

Pan-Euro-Mediterranean Regional Convention: Current Impact and Potential

Preliminary Results

Veronika Movchan
Kyiv, 11 December 2025

What is the PEM Convention?

The Pan-Euro-Mediterranean Regional Convention on preferential rules of origin is a multilateral agreement designed to harmonise rules of origin within the network of preferential trade agreements among countries of Europe, the Mediterranean, and neighbouring states.

Contracting Parties (25): EU; EFTA countries (Iceland, Liechtenstein, Norway, Switzerland); SAA countries: Albania, Bosnia and Herzegovina, North Macedonia, Montenegro, Serbia, Kosovo; Barcelona Process countries: Algeria, Egypt, Israel, Jordan, Lebanon, Morocco, Syria, Tunisia, Turkey; as well as the Faroe Islands, Moldova, Georgia, Ukraine.

Evolution of the system:

1990s–2011: Formation of a network of bilateral FTAs in the region and gradual establishment of the Pan-Euro-Mediterranean cumulation system, which de facto unified rules of origin among countries

2012: Signing of the PEM Regional Convention → transition to a single legal instrument

2019–2025: Implementation and phased transition of countries to the updated (Revised) PEM rules



Rules of Origin and Cumulation Mechanism under PEM Convention

Preferential rules of origin

define in which country a product is considered to have been produced for the purpose of obtaining customs preferences.

The criteria for determining the origin include:

- Wholly obtained products
- Substantial/sufficient transformation
- Tolerance rule for the share of non-originating materials (up to 15%).

Insufficient transformation (such as packaging, sorting, etc.) does not alter the origin.

For textiles, separate restrictions and specific provisions apply.

Cumulation of origin

allows materials and operations from several countries to be taken into account within a single production process, thereby granting preferential status to goods.

The PEM provides for bilateral, diagonal and full cumulation.

The application requirements are the existence of FTAs between all countries involved and compliance with the PEM rules on sufficient transformation



Ukraine in the PEM Convention

Ukraine acceded to the PEM Convention in 2018.

Application of the PEM Convention:

- EU: 2019
- EFTA: 2012 / 2025
- Georgia: 2020
- North Macedonia: 2023
- Moldova: 2024

The EU matrix records the possibility of cumulation from the moment the protocols are updated for all parties.

Ukraine may combine materials from PEM Convention countries, with which a full “legal triangle” exists (FTAs in force + a protocol on rules of origin that references the PEM Convention).

Ukraine is also participating in the transition to the updated (Revised PEM) rules.



Key Findings from Previous Studies

Augier, Gasiorek & Lai-Tong (2005). In the absence of cumulation, strict rules of origin (RoO) reduce trade in intermediate goods in the textile sector by 70–80%. Diagonal cumulation is a critical condition for the formation of regional production chains.

Bombarda & Gamberoni (2019). Analysis the impact of the introduction of the pan-European cumulation system PECS on trade in Central and Eastern European (CEE) countries. Following the authorisation of cumulation, intra-regional imports of intermediate goods increase sharply, while imports from the EU and the rest of the world decline.

Bombarda, Gamberoni & Iodice (2023). Study on how trade changes after the complete removal of RoO (CEE accession to a customs union). Firms rapidly revert to sourcing from the most efficient global suppliers: imports of “previously prohibited” goods from third countries grow faster than imports from the EU.

Brenton & Manchin (2003). Assessment of the restrictive impact of complex RoO in EU preferential schemes. As a result, strict requirements (in particular the “double transformation” rule in textiles) often offset the benefits of FTAs for partner countries.

Kado, Carrère, de Melo & Tumurchudur (2006). An index of RoO stringency and measurements of the hidden costs of compliance. As a conclusion, compliance with RoO entails additional costs of about 8%, which explains the low utilisation of preferences.



Methodology and Data Selection

Country sample and trade regimes are based on the European Commission cumulation matrix (2025 edition).

Trade regimes are identified through an analysis of FTAs, rules of origin protocols, and official governmental sources, including those of Ukraine, the EU, and EFTA.

