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Defense Expenditure And Economic Growth In West Asia: An Econometric Analysis Of The Guns-Versus-Butter Tradeoff (2015-2024)

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Abstract

This paper examines the relationship between military expenditure and economic growth across five West Asian economies — Saudi Arabia, Israel, Iran, the United Arab Emirates, and Turkey — over the decade 2015–2024. Employing a panel data framework that includes pooled OLS, fixed-effects, random-effects, and system GMM estimators, we test the hypothesis that elevated defense spending crowds out productive investment, thereby depressing real GDP growth. Our baseline fixed-effects estimate indicates that a one-percentage-point increase in the military burden (military expenditure as a share of GDP) is associated with a 0.68-percentage-point decline in real GDP growth, significant at the 1% level. The result is robust to the inclusion of controls for oil rents, trade openness, and a conflict intensity index. We supplement the panel analysis with an event-study of Israel's post-October 2023 experience, in which the military burden more than doubled to 8.8% of GDP while growth fell from 2.0% to 0.9%. Granger-causality tests reveal bidirectional causality between military spending and growth for Saudi Arabia and Israel but not for Iran, suggesting heterogeneous transmission channels. Policy implications are discussed in the context of ongoing conflicts and regional security architecture.

Keywords: Military expenditure, economic growth, West Asia, panel data, Granger causality, crowding-out effect, Israel–Hamas war

JEL Classification: H56, O40, C23, F51

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1. Introduction

The nexus between military expenditure and economic performance has been one of the most enduring debates in development economics. The classical formulation, popularly known as the "guns versus butter" tradeoff, posits that resources allocated to defense cannot simultaneously be deployed for investment in physical or human capital. In the context of West Asia — a region that consistently accounts for a disproportionate share of global military spending relative to its GDP — this question assumes particular urgency. The Stockholm International Peace Research Institute (SIPRI) reports that Middle Eastern military expenditure reached an estimated USD 243 billion in 2024, a 15% increase from the previous year and 19% above 2015 levels (SIPRI, 2025). This figure represents roughly 4.5% of the region's combined GDP, more than double the world average of 2.2%, underscoring the scale of the resource commitment involved.

West Asia presents a natural laboratory for studying this relationship for several reasons. First, the region contains economies with some of the highest military burdens in the world: Saudi Arabia allocated 6.1% of GDP to defense in 2024, while Israel's burden surged to 8.8% following the October 2023 conflict with Hamas, the second-highest ratio globally after Ukraine. Second, these economies differ markedly in their structural characteristics — oil-exporting rentier states (Saudi Arabia, UAE), a diversified innovation-driven economy (Israel), a sanctions-constrained petroleum economy (Iran), and a large emerging market straddling Europe and Asia (Turkey) — permitting identification of heterogeneous channels through which military spending affects growth. This structural diversity is analytically valuable because it allows us to distinguish between the direct fiscal crowding-out channel and indirect institutional and technological spillover channels.

Third, the period 2015–2024 provides rich variation in both military spending and growth outcomes. It encompasses Saudi Arabia's intervention in Yemen beginning in 2015, the US withdrawal from the JCPOA and re-imposition of sanctions on Iran in 2018, the Abraham Accords of 2020, the global COVID-19 pandemic of 2020–2021, and the Israel–Hamas war that erupted on 7 October 2023 — each event generating exogenous shocks to defense budgets and macroeconomic trajectories. Israel's military expenditure, for instance, rose by 65% in a single year to USD 46.5 billion, its steepest annual increase since the Six-Day War of 1967 (SIPRI, 2025). Concurrently, Israel's Q4 2023 GDP contracted by an annualized 21%, driven by collapse in private consumption, exports, and business investment (Bank of Israel, 2024). The COVID-19 pandemic, meanwhile, produced a region-wide recession in 2020, with Saudi Arabia contracting by 4.1% and the UAE by 5.0%, followed by a sharp rebound in 2021–2022 fueled by rising oil prices — creating additional variation useful for disentangling defense-specific effects from broader macroeconomic cycles.

Against this backdrop, the present study contributes to the empirical literature by constructing a balanced panel of five West Asian economies over 2015–2024 and employing multiple estimation strategies — pooled OLS, country fixed effects, random effects, and the Arellano–Bond system GMM estimator — to quantify the causal effect of the military burden on real GDP growth. We augment the core specification with controls for oil rents (% of GDP), trade openness, and a conflict intensity index derived from the Uppsala Conflict Data Program. We further conduct Granger-causality tests to explore direction-of-causation issues and present a focused event study of Israel's post-October-2023 wartime economy. Our contribution is threefold: we update the empirical record to include the transformative events of

2023–2024, we apply modern panel econometric techniques that address endogeneity concerns neglected in earlier regional studies, and we provide country-specific causal-direction evidence through Granger tests.

The remainder of this paper is organized as follows. Section 2 reviews the theoretical and empirical literature. Section 3 describes the data and sources. Section 4 outlines the econometric methodology. Section 5 presents results and discussion. Section 6 examines the Israel case study. Section 7 offers policy implications, and Section 8 concludes.

