

HOW TO ENSURE ISRAEL HAS THE WEAPONS IT NEEDS

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Since the October 7 Hamas terror attack, the United States has provided Israel with an enormous number and variety of weapons, which have played a vital role in helping Israel defend itself. Yet some in the United States have called for curtailing or stopping the flow of weapons to Israel, leaving Israelis concerned that the United States might not have its back in a future war.¹ Accordingly, many Israelis are pushing to dramatically expand Israel’s defense industrial base (DIB) so it can meet its own needs for weapons and reduce its dependence on the United States.²

To ensure Israel has the weapons it needs in the future, it should pursue a hybrid strategy focused on quickly acquiring key munitions in large quantities from the United States when possible while making targeted investments to expand Israel’s domestic DIB. Israel is a technological superpower, not an industrial one, lacking the capacity to build many of the platforms, weapons, and munitions it needs. While Israel seeks “to defend itself, by itself,” its already outsized defense budget is not sufficient to meet current requirements, raising serious doubts as to its ability to afford a large, across-the-board DIB expansion. But at the same time, between the political realities of the American left and isolationist right and the increased pressure on America’s DIB, Israel needs to reduce its reliance on the United States, particularly for the munitions it most needs to fight enduring battles on multiple fronts.

By focusing on targeted DIB expansions for the munitions most likely to be in short supply from the United States in the future (whether for practical or political reasons), aligning American and Israeli DIB initiatives where possible, and establishing select manufacturing redundancies in both countries, Israel can effectively stockpile the weapons it needs for near-term conflicts, maintain investments in high-tech research and development, and still make its own DIB somewhat less dependent on Washington.

To explain why this is the best approach, this memo discusses the security assistance the United States has provided Israel since the October 7 terror attack, explains growing Israeli concerns about the future of such assistance, and recommends policies that Israel should pursue in the short- to medium-term to ensure it has

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1. Joe Gould and Alexander Ward, “Senate Dems say blocking weapons shipments ‘on the table’ if Israel invades Rafah,” *Politico*, March 12, 2024. (<https://www.politico.com/news/2024/03/12/rafah-gaza-israel-biden-netanyahu-weapons-00146586>)
2. Tal Schneider, “Is PM serious about expanding local arms production, reducing dependence on imports?” *The Times of Israel* (Israel), January 16, 2024. (<https://www.timesofisrael.com/is-pm-serious-about-expanding-local-arms-production-reducing-dependence-on-imports>)

the means to defend itself and its citizens in future conflicts. Admittedly, significant reform of Israel's DIB will take decades, but this memo focuses on some initial steps that Israel should take to put it in a better position for a major war later this decade while jumpstarting necessary first steps in a process to enhance Israel's DIB that will take a generation.

TREMENDOUS SUPPORT

To appreciate how much the United States has helped Israel after October 7, it is worth considering some of the details. The United States has approved and delivered more than 100 separate foreign military sales to Israel since the October 7 Hamas terror attack.³ American weapons provided to Israel have included a large quantity and variety of weapons and munitions, including air defenses, precision-guided munitions (PGMs), artillery shells, tank rounds, and small arms.⁴ The Pentagon leased back its two Iron Dome batteries to Israel and transferred Tamir interceptors that were in the U.S. inventory.⁵ The United States provided large quantities of Joint Direct Attack Munitions (JDAMs) and Small Diameter Bombs (SDBs) and approved a sale of SPICE guidance kits to Israel.⁶ The United States has also delivered 155mm artillery shells, Hellfire missiles, and 30mm ammunition and approved a sale of 120mm tank rounds.⁷ Small arms and equipment, including PVS-14 night vision devices and Bunker Defeat Munitions, have also been delivered, among many other items.⁸ The United States also provided Israel access to the U.S. weapons stockpile in Israel, known as War Reserve Stock Allies-Israel (WRS-AI).⁹ In fact, according to one senior Pentagon official, the quantity of weapons sent was so significant that the Department of Defense sometimes struggled to find sufficient cargo aircraft to deliver the systems.