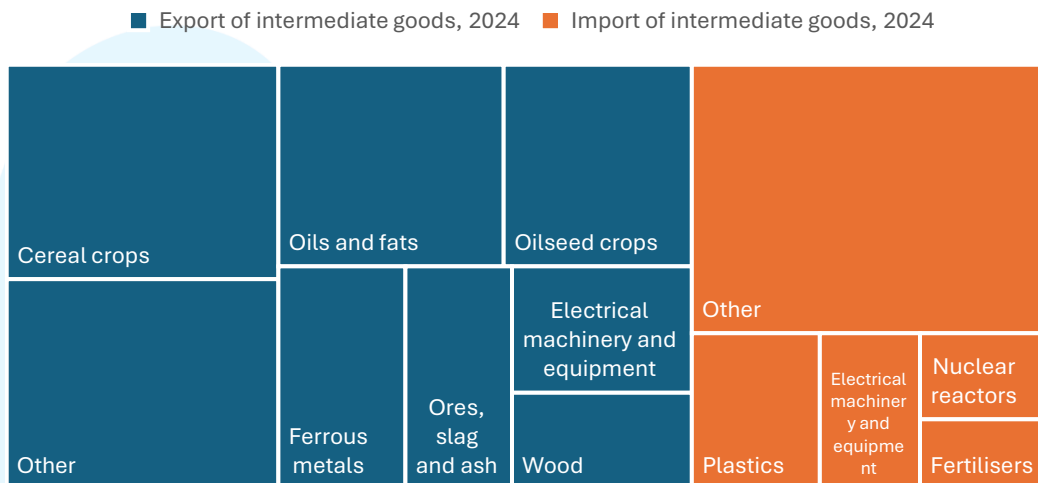
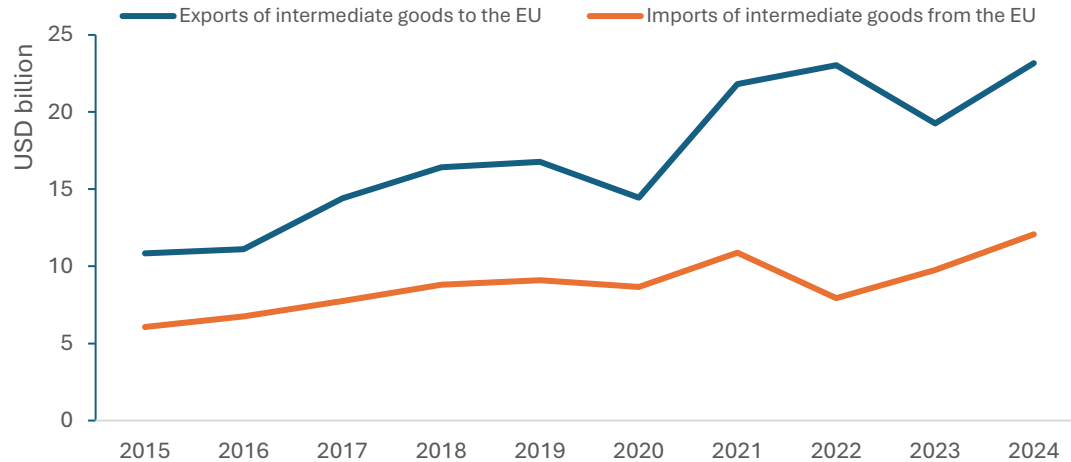
Data and Analysis

Data source: UN ComTrade (via WITS), 2015–2024, classified at the HS6 level (2012 revision).

Classification of intermediate goods: correspondence HS2012 → BEC Rev.5.

- 1) Assessment of the trade flow overlap** Identification of key products: 80% of Ukraine and the partner's exports/ imports. All assessments are conducted for intermediate goods.
- 2) Difference-in-Differences model** Assessment of the impact of agreements already in force that allow for cumulation.
- 3) General equilibrium model** Case study: Turkey.

European Union



Sources: own calculations based on WITS and UN Comtrade data

Share in Ukraine trade in intermediate goods:

- Exports: 60%
- Imports: 47%

Market overlap of product structures:

- Ukraine exports: 69%
- Ukraine imports: 75%

Diagonal cumulation with the EU:

Provided for within the DCFTA under the Association Agreement (since 2017).