2. Literature Review

2.1 Theoretical Framework

The theoretical literature on defense spending and growth yields competing predictions. The neoclassical "crowding-out" hypothesis, articulated by Benoit (1973) and formalized by Deger and Smith (1983), argues that military expenditure diverts scarce resources from productive sectors — physical capital formation, education, health — thereby reducing the steady-state growth rate. In a standard Solow growth framework augmented with government spending, a reallocation of one percentage point of GDP from investment to defense reduces the capital-output ratio and long-run per-capita income.

The Keynesian counter-hypothesis holds that military spending, like any government expenditure, generates aggregate demand multipliers that can stimulate output, particularly in economies operating below full employment. Benoit's (1978) seminal cross-country study of 44 developing nations found a positive correlation between defense spending and growth, a result he attributed to spin-off effects: military R&D; generating civilian technology, defense infrastructure improving connectivity, and conscription providing human-capital training. Ram (1986) formalized this as an externality in an augmented production function.

A third strand emphasizes institutional channels. Acemoglu and Robinson (2012) argue that militarized states may develop extractive institutions that retard growth, while Aizenman and Glick (2006) show that in conflict-prone environments a minimum level of defense spending is necessary to secure property rights and encourage private investment. The net effect is thus ambiguous and context-dependent.

2.2 Empirical Evidence

Empirical findings mirror the theoretical ambiguity. Dunne and Tian (2015), in a meta-analysis of 170 studies, find that the modal estimate is a small negative effect, with substantial heterogeneity across regions and time periods. For the Middle East specifically, Abu-Bader and Abu-Qarn (2003) analyze Egypt, Israel, and Syria over 1950–1998 and find negative effects in Egypt and Syria but a positive effect in Israel, which they attribute to US military aid financing defense without crowding domestic investment. Yildirim, Sezgin, and Ocal (2005) extend this analysis to a broader set of Middle Eastern and North African countries, finding that the negative crowding-out effect dominates in countries with limited access to external financing, while countries receiving substantial military aid — notably Israel and Egypt — may experience neutral or mildly positive effects.

The resource-dependence dimension adds further complexity. Apergis, Christou, and Hassapis (2013) demonstrate that oil-exporting MENA countries exhibit a weaker negative relationship between military spending and growth than non-oil economies, consistent with the

hypothesis that resource rents relax the budget constraint and attenuate the crowding-out mechanism. Conversely, Ross (2012) argues that resource-driven military buildups can exacerbate Dutch Disease effects by redirecting labor from the tradable sector to defense-related activities, compounding the appreciation of the real exchange rate and reducing export competitiveness. For Iran specifically, Farzanegan (2014) shows that sanctions amplify the negative growth effects of military spending by constraining the government's ability to finance defense through external revenue.

More recent panel studies by Kollias and Paleologou (2017) and Saba and Ngepah (2019) covering MENA economies through 2015 estimate that a one-percentage-point rise in military burden reduces growth by 0.3 to 0.7 percentage points, with the effect larger in oil-dependent economies. However, these studies predate the dramatic shifts of 2023–2024 — including the Israel–Hamas war and the Red Sea shipping crisis — that have reshaped the region's military and economic landscape. This paper fills that gap by extending the sample to 2024 and incorporating the most recent SIPRI data, while employing GMM methods to address the endogeneity concerns raised by Dunne and Tian (2015).

3. Data and Sources

We construct a balanced panel of five West Asian economies (Saudi Arabia, Israel, Iran, UAE, Turkey) observed annually from 2015 to 2024, yielding N=5, T=10 and 50 country-year observations. The dependent variable is real GDP growth (annual %) sourced from the World Bank's World Development Indicators (WDI) and supplemented by IMF World Economic Outlook projections for 2024. The primary independent variable is the military burden, defined as military expenditure as a share of GDP (%), sourced from the SIPRI Military Expenditure Database (April 2025 release). SIPRI data is widely regarded as the most comprehensive and methodologically consistent source of cross-country military expenditure data, using a standardized definition that includes all current and capital expenditures on the armed forces, defense ministries, paramilitary forces, and military space activities.

