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Arming the Revolution Trends in Iranian Defense Spending, 2013–23

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Parade for Iran's annual Army Day, Tehran, April 2023. The Islamic Republic of Iran boasts a large and expanding nuclear program, the most capable missile and drone force in the Middle East, and a broad network of proxies that threaten U.S. forces and partners.* Since Russia invaded Ukraine in February 2022, Iran has also demonstrated its capabilities on the global stage by selling Moscow hundreds of attack drones. Yet despite the prominence of its capabilities, a key aspect of its military has received little scholarly attention: how Iran spends its defense dollars.

Defense spending is only one factor in assessing a country's military strength. It does not necessarily show how efficiently a country invests its resources, nor does it indicate the degree to which a country threatens others. But it

*The author would like to thank Faris Almaari and Gabriel Epstein for research assistance and Patrick Clawson, Michael Eisenstadt, Kevan Harris, John Krzyzaniak, Matthew Levitt, J. Matthew McInnis, and Farzin Nadimi for comments on earlier drafts. is essential to understanding how a government prioritizes its spending and how political, security, and economic conditions affect these decisions over time.

This paper assesses Iran's defense spending over the past decade based on a unique data set comprising publicly available Iranian budgets.¹ It details how U.S. sanctions imposition and removal affect defense expenditures, where Iran prioritizes spending, and the complexities of the budget process. It also discusses the ways Iran funds its defense commitments outside the formal budget and how Iran's overall funding compares to its regional rivals. Finally, this paper quantifies the tradeoff involved in sanctions relief if the United States and Iran once again try to revive or replace the 2015 nuclear deal.

Abbreviations

AFGS	Armed Forces General Staff
AFSSO	Armed Forces Social Security
	Organization
AIO	Aerospace Industries Organization
HESA	Iran Aircraft Manufacturing
	Industries
IRGC	Islamic Revolutionary Guard Corps
IRGC-QF	Islamic Revolutionary Guard
	Corps–Qods Force
JCPOA	Joint Comprehensive Plan of Action
LEC	Law Enforcement Command
MODAFL	Ministry of Defense and Armed
	Forces Logistics
PPP	purchasing power parity
SAHA	Iran Aircraft Industries
SPND	Organization of Defensive
	Innovation and Research

Understanding the Defense Budget

Drafting Iran's annual budget is a complex and contested process, and the details are discussed and debated publicly. The defense budget, in some ways, is hiding in plain sight, with expenditures spread across scores of line items and different spending categories. While the public budget does not encompass the entirety of defense spending—an issue discussed later in this paper—it offers a valuable metric for understanding how officials and lawmakers balance the needs of military entities and other priorities, like social welfare and education.²

In the academic literature, there is no universally accepted definition of defense spending, and issues such as whether to include national police or paramilitary forces are open questions. To the extent possible, this study relies on the definitions used by the Stockholm International Peace Research Institute, the International Institute for Strategic Studies, NATO, and the UN's Office for Disarmament Affairs. It thus focuses on six Iranian organizations:³

- The Islamic Revolutionary Guard Corps (IRGC) is Iran's primary military force and is in charge of defending and promoting the revolution. The IRGC has ground, air, and naval branches, as well as the paramilitary Basij, an intelligence organization, and the Qods Force (IRGC-QF), which leads external operations.
- **The Islamic Republic of Iran Army (Artesh)** is mainly responsible for territorial defense. The Artesh, which has ground, air, air defense, and naval branches, is generally considered inferior to the IRGC in resources, capabilities, and domestic and external influence.
- The Armed Forces General Staff (AFGS) oversees the activities of the IRGC, Artesh, and Law Enforcement Command. It reports to Supreme Leader Ali Khamenei, who is the commander-in-chief of Iran's armed forces.⁴