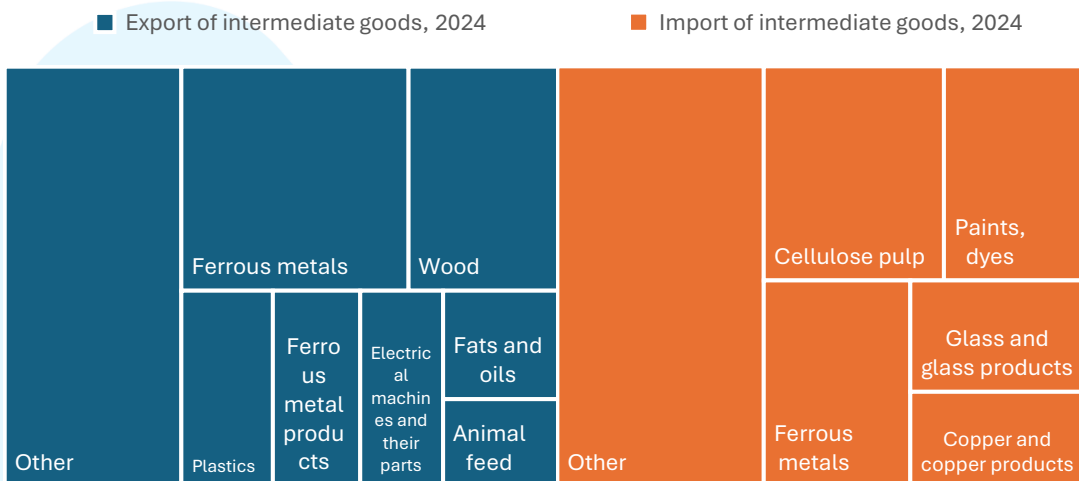
Rules of origin in accordance with the Joint Committee Decision.

Start date of application: 01 January 2019.

Conclusion: high potential



Moldova



Sources: own calculations based on WITS and UN Comtrade data

Share in Ukraine trade in intermediate goods:

- Exports: 1.5%
- Imports: 0.2%

Market overlap of product structures:

- Ukraine exports: 41%
- Ukraine imports: 4%

Diagonal cumulation:

Provided for within the Ukraine–Moldova Free Trade Agreement (since 2005).

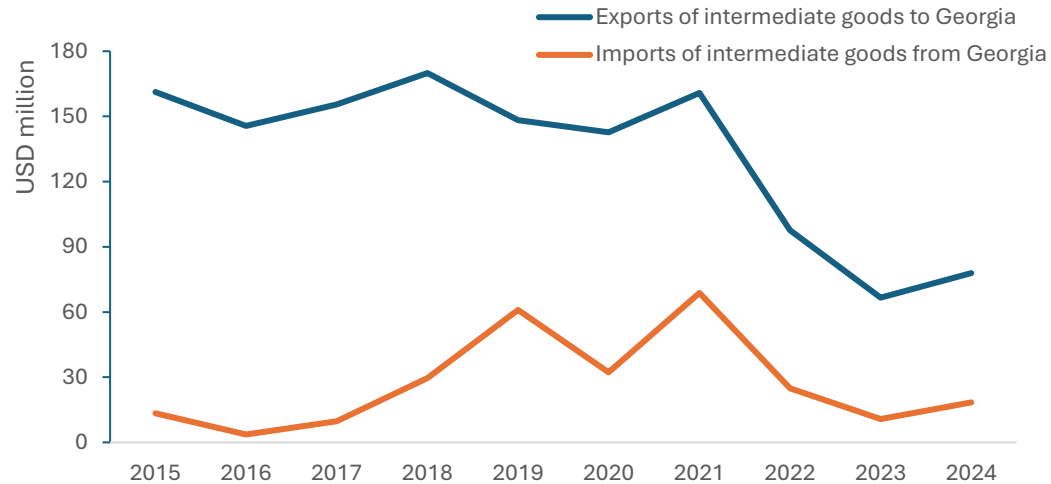
Rules of origin: harmonised with the PEM Regional Convention in accordance with the Protocol of Amendments (in force since 2023).

Start date of application: 2024.