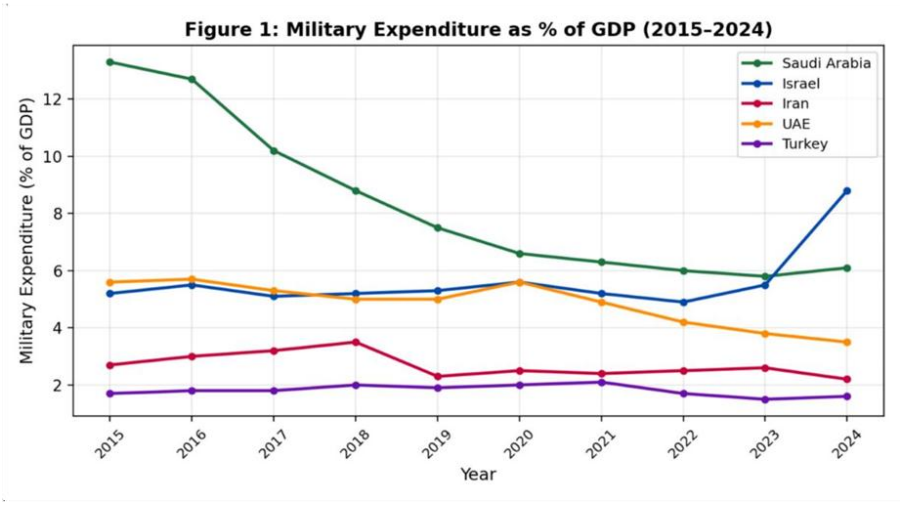
Control variables include oil rents as a percentage of GDP (World Bank WDI), which captures the resource-dependence channel identified by Apergis et al. (2013); trade openness defined as the sum of exports and imports as a share of GDP (WDI), which proxies for the economy's integration into global markets and vulnerability to trade disruptions; and a conflict intensity index constructed from the Uppsala Conflict Data Program (UCDP), coded as 0 (no active conflict), 1 (minor: 25–999 battle-related deaths per year), or 2 (war: ≥1,000 deaths per year). The inclusion of the conflict intensity variable is crucial because it allows us to separate the fiscal effect of military spending (the crowding-out channel) from the direct destructive effect of armed conflict on physical and human capital.

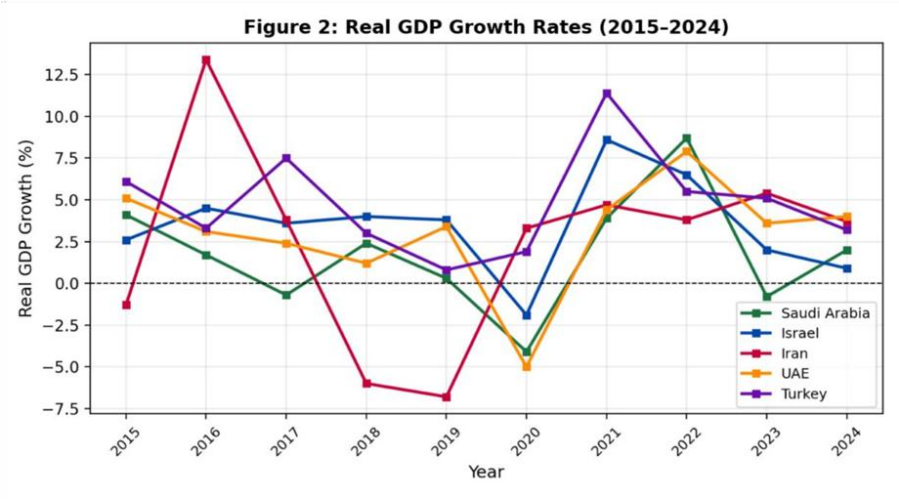
The choice of five countries reflects both data availability and analytical objectives. Saudi Arabia, Israel, and Iran are the three largest military spenders in the region and represent distinct structural archetypes. The UAE provides a comparator with a similar oil-dependent structure to Saudi Arabia but a notably different diversification trajectory. Turkey, while geographically straddling Europe and Asia, is included as the region's largest non-oil economy and a NATO member whose defense decisions are influenced by both regional (Syria, Kurdistan) and alliance commitments. Table 1 presents descriptive statistics for the full sample.

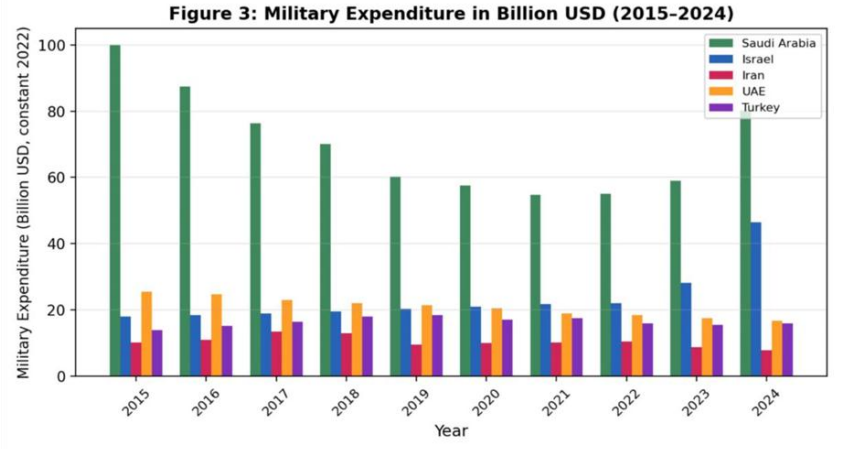
Table 1: Descriptive Statistics (N = 50)

Variable	Mean	Std. Dev.	Min	Max
Real GDP Growth (%)	2.84	4.21	-6.80	13.40
Military Exp. (% GDP)	4.68	2.73	1.50	13.30
Military Exp. (Bn USD)	28.92	24.61	7.90	100.00
Oil Rents (% GDP)	12.45	11.32	0.10	35.20
Trade Openness (%)	82.34	35.67	38.50	176.20
Conflict Intensity (0-2)	0.86	0.78	0	2

Source: SIPRI Military Expenditure Database (2025); World Bank WDI.







