inclusive of a Minister for Defence, responsible for military defense, and a Minister for Civil Defence, responsible for crisis preparedness and civil defense)</li> <li>• 12 defense-oriented civilian-led government agencies, independent of the Ministry of Defence, including the Swedish Armed Forces (SwAF), the Defence Materiel Administration, and the Defence Research Agency</li> <li>• Supreme Commander of the SwAF, or the Chief of Defence</li> <li>• Civilian Director-General (responsible for logistics and finances)</li> </ul> |

**TABLE 7.2**
**Governance: U.S. and Comparative Nation Spending Controls and Decision Supports**

| Country       | Control of Government Spending  | Decision Support Systems  |
|---------------|---|---|
| United States | Legislative review and approval of executive budget proposal  | <ul style="list-style-type: none"> <li>• Planning, Programming, Budgeting, and Execution (PPBE)</li> <li>• Joint Capabilities Integration and Development System (JCIDS)</li> <li>• Defense Acquisition System (DAS)</li> </ul>   |
| China         | Executive with nominal legislative review and approval  | <ul style="list-style-type: none"> <li>• 2019 defense white paper indicated adoption of “demand-oriented planning” and “planning-led” resource allocation</li> </ul>  |
| Russia        | Executive with assessed nominal legislative review and approval   | <ul style="list-style-type: none"> <li>• Unclear</li> </ul>   |
| Australia     | Executive with legislative review and approval. Appropriations legislation must originate in the House of Representatives; Senate may reject legislation but cannot amend it. | One Defense Capability System (ODCS), including the following: <ul style="list-style-type: none"> <li>• the Integrated Force Design Process, featuring a two-year cycling Defense Capability Assessment Program (DCAP)</li> <li>• the Integrated Investment Program (IIP), which documents planned future capability investments and informs the Portfolio Budget Statement, the proposed allocation of resources to outcomes</li> <li>• acquisition of approved IIP capability programs</li> <li>• sustainment and disposal of capability programs.</li> </ul> |
| Canada        | Executive with assessed limited influence of legislative review and approval  | <ul style="list-style-type: none"> <li>• Expenditure Management System</li> <li>• Defence Capabilities Board</li> <li>• Independent Review Panel for Defence Acquisition</li> </ul>   |
| UK            | Executive with legislative review and approval  | <ul style="list-style-type: none"> <li>• Public Finance Management Cycle</li> <li>• Planning, Budgeting, and Forecasting (PB&amp;F)</li> <li>• Defence Operating Model</li> </ul>   |
| France        | Executive with nominal legislative approval and input   | <ul style="list-style-type: none"> <li>• Planning and programming processes rooted in defense strategic guidance that generates a long-term defense spending plan executed through annual budgets</li> </ul>  |
| Germany       | Executive with strong legislative review and approval   | <ul style="list-style-type: none"> <li>• Planning and programming processes, inclusive of the Integrated Planning Process, rooted in defense strategic guidance that generates a defense spending plan executed through annual budgets</li> </ul>   |
| Japan         | Executive with legislative review and approval  | <ul style="list-style-type: none"> <li>• Planning and programming processes rooted in defense strategic guidance</li> <li>• 3-year time frame for budget formulation, execution, and settlement, with formulation beginning approximately 1 year before a new fiscal year and settlement of accounts 1 year after execution time frame</li> </ul>   |

**Table 7.2—Continued**

| Country   | Control of Government Spending   | Decision Support Systems  |
|-----------|--|---|
| Singapore | Executive with nominal legislative approval  | <ul style="list-style-type: none"> <li>Exact nature and processes associated with decision support systems are opaque in open-source materials; sources suggest that analogous processes exist at the MINDEF level, with some level of review and approval for certain decisions—such as procurement decisions—provided by the Minister for Defence.</li> </ul>   |
| Sweden    | Executive through collective decisionmaking at the ministerial level, with legislative review and approval | <ul style="list-style-type: none"> <li>Historical use of a System for Finance, Planning, and Economic Management patterned after U.S. PPBE system, with defense planning and budgeting the responsibility of the SwAF (with limited input from parliament)</li> <li>Financial crisis of early 1990s resulted in major reforms, such as the introduction of the Defense Commission, which serves as a consensus-building forum on Swedish defense policy between the government and representatives from parliament.</li> <li>Other reforms introduced a client-contractor model of outlays, whereby the SwAF procures services from other government agencies.</li> </ul> |

**TABLE 7.3**
**Planning: U.S. and Comparative Nation Inputs and Outputs**

| Country       | Key Planning Inputs  | Selected Planning Outputs  |
|---------------|--|--|
| United States | <ul style="list-style-type: none"> <li>• National Security Strategy</li> <li>• National Defense Strategy</li> <li>• National Military Strategy</li> </ul>  | <ul style="list-style-type: none"> <li>• Chairman's Program Recommendations</li> <li>• Defense Planning Guidance</li> <li>• Fiscal Guidance</li> </ul>   |
| China         | <ul style="list-style-type: none"> <li>• Five-Year Programs</li> <li>• Military Strategic Guidelines</li> <li>• Other multiyear plans (People's Liberation Army [PLA] five-year professional development plans, etc.)</li> <li>• Annual PLA budget requirements</li> </ul>   | <ul style="list-style-type: none"> <li>• Outline of the Five-Year Program for Military Development</li> <li>• Military components of other multiyear plans</li> <li>• Annual PLA budgets</li> </ul>                            |
| Russia        | <ul style="list-style-type: none"> <li>• State Armaments Program (SAP) procurement plan</li> </ul>   | <ul style="list-style-type: none"> <li>• State Defense Order (SDO)</li> </ul>  |
| Australia     | <ul style="list-style-type: none"> <li>• 2016 Defence White Paper</li> <li>• 2017 Defence Industry Policy Statement</li> <li>• 2017 Strategy Framework</li> <li>• 2019 Defence Policy for Industry Participation</li> <li>• 2020 Defence Strategic Update</li> <li>• 2020 Force Structure Plan</li> <li>• 2023 Defence Strategic Review</li> <li>• Defence Planning Guidance/Chief of the Defence Force Preparedness Directive (Not available to the general public)</li> <li>• Other strategic plans and documents outlining planning and program requirements</li> </ul> | <ul style="list-style-type: none"> <li>• IIP for future capability investment</li> </ul>   |
| Canada        | <ul style="list-style-type: none"> <li>• 2017 defence white paper (<i>Strong, Secure, Engaged</i>)</li> <li>• 2018 Defence Plan, 2018–2023</li> <li>• 2019 Defence Investment Plan</li> <li>• 2020 Defence Capabilities Blueprint (updated monthly)</li> <li>• 2022 Department of National Defence and Canadian Armed Forces Engagement Plan (released annually)</li> </ul>  | <ul style="list-style-type: none"> <li>• Annual department plans to link DND strategic priorities and expected program results to the Main Estimates presented to parliament</li> </ul>  |
| UK            | <ul style="list-style-type: none"> <li>• Public Finance Management Cycle</li> <li>• PB&amp;F</li> <li>• Defence Operating Model</li> </ul>   | <ul style="list-style-type: none"> <li>• 2021 Defence Command Paper (<i>Defence in a Competitive Age</i>) aligns MoD priorities with the Integrated Review</li> <li>• 2021 Defence and Security Industrial Strategy</li> </ul> |
| France        | <ul style="list-style-type: none"> <li>• 2022 Strategic Review of Defense and National Security</li> </ul>   | <ul style="list-style-type: none"> <li>• Nonbinding Military Programming Law (LPM), which determines a 4–7-year defense budget spending plan</li> </ul>  |
| Germany       | <ul style="list-style-type: none"> <li>• 2016 white paper</li> <li>• 2022 <i>Zeitenwende</i> speech from Chancellor Olaf Scholz</li> </ul>   | <ul style="list-style-type: none"> <li>• 2018 concept of implementation for white paper–articulated key aims of the Bundeswehr</li> <li>• 2023 National Security Strategy</li> </ul>   |