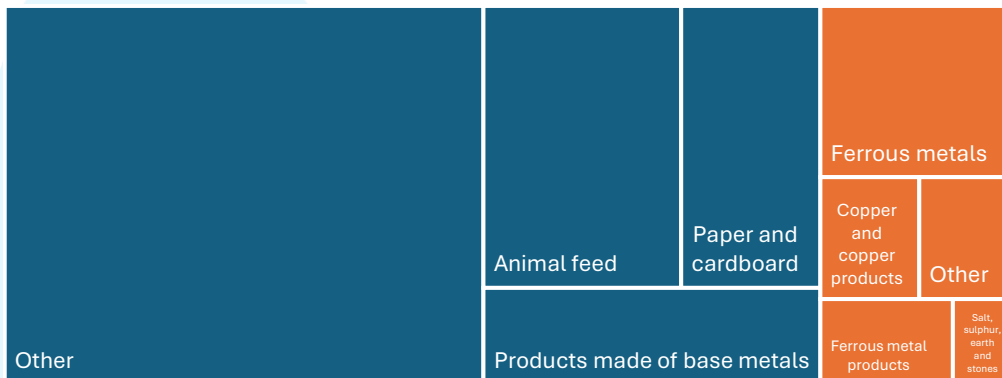
Conclusion: low potential



Georgia



■ Export of intermediate goods, 2024 ■ Import of intermediate goods, 2024



Sources: own calculations based on WITS and UN Comtrade data

Share in Ukraine trade in intermediate goods:

- Exports: 1.2%
- Imports: 0.1%

Market overlap of product structures:

- Ukraine exports: 41%
- Ukraine imports: 4.5%

Diagonal cumulation:

Provided for within the Ukraine–Georgia Free Trade Agreement (since 1995).

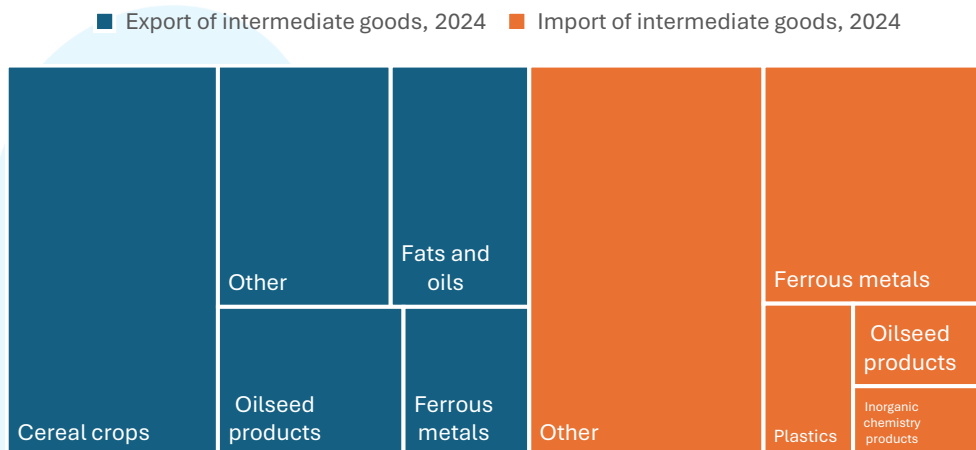
Rules of origin harmonised with the PEM Regional Convention in accordance with the Protocol amending the Agreement (2019).

Start date of application: 2020.

Conclusion: low potential



Türkiye



Sources: own calculations based on WITS and UN Comtrade data

Share in Ukraine trade in intermediate goods:

- Exports: 7%
- Imports: 9%

Market overlap of product structures:

- Ukraine exports: 66%
- Ukraine imports: 44%

Diagonal cumulation:

Provided for within the Ukraine–Turkey Free Trade Agreement (signed in 2022, to enter into force after ratification by Ukraine).

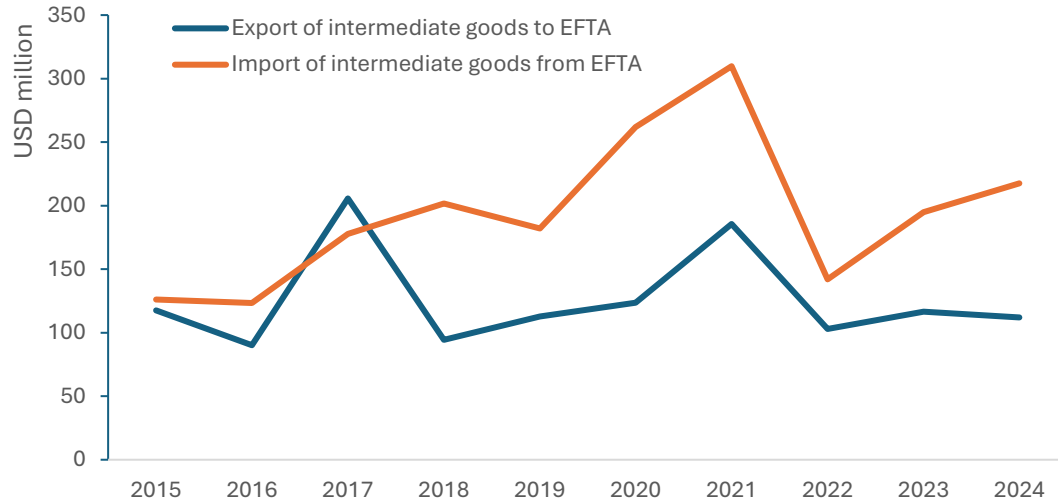
Rules of origin: application of Pan-Euro-Mediterranean rules is envisaged.