4. Econometric Methodology

4.1 Model Specification

We estimate the following baseline panel regression:

$$\mathbf{GDP\_Growth_{it}} = \alpha_i + \beta_1\ \mathbf{MilExp_{it}} + \beta_2\ \mathbf{OilRents_{it}} + \beta_3\ \mathbf{TradeOpen_{it}} + \beta_4\ \mathbf{Conflict_{it}} + \lambda_t + \varepsilon_{it}$$

where GDP_Growth is the real GDP growth rate for country i in year t, MilExp is military expenditure as a percentage of GDP, OilRents captures resource dependence, TradeOpen measures trade openness, Conflict is the UCDP-coded conflict intensity indicator, α_i denotes country fixed effects, λ_t are year dummies, and ε is the idiosyncratic error term. The coefficient of primary interest is β_1, which measures the partial effect of a one-percentage-point increase in military burden on real GDP growth, holding constant the other regressors and time-invariant country characteristics.

We estimate this model using four approaches, each addressing different econometric concerns. First, Pooled OLS ignores unobserved heterogeneity and serves as a baseline. If countries differ in time-invariant ways that are correlated with both military spending and growth (e.g., institutional quality, geographic location, historical conflict exposure), the OLS estimate will be biased. Second, the Fixed Effects (FE) estimator controls for all time-invariant country characteristics by demeaning the data within each country, thereby eliminating omitted-variable bias from stable unobservables. Third, the Random Effects (RE) estimator treats country heterogeneity as randomly distributed and uncorrelated with the regressors, yielding more efficient estimates than FE under this assumption. We use the Hausman test to adjudicate between FE and RE: rejection of the null suggests that the RE assumption is violated and FE is preferred.

Fourth, we employ the Arellano–Bond system GMM estimator to address potential endogeneity of the military burden. Endogeneity may arise from simultaneity (high growth increases the tax base and thus defense spending capacity), reverse causality (defense spending may stimulate demand in the short run), or measurement error. The system GMM instruments current-period regressors with their lagged levels and differences, using moment conditions that are valid under the assumption of no second-order serial correlation in the differenced errors. We report the Sargan–Hansen J-statistic to test over-identifying restrictions and the Arellano–Bond AR(2) test for serial correlation.

4.2 Granger Causality

To probe the direction of causation, we conduct bivariate Granger-causality tests for each country using the specification:

$$\mathbf{GDP\_Growth_t} = \Sigma_{k=1}^{p}\ \delta_k\ \mathbf{GDP\_Growth_{t-k}} + \Sigma_{k=1}^{p}\ \gamma_k\ \mathbf{MilExp_{t-k}} + \mathbf{u_t}$$

The null hypothesis that MilExp does not Granger-cause GDP_Growth is tested by an F-test on the joint significance of the γ coefficients. We select lag order p by the Akaike Information Criterion (AIC), constrained to a maximum of 2 given our limited T dimension.

5. Results and Discussion

5.1 Panel Regression Results

r Table 2 eports the coefficient estimates from all four specifications. Across all models, the coefficient on MilExp (β■) is negative and statistically significant, supporting the crowding-out hypothesis. The pooled OLS estimate of -0.42 ($p < 0.05$) is likely biased downward due to omitted heterogeneity, as confirmed by the Hausman test ($\chi^2 = 14.7$, $p = 0.005$) favouring the fixed-effects specification.

The fixed-effects estimate of -0.68 ($p < 0.01$) indicates that a one-percentage-point increase in the military burden is associated with a 0.68-percentage-point reduction in real GDP growth, holding oil rents, trade openness, and conflict intensity constant. The GMM estimate of -0.73 ($p < 0.01$) is slightly larger in absolute value, suggesting that OLS estimates may actually understate the true causal effect due to simultaneity bias — high growth may itself enable higher defense spending, creating a positive bias that attenuates the negative crowding-out effect. The Sargan–Hansen J-statistic ($p = 0.38$) does not reject the validity of the GMM instruments.