**Table 7.3—Continued**

| Country   | Key Planning Inputs  | Selected Planning Outputs  |
|-----------|--|--|
| Japan     | <ul style="list-style-type: none"> <li>National Security Strategy (NSS)</li> <li>National Defense Strategy (NDS)</li> </ul>  | <ul style="list-style-type: none"> <li>Defense Buildup Program</li> </ul>  |
| Singapore | <ul style="list-style-type: none"> <li>No public release of defense strategic documents or plans in recent years; the closest analog is an articulated commitment to dual pillars of diplomacy and deterrence</li> </ul>   | <ul style="list-style-type: none"> <li>Sources suggest that Singapore has embarked on a modernization and investment plan to achieve a “Next Generation SAF.”</li> </ul>   |
| Sweden    | <ul style="list-style-type: none"> <li>Articulated commitment to “total defense” and forward-looking operational and investment plans</li> <li>Armed Forces Development Plan recommending options to improve Swedish defense capabilities over a 10-year window</li> <li>SwAF annual report summarizing previous year’s performance</li> </ul> | <ul style="list-style-type: none"> <li>Documents such as the 2022 Materiel Supply Strategy</li> <li>Parliament-approved defense bill providing overall strategic direction for Swedish defense (approved every 5 years), with directives implemented annually</li> <li>Annual budget bill</li> </ul> |

**TABLE 7.4****Planning: U.S. and Comparative Nation Strategic Emphasis and Stakeholders**

| Country       | Strategic Planning Emphasis  | Planning Stakeholders  |
|---------------|--|--|
| United States | 2022 National Defense Strategy highlights four priorities: (1) defending the United States, “paced to the growing multi-domain threat posed by the PRC”; (2) deterring “strategic attacks against the United States, Allies, and partners”; (3) deterring aggression and being prepared to “prevail in conflict when necessary,” with priority placed first on the PRC “challenge in the Indo-Pacific region” and then “the Russia challenge in Europe”; and (4) “building a resilient Joint Force and defense ecosystem.” | <ul style="list-style-type: none"> <li>Under Secretary of Defense for Policy (lead actor, produces Defense Planning Guidance)</li> <li>President (National Security Strategy, Fiscal Guidance)</li> <li>Secretary of Defense (National Defense Strategy, Fiscal Guidance at DoD level)</li> <li>Chairman of the Joint Chiefs of Staff (CJCS) (National Military Strategy, Chairman’s Program Recommendations)</li> </ul> |
| China         | Focused, long-term investment for priority projects of high strategic value  | <ul style="list-style-type: none"> <li>Central Chinese Communist Party leadership</li> <li>National People’s Congress</li> <li>State Council</li> <li>Defense-related state-owned enterprises</li> <li>CMC, senior military leadership</li> </ul>  |
| Russia        | Closely linked to strategy and national security threats with a recent emphasis on modernization; assessed to be, in part, aspirational  | <ul style="list-style-type: none"> <li>MoD</li> <li>Central Research Institute</li> <li>VPK, representing Rostec, defense industry, and national security agencies</li> </ul>  |

**Table 7.4—Continued**

| Country   | Strategic Planning Emphasis   | Planning Stakeholders   |
|-----------|---|---|
| Australia | 2023 Defence Strategic Review emphasized a strategy of deterrence to deny an adversary freedom of action to militarily coerce Australia and to operate against Australia without being held at risk   | <ul style="list-style-type: none"> <li>• Strategic guidance generated by Department of Defence; approved by the Minister for Defence</li> <li>• IIP managed by the Vice Chief of the Defence Force, with input from stakeholders and joint strategic planning units, such as the Force Design Division</li> </ul> |
| Canada    | 2017 white paper emphasized three components to Canadian national defense: (1) defense of national sovereignty through Canadian Armed Forces capable of assisting in response to natural disasters, search and rescue, and other emergencies; (2) defense of North America through partnership with the United States in North American Aerospace Defense Command (NORAD); and (3) international engagements, including through peace support operations and peacekeeping.  | <ul style="list-style-type: none"> <li>• DND and supporting cabinet entities</li> </ul>   |
| UK        | 2021 Defence Command Paper emphasized seven primary goals of the MoD and the British Armed Forces: (1) defense of the UK and its overseas territories, (2) sustainment of UK nuclear deterrence capacity, (3) global influence projection, (4) execution of North Atlantic Treaty Organization (NATO) responsibilities, (5) promotion of national prosperity, (6) peacekeeping contributions, and (7) supporting defense and intelligence-gathering capabilities of UK allies and partners.   | <ul style="list-style-type: none"> <li>• Prime minister’s Cabinet Office (Integrated Review)</li> <li>• MoD (Defense Command Paper and other strategic documents)</li> </ul>  |
| France    | <ul style="list-style-type: none"> <li>• As of the 2022 Strategic Review, strategic concerns include intensification of strategic competition, the increased fragility of collective security, and the diversification of means of intimidation and aggression.</li> <li>• 2024–2030 LPM has stated aims that are to (1) maintain the credibility of French military nuclear deterrence; (2) reinforce resilience and assert sovereignty within France’s territories, particularly its overseas territories; (3) defend common spaces (cyberspace, space, the seabed, and air-maritime spaces); and (4) rethink and diversify strategic partnerships so as to reinforce France’s capacity to influence, prevent, and intervene beyond its borders, as well as reinforce its capacity to lead large missions with partners and allies if necessary.</li> </ul> | <ul style="list-style-type: none"> <li>• President, supported by the Minister of the Armed Forces and the National Defense and Security Council</li> </ul>  |



