📄 Tracking the Guns: A Data-Driven Dive into Global Military Expenditures (1988–2024)

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Project Repo: [military-spending-sql-osint](#)
Data Source: [SIPRI Military Expenditure Database](#)

📌 Abstract

This analysis explores trends in global military expenditure from 1988 to 2024 using the SIPRI dataset, focusing on seven key nations: the United States, China, Russia, India, Pakistan, Iran, and Israel. Using SQL for data querying and exploration, we identified top spenders, long-term trends, GDP spending proportions, and insights that reflect broader geopolitical realities. This project contributes to open-source intelligence (OSINT) and geopolitical research through structured data analytics.

🧠 Methodology

The dataset includes four key indicators:

- **Constant USD (2022)**: Inflation-adjusted total military spending (in millions)
- **Share of GDP**: Proportion of GDP spent on military
- **Per Capita Military Spending**
- **Share of Government Expenditure**

Only data from **1988–2024** was used, as some variables were unavailable before 1988. Data was cleaned and stored in a SQL database (`db1.sipri_data`) for structured querying.

🔍 Key Findings

🥇 Top Military Spenders (2024)

In constant USD:

1. US United States: **$29,071,602M**
2. CN China: **$4,402,505M**
3. RU Russia: **$1,727,580M**

4. ɪɴ India: **$1,683,165M**
5. ɪʟ Israel: **$647,394M**

The **USA's dominance** in global military spending remains unchallenged, with China a distant second.

📈 Long-Term Spending Trends: Case of Israel

From 1988 ($15.6B) to 2024 ($45.3B), Israel's military expenditure **tripled**, reflecting its prolonged regional tensions and focus on defense capabilities. Key spikes occurred in the **2000s and post-2020**, likely due to changing security dynamics in the Middle East.

💰 Cumulative Spending (1988–2024)

Total military spend (in constant USD):

Country	Total Spending ($M)
USA	29,071,602
China	4,402,505
Russia	1,727,580
India	1,683,165
Israel	647,394
Pakistan	237,726
Iran	174,227

📊 Share of GDP (Military Burden)

📃 2000 Snapshot:

- Russia: **3.3%**
- USA: **3.1%**
- India: **2.9%**
- Iran: **2.3%**
- China: **1.8%**

📉 Average Military Burden (1988–2024):

Country	Avg. Share of GDP
ɪʟ Israel	**7.3%** (highest)
ᴘᴋ Pakistan	4.3%

Country	Avg. Share of GDP
US USA	4.0%
RU Russia	4.0%
IN India	2.7%
IR Iran	2.6%
CN China	1.8% (lowest)

Israel stands out with the **highest average military burden**, while China has consistently spent the least proportionally to its GDP.

📌 Conclusion

This project highlights the utility of SQL-based data analysis in geopolitical research. It reveals clear patterns of dominance, burden distribution, and evolving spending strategies. Notably:

- The **USA's unrivaled spending** power
- **China's growth trajectory**
- **Israel's persistent high military prioritization**

💼 Tools Used

- SQL (MySQL)
- Excel (Pre-cleaning)
- Python (Optional)
- Kaggle / GitHub (Publishing)