BBVA Research

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Presentation delivered at the EIB

David Sarasa and Jorge Sicilia

EU Priorities: Defence Spending & Multipliers

The EU peace dividend is definitely over…

Latest announcements (and apparently growing consensus) anticipate some key elements

Medium-Term Substantial Defence Fiscal Impulse → **EU Readiness 2030 Plan: €800 bill. Stimulus**

New NATO Spending Guidelines: 3.5 + 1.5

US-EU Agreement: compromised US military imports

Need for EU-wide purchase and design coordination

…but, what insights do we have into **its potential economic impact**? **Key aspects** include:

Timing of Stimulus (long vs short term)

Maximize Impact on Military and Economic Fronts

How Persistent are the Effects? Does Spending Composition Matter?

Comparison with Non-Defence Outlays

When is Higher the Impact?; are Non-linearities present?

Based on **García-Serrador, Sarasa-Flores and Ulloa (2025)**: **Buy Guns or Buy Roses?: EU Defence Spending Fiscal Multipliers** (BBVA Research WP 25/06)…

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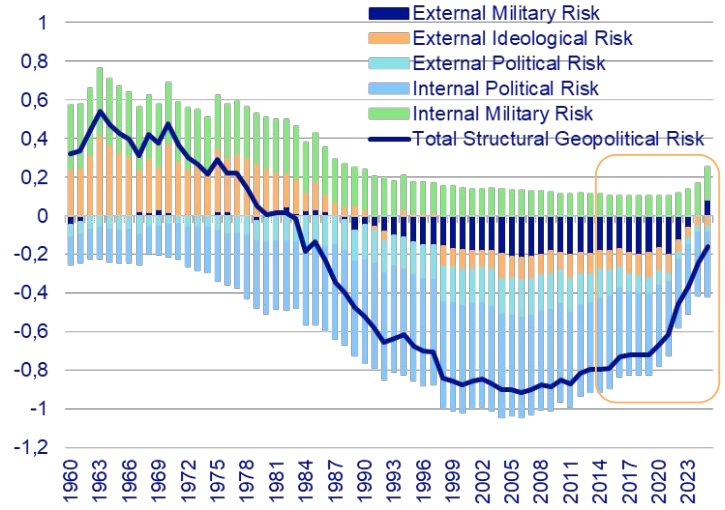
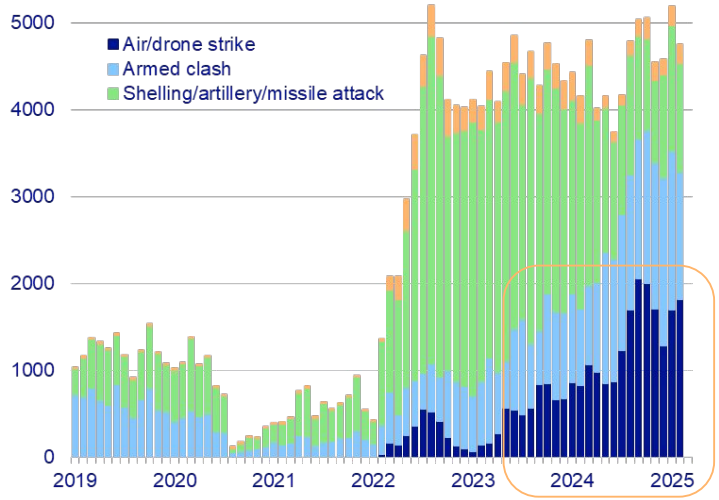
Rising External Military Readiness Threatens EU Security

Modern warfare is increasingly reliant on aerial and unmanned drone systems, which demand adapting military needs to the new era, as exemplified in the UKR-RUS conflict.

EU STRUCTURAL GEOPOLITICAL RISK AND COMPONENTS (1960-2024) (STAND. VALUES)



NON-CIVILIAN MILITARY ACTIONS ON UKRAINE (2019-2025) (EVENTS)



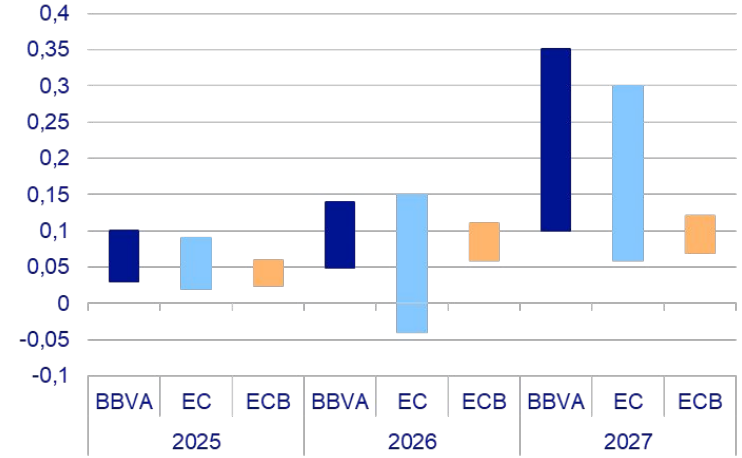
Source: BBVA Research from "A New Set of Structural Geopolitical Indicators" (Jiménez-Anleo, Sarasa-Flores and Ugarte-Ruíz (2025)) and Armed Conflict Location & Event Data (ACLED).

Optimal scenario: apply the Readiness principle while maximizing economic gains from fiscal stimulus

EU Readiness 2030 Package: Potential Impact & Doubts

The plan: €650 bill. fiscal space for defence spending and €150 bill. dedicated to loans (SAFE).
The EU is expected to spend a record €381 bill. in defence in 2025 (10% year increase)

EU ECONOMIC IMPACT ESTIMATES OF READINESS 2030 PLAN (% DEVIATION FROM BASELINE)



Source: BBVA Research from European Central Bank and European Commission.

Doubts surrounding implementation & efficiency

Solve conflict between imports reliance and urgency in executing the plan and rearm against Russia. How?

Enhancing EU-wide industry and coordinated procurement. But…

this takes time. Options: extend plan horizon? Longer-term focused?