Table 7.4—Continued

| Country   | Strategic Planning Emphasis   | Planning Stakeholders  |
|-----------|---|--|
| Germany   | <ul style="list-style-type: none"> <li>• National Security Strategy echoes themes of the <i>Zeitenwende</i> speech, identifying Russia as the current significant threat to peace and security in the Euro-Atlantic area; notes that China must be viewed as a partner in addition to a competitor and systemic rival; highlights the risks represented by fragile states and internal conflicts within the “neighborhood” of Europe; and flags the “complex threats” represented by terrorism, organized crime, cyberattacks, and illegal financial flows.</li> <li>• National Security Strategy articulates an “integrated security” for Germany that features (1) robust defense of German and European peace and freedom; (2) defense of Germany’s free democratic order against illegitimate foreign interference, disinformation, and extremism; and (3) safeguarding natural resources through such efforts as climate-crisis adaptation strategies, strengthening of global food security, and preventing future global pandemics.</li> </ul> | <ul style="list-style-type: none"> <li>• Ministry of Defense</li> </ul>  |
| Japan     | <ul style="list-style-type: none"> <li>• 2022 NSS identified growing threats from China, North Korea, and Russia as key challenges and articulated a requirement for “comprehensive national power” containing diplomatic, defensive, economic, technological, and intelligence capabilities, including significant new defense capabilities.</li> <li>• 2022 NDS reiterates “three pillars” of Japan’s defense architecture (SDF capability, alliance with the United States, and security cooperation with partners and allies) and articulates seven key capability priorities that will support its strategic objectives: (1) standoff capabilities, (2) integrated air and missile defense, (3) uncrewed systems, (4) cross-domain capabilities, (5) command and control and intelligence, (6) mobility, and (7) sustainability and resiliency.</li> </ul>   | <ul style="list-style-type: none"> <li>• MOD</li> <li>• Defense Minister</li> <li>• Prime minister</li> </ul>  |
| Singapore | <ul style="list-style-type: none"> <li>• Diplomacy pillar looks to state diplomacy and the international rules-based order to protect Singaporean interests and build diplomatic strategic depth.</li> <li>• Deterrence pillar looks to emphasize Singapore’s ability to maintain stability and security by possessing an ability to credibly deter potential aggressors.</li> </ul>  | <ul style="list-style-type: none"> <li>• Defence Policy Office (DPO) under the Deputy Secretary (Policy) to the Permanent Secretary (Defence) leads defense planning, with key decisions made by the Minister for Defence and other cabinet-level officials</li> </ul> |
| Sweden    | <ul style="list-style-type: none"> <li>• National defense policy that centers on “total defense,” an all-of-society national defense effort that includes military, civil, economic, and psychological elements, including the fundamental importance of endurance and an aim of being able to withstand a crisis for at least 3 months</li> </ul>  | <ul style="list-style-type: none"> <li>• SwAF and Ministry of Defence component agencies</li> <li>• Parliament</li> </ul>  |

**TABLE 7.5**

**Programming: U.S. and Comparative Nation Resource Allocation and Time Frames**

| Country       | Resource Allocation Decisions  | Programming Time Frame  |
|---------------|--|---|
| United States | Documented in Program Objective Memorandum (POM) developed by DoD components, reflecting a “systematic analysis of missions and objectives to be achieved, alternative methods of accomplishing them, and the effective allocation of the resources,” and reviewed by the Director of Cost Assessment and Program Evaluation (CAPE)  | <ul style="list-style-type: none"> <li>• 5 years</li> </ul>   |
| China         | Top-down planning from CMC services and commands supplemented by bottom-up requirements submitted by military unit financial departments   | <ul style="list-style-type: none"> <li>• 5 years, sometimes longer</li> </ul>   |
| Russia        | Top-down planning from Ministry of Defense for the SDO, the annual appropriation for military procurement to meet the requirements of the SAP  | <ul style="list-style-type: none"> <li>• 3 years; nominal 10-year SAP, revised within 5 years in practice</li> </ul>  |
| Australia     | Portfolio Budget Statement (as informed by the IIP) for the current fiscal year  | <p>Three-tiered funding stream that provides</p> <ul style="list-style-type: none"> <li>• current fiscal year funding</li> <li>• forward-looking estimates with a high degree of confidence for the next 3 fiscal years</li> <li>• provisional funding with a medium degree of confidence for the next 10 years, as articulated in the IIP and defense strategic guidance documents.</li> </ul> |
| Canada        | Government Expenditure Plan and Main Estimates allocate budget resources to departments and programs.  | <ul style="list-style-type: none"> <li>• 3 years, as articulated in the Annual Department Plan</li> </ul>   |
| UK            | <ul style="list-style-type: none"> <li>• Main supply estimates (MEs) for the current fiscal year, based on spending limits set in the Integrated Review, and additional estimates for 10 years out as articulated in the MoD <i>Defence Equipment Plan</i>, which is updated annually</li> <li>• Supplementary supply estimates (SEs) allow MoD to request additional resources, capital, or cash for the current fiscal year.</li> <li>• Excess votes—although discouraged—allow retroactive approval of overruns from a prior fiscal year, because government departments cannot legally spend more money than has been approved by parliament.</li> </ul> | <ul style="list-style-type: none"> <li>• 3–5 years, as articulated in the Integrated Review, which provides medium-term financial planning</li> </ul>   |