In addition to the weapons Washington sent and continues to send Israel, the Biden administration deployed extraordinary combat power to the region to persuade Hezbollah and its patron in Tehran not to launch a full-scale war in Israel's north while Jerusalem was focused on Hamas in Gaza. The United States deployed two aircraft carrier strike groups to the Eastern Mediterranean and Middle East, repositioned the Bataan Amphibious Ready Group closer to Israel, and sent additional fighter aircraft to the region, among other deployments. While

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3. TOI Staff and Reuters, "Report: US quietly approved more than 100 arms sales to Israel since October 7," *The Times of Israel* (Israel), March 7, 2024. (<https://www.timesofisrael.com/report-us-quietly-approved-more-than-100-arms-sales-to-israel-since-october-7>)

4. Bradley Bowman and Ryan Brobst, "Can the U.S. Arm Israel, Ukraine, and Taiwan at the Same Time?" *Foundation for Defense of Democracies*, October 24, 2023. (<https://www.fdd.org/analysis/2023/10/24/can-the-u-s-arm-israel-ukraine-and-taiwan-at-the-same-time>)

5. Aaron Mehta, "US Army sending Iron Dome batteries back to Israel," *Breaking Defense*, October 24, 2023. (<https://breakingdefense.com/2023/10/us-army-sending-iron-dome-batteries-back-to-israel>); U.S. Department of Defense, "Pentagon Press Secretary Air Force Brig. Gen. Pat Ryder Holds an On-Camera Press Briefing," October 19, 2023. (<https://www.defense.gov/News/Transcripts/Transcript/Article/3563350/pentagon-press-secretary-air-force-brig-gen-pat-ryder-holds-an-on-camera-press>)

6. Anthony Capaccio, "Boeing Sped 1,000 Smart Bombs to Israel After Hamas Attacks," *Bloomberg*, October 10, 2023. (<https://www.bloomberg.com/news/articles/2023-10-10/boeing-sped-1-000-smart-bombs-to-israel-after-the-hamas-attacks>); Edward Wong "The State Department Approves \$320 Million Sale of Guided Bomb Equipment to Israel," *The New York Times*, November 6, 2023. (<https://www.nytimes.com/2023/11/06/world/middleeast/us-israel-bomb-equipment-sale>)

7. Barak Ravid, "Scoop: U.S. to send Israel artillery shells initially destined for Ukraine," *Axios*, October 19, 2023. (<https://www.axios.com/2023/10/19/us-israel-artillery-shells-ukraine-weapons-gaza>); Anthony Capaccio, "US Is Quietly Sending Israel More Ammunition, Missiles," *Bloomberg*, November 14, 2023. (<https://www.bloomberg.com/news/articles/2023-11-14/pentagon-is-quietly-sending-israel-ammunition-laser-guided-missiles>); Defense Security Cooperation Agency, Press Release, "Israel – M830A1 120mm Tank Cartridges," December 9, 2023. (<https://www.dsca.mil/press-media/major-arms-sales/israel-m830a1-120mm-tank-cartridges>)

8. "Night Vision Device AN/PVS-14," *L3Harris*, accessed March 12, 2024. (<https://www.l3harris.com/all-capabilities/night-vision-device-an-pvs-14>); Joseph Trevithick, "Here's What Those 'Bunker-Defeat' Rockets The U.S. Sent To Ukraine Are Actually Capable Of," *The WarZone*, January 26, 2022. (<https://www.twz.com/44021/heres-what-those-bunker-defeat-rockets-the-u-s-sent-to-ukraine-are-actually-capable-of>)

9. "U.S. Foreign Aid to Israel," *Congressional Research Service*, March 1, 2023. (<https://sgp.fas.org/crs/mideast/RL33222.pdf>)

Hezbollah has repeatedly attacked Israel since October 7, and while the deterrent effect of U.S. forces appeared to dissipate over time, senior Israeli officials credit those U.S. military deployments for helping to deter a full-scale Hezbollah assault on Israel in the days following October 7.

TREMENDOUS CONCERNS

Despite this significant American security assistance and cooperation in support of Israel in the weeks and months after 10/7, there is a growing practical reality of an American DIB stretched thin compounded by a growing political reality of a White House relentlessly pressured by its left-wing base to terminate or condition assistance to Israel — with leading Democratic members of the House and Senate, including the ranking member of the House Appropriations Committee, proposing to do just that.¹⁰ Indeed, one question looms large over the future of Israel’s security: What if the United States is unwilling or unable to send Israel the weapons it needs to defend itself in a moment of crisis?

To be sure, Israel was caught flat-footed by Hamas’s attack — lacking a sufficiently robust weapons inventory and DIB capable of meeting warfighting requirements, maintaining minimum stockpiles, and having to surge production for a wide range of critical munitions required for operations in Gaza.