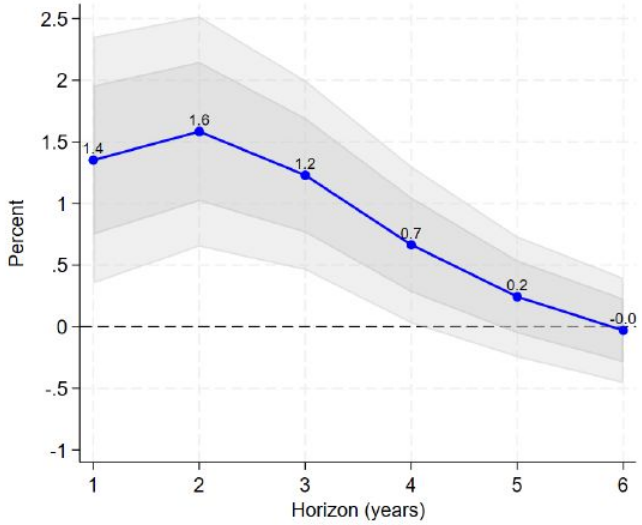
Maximize economic impact = maximize fiscal multiplier, but need estimation at the EU-level

Cumulative Fiscal Multipliers: Panel Local Projections (LP):

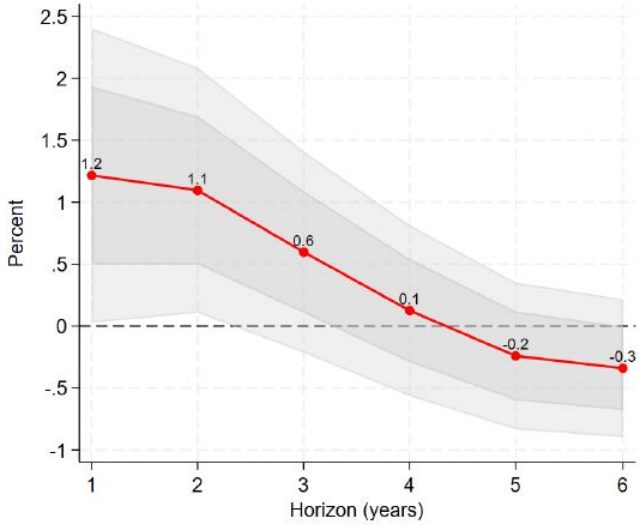
Elevated short-term defence spending multipliers (1.4-1.6), which fade in the medium-term (panel a), resulting in no lasting structural effects on output (panel b)

CUMULATIVE DEFENCE FISCAL MULTIPLIERS

(A) TREND-NORMALIZED OUTPUT



(B) REAL GDP



Annex: Eurostat vs SIPRI

Annex: Spender-driven effect?

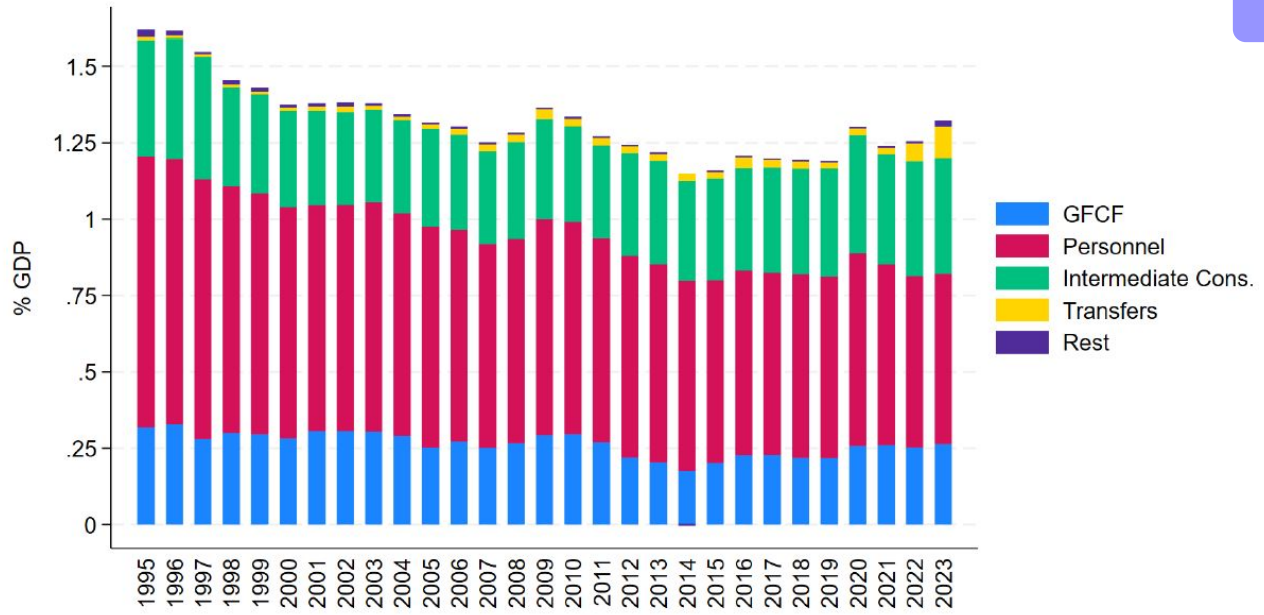
Annex: The Role of Taxes

Note: the estimation sample cover all EU-27 countries from 1995 to 2023 in a annual basis.
Source: García-Serrador, Sarasa-Flores and Ulloa (2025).

Historical EU Defence Spending Composition:

Over half of defence spending has gone to wages, with capital and intermediates each comprising a quarter. Together they constitute the bulk of total defence spending.

DEFENCE SPENDING COMPOSITION: EU 27



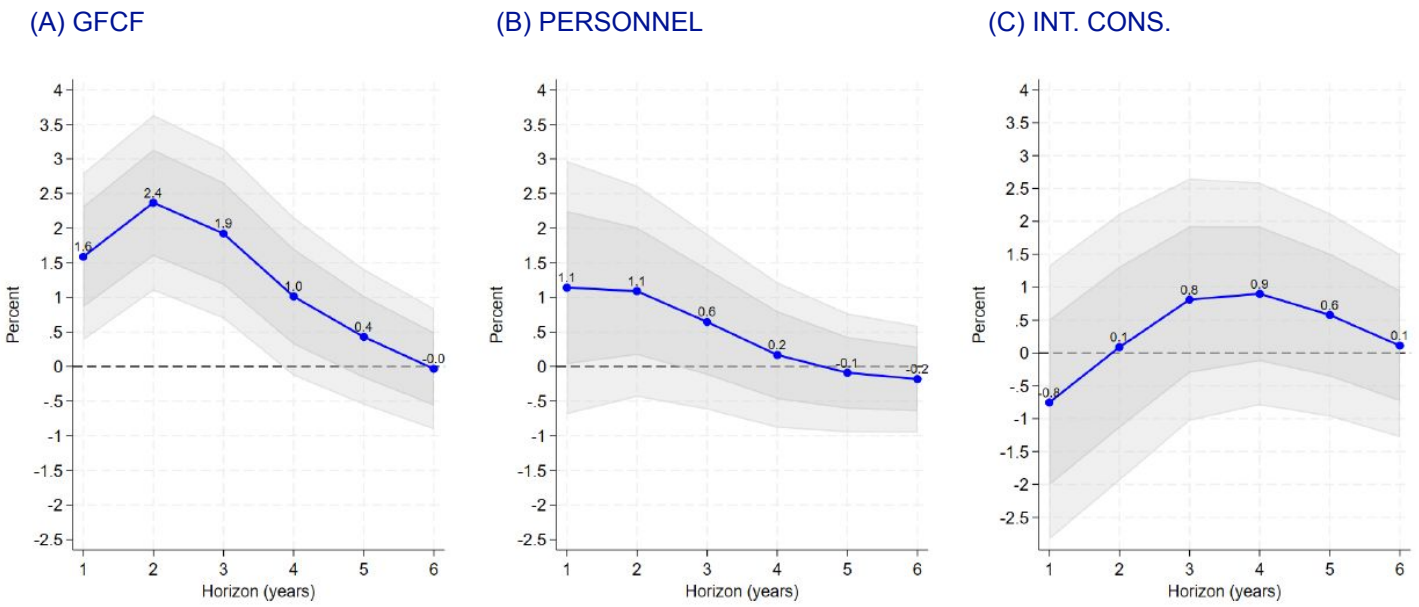
Annex: And R&D spending?

