Spain in Global Value Chains: Insights from TiVA Indicators

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David Calvete, INE-Spain

Motivation

Globalization and complex value chains require tools to analyze economic interdependencies across countries and regions.

Objective

To quantify Spain's participation in global value chains using TiVA-based indicators built on harmonized European data and MRIO frameworks.

What is TiVA?

Trade in Value Added (TiVA) measures countries' contributions to international trade in terms of value added rather than gross flows.

Why does it matter?

TiVA reveals global value chain interdependencies by identifying where value is created, supporting the analysis of trade, competitiveness and shocks, including tariff simulations and their impacts.

Who promotes it?

eurostat · THE WORLD BANK · IMF · OECD · WORLD TRADE ORGANIZATION

MRIO Database Used

- **50** countries
- **64** industries
- **FIGARO MRIO** (Eurostat + JRC)

What do we calculate?

Spanish exports (Y) → Production required: $X = BY$ (Leontief model) → Impacts:

- Value added: $VA = vBY$
- Employment: $Emp = wBY$
- Emissions: $GHG = gBY$

Y: exports · v, w, g: value added, employment and emissions coefficients

Key Findings for Spain (2023)

€328B	5.1M	91.4 Mt
Value added in exports	Employment linked to exports	CO_2 emissions from exports
22% of GDP	24% of total	-8.0% vs 2022

Policy simulations

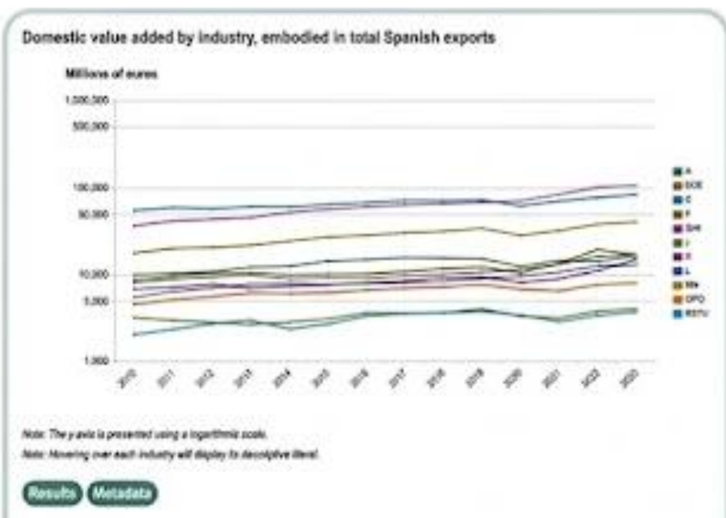
exposure indicators

Simulate tariff shocks to assess impacts across industries and countries

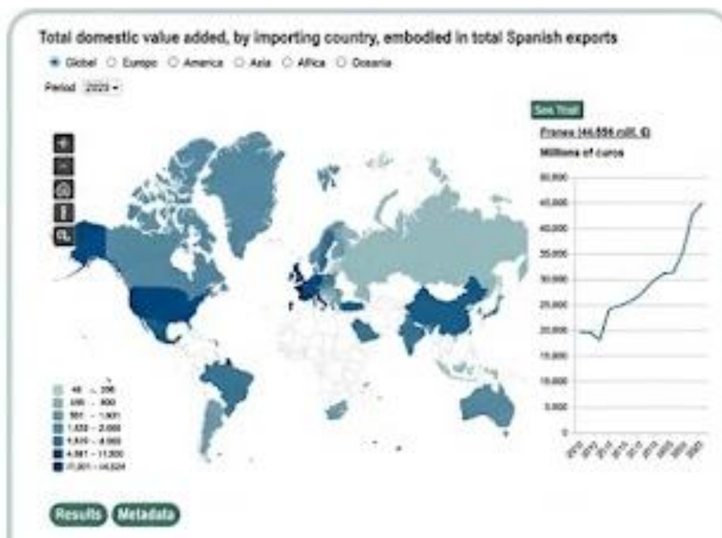
TiVA Dashboard

Interactive dashboard structured around four key dimensions:

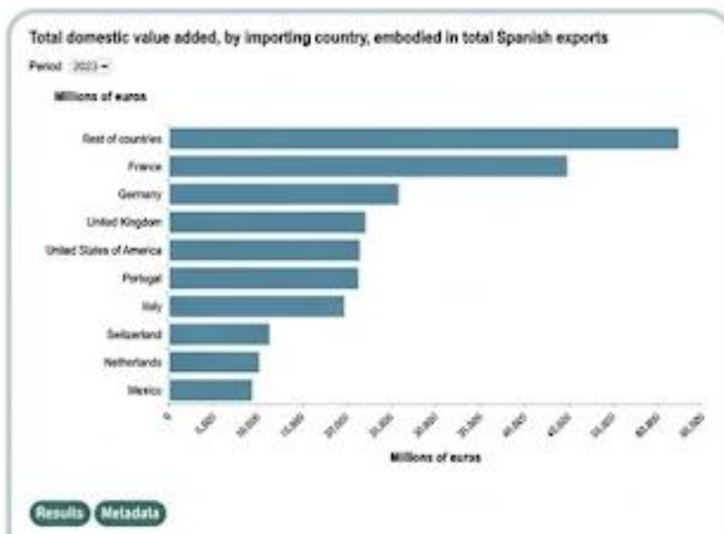
Results can be explored through:



Line chart



Map



Ranking

Interactive dashboard with 17 experimental indicators updated annually (dashboard.ine.es/tiva)