Israel wasn’t sufficiently prepared for a lengthy and large combined arms operation requiring air and ground forces and featuring fighting on multiple fronts, much less a regional war. The operation of the Israel Defense Forces (IDF) in Gaza is already much wider and longer than the 2006 Lebanon War and other large wars involving Israel. If Israel has been so reliant on U.S. security assistance to deal with Hamas, Israelis are right to worry about their degree of dependence on Washington for a major war in Lebanon with Hezbollah, a terrorist organization much more potent than Hamas and much better armed than it was in 2006.

As a matter of necessity informed by history, many Israeli national security professionals regularly assert that Israel can and must be able to “defend itself by itself.” Yet Israel’s reliance on Washington for munitions after 10/7 underscored Israel’s dependence on U.S. security assistance to deal with Hamas in Gaza, not to mention Hezbollah in Lebanon and related Iranian-backed threats on other fronts.

While the Biden administration admirably provided enormous amounts of weapons to Israel and continued to do so despite significant pressure from the far left, many Israelis note the administration’s significant and escalating pressure and “arm twisting” on Israel to alter or halt its military operations in Gaza before Hamas is decimated. The concern has been that the United States might curtail the weapons it provides to Israel if it did not change its military operations in Gaza. That alarms both Israelis and American supporters of Israel given the fact that Israel did not start the war in Gaza and is responding to a barbaric terror adversary that inflicted the worst single-day attack on Jews since the Holocaust.

But what if threats of curtailing U.S. security assistance to Israel in a crisis become a reality in a future conflict or if Washington refuses to provide further assistance unless Jerusalem swears off any military campaign against Hezbollah or Iran? Many wonder whether President Joe Biden will continue to provide Israel with the weapons it needs to defend itself, and some worry that he may be the last Democratic president to provide Israel with robust military assistance in a crisis. Some on the far left of the Democratic Party want to condition (or even

10. Marc Rod, “Top Democrat on House Appropriations says U.S. needs to look at ‘guardrails’ on aid to Israel,” *Jewish Insider*, March 4, 2024. (<https://jewishinsider.com/2024/03/rosa-delauro-israel-west-bank-gaza-aid-j-street>)

cut off) aid for Israel, including munitions deliveries. Despite strong continued support for Israel in the United States, several polls of young Americans yield disturbing results with respect to Israel.¹¹ And some Israelis express concerns about isolationist trends in the Republican party.

Finally, both American and Israeli defense planners must consider the increasingly credible scenario that the United States might be engaged in a major war itself at the same time Israel needs expedited resupply. If the United States were engaged in a major conflict in the Taiwan Strait, the Korean Peninsula, the Baltics, or even the Middle East, Washington may not be able to supply Israel. The fact that U.S. adversaries in these respective regions are increasingly working together only exacerbates these concerns. In a scenario where the United States and Israel are simultaneously engaged in separate military crises, even a U.S. administration supportive of Israel may not be able to provide it the weapons it needs because Washington would prioritize the delivery of weapons and munitions to American forces. In such a scenario, potential assumptions in Israel's Ministry of Defense (MOD) regarding the flow of American weapons to Israel in a future crisis may prove overly optimistic — leaving Israel dangerously vulnerable in a moment of crisis.

HOW SHOULD ISRAEL RESPOND?

The question is how Israel can strengthen its DIB and make itself less reliant on the United States.

Despite some laudable moves already underway to expand Israel's DIB production of certain munitions like tank and artillery shells, it seems unlikely that Israel could attain across-the-board weapons and munitions self-sufficiency anytime soon (and some say ever). Israel may even lack the necessary workforce, industrial base, and defense budget to achieve production self-sufficiency across all munitions.

Consider the fact that the Israeli Air Force may need to strike thousands of targets a day for the first few days in a major war with Hezbollah and then at least hundreds of targets a day for weeks after that with periodic spikes. Many of those targets may require more than one munition due to the hardened nature of some targets, adversary jamming, and the use of several smaller bombs to reduce collateral damage, further increasing the quantities of munitions Israel needs.¹² Such a volume of strikes would likely be necessary to hit as many Hezbollah missiles, rockets, and even mortars as possible before they are launched to prevent hundreds or even thousands of casualties in Israel. Israel's air and missile defense capacity is significant, but it is nowhere near sufficient to prevent large numbers of Israeli casualties in a major war with Hezbollah.¹³ That means, when possible, Israel would have to quickly conduct large quantities of air strikes and other strikes into Lebanon to hit missiles and rockets before they are launched. If such a campaign lasted weeks or even months, Israel would deplete even a large munition stockpile quickly and would not have the ability alone to replenish its inventory at the necessary rate. Israel is a technological superpower, but it is not an industrial superpower — and it is unlikely it would ever become one. That is a sobering reality that should inform current Israeli decisions.