Source: García-Serrador, Sarasa-Flores and Ulloa (2025).

What the Money is Spent on Matters:

Disaggregating defence outlays confirms marked heterogeneity in the cumulative multiplier profile, where capital-intensive outlays drive yield substantial short-run multipliers

CUMULATIVE DEFENCE FISCAL MULTIPLIERS: SPENDING COMPOSITION



Source: García-Serrador, Sarasa-Flores and Ulloa (2025).

Guns or Roses?: Defence vs Non-defence Outlays

Stronger short-run crowding-in effects of defence outlays, though surpassed by non-defence spending in the medium term, due to the share defence spending allocated to wages

FISCAL MULTIPLIERS OF DEFENCE VS. REST OF SPENDING

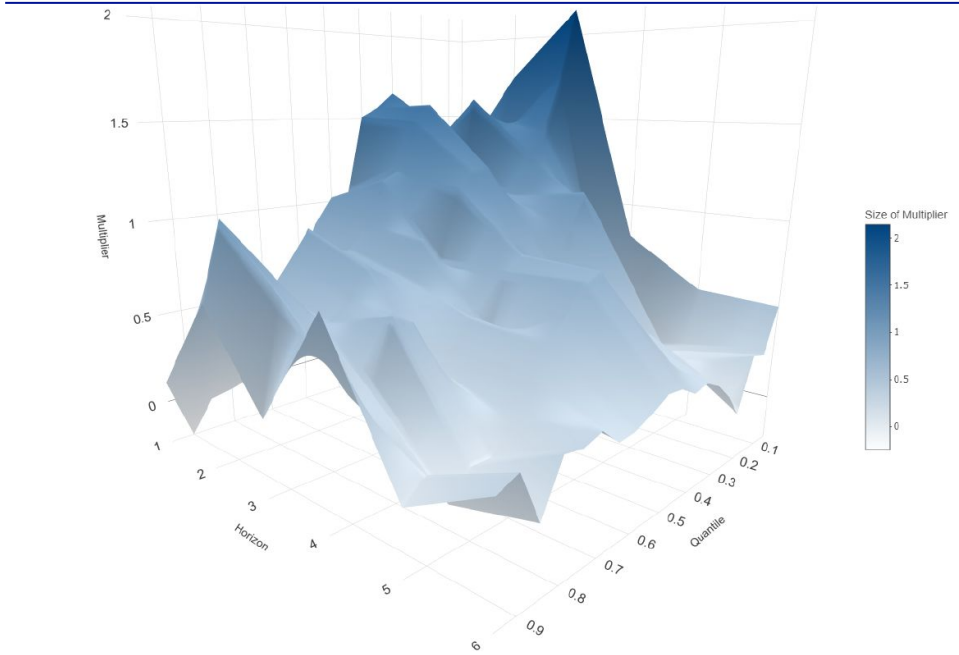
	Current spending			Government purchases		
Horizon (h)	Defence (1)	Total excl. def. (2)	Total (3)	Defence (4)	Total excl. def. (5)	Total (6)
1	1.11* (0.74)	0.33*** (0.07)	0.32*** (0.06)	0.68* (0.37)	0.55*** (0.09)	0.55*** (0.09)
2	1.04* (0.65)	0.31*** (0.06)	0.30*** (0.06)	0.81** (0.38)	0.53*** (0.07)	0.52*** (0.07)
3	0.84* (0.54)	0.27*** (0.05)	0.26*** (0.05)	0.44* (0.32)	0.47*** (0.06)	0.44*** (0.06)
4	0.44 (0.45)	0.23*** (0.05)	0.22*** (0.05)	0.06 (0.26)	0.38*** (0.06)	0.34*** (0.06)
5	0.08 (0.37)	0.20*** (0.04)	0.19*** (0.04)	-0.14 (0.21)	0.32*** (0.05)	0.29*** (0.05)
6	-0.11 (0.33)	0.15*** (0.33)	0.15*** (0.33)	-0.25 (0.18)	0.29*** (0.05)	0.25*** (0.05)

Source: García-Serrador, Sarasa-Flores and Ulloa (2025).

Multipliers Across the Output Distribution: Quantile LPs

Defence multipliers exceed 1.75 during deep recessions but fall below 0.75 during economic expansions; an equivalent picture is observed when estimating the impact on unemployment

QUANTILE LOCAL PROJECTIONS: CUMULATIVE DEFENCE FISCAL MULTIPLIERS BY OUTPUT QUANTILE



Annex: Unemployment effects

Annex: Real GDP growth effects

Annex: Output Distribution & Fiscal Space

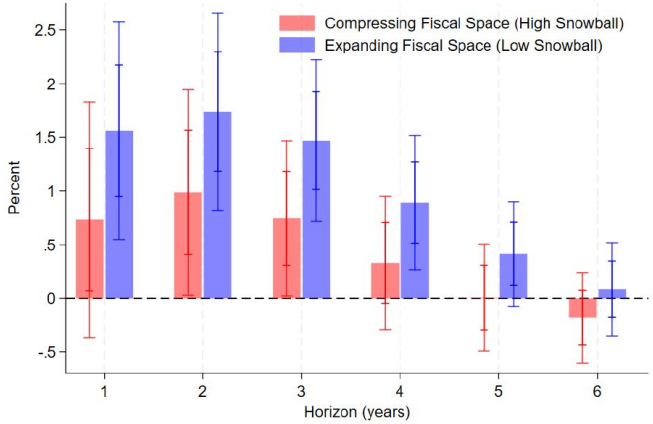
Source: García-Serrador, Sarasa-Flores and Ulloa (2025). The dependent variable employed is detrended real GDP.