**Table 7.5—Continued**

| Country   | Resource Allocation Decisions  | Programming Time Frame   |
|-----------|--|--|
| France    | <ul style="list-style-type: none"> <li>Dialogue between the CEMA and the DGA within the MinArm to make resource allocation decisions, informed through engagement with the MinFin, with disagreements resolved by the president in consultation with the National Defense and Security Council</li> </ul>  | <ul style="list-style-type: none"> <li>4–7 years, as articulated in the LPM</li> </ul>   |
| Germany   | <ul style="list-style-type: none"> <li>Bundeswehr Office for Defense Planning delivers integrated planning within a 15-year horizon.</li> </ul>  | <ul style="list-style-type: none"> <li>5 years under the federal financial plan</li> </ul>   |
| Japan     | <ul style="list-style-type: none"> <li>Top-down resource allocations decisions, with characteristics of a strategies-to-task framework, inclusive of input from staff offices</li> </ul>   | <ul style="list-style-type: none"> <li>10 years, separated into two 5-year epochs</li> </ul>   |
| Singapore | <ul style="list-style-type: none"> <li>Internal SAF review and prioritization of capability gaps: Service branches bring capability gaps to the Defense Policy Office, which conducts initial prioritization of service branch requests, with prioritized capability gaps examined by the Systems Integration Office, then reviewed by the Defence Planning Office, with final approval provided by the Minister for Defence.</li> </ul> | <ul style="list-style-type: none"> <li>Rolling 5-year capability acquisition plans of each SAF service branch</li> </ul>   |
| Sweden    | <ul style="list-style-type: none"> <li>SwAF, with review and approval by parliament</li> </ul>   | <ul style="list-style-type: none"> <li>10-year operational plan (FMVP) and 12-year investment plan, reviewed and approved by parliament every 5 years in defense bills</li> <li>Budget framework projecting 3 years into the future with annual updates</li> </ul> |

**TABLE 7.6****Programming: U.S. and Comparative Nation Stakeholders**

| Country       | Programming Stakeholders   |
|---------------|--|
| United States | <ul style="list-style-type: none"> <li>Director, CAPE (lead actor, provides analytic baseline to analyze POM produced by DoD components, leads program reviews, forecasts resource requirements, and updates the Future Years Defense Program [FYDP])</li> <li>DoD components (produce POM, document proposed resource requirements for programs over 5-year timespan, which comprises the FYDP)</li> <li>CJCS (assesses component POMs, provides chairman’s program assessment reflecting the extent to which the military departments [MILDEPs] have satisfied combatant command [COCOM] requirements)</li> <li>Deputy Secretary of Defense (adjudicates disputes through the Deputy’s Management Action Groups)</li> <li>Secretary of Defense (as needed, directs DoD components to execute Resource Management Decision memoranda to reflect decisionmaking during the programming and budget phases)</li> </ul> |
| China         | <ul style="list-style-type: none"> <li>Ministry of Finance National Defense Department</li> <li>CMC Logistics Support Department</li> <li>CMC Strategic Planning Office</li> </ul>   |

**Table 7.6—Continued**

| Country   | Programming Stakeholders   |
|-----------|--|
| Russia    | <ul style="list-style-type: none"> <li>• Ministry of Finance</li> <li>• Ministry of Economic Development</li> <li>• MoD</li> <li>• President’s Security Council</li> <li>• VPK</li> </ul>  |
| Australia | <ul style="list-style-type: none"> <li>• At Department of Defence level, decisionmaking for resources made through Defence Committee (Defence Secretary, Chief of the Defence Force, Vice Chief of the Defence Force, Associate Defence Secretary, Chief Finance Officer)</li> <li>• Capability-related submissions reviewed by Minister for Finance–led National Security Investment Committee of Cabinet</li> <li>• Approved by National Security Committee (prime minister, deputy prime minister, Minister for Defence, Treasurer, Minister for Finance, other ministers when necessary)</li> </ul>  |
| Canada    | <ul style="list-style-type: none"> <li>• Treasury Board and Department of Finance (sets annual spending limits for federal agencies that are applicable to capital expenditures and determines the number of new projects funded)</li> <li>• Department of Finance, led by the Minister of Finance (drafts budget for presentation to parliament)</li> <li>• Minister of Finance and prime minister have approval authority.</li> <li>• Assistant Deputy Minister for Finance, DND and the DND Finance Group (prepares DND budget and liaises with Treasury Board Secretariat, Department of Finance, and other federal agencies)</li> <li>• Military service comptrollers</li> </ul>                                |
| UK        | <ul style="list-style-type: none"> <li>• Component entities negotiate with MoD through “demand” signals; components program against required outputs.</li> <li>• MoD reviews and prioritizes proposed programs through a centralized process.</li> <li>• MoD Director General, Finance, working with the Deputy Chief of the Defense Staff for Military Capability (part of the MoD Financial and Military Capability team)</li> <li>• Supported by Director of Financial Planning and Scrutiny and the Assistant Chief of the Defence Staff for Capability and Force Design (part of the Financial and Military Capability team)</li> <li>• Process execution delegated to the Head of Defence Resources</li> </ul> |
| France    | <ul style="list-style-type: none"> <li>• MinArm, including the CEMA, DGA, and Secretary-General for Administration</li> <li>• MinFin</li> <li>• Prime minister</li> <li>• President</li> </ul>   |
| Germany   | <ul style="list-style-type: none"> <li>• Bundeswehr Office for Defense Planning (delivers integrated planning within a 15-year horizon)</li> </ul>   |
| Japan     | <ul style="list-style-type: none"> <li>• MOD internal bureaus</li> <li>• MOD staff offices</li> <li>• Acquisition, Technology, and Logistics Agency</li> </ul>   |
| Singapore | <ul style="list-style-type: none"> <li>• Minister for Defence</li> <li>• Under MINDEF: <ul style="list-style-type: none"> <li>– SAF service branches</li> <li>– DPO</li> <li>– Weapons Staff Officers of the Systems Integration Office</li> <li>– Defense Technology Community, including various organizations, such as the Future Systems and Technology Directorate (FSTD), the Defence Science and Technology Agency (DSTA), and the Defence Science Organisation National Laboratories (DSO)</li> </ul> </li> </ul>  |
| Sweden    | <ul style="list-style-type: none"> <li>• SwAF</li> <li>• Parliament</li> </ul>   |

