UKRAINE'S DIFFERENTIATED EUROPEAN INTEGRATION

Sectoral Integration of Ukraine as a Mechanism of Differentiated European Integration

An empirical assessment of trade integration across seven key sectors of Ukraine's economy with the EU, 2015–2024

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From formal harmonization to sectoral selectivity

RESEARCH OBJECTIVE

To empirically assess Ukraine's sectoral integration with the EU as a mechanism of differentiated European integration across 7 sectors, 2015–2024, and its effect on trade flows

Scientific novelty

An original system of 4 derived sectoral indicators, developed for the first time, measuring the intensity and quality of structural convergence

Methodology

Deflation of trade data using sector-specific GDP deflators; Pearson correlation analysis across two periods: 2015–2021 and 2022–2024

Data sources

UN Comtrade, the State Statistics Service of Ukraine, the Ministry of Finance of Ukraine — annual sectoral foreign trade data, 2015–2024

SYSTEM OF INDICATORS

Four derived indicators of sectoral integration

RTO

Real Trade Openness Index

The degree to which a sector is embedded in EU trade turnover, relative to its own scale

EUD

EU Export Dependence Index

The share of a sector's exports directed to the EU; a high share signals asymmetric integration

ΔRTB

Dynamics of the Real Trade Balance

The annual change in balance; the net contribution of integration to sectoral economic resilience

PAC

Partial Agreement Coefficient

The level of institutional convergence, adjusted for price shocks; the quality of structural adaptation

- The Pearson correlation between PAC and ΔRTB was calculated separately for each sector across two periods — revealing a **correlation inversion** effect under wartime shocks

The wartime inversion effect: three models of sectoral adaptation

The correlation between PAC and ΔRTB reversed sign in 6 of 7 sectors after 2022 — institutional convergence ceased to be a driver of trade performance

MODEL 1 · SYMMETRIC DEGRADATION

Metallurgy

The correlation sign flipped from positive to negative: gains in regulatory compliance are offset by the blockade of logistics routes

MODEL 2 · LOGISTICAL INVERSION

Agriculture · Mechanical Engineering

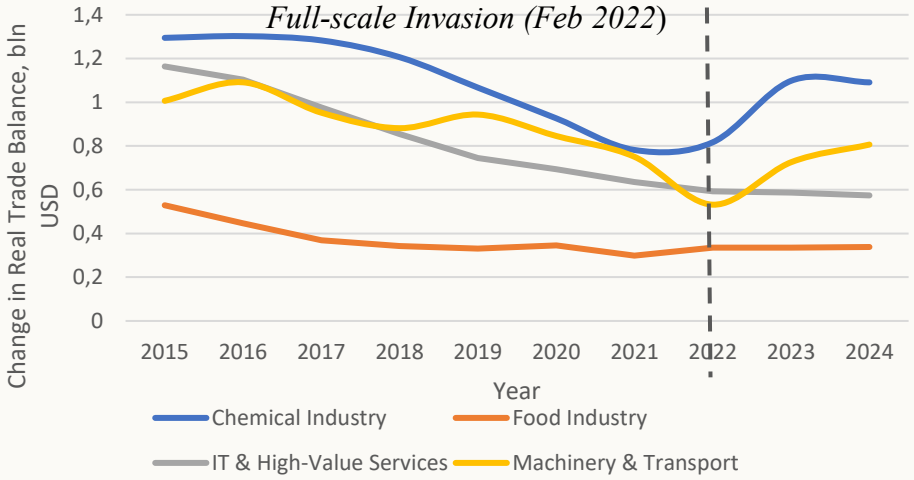
The correlation sign flipped from positive to negative: gains in regulatory compliance are offset by the blockade of logistics routes

MODEL 3 · IMPORT-DEPENDENT

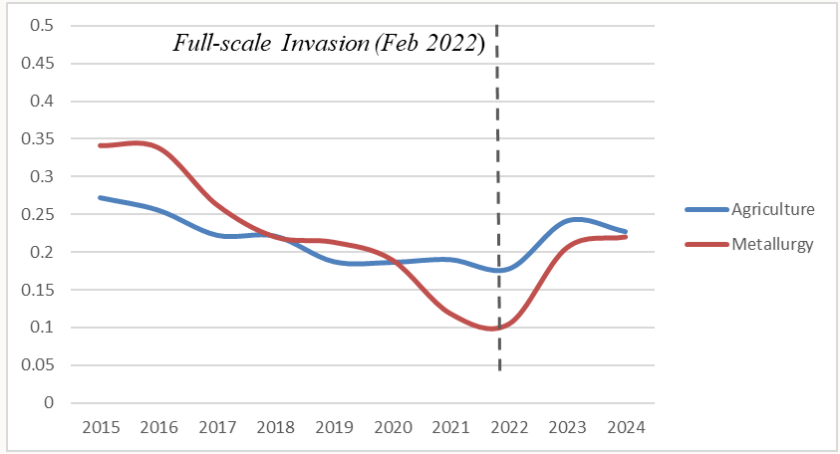
Energy · Chemicals · Food

Critically negative correlation: opening the EU market stimulates consumer imports faster than exports of domestic output

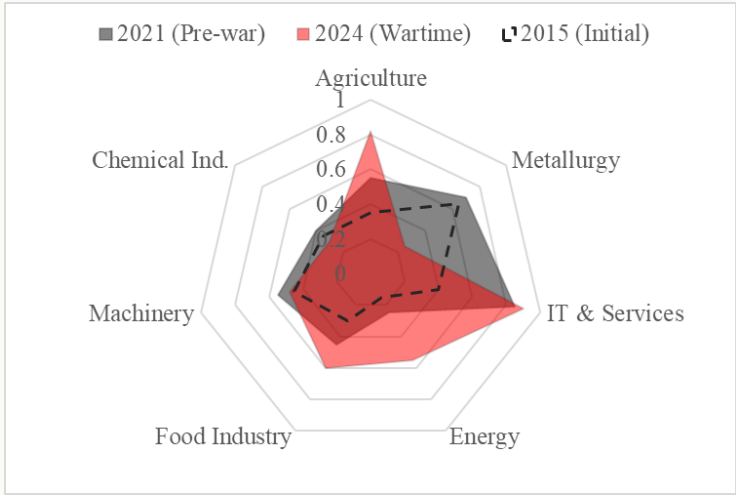
High-Integration Sectors:(RTO > 0,4)



Moderate-Integration and Raw Material Sectors (RTO < 0,4)



Structural convergence of sectoral trade indicators



Resilience: agriculture and the food industry — a stable positive contribution to the trade balance throughout the period

Exception: the IT sector — the only industry with a moderate inversion, owing to the intangible nature of its exports

From "de jure" harmonization to "de facto" physical integration

Scientific conclusions

1. Sectoral integration functions as the mechanism through which differentiated European integration is realized — sectoral asymmetry reflects the country's uneven participation in the EU's institutional space

2. The full-scale invasion radically altered the nature of the relationship between structural convergence and sectoral trade performance

3. The logistical component now shapes trade performance more than regulatory compliance with EU standards

Policy recommendations

- Investment in logistics and rail infrastructure for the agricultural sector
- Transitional periods for implementing EU technical regulations in industry
- Integration of the transport network into the TEN-T Trans-European corridors
- Targeted investment in high-convergence sectors — IT and the food industry

Thank you for
your attention