Start date of application: will enter into force upon completion of Ukraine's ratification.

Conclusion: high potential



EFTA



■ Export of intermediate goods, 2024 ■ Import of intermediate goods, 2024



Sources: own calculations based on WITS and UN Comtrade data

Share in Ukraine trade in intermediate goods:

- Exports: 1.5%
- Imports: 3.2%

Market overlap of product structures:

- Ukraine exports: 44%
- Ukraine imports: 12%

Diagonal cumulation:

Provided for within the FTA (since 2012).

Rules of origin only partially complied with the PEM Regional Convention >>> diagonal cumulation was possible only for selected products.

As of 1 January 2025, Protocol A has been updated in line with the PEM Convention rules.

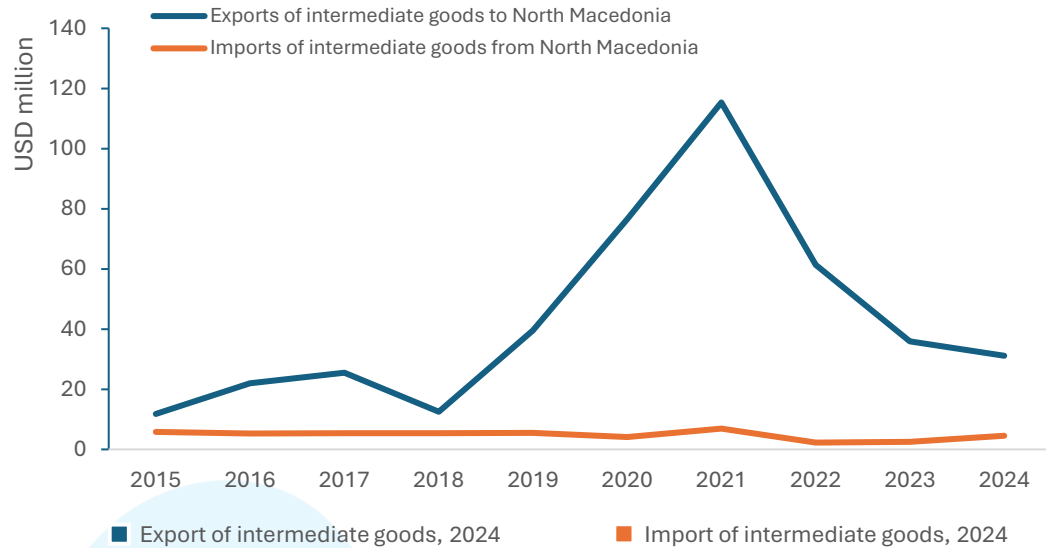
Rules of origin in accordance with the Joint Committee Decision.

Start date of application: 01 January 2019.

Conclusion: moderate potential



North Macedonia



Sources: own calculations based on WITS and UN Comtrade data

Share in Ukraine trade in intermediate goods:

- Exports: 1%
- Imports: 0.1%

Market overlap of product structures:

- Ukraine exports: 42%
- Ukraine imports: 7%

Diagonal cumulation:

Provided for within the Ukraine–North Macedonia Free Trade Agreement (since 2001).