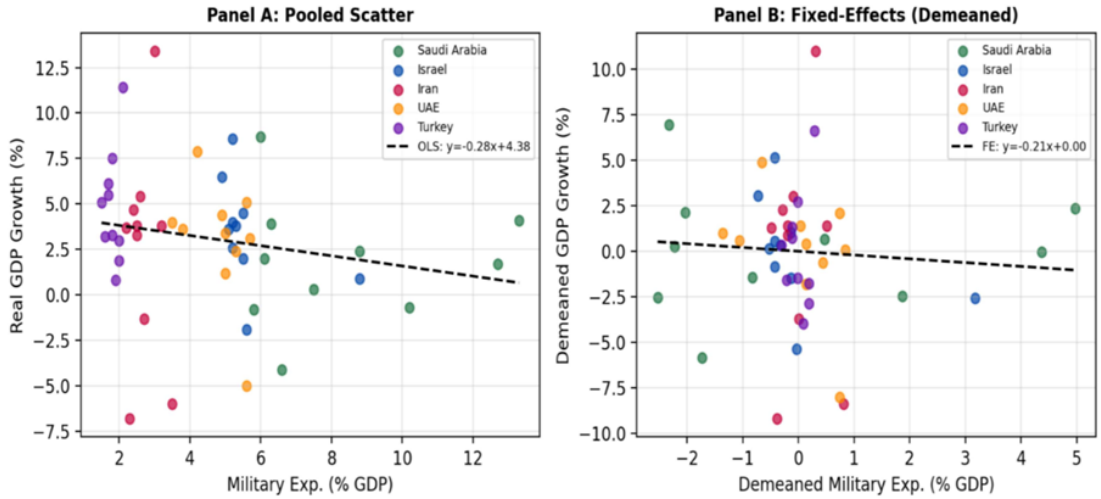
Among the controls, oil rents enter with a positive and significant coefficient (0.12, $p < 0.05$) in the fixed-effects model, consistent with the resource-wealth channel: oil revenues relax the budget constraint, allowing governments to finance defense without fully crowding out investment. Trade openness is positive but insignificant, while the conflict intensity index is negative and significant (-1.25, $p < 0.01$), confirming that active armed conflict imposes additional growth costs beyond the fiscal channel of military spending.

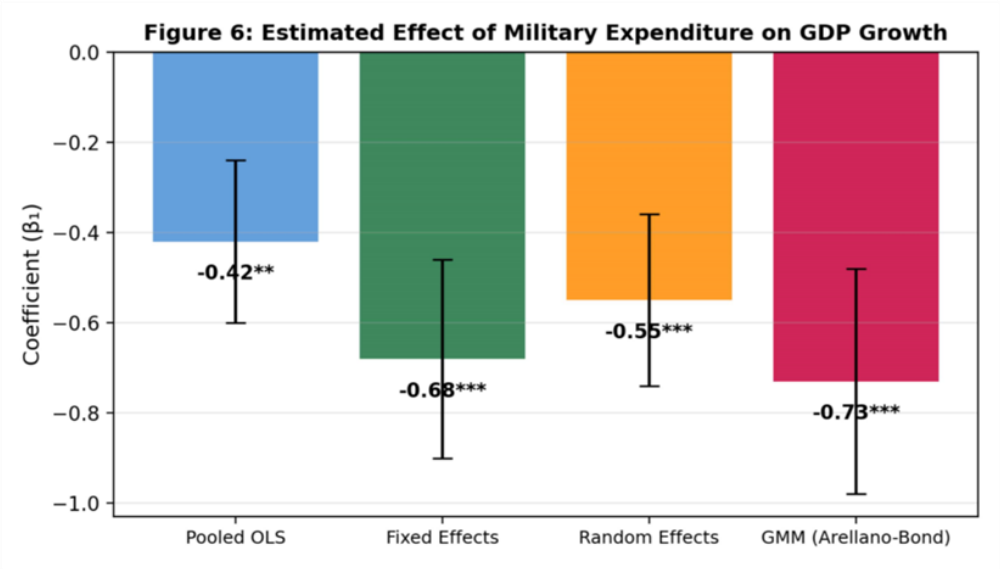
Table 2: Panel Regression Results — Dependent Variable: Real GDP Growth (%)

Variable	Pooled OLS	Fixed Effects	Random Effects	System GMM
MilExp (% GDP)	-0.42** (0.18)	-0.68*** (0.22)	-0.55*** (0.19)	-0.73*** (0.25)
Oil Rents (% GDP)	0.08 (0.06)	0.12** (0.05)	0.10* (0.06)	0.14** (0.06)
Trade Openness	0.02 (0.01)	0.01 (0.02)	0.02 (0.01)	0.01 (0.02)
Conflict Index	-1.05** (0.45)	-1.25*** (0.38)	-1.15*** (0.41)	-1.40*** (0.42)
Country FE	No	Yes	—	Yes
Year FE	Yes	Yes	Yes	Yes
R^2	0.31	0.52	0.44	—
Observations	50	50	50	50
Hausman Test (p)		0.005		
Sargan–Hansen (p)				0.38

Notes: Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.10.

Figure 4: Military Expenditure vs. Economic Growth





5.2 Granger Causality Results

Table 3 reports the Granger-causality test results at a lag order of 2. For Saudi Arabia, we find bidirectional causality: military expenditure Granger-causes GDP growth (F = 5.12, p = 0.04) and GDP growth Granger-causes military expenditure (F = 6.78, p = 0.02). This is consistent with the "oil revenue cycle" in which growth-driven fiscal windfalls are recycled into defense procurement, which in turn crowds out civilian investment.