State-dependent LPs a la Auerbach & Gorodnichenko (2012)

Fiscal multipliers surpass unity when countries possess ample fiscal space and exhibit low military imports dependence

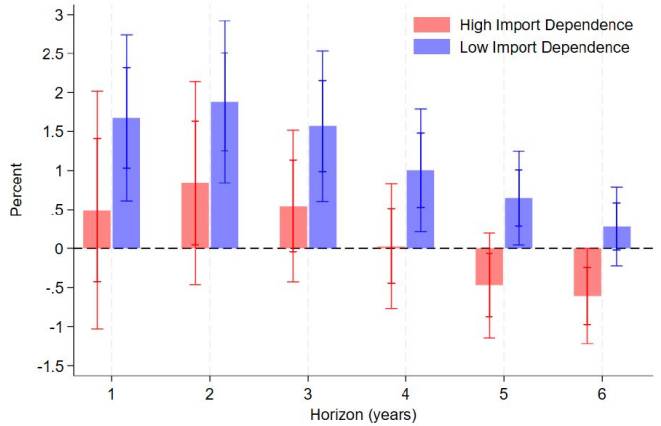
State indicator: **snowball effect**

CUMULATIVE DEFENCE FISCAL MULTIPLIERS: FISCAL SPACE STATE-DEPENDENCE



State indicator: **total military imports relative to total defence spending**

CUMULATIVE DEFENCE FISCAL MULTIPLIERS: IMPORTS RELIANCE STATE-DEFENCE

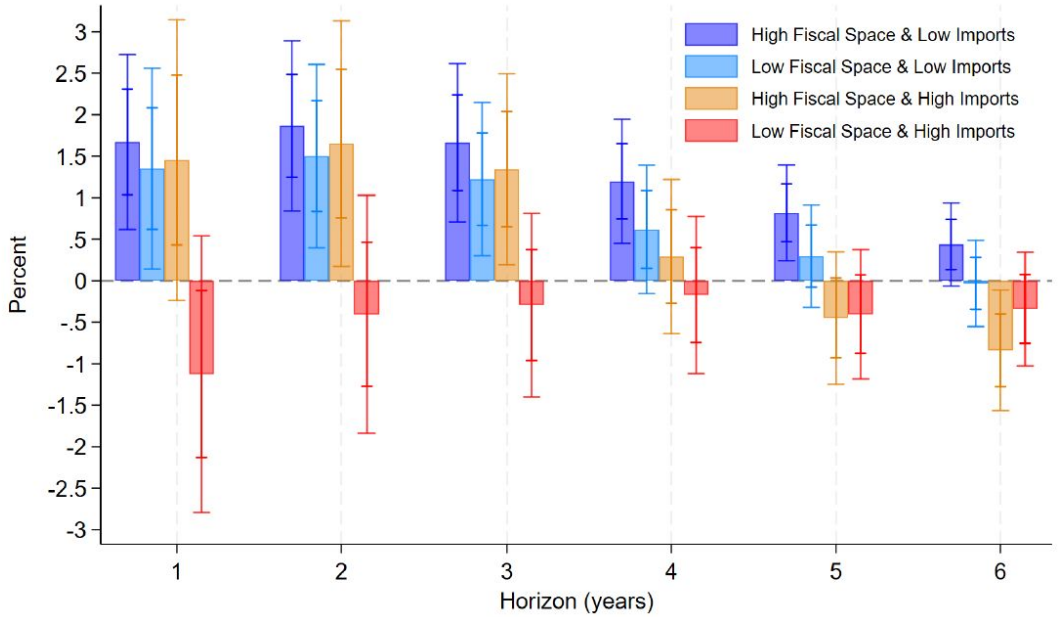


Source: García-Serrador, Sarasa-Flores and Ulloa (2025).

Embedded Non-linearities: Fiscal Space + Imports Reliance

Worst-case scenario of depressed fiscal space and elevated military imports leakage imply non-significantly different from 0 multipliers at all horizons

CUMULATIVE DEFENCE FISCAL MULTIPLIERS: EMBEDDED-STATE-DEPENDENCE



Note: states are defined via Smooth Transition Functions a la Auerbach and Gorodnichenko (2012).
Source: García-Serrador, Sarasa-Flores and Ulloa (2025).

Key messages and policy recommendations to maximize economic return

Summary of results:

- **>1 short-run** EU defence spending multipliers…but it fades
- **Composition matters**: capital
- **Larger than non-defence** (short-run)
- **Higher crowding-in** effects in times of **low growth, high fiscal space and low imports**
- **Depressed** multipliers under **worst-case scenario**

Policy recommendations:

- Target **capital**-intensive outlays and **tech-based** expenditure (focus more on R&D)
- Time stimulus to periods of **economic slack**
- **Preserve fiscal** credibility and **space**
- **Enhance** domestic supply chains and **coordinate procurement** to **minimize import-leakage**

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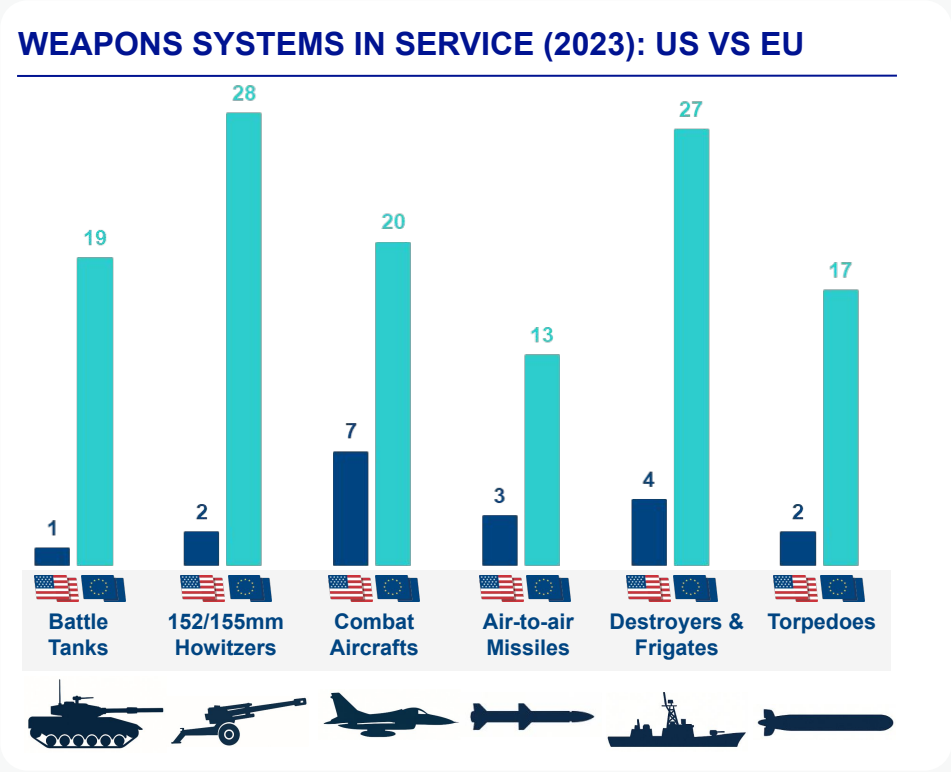
Annex

Enhancing coordination and EU defence industry will help maximize crowding-in effects



Compared to the U.S. defence market, the EU-wide industry remains latently fragmented:

- The EU maintains significantly more weapon systems in service than the U.S. across all categories…
- … particularly in destroyers, howitzers, and combat aircraft

Moreover, world-wide defence industry is dominated by US firms:

- Only Thales, Leonardo, and Airbus rank among the global top 20 in terms of revenue (2023)

Annex: Global Military Market

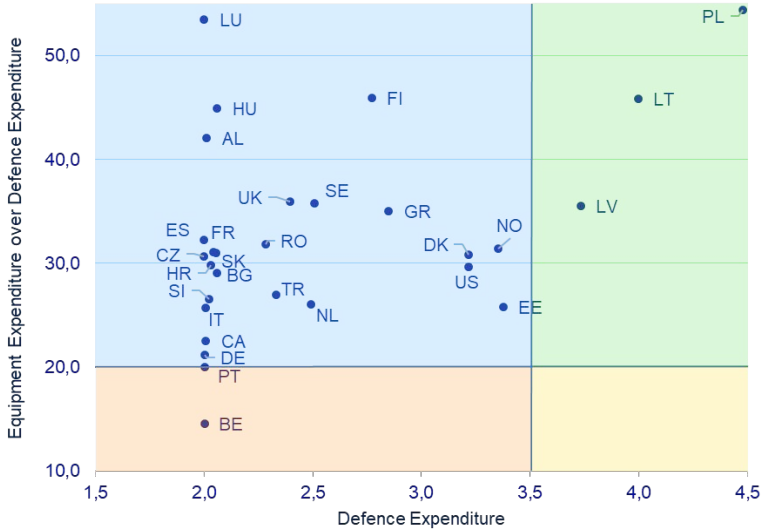
Source: BBVA Research from The Military Balance 2023 (The International Institute for Strategic Studies).

Latest Defence Spending Data

Only Ukraine and Russia-bordering countries surpass US spending, the rest place quite far from new NATO guideline (3.5% GDP), although most of EU countries fulfill 20% equipment-based defence spending NATO minimum threshold.

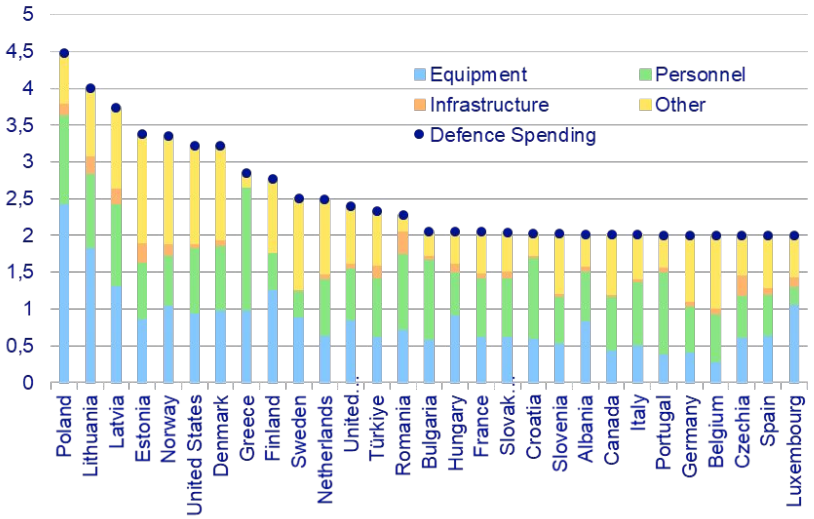
2025 NATO DEFENCE SPENDING

(% GDP; % TOTAL DEFENCE EXPENDITURE)



2025 NATO DEFENCE SPENDING COMPOSITION

(% GDP)



Far from Russia EU countries will still dedicate half of defence spending to personnel in 2025

Source: BBVA Research from NATO.

Unexisting empirical evidence on EU-level defence spending fiscal multipliers

US evidence of news military spending shocks:

- **Narrative Approach**: Military News (Ramey & Shapiro, 1998; Ramey, 2011; Ramey & Zubairy, 2018)
- **R&D waves** (Antolin-Diaz & Surico, 2022)

Fiscal spending multipliers in cross-national panels (Perotti, Reis and Ramey, 2007; Leigh et al., 2010; Ilzetzki, Mendoza and Végh, 2013; Auerbach and Gorodnichenko, 2013)

- **Military spending to instrument gov. spending** (Sheremirov & Spirovska, 2022)

Non-linearities in fiscal policy transmission:

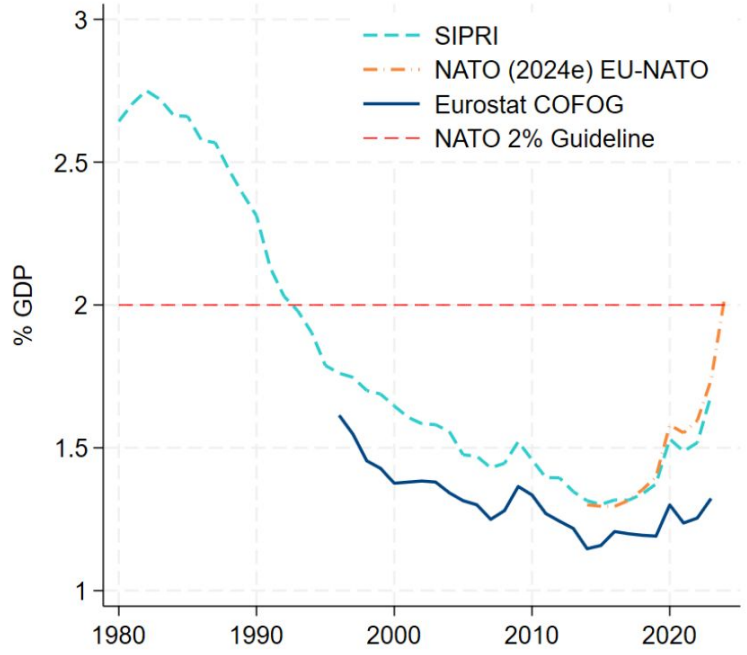
- **Business cycle** (Auerbach and Gorodnichenko, 2012; Linnemann and Winkler; 2016)
- **Fiscal space** and **external debt holdings** (Di Serio, Fragetta & Melina, 2021; Broner et al., 2022)
- **Trade openness** (Ilzetzki, Mendoza & Végh, 2013; Sheremirov & Spirovska, 2022)

Data: Annual Panel of all EU-27 countries during 1995-2023

Fiscal variables (Eurostat & SIPRI):
- Total defence spending
- Composition: GFCF, personnel, intermediate consumption & R&D*
- Non-defence outlays

Macro variables (Eurostat & IMF):
- Output
- Government Debt & R-G
- Gov. revenues/taxes
- Long-term yields
- Trade
- Unemployment rates
- Military imports (UN Comtrade)