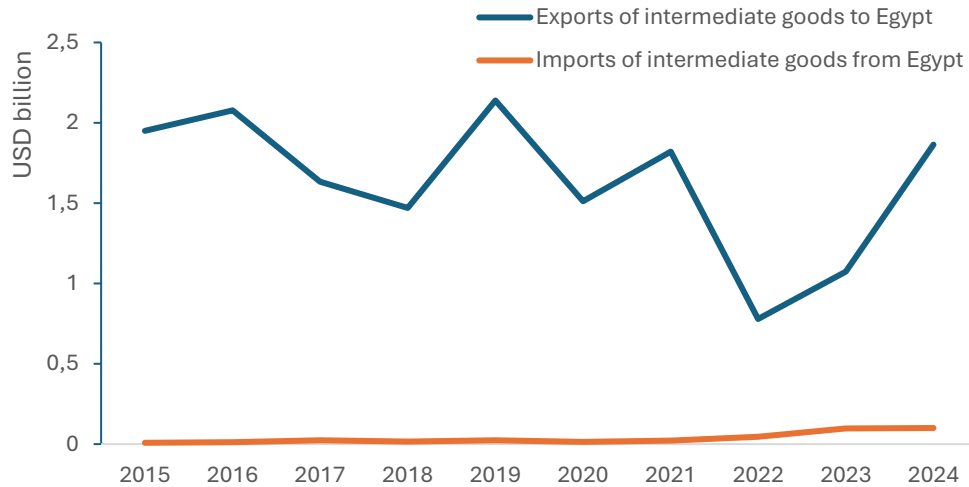
Rules of origin harmonised with the PEM Regional Convention in accordance with the updated Protocol C.

Start date of PEM Convention application: from 2023.

Conclusion: low potential



Egypt



Share in Ukraine trade in intermediate goods:

- Exports: 5%
- Imports: 0.5%

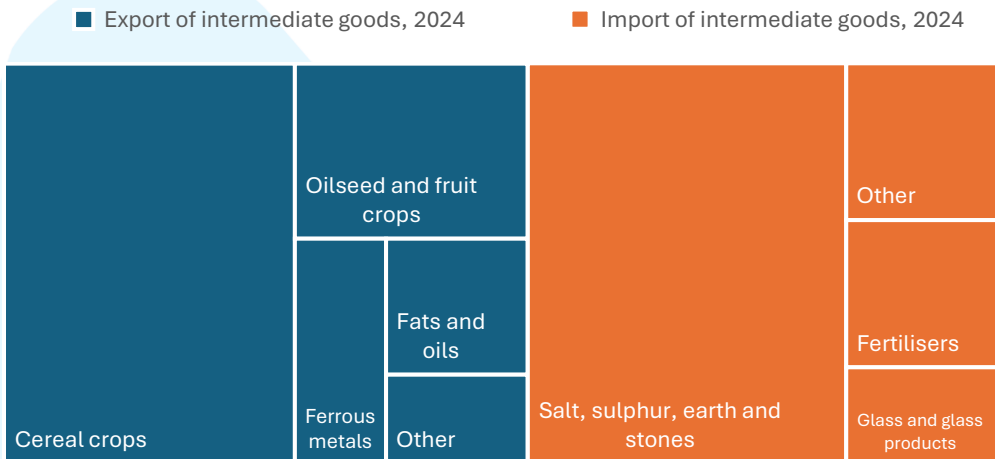
Market overlap of product structures:

- Ukraine exports: 66%
- Ukraine imports: 22%

Diagonal cumulation: absent.

No FTA in force (only framework agreements from the early 1990s exist).

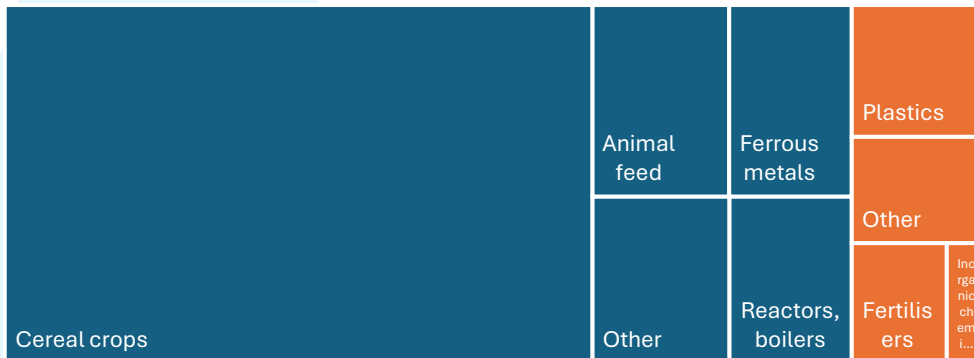
Conclusion: moderate potential



Sources: own calculations based on WITS and UN Comtrade data



Israel



Sources: own calculations based on WITS and UN Comtrade data

Share in Ukraine trade in intermediate goods:

- Exports: 1.2%
- Imports: 1%

Market overlap of product structures:

- Ukraine exports: 52%
- Ukraine imports: 17%

Diagonal cumulation:

FTA concluded in 2019, in force since 2021.