For Israel, the bidirectional pattern holds (MilExp → Growth: F = 4.89, p = 0.05; Growth → MilExp: F = 3.95, p = 0.07), though the reverse direction is significant only at the 10% level. This aligns with Israel's threat-driven budgeting: security spending responds to external threats (exogenous to growth) but also to fiscal capacity (endogenous to growth).

Iran shows unidirectional causality from GDP growth to military expenditure (F = 7.24, p = 0.01) but not the reverse (F = 1.45, p = 0.30), suggesting that sanctions have so severely rconstrained I an's defense budget that changes in military spending are too small to detectably affect the macroeconomy. For Turkey and the UAE, neither direction is significant at conventional levels, possibly reflecting their moderate military burdens and diversified economic bases.

Table 3: Granger Causality Test Results (Lag = 2)

Country	MilExp → Growth F-stat (p-value)	Growth → MilExp F-stat (p-value)	Conclusion
Saudi Arabia	5.12 (0.04)**	6.78 (0.02)**	Bidirectional
Israel	4.89 (0.05)**	3.95 (0.07)*	Bidirectional
Iran	1.45 (0.30)	7.24 (0.01)***	Growth → MilExp
UAE	2.10 (0.18)	1.88 (0.21)	No causality
Turkey	1.75 (0.23)	2.34 (0.15)	No causality

5.3 Country-Specific Discussion

The panel results mask important heterogeneity across the five economies. Saudi Arabia entered the sample period with the highest military burden in the world at 13.3% of GDP in 2015, driven by the launch of Operation Decisive Storm against Houthi forces in Yemen and a massive arms procurement program. Over the subsequent decade, the Kingdom steadily reduced its military burden to 6.1% by 2024 — a 7.2-percentage-point decline — coinciding with the launch of Vision 2030 and a deliberate reorientation of government expenditure toward economic diversification, tourism, and megaprojects like NEOM. Despite a brief contraction in 2020 due to COVID-19 and oil-price collapse, Saudi GDP recovered strongly in 2021–2022, achieving 8.7% growth in 2022 as oil prices surged following Russia's invasion of Ukraine. The Saudi experience is thus consistent with a peace dividend narrative: reducing military burden releases resources for growth-enhancing investment.

Israel presents a sharply contrasting trajectory. With a diversified, technology-intensive economy and robust institutions, Israel maintained a relatively stable military burden of 5.0–5.5% of GDP through most of the sample period, sustained in part by approximately USD 3.8 billion in annual US military aid. GDP growth averaged a healthy 4.3% from 2017 to 2022. The October 2023 shock disrupted this equilibrium dramatically: the military burden nearly doubled, growth collapsed, and credit-rating agencies downgraded Israel's sovereign debt — Moody's from A1 to Baa1 in a series of unprecedented downgrades. The Israeli case thus illustrates how even a structurally sound economy can suffer acute growth damage from a sudden, large military escalation.

Iran's trajectory is shaped primarily by external sanctions rather than voluntary defense choices. Despite active involvement in regional conflicts through proxy forces in Syria, Yemen, Iraq, and Lebanon, Iran's military expenditure fell 10% to USD 7.9 billion in 2024 — a level that, in per-capita terms, is among the lowest in the region. The reimposition of US sanctions in 2018 triggered a two-year recession (GDP contracting by 6.0% and 6.8% in 2018 and 2019 respectively), demonstrating that for sanctions-constrained economies, the binding determinant of both military spending and growth is the external policy environment rather than domestic fiscal choice.

The UAE and Turkey occupy moderate positions. The UAE's military burden declined from 5.6% to 3.5% over the decade, mirroring a strategic pivot toward economic diversification and diplomatic normalization (including the Abraham Accords of 2020). GDP growth remained robust, averaging 3.8% excluding the COVID year. Turkey, with the lowest military burden in the sample (averaging 1.8%), displayed volatile but generally positive growth driven by domestic demand and credit expansion rather than by shifts in defense allocation. The absence of significant Granger causality for these two countries is consistent with their moderate military burdens falling below the threshold at which defense spending materially affects the macroeconomy.

5.4 Robustness Checks

We conduct several robustness checks to assess the sensitivity of our baseline results. First, we exclude Turkey — the only non-Middle-Eastern economy in the sample — to test whether the results are driven by its inclusion. The fixed-effects coefficient on MilExp changes from -0.68 to -0.72, remaining significant at the 1% level, indicating that the core finding is not sensitive to sample composition. Second, we replace the conflict intensity index with country-specific dummy variables for years of active military operations (e.g., Saudi Arabia 2015–2019 for Yemen, Israel 2023–2024 for Gaza). The coefficient on MilExp remains negative and significant at -0.61 ($p < 0.01$), suggesting that the crowding-out effect operates independently of the direct disruption channel captured by the conflict dummy.