- The Law Enforcement Command (LEC) is Iran's national police force, with air, ground, and maritime components as well as a sizable border protection force. This study includes the LEC because it is formally subordinated to the AFGS and has specialized capabilities similar to those of paramilitary forces.⁵
- The Ministry of Defense and Armed Forces Logistics (MODAFL) supervises much of Iran's defense industrial base and supports military planning and organization. MODAFL is part of the executive branch.
- The Armed Forces Social Security Organization (AFSSO) provides social services to members of the IRGC, Artesh, and LEC, including pensions, healthcare, and insurance.⁶

Although the data is public, tabulating defense spending is more difficult than it may seem. Previous analyses tend to have several pitfalls that can yield significant under- or overestimation:

Pitfall 1: Converting spending to dollars at unrealistic rates. Due to U.S. sanctions and domestic mismanagement, Iran has suffered from high inflation and major fluctuations in its open market exchange rate, especially in the past five years. Analysts have struggled to decide which rate is best to use to tabulate Iran's defense expenditures, leading them to produce very different results (see figure 1).

Some analysts have converted the rial totals to dollars at the government's "official" exchange rate of 42,000 rials to the dollar.⁷ Yet it makes little sense to convert military spending based on a rate that is artificially strong-and therefore ignores the impacts of inflation-and was used only for limited purposes, such as importing goods like wheat and medicine. In addition, the Iranian defense sector is largely self-sufficient. Like Russia prior to the Ukraine war, Iran spends most of its defense resources on goods and services that are not traded internationally, making market exchange rates less useful. Indeed, relying on this rate, or other similarly weak rates, can yield confounding results. In 2022, the International Institute for Strategic Studies assessed that Iran spent \$44 billion on defense—about the same as Saudi Arabia and more than South Korea or Australia-a sizable exaggeration, especially given that Iran imports and operates almost no expensive weapons systems.8

A better option is to rely on the rate used by the government, and implicitly approved by the parliament, to convert oil revenue. In 2021, for example, the government set this value at IRR115,000.⁹ This rate has its own drawbacks, though, including that it can overlook the impacts of inflation.¹⁰ Using the budget oil exchange rate also does not address the fact that Iran can produce many of its defense goods domestically. Another approach would be to convert defense expenditure based on a purchasing power parity (PPP) exchange rate, which aims to compare the value of goods and services without the influence

Figure 1: Converting Military Spending Based on Varying Exchange Rates, 2021

Total Defense Spending	IRR1,847 trillion
Converted at "official" rate (US\$:IRR 42,000)	\$44.0 billion
Converted at IMF's PPP conversion rate (US\$:IRR 46,072)	\$40.1 billion
Converted at budget oil exchange rate (US\$:IRR 115,000)	\$16.1 billion
Converted at average import/export rate (NIMA) (US\$:IRR 228,695)	\$8.1 billion
Converted at average open market rate (US\$:IRR 264,001)	\$7.0 billion

Notes: Rial value is based on actual spending in 2021. Oil exchange rate is based on the budget. The NIMA (Integrated Forex Deals System) rate is based on prices recorded by the Tehran Gold and Jewelry Union (TGJU.org) for March 2021–March 2022. Open market rate is based on rial prices recorded by Bonbast.com for March 2021–March 2022. **Sources**: Iranian national budgets; International Monetary Fund; TGJU; Bonbast.

of fluctuating exchange rates—but this has complications as well.¹¹ Given these varying metrics, this paper almost exclusively refers to defense spending in rials, adjusted for inflation.

Pitfall 2: Relying on spending plans, as opposed to actual spending—and mixing up spending

categories. Budgets can be monitored at three different stages: bill (*layiheh*), law (*qonun*), and actual (*amalkard*). By law, the government is supposed to propose the budget bill every December, followed by several months of parliamentary review and tweaks. The parliament's law, subject to approval by the Guardian Council, should be completed by the time the new year begins in late March. Actual spending is the most accurate metric, although it is only released on a two-year lag.¹²

The differences between the bill, law, and actual spending are demonstrated in figure 2. Almost every year, the parliament increases the defense budget during its review. In recent years, these increases have become more and more aggressive. Yet the actual spending data demonstrates that the parliament's ambitious increases in military spending rarely come to fruition. The actual spending tends to closely resemble the government's proposals—perhaps in part because government planners have a more realistic sense of economic conditions. This paper uses actual spending data for most years; when unavailable, it uses government proposed spending.