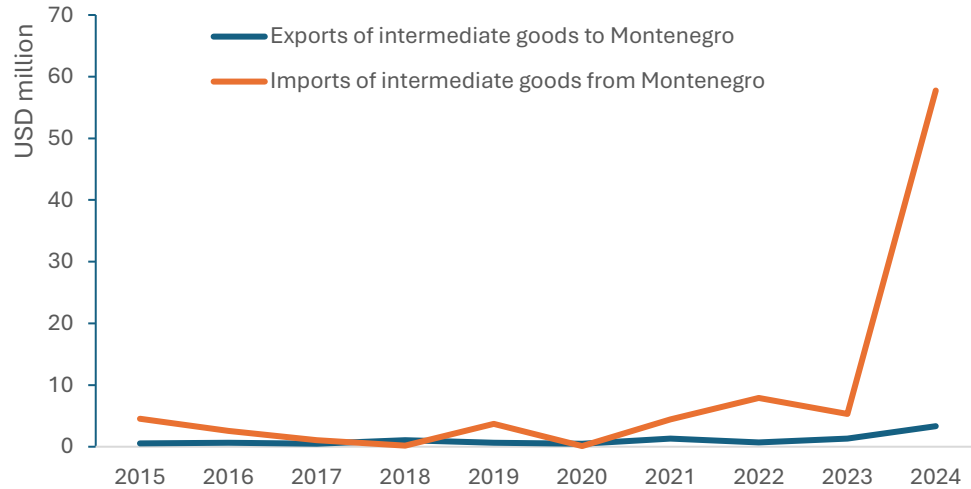
Pursuant to Article 2.13, rules of origin are based on the PEM Regional Convention.

According to the European Commission matrix (2025), diagonal cumulation is not applied, likely due to the absence of PEM protocols between the parties.

Conclusion: moderate potential



Montenegro



■ Export of intermediate goods, 2024

■ Import of intermediate goods, 2024



Sources: own calculations based on WITS and UN Comtrade data

Share in Ukraine trade in intermediate goods:

- Exports: 0.01%
- Imports: 0.3%

Market overlap of product structures:

- Ukraine exports: 31%
- Ukraine imports: 3%

Diagonal cumulation: absent.

Ukraine–Montenegro Free Trade Agreement (since 2012).

Rules of origin are partially similar to those of the PEM Regional Convention but are not harmonised; accordingly, diagonal cumulation cannot be applied.

Conclusion: low potential



Bosnia and Herzegovina



Share in Ukraine trade in intermediate goods:

- Exports: 0.1%
- Imports: 0.1%

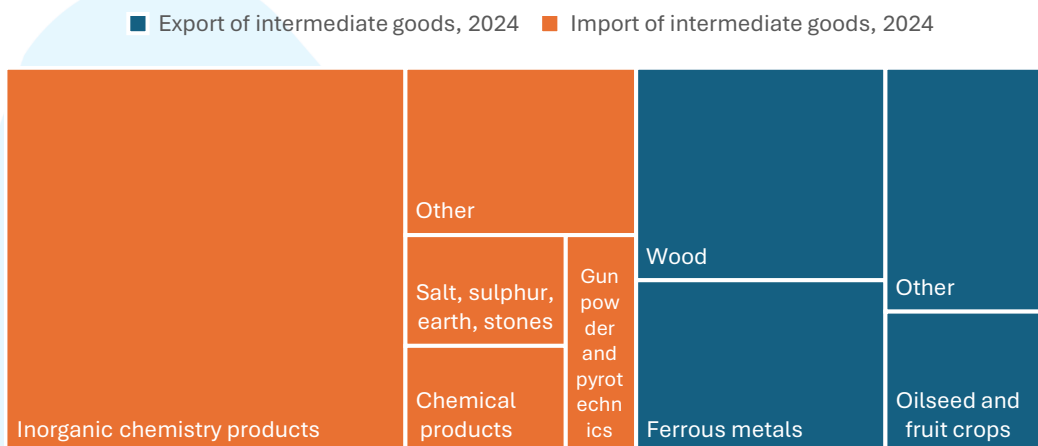
Market overlap of product structures:

- Ukraine exports: 55%
- Ukraine imports: 14%

Diagonal cumulation: absent.