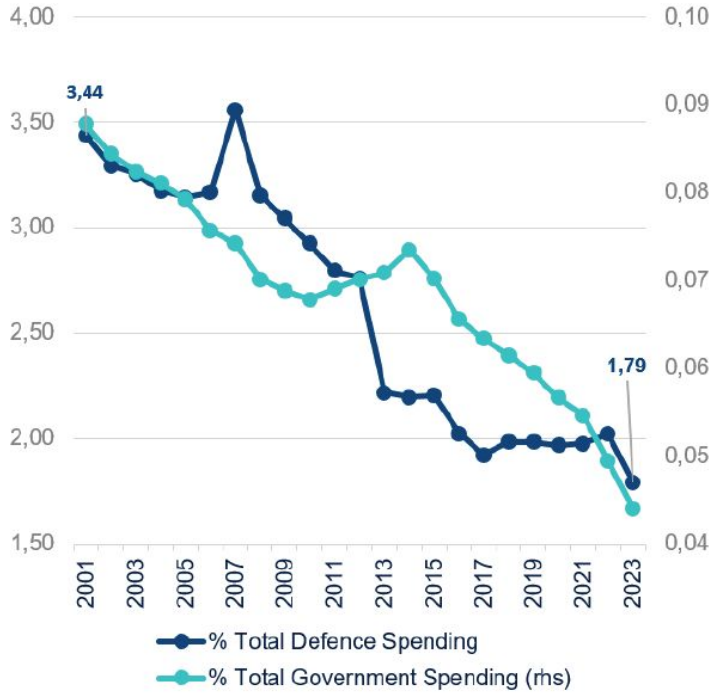
DEFENCE SPENDING EVOLUTION: EU27
(1980-2024)



Source: García-Serrador, Sarasa-Flores and Ulloa (2025). * As outlined in the paper, EU defence R&D has historically been low and on a declining trend, which explains its exclusion from the analysis..

Lack of Historical Defence Innovation Spending

HISTORICAL R&D DEFENCE SPENDING IN THE EU27 (2001-2023) (%; %)



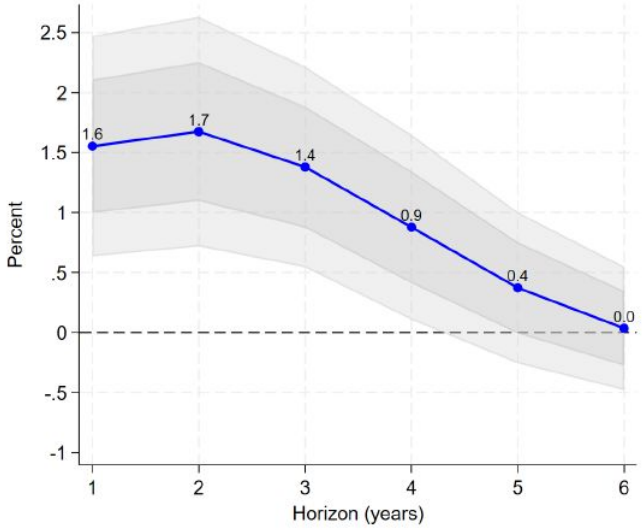
Source: García-Serrador, Sarasa-Flores and Ulloa (2025).

Accrual-based (Eurostat) vs Cash-based (SIPRI):

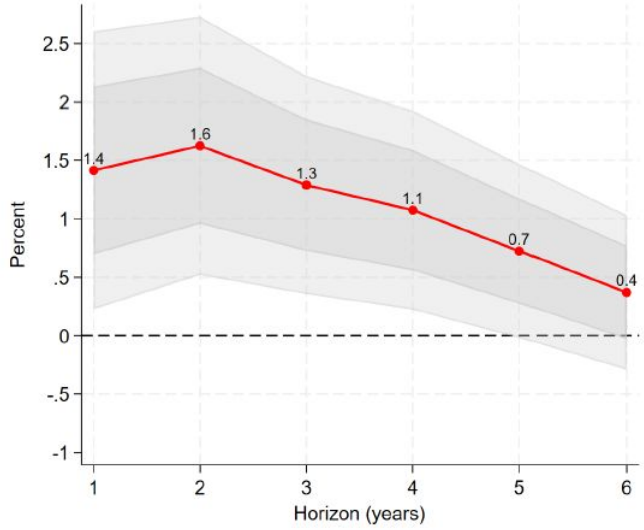
The impact on detrended output is similar in both cases, however cash-based data provide more long-lasting effects on GDP levels

CUMULATIVE DEFENCE FISCAL MULTIPLIERS: SIPRI DATA

(A) TREND-NORMALIZED OUTPUT



(B) REAL GDP GROWTH RATE



Source: García-Serrador, Sarasa-Flores and Ulloa (2025).

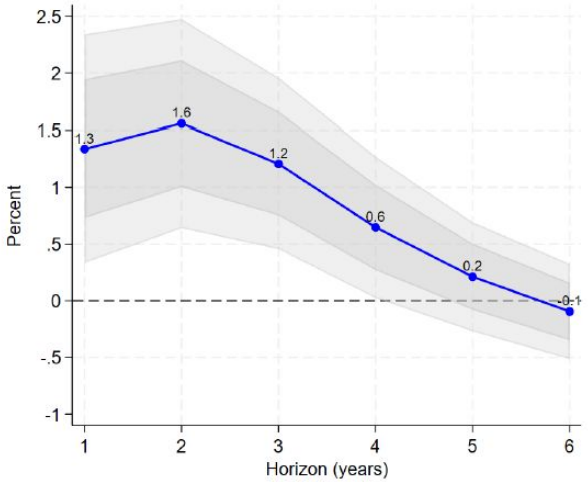
Return

Are the effects driven by Top-3 spenders?:

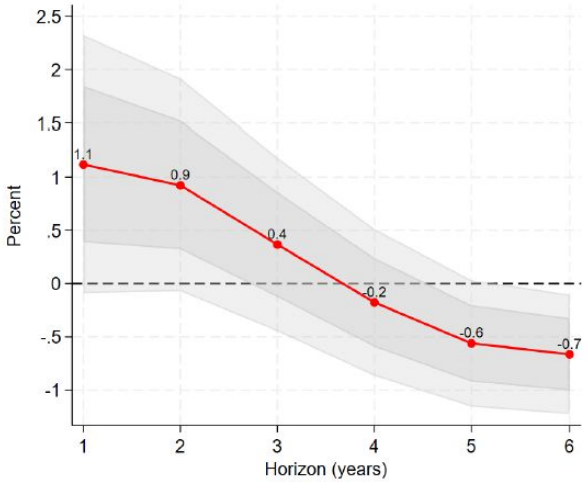
When excluding France, Germany and Italy from the sample (jointly account for 60% of EU-27 spending), results remain unchanged, albeit provide negative effects on medium-term GDP

CUMULATIVE DEFENCE FISCAL MULTIPLIERS: EXCLUDING TOP-3 SPENDERS
(FRANCE, GERMANY AND ITALY)

(A) TREND-NORMALIZED OUTPUT



(B) REAL GDP GROWTH RATE



Source: García-Serrador, Sarasa-Flores and Ulloa (2025).