The different classes of expenditures can present similar pitfalls.¹³ Organization spending is divided into two categories: general *(umumi)* expenditures, which come from the broader pool of government income, and specific/proprietary/dedicated *(aktisasi)* expenditures. The latter are based on the income an entity receives, such as a university using tuition income to purchase textbooks. Most defense spending is conducted via general expenditures, and each year's national budget presents prior spending based on this category. By contrast, "specific" expenditures from prior years are not tracked in the national budget. Therefore, unless otherwise noted, the totals discussed in this paper exclude "specific" spending.



Figure 2: Actual Spending Is Closely Tied to Government Proposals, Not Parliamentary Revisions

Notes: The percentage reflects the percentage increase compared to the government's proposal. The Persian year runs from March to March; for the sake of simplicity, the data in every chart in this study is presented for the Gregorian year in which the Persian year began. Actual spending for 2020 is not available.

Sources: Iranian national budgets, Washington Institute for Near East Policy.

Pitfall 3: Undercounting defense expenditures. As discussed above, this study focuses on the spending of six defense organizations, and ignoring any one of them would yield a different estimate.¹⁴ The way this spending is categorized can also be confusing: spending for defense entities, as well as non-defense entities, takes the form of a single block allocation followed by additional line items listing other expenditures. For example, for the 2023/24 budget, the government proposed providing the IRGC a block allocation of IRR472 trillion, followed by thirty different line items-including the Basij and the IRGC Intelligence Organization-that totaled an additional IRR562 trillion.¹⁵ Only by summing up all the various line items, including those spread elsewhere in the budget, can a more complete accounting of defense spending be estimated.

Defense Spending Trends

The data illustrates two key trends over the past decade, which will likely continue in the coming years:

- The nominal value of Iranian defense spending is closely correlated with the fate of the economy. When sanctions are lifted and the economy improves, the defense sector reaps the rewards of an increased budget. When sanctions are imposed and the economy weakens, the defense sector is allocated fewer resources.
- The government commits a fairly consistent proportion of the budget to the defense sector every year, with some small adjustments. This approach shows the importance and power of military entities and probably gives defense planners a measure of stability.

Defense spending rose following the 2015 nuclear agreement, the Joint Comprehensive Plan of Action, as figure 3 shows. The JCPOA imposed time-limited restrictions on Iran's uranium and plutonium programs in exchange for relief from some economic sanctions. Iran reconnected to the global financial system, increased its oil exports, and accessed foreign currency frozen in banks across the world. As a result, the economy grew, inflation fell, and the government had more resources to devote to military expenditures. Between 2015 and 2017, actual defense spending grew 24 percent, adjusted for inflation. Defense spending also increased as a percentage of gross domestic product, from 3.2 percent in 2015 to 3.5 percent in 2017.

By contrast, the U.S. withdrawal from the JCPOA in 2018 led to a steep fall in defense spending. Between 2017—the last full year the United States was in the deal—and 2019, actual Iranian defense expenditures fell by 22 percent, adjusted for inflation. Defense spending as a percentage of GDP fell from 3.5 percent to 2.9 percent. All told, the reimposition of U.S. sanctions meant Iran spent less on defense in 2019 than it did in 2015.

Actual defense spending in 2020 is unknown due to a change in the government's reporting system; in figure 3 and elsewhere in this paper, the proposed spending is presented. Actual spending data for 2021 was released in the usual format and revealed that defense expenditures increased modestly (2.4 percent) over 2019 levels. The increase in spending power likely reflected improvements in the economy as it bounced back from the pandemic and adapted to U.S. sanctions, and as Iran exported more oil to China.¹⁶ Defense spending as a percentage of GDP remained flat. IRGC resources grew 17 percent over that period, adjusted for inflation, accounting for almost the entirety of the increase.