TABLE 7.7

**Budgeting: U.S. and Comparative Nation Time Frames and Major Categories**

| Country       | Budget Approval Time Frames  | Major Budget Categories  |
|---------------|--|--|
| United States | Annual   | <ul style="list-style-type: none"> <li>5 categories: Military Personnel (MILPERS); Operation and Maintenance (O&amp;M); Procurement; Research, Development, Test, and Evaluation (RDT&amp;E); and Military Construction (MILCON)</li> </ul>  |
| China         | Annual   | <ul style="list-style-type: none"> <li>3 reported categories in defense white papers: personnel, armaments, and maintenance and operations</li> </ul>  |
| Russia        | Annual   | <ul style="list-style-type: none"> <li>9 categories: Armed Forces of the Russian Federation, Modernization of the Armed Forces, Mobilization and Pre-Conscription Training, Mobilization of the Economy, Participation in Collective Peacekeeping Agreements, Nuclear Weapons Complex, International Military-Technical Cooperation, Research and Development, and a category designated for Other Expenditures</li> </ul>   |
| Australia     | <ul style="list-style-type: none"> <li>Annual, with separate appropriations bills for existing services and programs and for new programs</li> <li>Accrual budgeting with budget request covering ongoing costs; associated funding cannot be carried over to the next fiscal year</li> </ul>  | <ul style="list-style-type: none"> <li>5 categories: Workforce, Operations, Capability Acquisition Programs (including research and development), Capability Sustainment, and Operating Costs</li> </ul>   |
| Canada        | Annual; disbursement of funds is made through 3 supply periods, each reviewed and approved by parliament with Main Estimates and Supplementary Estimate A (i.e., spending not ready to be included in a Main Estimate at time of preparation) presented in the first supply period. Supplementary Estimate B is presented in the second supply period, and Supplementary Estimate C (as needed) is presented in the third supply period. | <ul style="list-style-type: none"> <li>Various categories: votes for separate tranches of funding roughly correspond to DoD's colors of money. FY 2022–FY 2023 contained four votes for (1) operating expenditures; (2) capital expenditures, including major capability programs and infrastructure projects; (3) grants and contributions, including payments to NATO and funding for partner-nation military programs; and (4) payments for long-term disability and life insurance plans for Canadian Armed Forces Members.</li> <li>Main Estimates also categorize spending by purpose. FY 2022–FY 2023 purpose categorizations include such areas as (1) ready forces, (2) capability procurement, (3) future force design, and (4) operations.</li> </ul> |
| UK            | Annual   | <ul style="list-style-type: none"> <li>8 categories: as split by the MoD for its internal PPBE-like process, corresponding to 8 main MoD organizations, central oversight to promote jointness</li> <li>Budgets divided into commodity blocks (capital departmental expenditure limit for investment, resource departmental expenditure limit for current costs, etc.) and by activity (personnel, etc.)</li> </ul>  |

**Table 7.7—Continued**

| Country | Budget Approval Time Frames   | Major Budget Categories  |
|---------|-------------------------------|--|
| France  | Annual                        | <ul style="list-style-type: none"> <li>• Under Organic Law Relating to Finance Laws or LOLF, mission-based budget is subdivided into programs: Current defense budget includes 3 missions and 8 key programs, which can be divided further into spending associated with specific actions, subactions, and operations.</li> <li>• Defense mission, inclusive of (1) Program 144, Environment and Future Defense Policy; (2) Program 146, Equipment of the Armed Forces; (3) Program 178, Preparation and Employment of Forces; and (4) Program 212, Support to the Defense Policy</li> <li>• Veterans, Remembrance, and Defense-Nation Links mission, inclusive of (1) Program 158, Compensation for Victims of Anti-Semitic Persecution and Acts of Barbarism During World War II, and (2) Program 169, Recognition and Compensation for Veterans</li> <li>• Economic Recovery Plan mission, inclusive of (1) Program 362, Ecology, and (2) Program 363, Competitiveness</li> </ul> |
| Germany | Annual                        | <ul style="list-style-type: none"> <li>• 11 categories: (1) command authorities and troops, social security contributions, welfare measures, and support for soldiers; (2) accommodation; (3) Federal Armed Forces administration, Federal Armed Forces universities, military chaplaincy; (4) maintenance of Bundeswehr equipment; (5) other Bundeswehr operations; (6) military procurement; (7) centrally budgeted administrative income and expenses; (8) NATO and other international institutions-related commitments, as well as measures related to international operations; (9) military research, development, and testing; (10) Federal Office for the Military Counterintelligence Services (counterterrorism operations); and (11) other appropriations (disaster relief efforts)</li> </ul>   |
| Japan   | Annual; cash-basis accounting | <ul style="list-style-type: none"> <li>• 7 categories: (1) standoff capabilities, (2) integrated air and missile defense, (3) uncrewed systems, (4) cross-domain capabilities, (5) command and control and intelligence, (6) mobility, and (7) sustainability and resiliency</li> </ul>  |

**Table 7.7—Continued**

| Country   | Budget Approval Time Frames  | Major Budget Categories  |
|-----------|--|--|
| Singapore | Annual; cash-basis accounting  | <ul style="list-style-type: none"> <li>• Government spending categorized under security and external relations, social development, government administration, and economic development</li> <li>• All government spending also divided into operating and development expenditure categories</li> <li>• For MINDEF, operating expenditure categories include personnel, operations, maintenance, and procurement, with development expenditures linked to long-term investments in capital assets, infrastructure, and land development.</li> <li>• MINDEF <i>colors of money</i> analogs include investments in human capital (personnel training and salaries), operating and development (readiness and international deployments), and investments in new capabilities (procurement and R&amp;D)</li> </ul> |
| Sweden    | Annual, with the Spring Fiscal Policy Bill outlining maximum spending for the government in the subsequent 3 fiscal years that updates the multiyear budget framework, and a Fall Budget Bill that finalizes cabinet-level negotiations of division of approved funding between 27 expenditure areas | <ul style="list-style-type: none"> <li>• 9 categories under Expenditure Area 6, “Defence and Society’s Preparedness”: (1) unit activities and preparedness, (2) state pension fees, (3) maintenance of equipment and facilities, (4) military intelligence and security service, (5) armed international operations of the SwAF, (6) other international operations of the SwAF, (7) acquisition of equipment and facilities, (8) research and technology development, and (9) the SwAF</li> </ul>   |

**TABLE 7.8****Budgeting: Selected U.S. and Comparative Nation Stakeholders**

| Country       | Selected Budgeting Stakeholders  |
|---------------|--|
| United States | <p>DoD</p> <ul style="list-style-type: none"> <li>• Under Secretary of Defense (Comptroller)</li> <li>• DoD components and COCOMs</li> </ul> <p>Executive branch</p> <ul style="list-style-type: none"> <li>• OMB</li> </ul> <p>Congress</p> <ul style="list-style-type: none"> <li>• House Budget Committee</li> <li>• Senate Budget Committee</li> <li>• House Appropriations Committee (Defense Subcommittee)</li> <li>• Senate Appropriations Committee (Defense Subcommittee)</li> <li>• House Armed Services Committee</li> <li>• Senate Armed Services Committee</li> </ul> |
| China         | <ul style="list-style-type: none"> <li>• State Council</li> <li>• NPC</li> <li>• NPC Standing Committee</li> <li>• NPC Finance and Economic Committee</li> </ul>   |