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11. "Poll: Most young Americans think Israel should be 'ended and given to Hamas,'" *The Times of Israel* (Israel), December 17, 2023. (<https://www.timesofisrael.com/poll-most-young-americans-back-ending-israel-many-find-jewish-genocide-calls-okay>); Miranda Nazzaro, "Sympathy for Israel plunges among younger voters: Poll," *The Hill*, November 16, 2023. (<https://thehill.com/homenews/4313515-sympathy-for-israel-plunges-among-younger-voters-poll>)

12. If Israel runs out of PGMs, it would be forced to use less accurate munitions, significantly increasing collateral damage.

13. Ryan Brobst and Bradley Bowman, "Avoid Overconfidence When it Comes to Middle East Air and Missile Defense," *Foundation for Defense of Democracies*, April 14, 2023. (<https://www.fdd.org/analysis/2023/04/14/avoid-overconfidence-when-it-comes-to-middle-east-air-and-missile-defense>)

That does not, however, suggest that Israel should sit on its hands and accept the status quo. That would be unwise and dangerous. If Israel cannot acquire vital weapons it needs from the United States, Israel has no choice but to try to build them itself. Nonetheless, unanswered questions surround how long it would take Israel to create a much larger industrial capacity and then build the quantity of weapons required to fill the arsenals and stockpiles Israel requires; how much that would cost; and whether Israel's budget can sustain that cost over the long term.

To answer these topline questions, Israelis need to resolve several other more specific questions: How much of a defense budget increase is politically possible in Israel? How long could such a budget be maintained fiscally and politically? Will that be enough to fund the necessary DIB investments? Which DIB enhancements are vital, and which are merely desirable? What are the expected costs to implement a major DIB construction effort? Are those estimates accurate and reliable? To what extent could an expanded DIB serve an export market, not just the IDF's requirements, helping to sustain new assembly lines even when Israeli demand is lower? How do global supply chain challenges, including those already faced by the United States, play a role in expanding Israel's DIB when it would still need to import raw materials and components?

Other questions include: What would be the opportunity costs of major new investments in Israel's DIB in terms of IDF weapons procurement? In the short term, can Israel make the necessary initial DIB investments to jumpstart the generational effort while simultaneously and urgently stockpiling enough munitions to prepare for a major war with Hezbollah or Iran itself that may come sooner than desired or expected?

Answering all these questions is beyond the scope of this memo, but there is value in posing them. That's because simply asking them demonstrates some of the challenges and dangers associated with an Israeli effort to conduct an across-the-board expansion of its DIB. Moreover, if a more targeted strengthening of Israel's DIB is going to succeed, Israel must ask the right questions up front and answer them systematically. The above list provides a good start.

One of the most fundamental questions that Israel must answer to better protect its security relates to how many weapons Israel really needs and the assumptions undergirding those assessments.

The IDF, like the United States military, makes determinations regarding its needs for weapons based on assumptions about threats and the duration and character of future wars, among other considerations. Israel's assumptions were clearly flawed with respect to Hamas and what was required to fight Hamas. It is worth asking whether current IDF assumptions regarding a war with Hezbollah or Iran are correct. Following October 7, it seems prudent for Israelis to scrutinize all MOD/IDF assumptions. Israel's future security depends on Israelis wrestling with and internalizing some painful but necessary lessons from October 7 regarding overconfidence and underestimation of its adversaries.¹⁴

Even if one believes that Israeli DIB self-sufficiency is theoretically achievable in a budget-unconstrained scenario, it is not clear whether Israel could resource such an effort, much less maintain the necessary level of expenditure for decades. Some Israelis believe it is possible with changed priorities and increased budgets. But it is worth asking what Israel is going to stop doing to afford a massive Israeli DIB campaign or what specific

14. The 9/11 attack on the United States shattered American assumptions, and the nation's experiences in Iraq and Afghanistan required similar self-reflection in the United States.

defense spending increase is necessary to fund the DIB project and whether that is politically possible. Resources are not infinite. Priorities, therefore, must be established. Some needs are more urgent or important than others.

The foreign military financing (FMF) provided to Israel by the United States can help.¹⁵ FMF provides a necessary augment to the Israeli defense budget that should be used to procure multi-billion-dollar next-generation main platforms in the United States that Israel should not attempt to build itself. FMF frees up budget space for Israel to conduct research and development (R&D) and produce other priorities, including munitions.