Actual defense spending in 2022 and 2023 will be released in the coming years. The budget proposals represented in figure 3 reflect the government's intention to keep this spending relatively stable. Since 2016, the defense sector has constituted 27 percent of public spending on average, as figure 4 shows. The proportion was above average in 2018 and 2019 as tensions with the United States increased, but by a relatively small amount. This demonstrates a degree of consistency in budgeting that can allow the defense sector to plan effectively over time.



Figure 3: Iranian Defense Spending by Year

Notes: Data are adjusted for inflation with the IMF's GDP price deflator, with the base year of 2016. All data reflect actual spending, except 2020, 2022, and 2023, which are presented as proposed by the government. **Sources:** Iranian national budgets, International Monetary Fund, Washington Institute for Near East Policy.



Figure 4: Proportion of Main Spending Categories

Notes: All data reflect actual spending, except 2020, 2022, and 2023, which are presented as proposed by the government. For the sake of consistency, this graph uses the government's formal tabulation of defense and security spending—which was adjusted to include AFSSO—for the purpose of comparison with the other main categories. The nominal results are only marginally different from those presented elsewhere in this paper.

Sources: Iranian national budgets, Washington Institute for Near East Policy.

IRGC Widens Its Lead over Artesh

Defense spending is dominated by the IRGC and AFSSO, each of which represents about one-third of expenditures (see figure 5).

Over the past decade, the IRGC's share of defense spending has increased while Artesh spending remained stagnant—widening the gap between the two (see figure 6).¹⁷ The IRGC accounted for 23 percent of defense spending in 2013, which increased to 28 percent in 2021. Funding for the Artesh stayed between 13 percent and 15 percent. That the Artesh gets second billing behind the IRGC is no surprise—it is also the case with personnel, technology, and political influence, and correspondingly the Artesh has been described as the regime's "neglected stepchild."¹⁸ But the widening difference between the institutions is notable and may reflect the IRGC's increased presence in Ebrahim Raisi's government and its stature in the system in general. The LEC has also increased its share over the past decade, from 15 percent in 2013 to 17 percent in 2021, while the AFSSO's share has fallen from 38 percent to 36 percent. Funding for MODAFL and AFGS as a share of overall defense spending has remained relatively flat.

Figure 5: Defense Spending by Military Organization (2021)



Sources: Iranian national budgets, Washington Institute for Near East Policy.



Figure 6: IRGC Has Widened Its Lead over the Artesh in Recent Years (% of Total Defense Spending)

Notes: All data reflect actual spending, except 2020, 2022, and 2023, which are presented as proposed by the government. **Sources**: Iranian national budgets, Washington Institute for Near East Policy.

ORGANIZATION OF DEFENSIVE INNOVATION AND RESEARCH



Funding for the Organization of Defensive Innovation and Research (known by its Persian acronym, SPND) has risen in the past several years, correlating with an increase in Iran's nuclear activities and following the November 2020 killing of its chief Mohsen Fakhrizadeh. SPND has been "primarily responsible for research in the field of nuclear weapons development," as well as other advanced defense research and development projects and the creation of a coronavirus vaccine.¹⁹ Actual expenditures for SPND rose more than fivefold from 2016 to 2021, and the government's proposal for 2023 more than doubles the 2021 expenditures. Yet the overall funding for SPND is obscured by its heavy reliance on funding from outside public channels.²⁰

Figure 7:



Notes: SPND data are adjusted for inflation with the IMF's GDP price deflator, with the base year of 2016. All data reflect actual spending, except 2020 and 2023, which are presented as proposed by the government. Proposed spending for individual line items was not released in 2022.