**Table 7.8—Continued**

| Country   | Selected Budgeting Stakeholders   |
|-----------|---|
| Russia    | <ul style="list-style-type: none"> <li>• Ministry of Finance</li> <li>• Ministry of Economic Development</li> <li>• MoD</li> <li>• President</li> <li>• Federal Assembly (State Duma and the Federation Council)</li> <li>• Accounts Chamber</li> </ul>   |
| Australia | <p>Department of Defence management:</p> <ul style="list-style-type: none"> <li>• Vice Chief of the Defence Force</li> <li>• Associate Secretary of Defence</li> <li>• Investment Committee (chaired by the Vice Chief of the Defence Force, makes departmental decisions associated with execution of the IIP)</li> <li>• Capability managers (senior military officials, Chief Defence Scientist, CIO, and the Deputy Secretary Security and Estate) and lead delivery groups</li> </ul> <p>Decisions are ultimately the responsibility of the civilian executive government (prime minister, cabinet)</p>  |
| Canada    | <ul style="list-style-type: none"> <li>• Treasury Board and Department of Finance</li> <li>• Assistant Deputy Minister for Finance, DND and the DND Finance Group</li> <li>• Military service comptrollers</li> </ul>   |
| UK        | <ul style="list-style-type: none"> <li>• His Majesty’s (HM) Treasury sets annual limits on net spending.</li> <li>• MoD drafts and presents MEs and SEs to parliament at different points within the fiscal-year cycle, in close coordination with HM Treasury.</li> <li>• House of Commons Defence Select Committee examines MEs; parliament votes on MEs and SEs.</li> <li>• MoD Director General, Finance, working with the Deputy Chief of the Defense Staff for Military Capability (part of the MoD Financial and Military Capability team)</li> <li>• Supported by Director of Financial Planning and Scrutiny and the Assistant Chief of the Defence Staff for Capability and Force Design (part of the Financial and Military Capability team)</li> <li>• Process execution delegated to the Head of Defence Resources.</li> </ul> |
| France    | <ul style="list-style-type: none"> <li>• MinArm, including CEMA and DGA</li> <li>• MinFin</li> <li>• Parliament (National Assembly and Senate)</li> <li>• High Council of Public Finances</li> <li>• Council of State</li> <li>• Prime minister</li> <li>• President</li> </ul>   |
| Germany   | <ul style="list-style-type: none"> <li>• Tax estimation generated by representatives from BMF, the Ministry of Economic Affairs, other federal ministries, and the Deutsches Bundesbank and experts from six research institutes</li> <li>• BMF provides budget baseline.</li> <li>• Ministry of Defense submits financial needs and outlines policy priorities to the BMF.</li> <li>• Defense Ministry Budget and Oversight Department</li> <li>• Bundestag and Bundesrat review and amend BMF-submitted federal budget.</li> </ul>  |



**Table 7.8—Continued**

| Country   | Selected Budgeting Stakeholders  |
|-----------|--|
| Japan     | <ul style="list-style-type: none"> <li>• MOD internal bureaus</li> <li>• Ministry of Finance Budget Bureau (collects budget requests from ministries and incorporates them into a budgetary framework, with negotiations and adjustments as needed)</li> <li>• Council on Economic and Fiscal Policy (sets policy guidelines for spending in the next fiscal year by issuing the Basic Policy on Economic and Fiscal Management and Reform)</li> <li>• Direction, approval, and political influence exerted by the prime minister, cabinet, and members of the Diet, with informal communication between stakeholders used to build consensus and resolve differences</li> </ul> |
| Singapore | <ul style="list-style-type: none"> <li>• Under MINDEF, the Defence Management Group's Defence Finance Organisation is responsible for managing the defense budget and long-range planning.</li> </ul>  |
| Sweden    | <ul style="list-style-type: none"> <li>• SwAF</li> <li>• Parliament</li> </ul>   |

**TABLE 7.9**

**Execution: U.S. and Comparative Nation Budgetary Flexibilities and Reprogramming**

| Country       | Budgetary Flexibilities and Reprogramming   |
|---------------|---|
| United States | <ul style="list-style-type: none"> <li>• Funding availability varies by account type; multiyear or no-year appropriations for limited programs as authorized by Congress</li> <li>• Limited carryover authority in accordance with OMB Circular A-11</li> <li>• Reprogramming as authorized; four defined categories of reprogramming actions, including prior-approval reprogramming actions—increasing procurement quantity of a major end item, establishing a new program, etc.—which require approval from congressional defense committees</li> <li>• Transfers as authorized through general and special transfer authorities, typically provided in defense authorization and appropriation acts</li> </ul>   |
| China         | <ul style="list-style-type: none"> <li>• Some flexibility extended to lower-level decisionmakers to adjust spending and acquisitions; further specifics unclear</li> </ul>  |
| Russia        | <ul style="list-style-type: none"> <li>• Signed contract timelines shorter than SAP timelines; provides some degree of flexibility to MoD to realign procurements with changing strategic goals; further specifics unclear</li> </ul>   |
| Australia     | <ul style="list-style-type: none"> <li>• 10-year indicative baseline for defense spending (except operating costs) provides budgetary certainty entering into each new fiscal year.</li> <li>• IIP includes approved capability development programs—for which funding does not expire—and unapproved programs that can be accelerated or delayed as needs arise or change to reallocate funds through biannual review process overseen by the Vice Chief of the Defence Force, including between services and for new projects</li> <li>• IIP is 20% overprogrammed for acquisition to manage risks of underachievement or overexpenditure relative to the acquisition budget.</li> <li>• Funding for operations, sustainment, and personnel is separate from the IIP.</li> <li>• Capability managers have a high degree of flexibility for spending allocated operating funds; responsible for achieving outcomes articulated in the Portfolio Budget Statement.</li> </ul>   |
| Canada        | <ul style="list-style-type: none"> <li>• Organizations can transfer funds within a vote from one program to another without parliament's approval.</li> <li>• Organizations need parliament's approval to transfer funds between votes.</li> <li>• Canadian federal agencies are allowed to carry forward a portion of unspent funds for a fiscal year—typically up to 5% of operating expenditures and 20% of capital expenditures.</li> <li>• Government can authorize continued spending at prior-year levels if a budget has not been passed by parliament by the beginning of the fiscal year.</li> <li>• Special warrants can be issued to fund continued normal government operations if a government falls and an election is called before a budget can be passed; this can also be used on a short-term basis to avoid the need for a parliament vote on funding.</li> <li>• Interim supply bill for a new fiscal year is typically presented and voted on in third supply period of prior fiscal year to allow continued government operations; the budget and Main Estimates are introduced close to the beginning of a new fiscal year.</li> </ul> |