Building a major new across-the-board DIB capacity in Israel, however, would cost tens of billions of dollars, and that price tag would come on top of other existing and growing MOD expenditures. Our Foundation for Defense of Democracies colleague Rear Admiral (ret.) Mark Montgomery has argued that Israel could not afford such an expense. That is because Israel already struggles to afford existing inventories and initiatives, including maintaining existing advanced air and naval capabilities, expanding Israel's air and missile defense capacity, addressing shortcomings in army readiness revealed on October 7, resourcing ongoing operations, including those in Gaza, Lebanon, and Syria, and procuring incredibly expensive new or additional systems such as the F-35s, F-15s, KC-46s, and CH-53s.¹⁶

That is not to argue that Israel should attempt to create DIB in the United States instead of in Israel. When the questions above have been considered and it makes sense, Israel should default, of course, toward building new DIB capacity domestically to reduce its reliance on others. The point is that Israel's defense budget is already insufficient for current expenses and cannot, at current levels, bear the budgetary burden of massive new investments in Israel's DIB.

As a percentage of its economy, Israel already spends a lot on defense, particularly for a democracy. According to the Stockholm International Peace Research Institute, Israel spent around 4.51 percent of its gross domestic product (GDP) on defense in 2022.¹⁷ Actual Israeli defense spending may be much higher than that.¹⁸ For comparison, most NATO member countries have struggled to spend even 2 percent of their GDP on defense, according to alliance estimates for 2023 published on July 7, 2023. By that metric, the three highest-spending NATO members were Poland (3.90), the United States (3.49), and Greece (3.01).¹⁹

Despite Israel's impressive relative expenditure on defense, it has nowhere near the defense budget required to undertake an across-the-board expansion of its DIB. Even with massive private sector investment, expanded export opportunities, and American financial subsidy, such an effort would be difficult and could dangerously undermine other necessary defense priorities. However, if those steps were taken, including increasing Israel's defense budget to around 7 or 8 percent of GDP and keeping it at that level indefinitely, Israel could accomplish over time a more modest and targeted strengthening of its domestic DIB in key areas to reduce (not eliminate) its

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15. Jeremy M. Sharp, "US Foreign Aid to Israel," *Congressional Research Service*, updated March 1, 2023. (<https://sgp.fas.org/crs/mideast/RL33222.pdf>)

16. Clifford D. May, Mark Montgomery, and Amir Eshel "The Battle in Rafah, the War with Tehran," *Foreign Podicy*, February 16, 2024, 6:00. (<https://www.fdd.org/podcasts/2024/02/16/the-battle-in-rafah-the-war-with-tehran>)

17. "Military expenditure by country as percentage of gross domestic product (Israel)," *SIPRI Military Expenditure Database*, 2022. (<https://milex.sipri.org/sipri>)

18. Clifford D. May, Mark Montgomery, and Amir Eshel "The Battle in Rafah, the War with Tehran," *Foreign Podicy*, February 16, 2024, 5:35. (<https://www.fdd.org/podcasts/2024/02/16/the-battle-in-rafah-the-war-with-tehran>)

19. "Defence Expenditure of NATO Countries (2014-2023)," *North Atlantic Treaty Organization*, July 7, 2023. (https://www.nato.int/cps/en/natohq/news_216897.htm)

reliance on foreign governments for the weapons Israel most needs. But Israel would have to maintain the financial ability and political will to sustain that level of defense spending over years or even decades to successfully build a significantly larger domestic DIB — and maintain it. Therefore, to avoid costly and time-consuming mistakes that Israel can ill afford, decision-makers should distinguish between this more targeted Israel DIB enhancement effort and a more ambitious across-the-board DIB expansion that could fail — with significant costs for Israeli security.

While there is no time to waste to start this long-term process of targeted enhancements to Israel's DIB, in the short term, Israel's most urgent priority should be procuring and stockpiling as many munitions as possible. In other words, Israel should spend most additional defense expenditures on buying the actual systems and munitions needed rather than attempting to create industrial capacity in Israel that will eventually produce some of these systems but potentially fail to achieve many of the stated objectives. To be sure, both objectives can and should be simultaneously pursued to some degree. But where there is conflict, Israel should prioritize short-term stockpiling.