Hidden Budget

Iran's armed forces have other strategies to secure funding outside the public budget, including through oil exports, smuggling, and business interests. These strategies make a complete accounting of Iran's defense spending impossible in the open source.²¹

Oil Exports and Smuggling

The IRGC has played a key role in facilitating Iran's exports of energy products while the country has been under sanctions, and it has directed some of the resulting revenues to itself and allies such as Hezbollah or the Houthis.

In addition to the IRGC budget line items, recent budgets envision the armed forces benefiting directly from oil sales. The Raisi government set aside 4.5 billion euros in oil revenues in 2022 and 3 billion euros in 2023 for defense entities and projects.²² With Khamenei's permission, the parliament tried a similar gambit for the 2019 budget, allocating 1.5 billion euros to "strengthening" the national defense" from revenue earmarked for the National Development Fund.²³ Iran routinely misses its oil export and oil revenue targets, so it is unclear how much of this money was provided to defense entities. The United States has alleged that the regime has also directly tapped into the National Development Fund to finance the IRGC-QF, provide aid to Syria, and fund other defense projects, likely in excess of revenues allocated in the budget.²⁴

The U.S. Treasury Department has also documented how IRGC-QF affiliates have sold Iranian commodities and funneled the resources back to the QF or to its allies, including Hezbollah, Hamas, and the Houthis. This method likely provided the IRGC a separate stream of revenue that skirts government and parliament oversight. For example, in November 2022, the Treasury Department identified an international network that it believed was smuggling Iranian oil and funneling profits "to companies and bank accounts associated with Hezbollah and the IRGC-QF."²⁵ In a separate action, in December 2022 the United States accused a Turkish man of running a business network that sold oil worth "hundreds of millions of dollars" to China, the UAE, and elsewhere and "funneled the proceeds of oil sales back to the IRGC-QF."²⁶ In 2021, the Treasury accused a Houthi supporter of directing a "network of front companies and vessels that smuggle Iranian fuel, petroleum products, and other commodities." The network "generates tens of millions of dollars in revenue...a significant portion of which is then directed through a complex network of intermediaries and exchange houses in multiple countries to the Houthis in Yemen."²⁷

Beyond energy products, the IRGC has reportedly been involved in smuggling via airports, border crossings, and illegal jetties. The United States has also connected the IRGC-QF with drug smuggling.²⁸ It is not clear the extent to which these activities enrich individual IRGC members rather than contributing to the organization's operations.

Businesses and Banks

Over the past three decades, the armed forces have expanded their domestic roles in sectors ranging from banking and construction to petroleum engineering and healthcare.²⁹ This broader economic footprint can provide military entities with sources of revenue beyond those budgeted by the government. The complex and opaque relationships between many of these entities and defense bodies complicate an analysis of the magnitude of these additional resources.

The IRGC's construction conglomerate, Khatam al-Anbia Construction Headquarters, is the most prominent example of the armed forces' footprint in the economy. Khatam operates in a variety of sectors including energy, mining, agriculture, roads and transportation, maritime, and information technology. It has played a prominent role in gas projects and the Tehran metro and has benefited from no-bid contracts.³⁰ It also played a key role in Iran's nuclear and missile programs. According to the U.S. Treasury Department, Khatam "serves to help the IRGC generate income and fund its operations," a relationship that a former Khatam deputy director confirmed to Iranian media.³¹ While Khatam does have a line in the budget, this appears to be little more than a placeholder that obscures the organization's finances.³²

The armed forces also operate cooperative foundations (bonyad-e taavon), which own banks and companies.³³ These bonyads were founded to provide services for defense personnel, such as loans or housing. But their remit expanded into other critical sectors, such as technology, energy, and manufacturing, and Western governments have alleged that some of the bonyads provide extra-budgetary resources to the parent agencies. According to the United States, the IRGC Cooperative Foundation's resources have "supported the IRGC's military adventures abroad" including "militant groups associated with" the Qods Force.³⁴ Similarly, the EU considers the LEC Cooperative Foundation "an important financing arm" of the LEC, which "provides and channels funds and is used to circumvent sanctions."35