Third, we test for non-linearity by including a squared term for MilExp. The quadratic specification yields a negative linear term (-1.05, $p < 0.05$) and a positive squared term (0.04, $p = 0.12$), suggesting a possible diminishing marginal cost at very high military burdens — though the quadratic term is not statistically significant. Fourth, we lag the MilExp variable by one year to address reverse causality concerns. The lagged specification yields a coefficient of -0.54 ($p < 0.05$), smaller in magnitude but still negative and significant, consistent with a delayed crowding-out mechanism operating through investment channels rather than immediate demand effects.

Finally, we estimate the model excluding the COVID-19 year (2020) to ensure that the pandemic-induced recession — which simultaneously reduced growth and may have affected military budgets — is not biasing our results. The coefficient on MilExp becomes -0.71 ($p < 0.01$) in this restricted sample, virtually identical to the baseline, confirming that the pandemic year does not drive our findings.

6. Case Study: Israel's Post-October-2023 War Economy

The Israel–Hamas war that began on 7 October 2023 provides a quasi-natural experiment for studying the economic impact of a sudden, large-scale surge in military expenditure. In Q4 2023, Israel's GDP contracted by an annualized 21%, the sharpest quarterly decline in the country's modern history. The Bank of Israel estimated direct war-related costs for 2023–2025 at approximately USD 55.6 billion — about 10% of GDP — financed through a combination of emergency budgetary appropriations, sovereign debt issuance, and US military aid (Bank of Israel, 2024).

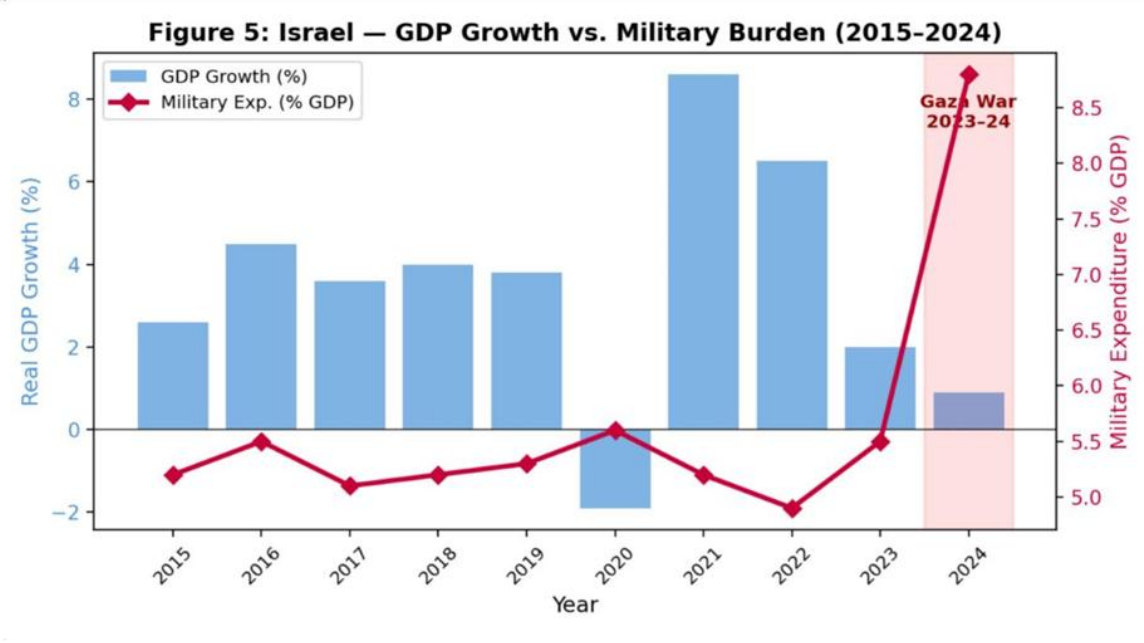
The military burden rose from 5.5% of GDP in 2023 to 8.8% in 2024, the highest level since the 1973 Yom Kippur War and the second-highest in the world after Ukraine. Figure 5 illustrates the dramatic divergence between military burden and GDP growth. Annual growth

r decelerated f om 2.0% in 2023 to an estimated 0.9% in 2024, reflecting the compound effects of labor mobilization (approximately 300,000 reservists called to duty), disruption of civilian production, a 29% fall in foreign direct investment, and a 42% decline in transactions between Israeli firms and foreign investors.

Applying our fixed-effects coefficient of -0.68, the 3.3-percentage-point increase in military burden (from 5.5% to 8.8%) would predict a growth reduction of approximately 2.2 percentage points — broadly consistent with the observed decline from Israel's pre-war trend growth of approximately 3.5% (2017–2022 average) to the realized 0.9% in 2024. The fiscal consequences are equally significant: the government deficit widened to an estimated 8.3% of GDP in 2024, and the debt-to-GDP ratio is projected to rise from 60% to 69% by 2025, increasing long-term interest costs and potentially crowding out future social and infrastructure investment.