Some might call this a short-term fix rather than a long-term risk mitigation strategy, thereby perpetuating dependence on the United States. That is why we favor this hybrid option: expand Israel's DIB in select and attainable areas while using the current window of opportunity to purchase weapons abroad and at home for the next war as quickly as possible — not just the current war in Gaza. There is reason to believe that is the path Israel is already beginning to pursue.²⁰

If Israel is going to undertake new investments in its DIB, it should focus its finite resources on creating or expanding domestic production capacity and Israeli stockpiles for the weapons and systems that Washington is most likely to withhold due to political dynamics in the United States or due to supply issues. That means munitions, namely air-launched and ground-launched offensive strike capabilities, such as JDAMs, SDBs, SPICE munitions, or equivalent capabilities, as well as 155mm howitzer shells and 120mm tank shells.

Former Israeli defense officials tell us that changes are already underway in the areas of intelligence, sensors, command and control, secure communications, and more in the wake of October 7. But changes must also be made to Israel's DIB — particularly given possible scenarios in which Israel may not be so lucky in the future to receive an enormous inflow of supplies from the United States.

Due to development and production costs, and a long-term inability to scale, it does not make sense for Israel to seek independence in most main platforms currently procured from abroad (e.g., the United States, using foreign military financing dollars, and Germany), including aircraft, ships, and submarines. Israel, however, should continue domestic production of Merkava tanks, Namer armored personnel carriers, Eitan armored fighting vehicles, and unmanned vehicles. In other words, where Israel already has a DIB capacity, it should be maintained.²¹

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20. Yaakov Lapin, "Israel begins shift to domestic ammunition production," *Jewish News Syndicate*, February 8, 2024. (<https://www.jns.org/israel-begins-shift-to-domestic-ammunition-production>)

21. Many in the MOD and IDF also want to make investments to increase the professionalism of the officer corps, as well as adding training and reserve time and family and disability benefits. Especially after October 7, other items on the 'to do list' include increased investments in existing development and production capabilities related to command, control, communications, computers and high-performance computing, Home Front Command, border control, and intelligence requirements. All this underscores the insufficiency of Israel's existing defense budget and how difficult it would be to afford an across-the-board expansion of Israel's DIB.

WHERE TO BEGIN?

To significantly reduce its dependence on foreign governments for weapons, Israel would need to make major investments in building new facilities, establishing new production lines, and expanding its “low-tech” defense workforce.

Currently, according to senior former Israeli officials, Israel’s DIB includes roughly 40,000 people focused on defense research and development at big defense contractors such as IAI, Rafael, and Elbit — a very critical workforce competing with high benefits from the civilian industry, which would be very difficult to expand significantly.

A move toward munition production independence would require Israel to add a more low-tech focus — a major expansion of the existing number of workers at production lines. Some former Israeli defense officials believe such an effort could be done relatively quickly with sufficient budget, but some question that assumption. That’s a question both Israeli policymakers and industry leaders must assess quickly. Many of those conversations have already started. Indeed, one Israeli defense contractor, Elbit Systems, is already moving forward with such an expansion in Ramat Beka, an effort underway for years that Israel is apparently expediting and expanding after October 7.²²

Areas of priority Israeli DIB focus should include air defense interceptors (where existing small production capabilities, with almost no redundancy, could be expanded with more resources); ground force requirements, including mortars, accurate artillery, tank shells, and smoke shells; payloads for drones; air-launched precision-guided munitions, such as JDAMs, SDBs, and SPICE-like bombs; and select maritime requirements.

This also requires indigenous production of key subsystems and sensors, such as radars for air defense, launchers, electro-optical payloads, small laser designators, and many more. And as mentioned, this expansion will require a focused effort to stockpile raw materials and key components needed for munition production — a challenge for the United States, let alone Israel, in areas like energetics. Budgets and planning should take this into consideration.

While many of these efforts require a large new investment in Israel’s “low-tech” production capacity, Israel should not abandon R&D in innovative systems that will provide Israel an advantage in future wars. These efforts include a focus on new versions of air and missile defense interceptors, both kinetic and directed energy, as well as unmanned aerial vehicles, an area of existing Israeli expertise. The U.S.-Israel Operations-Technology Working Group is leading many of these combined R&D efforts and deserves continued support.²³

Finally, one important caveat is worth noting. If Israel is going to create a larger DIB, it will need to be able to export those weapons to other countries to keep new production lines and supply networks active once Israel initially fills its stockpiles (which will take longer than some expect). Arms exports increase demand on the domestic industrial base, thereby creating funds to further expand Israel’s DIB and lowering unit costs for the MOD. Arms exports can also replace a temporary decline in IDF demand, ensuring that production lines remain active, supply networks healthy, and workers employed and proficient so that they are ready to meet