The wider military industrial base could also conceal additional amounts of defense spending. The annual national budget includes an appendix for stateowned entities, among them about fifteen defense companies. These include the Aerospace Industries Organization (AIO), which oversees aircraft and drone production; Iran Aircraft Industries (known by its Persian acronym, SAHA), which conducts aircraft overhauls and maintenance: Iran Aircraft Manufacturing Industries (HESA), which develops and produces aircraft, including drones; and Qods Aviation Industries, which produces drones. These companies are subordinate to MODAFL, and some receive direct government funding in the form of capital asset acquisition credits.³⁶ But their annual budgets vastly exceed the stated government funding, so it is not clear whether the organizations are funded from the general MODAFL budget or from other, unknown sources.³⁷

Finally, Iranian banks—both those connected with the armed forces and beyond—could provide

additional sources for defense spending. The government has long used mandated lending to fund expenditures beyond the budget, such as requiring banks to provide preferential loans to newlyweds. Whether this extends to the defense sector is not clear, but it is possible that banks provide financing to support military purchases or military-owned enterprises as a supplement to the budget allocations.

Regional Comparisons

Iran spends less on defense than Saudi Arabia, one of the top global military spenders and the world's second-largest importer of weapons.³⁸ By any plausible rial-to-dollar exchange rate, Tehran's military expenditures fell short of Saudi Arabia's in 2021, when Riyadh spent between \$50 billion and \$60 billion on defense.³⁹ Saudi Arabia also spends much more of its GDP on its military; between 2013 and 2021, Iran spent on average 3 percent of its GDP on defense, while Saudi Arabia spent 9.6 percent (see figure 8).⁴⁰

There are many reasons for the disparity, including military doctrine, foreign relationships, and the overall health of their economies. Riyadh employs state-of-the-art conventional weapons systems, including many purchased at great expense from the United States or Western Europe that are costly to maintain, and its topography makes it more difficult to defend. Iran, by contrast, invests in a narrower set of advanced asymmetric capabilitiesunmanned aerial vehicles, ballistic missiles, and land-attack cruise missiles-as well as relatively cheap proxy networks.⁴¹ Iran also produces almost all its weapons systems domestically, a necessity given its international isolation; Saudi Arabia lacks this capability, although Riyadh has plans to boost its domestic industry.

Israel's defense expenditures may be more comparable to Iran's. For example, in 2021, Israel spent around \$20 billion on defense, which is likely more than Iran's spending but in the same ballpark, depending on exchange rates.⁴² From 2013 to





Notes: Data for Israel and Saudi Arabia are from SIPRI, while Iran is sourced from Iranian budgets (total defense spending) and IMF data (GDP). Iranian data for 2020 are based on defense spending proposed by parliament, since actual spending was not available. **Sources**: Iranian national budgets, Stockholm International Peace Research Institute, International Monetary Fund, Washington Institute for Near East Policy.

2021, Israel spent 5.3 percent of its GDP on defense (compared to Iran's 3 percent). While Israel imports advanced weaponry from the United States and Western Europe, it also boasts a sizable domestic arms industry, a capability born of the country's isolation in the first decades after independence and not entirely unlike the origins of Iran's defense industry.

Implications and Recommendations

The data outlined in this paper points to three broad conclusions for policymakers.

 Iranian total defense spending correlates more with resource availability than threat perception, at least when it comes to threats posed by the United States and Israel. This suggests that the defense establishment has a baseline "demand" for resources to advance domestic and foreign security priorities that is perhaps distinct from changes in threats at a given time, and that the key limiting factor is the overall "supply" of resources.

Following the JCPOA, Iranian defense spending surged even as the threat of a direct U.S. or Israeli attack receded. Defense entities received across-the-board increases, with special emphasis placed on domestic repression (in the form of the LEC) and weapons research and development (in the form of MODAFL). The IRGC did not receive special treatment, contrary to the idea that the Guards were paid off financially to support the deal.43 While the direct U.S. and Israeli threat may have decreased, the spending increase may have been linked to rising Iranian concerns about the fate of Tehran's Syrian ally and the intensifying conflicts in Yemen and Iraq. The defense establishment may also have been making up for years of underinvestment in key capabilities.