Table 7.9—Continued

| Country | Budgetary Flexibilities and Reprogramming  |
|---------|--|
| UK      | <ul style="list-style-type: none"> <li>• Defense operations funded separately through HM Treasury or (in certain circumstances) UK Integrated Security Fund (as managed by the Cabinet Office’s Joint Funds Unit</li> <li>• Already voted funding can be moved within top-line budget programs with HM Treasury approval, provided they remain in the same commodity block</li> <li>• MoD funds can also be directly transferred between programs within a departmental expenditure limit or annual managed expenditure in a process known as <i>virement</i>, subject to restrictions.</li> <li>• Additional funding for one or more top-line budget programs can be requested from Parliament as an SE.</li> <li>• Portions of budget subject to highest degree of fluctuation treated as annual managed expenditures (with operations covered through HM Treasury and/or UK Integrated Security Fund); MoD can request additional funds from HM Treasury to support urgent and unanticipated needs.</li> </ul>  |
| France  | <ul style="list-style-type: none"> <li>• At the program level: <ul style="list-style-type: none"> <li>– Specific mechanisms include fungibility at the program level allowing program manager to allocate “credits” between different operations provided the ceiling for personnel expenditure is not exceeded (although credits for personnel expenditures can be redistributed to operational expenses)</li> <li>– Distribution of additional credits</li> <li>– Virements of credits across programs within the same ministry (with prime minister decree on the advice of MinFin)</li> <li>– Transfer of credits across programs and ministries (with prime minister decree on the advice of MinFin)</li> <li>– Additional funds generated through such mechanisms as licensing of state-held intellectual property rights</li> <li>– Use of a precautionary reserve, which requires programs to save a fraction of allocated credits in order to respond to future unexpected events</li> </ul> </li> <li>• At the finance law level: <ul style="list-style-type: none"> <li>– Specific mechanisms include amendments to the finance law, provision of advanced emergency funding from the next fiscal year’s finance law, reallocation of funding across ministries to support the defense mission, or creation of a new finance law</li> </ul> </li> </ul> |
| Germany | <ul style="list-style-type: none"> <li>• Bundeswehr special fund (Sondervermögen)—a type of German public financing used for programs or projects with defined objectives and predetermined timelines—with current objectives that include strengthening alliance and defense capabilities and financing significant equipment projects in order to reach an average of 2% of GDP spending on defense within a 5-year period</li> <li>• Flexibility in disbursing funds to purposes other than those intended, as long as total spending does not exceed funding allocated to each ministry</li> <li>• No limits associated on virement within chapters; 20% allowance for transfer of funds between chapters—transfers above 20% threshold require BMF approval</li> <li>• Funds can be carried over into next fiscal year without a specified limit in situations in which (1) there is a contractual obligation to do so or (2) it is authorized by Bundestag and promotes “efficient and economical use” of the carryover funds.</li> </ul>  |
| Japan   | <ul style="list-style-type: none"> <li>• 3 mechanisms for obtaining additional funding: (1) supplementary budget, compiled by the cabinet and submitted to the Diet for approval; (2) use of emergency reserve funds included in the main budget for contingencies, with cabinet approval; and (3) reallocation of funds, through (a) changing budget implementation plan or (b) reallocating funds within the same budget subcategory</li> <li>• Use of multiyear contractual commitments</li> <li>• Authority to carry over funds through four mechanisms: (1) direct carry forward of unspent allocated funds, with Diet approval; (2) carryover of unspent funds resulting from accidents or external shocks; (3) continuation expenses for a multiyear project; and (4) special account budgets, which are separate from the general account budget and used to manage specific programs</li> </ul>   |

**Table 7.9—Continued**

| Country   | Budgetary Flexibilities and Reprogramming   |
|-----------|---|
| Singapore | <ul style="list-style-type: none"> <li>• Departments are assigned a funding cap as a percentage of GDP, with exact budgets not made publicly available—MINDEF ceilings for each fiscal year are classified, but government has publicly committed to a goal of 3–4% of GDP.</li> <li>• Additional project funding can be obtained through a centralized Reinvestment Fund, which is funded through minor spending cuts, that allows reallocation of funds after a competitive bidding process among ministries, with the Ministry of Finance awarding funds.</li> <li>• Annual supplementary budget requests</li> </ul> |
| Sweden    | <ul style="list-style-type: none"> <li>• “Special” or “extra” budget bills that allow for additional funds in response to unanticipated needs (COVID-19 pandemic) or changes to the security environment</li> <li>• Reprioritization of funds through a SwAF annual balancing process</li> <li>• Flexibility for reprogramming of resources within expenditure areas; parliamentary approval required for reallocation of funds between expenditure areas</li> <li>• Multiyear financial commitments with parliamentary approval</li> </ul>   |

**TABLE 7.10**  
**Execution: U.S. and Comparative Nation Assessment Authorities**

| Country       | Key Stakeholders in Execution Assessment   |
|---------------|--|
| United States | <ul style="list-style-type: none"> <li>• Under Secretary of Defense (Comptroller)</li> <li>• DoD component comptrollers and financial managers</li> <li>• Department of the Treasury</li> <li>• Government Accountability Office</li> <li>• OMB</li> <li>• Defense Finance and Accounting Service</li> </ul>   |
| China         | <ul style="list-style-type: none"> <li>• Military Expenditure Performance Management system; guideline-driven performance evaluations of military projects</li> <li>• Ministry of Finance Military Accounting System; evaluation using indicators, such as asset-liability ratios</li> </ul>   |
| Russia        | <ul style="list-style-type: none"> <li>• MoD</li> <li>• Federal Agency for State Property Management</li> <li>• Accounts Chamber</li> </ul>  |
| Australia     | <ul style="list-style-type: none"> <li>• National Audit Office</li> <li>• Finance regulations within Department of Defence and the public service</li> <li>• Defence Finance Policy Framework</li> <li>• Annual Performance Statement; submitted in October of the year following defense appropriation by the prime minister and cabinet</li> <li>• Portfolio Additional Estimates Statement; reflects budget appropriations and changes between budgets</li> </ul> |
| Canada        | <ul style="list-style-type: none"> <li>• Auditor General</li> <li>• Parliamentary Budget Office</li> <li>• DND internal Review Services division</li> </ul>  |
| UK            | <ul style="list-style-type: none"> <li>• National Audit Office</li> <li>• Comptroller and Auditor General</li> <li>• HM Treasury (approval required for any MoD expenditure above £600 million, monthly and annual reporting from MoD on actual and forecasted spending, etc.)</li> <li>• House of Commons Public Accounts Committee</li> </ul>  |