22. “Elbit Systems Ltd. Edited Conference Call Transcript,” *Elbit Systems Ltd.*, March 28, 2023. (<https://elbitsystems.com/media/Elbit-Systems-Q4-22-Conference-Call-Edited-Transcript-accessible.pdf>)

23. Bradley Bowman, “The U.S.-Israel Operations-Technology Working Group Gets Busy,” *Foundation for Defense of Democracies*, December 20, 2022. (<https://www.fdd.org/analysis/2022/12/20/the-u-s-israel-operations-technology-working-group-gets-busy>)

IDF demand when it increases or returns. That is how the United States uses arms exports, and Israel should increasingly do so as well.²⁴ Until that slack domestic defense industrial base capacity is created in Israel in key areas, the IDF should be required to purchase vital Israeli-made munitions that are currently mostly exported, or not produced in large quantities, to build stockpiles and domestic production capacity more quickly.

WHAT ABOUT THE AMERICAN DIB?

Many are focused on necessary reforms in Israel's DIB. But what about the American DIB? What role should it play in helping to meet Israel's military requirements?

Some view the choice as either/or, but they are not mutually exclusive. It would be wise to look for opportunities to increase the capacity of both the Israeli *and* American DIBs to meet Israel's military requirements. That is not to suggest that Israel should use its finite resources to build DIB capacity in the United States that could be built in Israel. As we have argued, when Israel has the means to build and maintain DIB capacity in Israel, it should do so in most cases. However, there are steps that can and should be taken that don't violate that principle that would serve both Israeli and American interests.

So, why should Israelis care about the American DIB?

Israel needs all the production capacity it can get to meet its military requirements. Even if all plans in Israel go perfectly well (which they won't), Israel won't be able to create the necessary industrial capacity to meet all its vital needs in decades, much less in the next five to 10 years. If Israel does not work with the Pentagon now to align U.S.-Israel DIB initiatives where possible, Israel may find itself turning to the American DIB during a major future war looking for help, only to find that it cannot produce the types or quantities of weapons Israel needs.

Israelis tempted to brush aside this point should consider two sobering realities.

First, in a major war with Hezbollah and/or Iran, it is reasonable to assume that some of Israel's DIB could be degraded or destroyed. If Hezbollah uses its enormous arsenal of missiles (some of which are PGMs), rockets, and drones to damage major weapon production facilities in Israel, it will be good to have a redundant production capacity in the United States (e.g., full-up Tamir interceptor production in Arkansas).²⁵

Second, in a future major war, Israel would have to activate large numbers of reservists, as it did in the current war with Hamas.²⁶ The demand for reservists in a war with Hezbollah might be bigger and last much longer. Many of those reservists work in defense-related occupations, and many would be hired to work in an expanded Israel DIB. When those reservists are called to the battlefield, that could reduce or slow the production of weapons potentially just when more weapons production might be needed. That is another good reason to have a redundant or complementary production capacity in the United States for weapons that Israel needs.

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24. Bradley Bowman, "Objectives of US Arms Sales to the Gulf: Examining Strategic Goals, Risks and Benefits," *Testimony before the Subcommittee on Middle East, Africa, and International Terrorism of the House Committee on Foreign Affairs*, June 16, 2020. (<https://www.congress.gov/116/meeting/house/110808/witnesses/HHRG-116-FA13-Wstate-BowmanB-20200616.pdf>)

25. RTX, "RTX, Rafael to build missile production facility in Camden, Arkansas," *Raytheon Media Room*, October 26, 2023. (<https://raytheon.mediaroom.com/2023-10-26-RTX,-Rafael-to-build-missile-production-facility-in-Camden,-Arkansas>)

26. Jennifer Hassan and Adam Taylor, "Israel's massive mobilization of 360,000 reservists upends lives," *The Washington Post*, October 10, 2023. (<https://www.washingtonpost.com/world/2023/10/10/israel-military-draft-reservists>)

More broadly, to help counter some political forces pushing for a strategic breach between the United States and Israel, building weapons for Israel in the United States creates or reinforces support for Israel at a local level. Members of Congress should be more aware that their constituents are working in quality, high-paying jobs helping build up America's defenses and secure allies like Israel — a win for U.S. national security and a win for local economies.²⁷