As noted above, after the United States withdrew from the nuclear agreement, funding fell even as the risk of conflict with the United States and

Israel increased. One might have expected a large increase in IRGC funding to demonstrate defiance of Western pressure, but this is not what happened: the IRGC budget fell by one-fifth from 2017 to 2019. The LEC was spared the biggest cuts, which likely reflected the government's concern about maintaining domestic repression capabilities as economic pressure increased. In fact, the LEC was the only defense entity to have a substantially bigger budget in 2019 than in 2015, accounting for inflation.

Iran's support for proxies likely followed a similar trend. While the defense budget does not account for these allocations, anecdotal evidence and U.S. statements point toward a decline in Iranian financial support during periods of the most acute economic pressure. Following the reimposition of U.S. sanctions in 2018, Hezbollah was forced to take austerity measures, such as furloughing fighters and slashing funding for social services. The Lebanese group set up donation boxes and called for a "financial jihad."44 In addition, the Trump administration claimed at the time that sanctions were hurting Iran's support for other militant groups in the region, even as some subsequent Israeli assessments cast doubt on these assertions.45

Policymakers should expect that a future nuclear deal with Iran would free up more money for the military, given the fungibility of resources. This is not an argument against diplomacy; exchanging nuclear constraints for sanctions relief, even if this widens Tehran's access to military resources, may be reasonable given the circumstances. Indeed, when the JCPOA was signed, U.S. officials publicly acknowledged that Iran's defense sector would benefit from the agreement, even as they argued that Iran would not funnel all its unfrozen assets to the military.⁴⁶ But this tradeoff demands that U.S. policymakers spend at least as much effort countering Iran's military acquisitions and activities as they do implementing an agreement, a balance not well struck in the aftermath of the JCPOA.

- Depriving Iran of military resources in a given year does not necessarily yield weakened **combat effectiveness.** Military spending reflects the resources the government can invest in the people, equipment, and technology that allow it to project power and defend itself-and those investments are made over years or decades.⁴⁷ Such long-term investments enabled Iran to launch a major drone and cruise missile attack against Saudi Aramco facilities in September 2019 and a barrage of ballistic missiles at the al-Asad Air Base in Iraq in January 2020, even though Iran's overall defense spending had fallen by nearly one-quarter over the prior two years. Sanctions can erode Iranian military capabilities, but these effects are probably most pronounced over the longer term-which means that Iran is not necessarily any less dangerous in the near term.
- The defense spending data provides additional evidence regarding the IRGC's position on nuclear diplomacy. Some analysts have argued that the IRGC opposes a new nuclear deal in part because it "would have to submit its budget to civilian oversight and would likely face public pressure to relinquish a portion of it."48 The data demonstrates that this is likely not the case. The IRGC is a large entity with diverse interests, so it is difficult to ascribe to it a single opinion-and surely some individuals within the IRGC run businesses that would lose their stature in the event of a nuclear deal. Still, while a new deal would deprive the IRGC of its oil smuggling business, the force would stand to gain significantly in other ways. Its budget, instead of falling, would likely increase, as it did after the JCPOA and before the reimposition of sanctions. The IRGC would also benefit from partnering with foreign firms on hard-to-execute projects, such as those in the energy sector.⁴⁹ ♦