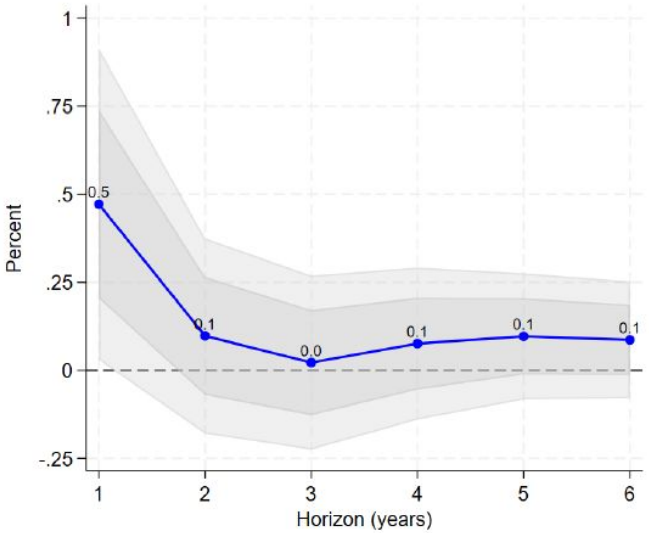
Return

How is Defence Spending Financed?: the Role of Taxes

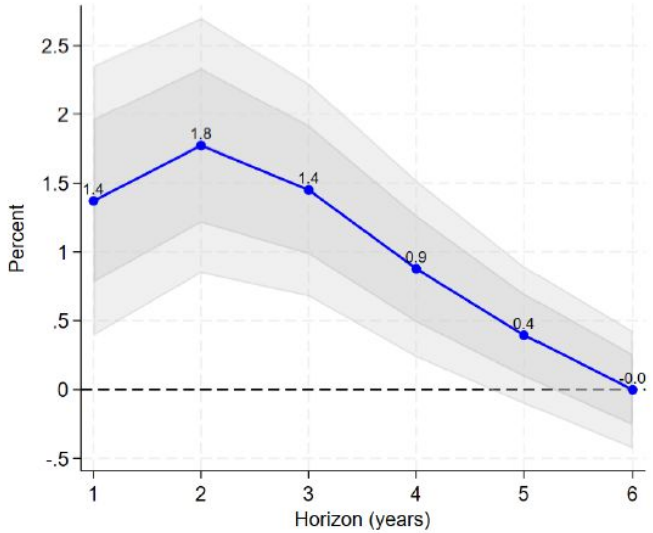
Defense spending does not appear to be financed by revenues and that, moreover, the impact of revenues on output is effectively negligible

CUMULATIVE DEFENCE FISCAL MULTIPLIERS: NET OF TAXES EFFECTS

(A) EFFECTS ON REVENUES



(B) NET FISCAL MULTIPIER



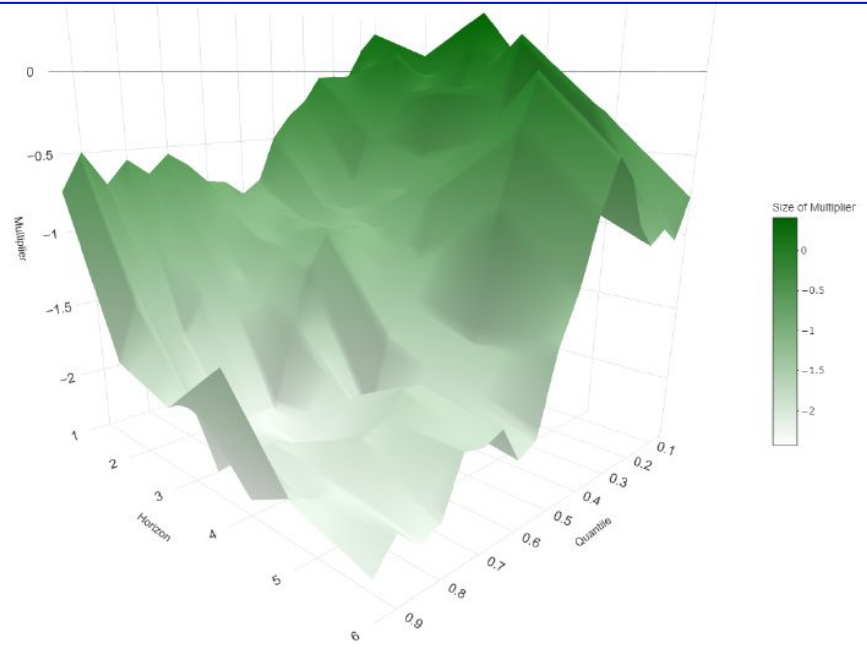
Source: García-Serrador, Sarasa-Flores and Ulloa (2025).

Return

Multipliers across the unemployment distribution:

Substantial unemployment reduction in times of high prevailing rates (high quantiles)

QUANTILE LOCAL PROJECTIONS: CUMULATIVE DEFENCE FISCAL MULTIPLIERS BY UNEMPLOYMENT QUANTILE



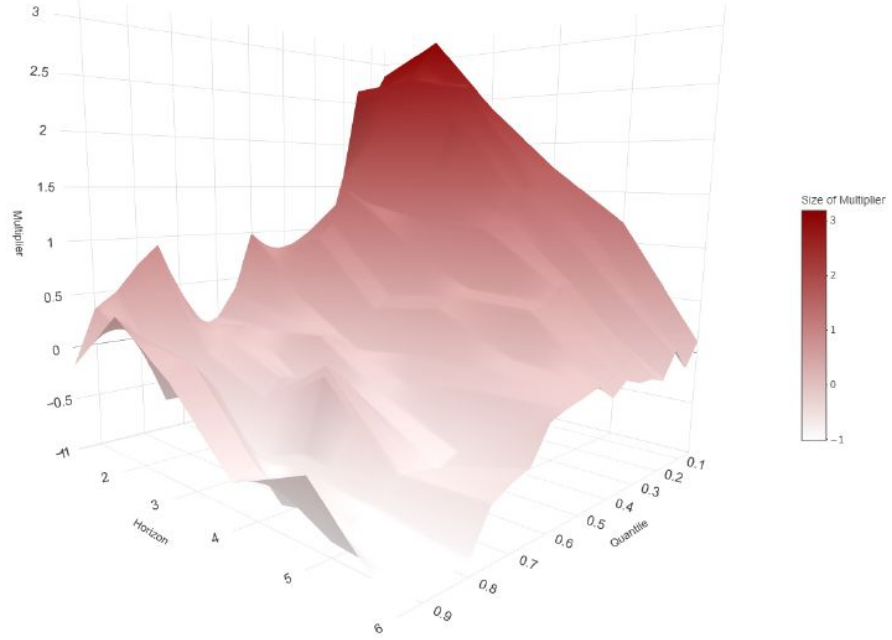
Source: García-Serrador, Sarasa-Flores and Ulloa (2025).