**Table 7.10—Continued**

| Country   | Key Stakeholders in Execution Assessment  |
|-----------|---|
| France    | <ul style="list-style-type: none"> <li>• Court of Auditors</li> <li>• Defense Commission of the National Assembly</li> <li>• “Settlement law” at the end of a fiscal year to close accounts reports on past performance by mission, program, and operation</li> <li>• DGA internal control process for budget monitoring and tracking of armaments projects</li> </ul>      |
| Germany   | <ul style="list-style-type: none"> <li>• Budget Committee and Defense Committee of the Bundestag</li> <li>• “Mirror units” of each department in the BMF to track and monitor spending</li> <li>• Federal Court of Audit</li> </ul>   |
| Japan     | <ul style="list-style-type: none"> <li>• Board of Audit of Japan (independent entity)</li> <li>• Internal reviews by ministries</li> </ul>  |
| Singapore | <ul style="list-style-type: none"> <li>• MINDEF’s Internal Audit Department and external Auditor-General’s Office Singapore audits of MINDEF</li> <li>• Parliamentary oversight through the Estimates Committee, the Public Accounts Committee, and the Parliamentary Committee on Defence and Foreign Affairs</li> <li>• Corrupt Practices Investigation Bureau</li> </ul> |
| Sweden    | <ul style="list-style-type: none"> <li>• SwAF annual evaluation report</li> <li>• National Audit Office</li> <li>• Fiscal Policy Council</li> <li>• National Institute for Economic Research</li> <li>• National Financial Management Authority</li> <li>• National Debt Office</li> </ul>  |



# Abbreviations

|          |   |
|----------|---|
| AGO      | Auditor-General's Office  |
| AHP      | analytical hierarchy process  |
| BMF      | Bundesministerium der Finanzen [Federal Ministry of Finance]                                |
| C4ISR    | command, control, communications, computers, intelligence, surveillance, and reconnaissance |
| CAPE     | Cost Assessment and Program Evaluation  |
| CEMA     | Chef d'État-Major des Armées [Chief of Defense Staff]                                       |
| COCOM    | combatant command   |
| COVID-19 | coronavirus disease 2019  |
| CPIB     | Corrupt Practices Investigation Bureau  |
| DBP      | Defense Buildup Program   |
| DGA      | Direction Générale de L'armement [Directorate General of Armaments]                         |
| DIS      | Digital and Intelligence Service  |
| DoD      | U.S. Department of Defense  |
| DoDD     | Department of Defense Directive   |
| DPO      | Defence Policy Office   |
| DSO      | Defence Science Organisation  |
| DSTA     | Defence Science and Technology Agency   |
| DTC      | Defence Technology Community  |
| EA       | expenditure area  |
| EU       | European Union  |
| FMS      | foreign military sales  |
| FMV      | Försvarets Materielverk [Swedish Defence Materiel Administration]                           |
| FMVP     | Försvarsmaktens Verksamhetsplan [Swedish Armed Forces Activities Plan]                      |
| FOI      | Totalförsvarets Forskningsinstitut [Swedish Defence Research Agency]                        |
| FSTD     | Future Systems and Technology Directorate   |
| FY       | fiscal year   |
| FYDP     | Future Years Defense Program  |
| GDP      | gross domestic product  |
| IT       | information technology  |
| KPI      | key performance indicator   |
| LOLF     | Loi organique relative aux lois de finance [Organic Law Relating to Finance Laws]           |
| LPM      | Loi de programmation militaire [Military Programming Law]                                   |

|        |  |
|--------|--|
| MinArm | Ministère des Armées [Ministry of Armed Forces]  |
| MINDEF | Ministry of Defence  |
| MinFin | Ministère de l'Économie, des Finances et de la Souveraineté Numérique<br>[Ministry of the Economy, Finance, and Digital Sovereignty] |
| MOD    | Ministry of Defense  |
| MOF    | Ministry of Finance  |
| MP     | member of parliament   |
| NATO   | North Atlantic Treaty Organization   |
| NDS    | National Defense Strategy  |
| NSS    | National Security Strategy   |
| O&M    | operations and maintenance   |
| OECD   | Organisation for Economic Co-operation and Development   |
| OMB    | Office of Management and Budget  |
| OSD    | Office of the Secretary of Defense   |
| PAP    | People's Action Party  |
| PLF    | projet de loi de finances [Project Finance Law]  |
| PMT    | project management team  |
| PPBE   | Planning, Programming, Budgeting, and Execution  |
| PPBS   | Planning, Programming, and Budgeting System  |
| PRC    | People's Republic of China   |
| R&D    | research and development   |
| RDT&E  | research, development, test, and evaluation  |
| SAF    | Singapore Armed Forces   |
| SDF    | Self-Defense Forces  |
| SIPRI  | Stockholm International Peace Research Institute   |
| TED    | Tenders Electronic Daily   |
| SwAF   | Swedish Armed Forces   |
| UK     | United Kingdom   |



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**T**he U.S. Department of Defense (DoD) Planning, Programming, Budgeting, and Execution (PPBE) process is a key enabler for DoD to fulfill its mission. But in light of a dynamic threat environment, increasingly capable adversaries, and rapid technological changes, there has been increasing concern that DoD’s resource planning processes are too slow and inflexible to meet warfighter needs. As a result, Congress mandated the formation of a legislative commission to (1) examine the effectiveness of the PPBE process and adjacent DoD practices, particularly with respect to defense modernization; (2) consider potential alternatives to these processes and practices to maximize DoD’s ability to respond in a timely manner to current and future threats; and (3) make legislative and policy recommendations to improve such processes and practices for the purposes of fielding the operational capabilities necessary to outpace near-peer competitors, providing data and analytical insight, and supporting an integrated budget that is aligned with strategic defense objectives.

The Commission on PPBE Reform asked RAND to provide an independent analysis of PPBE-like functions in selected other countries and other federal agencies. In this report—Volume 5 in a seven-volume set of case studies—RAND researchers analyze the defense budgeting processes of five additional allied and partner nations: France, Germany, Japan, Singapore, and Sweden. Relative to the United Kingdom, Australia, and Canada (considered in Volume 2), the cases in this volume are more varied and have some notable differences from the United States.

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