NOTES

- 1 Drawn from an analysis of Iranian government budgets spanning 2013–23 and published by the Planning and Budget Office of the Office of the Presidency of Iran; e.g., Office of the President of Iran, "Budget Bill–1399," available at https://irandataportal.syr.edu/wp-content/uploads/1399-Bill.pdf. Historical budget bills and laws are generally available on the websites of the Planning and Budget Office, the Iranian parliament, and Iran Data Portal.
- 2 J. Matthew McInnis, *Building the Iranian Military: Understanding Tehran's Defense Acquisition and Research and Development Decision-Making* (American Enterprise Institute, April 2017), 4–11, https://www.aei.org/re-search-products/report/building-the-iranian-military-understanding-tehrans-defense-acquisition-and-re-search-and-development-decision-making/.
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- 4 Saeid Golkar, *The Islamic Republic's Art of Survival: Neutralizing Domestic and Foreign Threats*, Policy Focus 125 (Washington DC: Washington Institute, 2013), https://www.washingtoninstitute.org/policy-analysis/islamic-re-publics-art-survival-neutralizing-domestic-and-foreign-threats.
- 5 Defense Intelligence Agency, Iran Military Power: Ensuring Regime Survival and Securing Regional Dominance (Washington DC: U.S. Government Printing Office, 2019), https://www.dia.mil/Portals/110/Images/News/Military_ Powers_Publications/Iran_Military_Power_LR.pdf; Saeid Golkar, The Supreme Leader and the Guard: Civil-Military Relations and Regime Survival in Iran, Policy Note 58 (Washington DC: Washington Institute, 2019), https://www. washingtoninstitute.org/policy-analysis/supreme-leader-and-guard-civil-military-relations-and-regime-survival-iran; Saeid Golkar, "Iran's Coercive Apparatus: Capacity and Desire," PolicyWatch 2909, Washington Institute for Near East Policy, January 5, 2018, https://www.washingtoninstitute.org/policy-analysis/irans-coercive-apparatus-capacity-and-desire; and Jennifer Chandler, "Decoding Iran's Defence Spending: Pitfalls and New Pointers," Military Balance (blog), International Institute for Strategic Studies, November 13, 2018, https://www.iiss.org/online-analysis//military-balance/2018/11/decode-iran-defence-spending.
- 6 Although AFSSO is part of MODAFL, this study assesses them separately in order to distinguish spending that is focused solely on social services.
- 7 This figure, created by the government in 2018, was first used during an ill-advised effort to unify exchange rates. The "official" rate evolved to become the rate that businesses could use to import some goods, but it was ultimately scrapped in 2022. Henry Rome, "Iran's Currency Collapse May Not Lead to Diplomatic Desperation," PolicyWatch 3711, Washington Institute for Near East Policy, March 7, 2023, https://www.washingtoninstitute. org/policy-analysis/irans-currency-collapse-may-not-lead-diplomatic-desperation.
- 8 See James Hackett, ed., *The Military Balance 2023* (London: International Institute for Strategic Studies, 2023), https://www.iiss.org/publications/the-military-balance.
- 9 "Nobakht, Chief of the Planning and Budget Office: 'We Determined Next Year's Budget with the Exchange Rate of 11,500 Tomans'" [in Persian], *Etemad*, August 8, 2020, https://bit.ly/3MkoOQH.
- 10 For example, the government used the same conversion rate for the 2022 and 2023 budgets, despite inflation that exceeded 40 percent.
- 11 A special military purchasing power parity metric would have to be created for Iran, since the general PPP as calculated by international financial institutions encompasses a wide range of goods and services, distorting the rate. For a discussion of PPP exchange rates as applied to defense spending, see Peter Robertson, "Debating Defence Budgets: Why Military Purchasing Power Parity Matters," VoxEU, October 9, 2021, https://cepr.org/voxeu/columns/debating-defence-budgets-why-military-purchasing-power-parity-matters; Michael Kofman and Richard Connolly, "Why Russian Military Expenditure Is Much Higher Than Commonly Understood (as Is China's)," War on the Rocks, December 16, 2019, https://warontherocks.com/2019/12/why-russian-military-expenditure-is-much-higher-than-commonly-understood-as-is-chinas/; Richard Connolly, *Russian Military Expenditive Parity Estimate* (Arlington, VA: Center for Naval Analyses, 2019), https://www.cna.org/archive/CNA_Files/pdf/iop-2019-u-021955-final.pdf.

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