Return

Multipliers across the output distribution: Quantile LPs

When real GDP growth is employed as the dependent variable, results remain equivalent

QUANTILE LOCAL PROJECTIONS: CUMULATIVE DEFENCE FISCAL MULTIPLIERS BY OUTPUT QUANTILE (REAL GDP GROWTH)



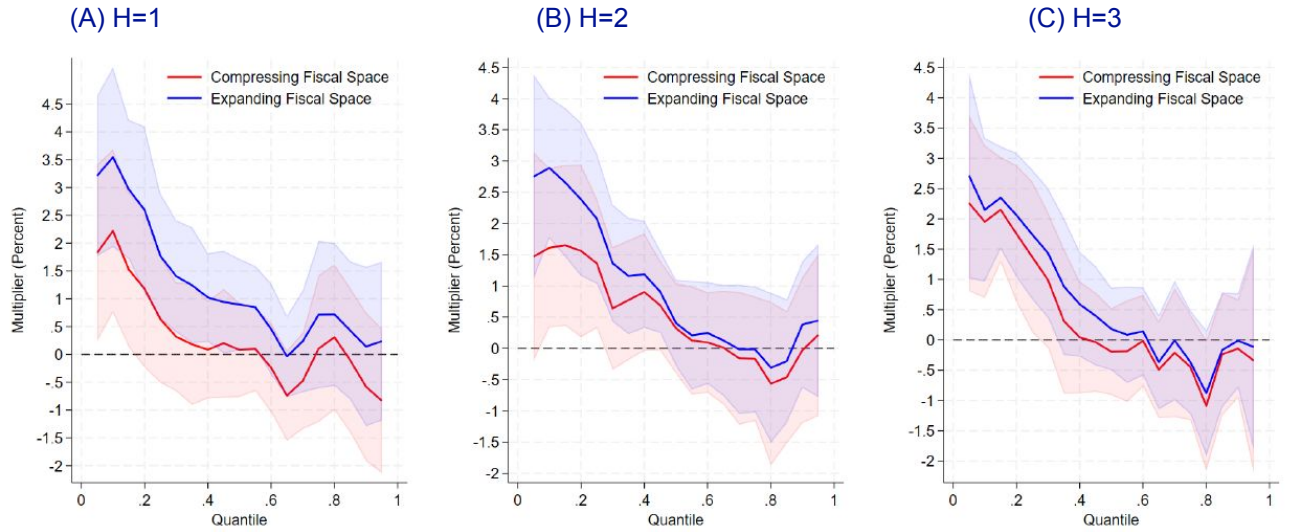
Source: García-Serrador, Sarasa-Flores and Ulloa (2025).

Return

Effectiveness of Fiscal Policy, Fiscal Space and Output Distribution

Larger crowding-in effects under expanded fiscal space across the entire output distribution in the very short-term

QUANTILE-SMOOTH-TRANSITION LOCAL PROJECTIONS: CUMULATIVE DEFENCE FISCAL MULTIPLIERS BY OUTPUT QUANTILE AND FISCAL SPACE STATE (H ∈{1,2,3})



Source: García-Serrador, Sarasa-Flores and Ulloa (2025).

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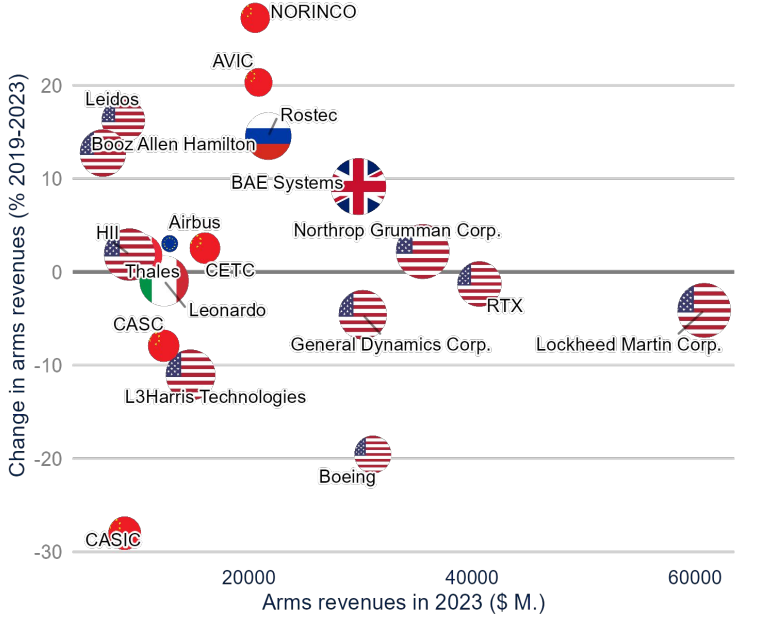
Leading Companies in the Defence Industry: worldwide US firm-level dominance

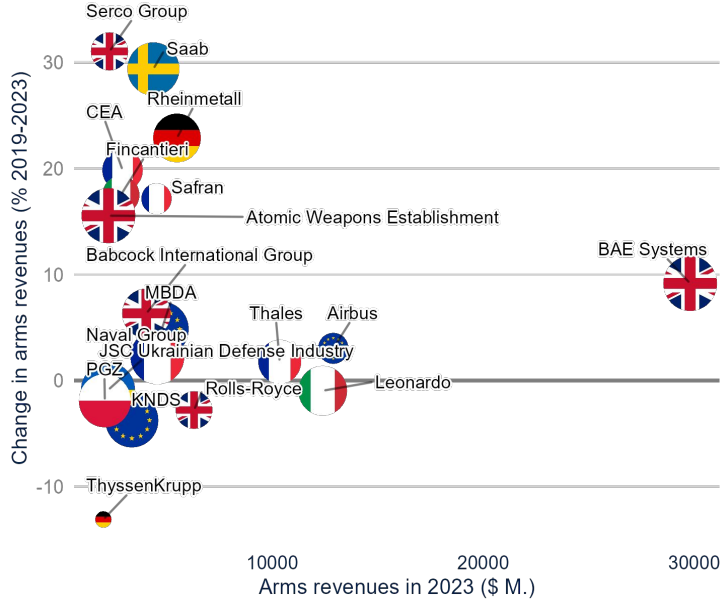
Return

TOP 20 WORLD ARMS FIRMS BY ARMS REVENUE (2023)



Notes: the size of the balls represents the degree of armament specialisation of each company (% arms revenues over total revenues). For HII and TRX, the change in revenue is calculated with respect to 2022. CSSC has been excluded from the representation with a high % change.
Source: BBVA Research from SIPRI data.

TOP 20 EU+UK ARMS FIRMS BY ARMS REVENUE (2023)



Notes: the size of the balls represents the degree of armament specialisation of each company (% arms revenues over total revenues). For KNDS, Atomic Weapons Establishment and JSC Ukrainian Defense Industry, the change in revenue is calculated with respect to 2022. Dassault Aviation Group has been excluded from the representation with a low % change.
Source: BBVA Research from SIPRI data.

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