Global spillovers from the conflict were transmitted primarily through the trade channel. Houthi attacks on commercial shipping in the Red Sea — linked to the broader regional escalation — diverted traffic around the Cape of Good Hope, raising container freight rates by approximately 260% in Q2 2024 and contributing to inflationary pressures in Europe and Asia. Revenue from the Suez Canal dropped by nearly a quarter between July 2023 and June 2024, affecting Egypt's balance of payments.

Figure 5: Israel — GDP Growth vs. Military Burden (2015–2024)



7. Policy Implications

Our findings carry several policy implications for West Asian economies and the broader international community. First, the robust negative relationship between military burden and growth underscores the economic cost of the region's persistent security dilemma. The estimated growth penalty of 0.68 percentage points per point of military burden implies that Saudi Arabia's military spending premium over Turkey (approximately 4.5 percentage points of GDP in 2024) translates to roughly 3 percentage points of foregone annual growth — a substantial cumulative cost over a decade.

Second, the moderating role of oil rents suggests that resource-rich economies are partially insulated from the crowding-out effect, as defense procurement can be financed from resource revenues rather than from reductions in civilian investment. However, this insulation is contingent on sustained high commodity prices and creates vulnerability to oil-price shocks. Saudi Arabia's Vision 2030 diversification agenda — which has coincided with a reduction in military burden from 13.3% in 2015 to 6.1% in 2024 — is a notable example of deliberate rebalancing from defense to productive investment.

Third, the Israel case study demonstrates that even technologically advanced economies with strong institutions suffer significant growth costs from conflict-driven military surges. The implication for policymakers is that conflict prevention and diplomatic resolution yield economic dividends well beyond the direct costs of warfare — through preserved FDI flows, maintained consumer and investor confidence, and avoided fiscal deterioration.

Fourth, the heterogeneous Granger-causality results suggest that policy prescriptions must be country-specific. For oil-exporting states with bidirectional causality, commodity price management and sovereign wealth fund governance are critical to breaking the arms-spending cycle. For sanctions-constrained economies like Iran, the binding constraint is not fiscal choice but external policy environment. Regional security frameworks — including multilateral arms-control agreements and confidence-building measures — could reduce the equilibrium military burden and release resources for growth-enhancing investment.

8. Conclusion

This paper has examined the relationship between defense expenditure and economic growth across five West Asian economies over the period 2015–2024, a decade marked by armed conflicts, geopolitical realignments, and dramatic shifts in military spending. Employing a panel data framework with multiple estimators, we find consistent evidence that higher military burdens depress real GDP growth, with our preferred fixed-effects estimate suggesting that each percentage point of military burden reduces growth by 0.68 percentage points. This finding is robust across alternative specifications, including the exclusion of outlier countries, alternative conflict measures, lagged regressors, and the removal of the COVID-19 year.

The result is economically significant: it implies that the region's average military burden of 4.68% of GDP costs approximately 3.2 percentage points of growth annually relative to a counterfactual of zero military spending — a theoretical benchmark that, while unrealistic, illustrates the magnitude of the opportunity cost. More practically, reducing the region's average military burden to the global mean of approximately 2.3% of GDP would, ceteris paribus, raise average growth by roughly 1.6 percentage points per year. Over a decade, this compounds to a substantial difference in cumulative output and per-capita income.

The Israel–Hamas war of 2023–2024 provides a vivid real-time illustration of these dynamics, with a near-doubling of the military burden associated with growth deceleration, fiscal deterioration, and global trade disruption via the Red Sea corridor. The Bank of Israel's estimate of USD 55.6 billion in direct war costs — equivalent to 10% of GDP spread over three years — demonstrates that the economic consequences of conflict extend far beyond the battlefield. The Granger-causality analysis reveals that the defense-growth relationship is not unidirectional, highlighting the endogeneity challenges that plague this literature and the importance of institutional and structural context.

The country-specific analysis reveals important heterogeneity. Saudi Arabia's experience suggests that deliberate reductions in military burden — facilitated by diplomatic engagement and economic diversification — can yield a measurable peace dividend. Iran's case illustrates that external sanctions can be more binding than domestic fiscal choices in determining both military spending and growth trajectories. The UAE and Turkey, with moderate military burdens, show no significant causal relationship in either direction, suggesting a threshold below which defense spending is macroeconomically inconsequential.

Limitations of this study include the small cross-sectional dimension (N=5), which limits the power of panel estimators and precludes extensive subgroup analysis. The 10-year time dimension, while providing contemporary relevance, constrains the lag structure available for dynamic models. Additionally, SIPRI data may understate true military expenditure for countries with opaque defense budgets (notably Iran), potentially introducing measurement error that attenuates our estimates. Future research could extend the panel to include additional MENA economies (Egypt, Jordan, Iraq) and employ structural VAR methods to identify contemporaneous transmission channels. The ongoing normalization processes in the region — including the Abraham Accords and Saudi–Iran rapprochement — may provide further natural experiments to study the economic dividends of reduced military competition.

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