Moreover, teaming with the Department of Defense when it makes sense to design and build weapons that both forces need stretches the IDF defense shekel further, lowering unit costs. Some of those combined efforts can occur in Israel, and some can occur in the United States. Such efforts also ensure that Israel benefits from Pentagon and U.S. DIB investments in research, development, test, and evaluation (RDT&E) and infrastructure.²⁸

With all of that said, we should address the elephant in the room: There is a chance that additional DIB capacity could be created in the United States that can help meet Israel's military requirements only to have Washington make a political decision to cut the flow of weapons and munitions to Israel in a crisis. That is a possibility for a number of reasons, as we discussed at the outset. What is guaranteed, however, is that if Israel tries to go it alone and neglects the role of the American DIB in meeting IDF requirements, Israel will find that it does not have the weapons and munitions it needs in a future major war. That is guaranteed. By pursuing the hybrid, redundancy approach we recommend, the chances Israel will run out of weapons to defend itself are lower, and it will still be able to hedge against such risks to some degree.

CONCLUSION AND RECOMMENDATIONS

Israelis often talk about the “campaign between the wars.” This memo is describing the most important campaign that Israel must pursue both in this decade and over the next generation. To ensure Israel can better defend itself and prevail in future wars, it must pursue smart policies now when it comes to its weapons, munitions, its DIB, and the American DIB. To do this, in summary, Israel should pursue the following policies and objectives:

- **Pursue a hybrid approach.** Israel should focus on stockpiling as many munitions as it can as quickly as possible. Where that effort conflicts with efforts to strengthen Israel's DIB, stockpiling should be prioritized. Where stockpiling and strengthening of Israel's DIB can occur at the same time, Israel should do so. When it comes to strengthening its domestic DIB, Israel should focus on the munitions Washington may deprive Israel of in a major future conflict or munitions that are most likely to be diverted to U.S. military needs if the United States finds itself at war. A key focus should be air-launched precision-guided munitions. When investing in DIB capacity, Israel should default toward building that capacity in Israel, not abroad. Israel, however, should avoid the temptation to pursue an across-the-board domestic DIB expansion effort that it can neither afford nor sustain and that will endanger other vital priorities and fail.
- **Don't neglect key secondary initiatives.** Other priorities should include producing or procuring mortars, accurate artillery, tank shells, and smoke shells; payloads for drones; and select maritime requirements. Israel may be able to establish or increase domestic production for some of these capabilities at a reasonable cost. Before making significant new investments to build new or additional domestic production capacity for these

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27. Bradley Bowman and Mark Montgomery, “Supporting America's Allies Puts America First,” *National Review*, February 23, 2024. (<https://www.nationalreview.com/2024/02/supporting-americas-allies-puts-america-first>)

28. American and Israeli defense companies do compete, but they also collaborate at times. More important than Rafael or Raytheon's bottom line is ensuring that the IDF has what it needs to defend Israel. And for the reasons listed above, Israelis would be wise to not neglect the American DIB and how it helps secure Israel.

capabilities, decision-makers should ask whether the finite resources would be better spent acquiring the actual systems internationally. The answer may be different in each case or may include a hybrid option for particular weapons and munitions.

- **Align arsenal with the United States.** Where possible and when it serves the interests of both countries, Israel and the United States should seek to further align their development and procurement of weapons and especially munitions for aircraft, drones, ships, and ground systems. The United States would benefit from Israel’s agility in going from military requirement to fielded combat capability. MOD, for its part, would enjoy reduced costs and benefit from Pentagon investments, facilitating the creation of additional U.S. DIB production capacity that complements efforts in Israel and that will prove necessary for future conflicts.
- **Don’t shortchange R&D.** Maintain ongoing research and development in cutting-edge, game-changing systems, such as hypersonic missile defense, directed energy, unmanned vehicles, and counter-unmanned aerial vehicles. MOD should continue to use the U.S.-Israel Operations Technology Working Group to benefit from American innovation and stretch the Israeli defense budget further.²⁹
- **Strengthen low-tech workforce.** Pursuing significant new investment in Israel’s low-tech defense force is essential. The “start-up nation” has successfully prioritized cutting-edge technology development, which needs to continue. But there is an underutilized workforce of Israelis eager to defend their country who should be educated, trained, and appropriately compensated to produce the weapons Israel needs.

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29. The United States, for its part, benefits in the working group from Israel’s innovation and speed in going from military requirement to fielded combat capability — an area where the Pentagon has perennially struggled.

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