No FTA in force.

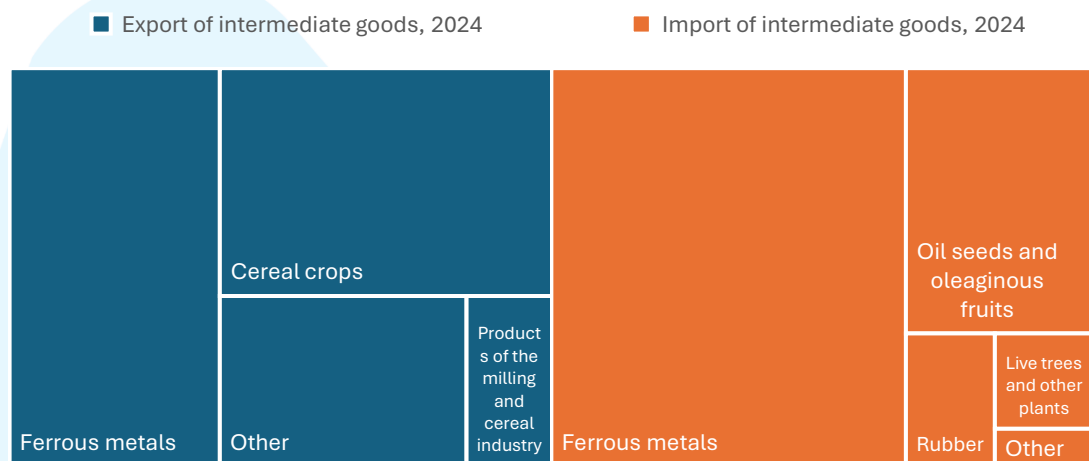
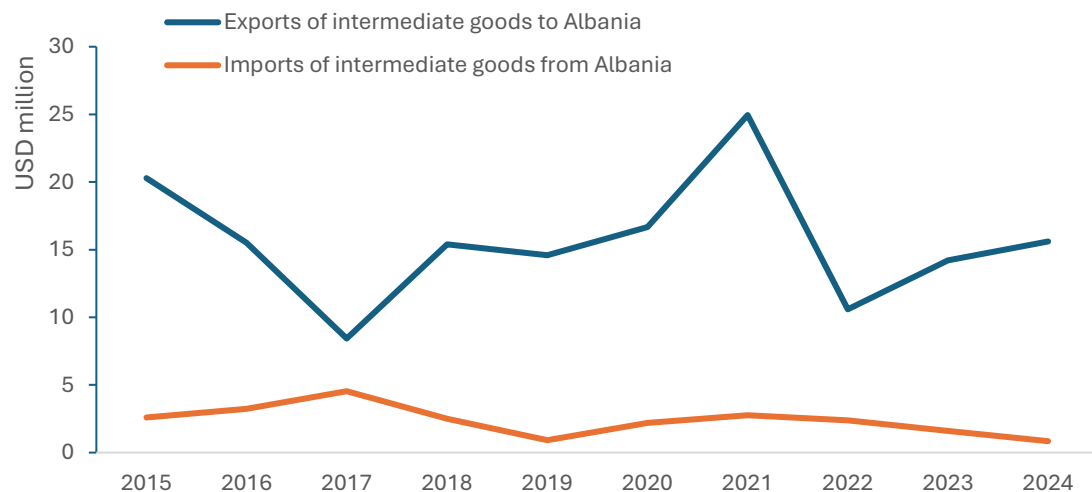
Conclusion: low potential



Sources: own calculations based on WITS and UN Comtrade data



Albania



Sources: own calculations based on WITS and UN Comtrade data

Share in Ukraine trade in intermediate goods:

- Exports: 0.05%
- Imports: 0.00%

Market overlap of product structures:

- Ukraine exports: 38%
- Ukraine imports: 6%

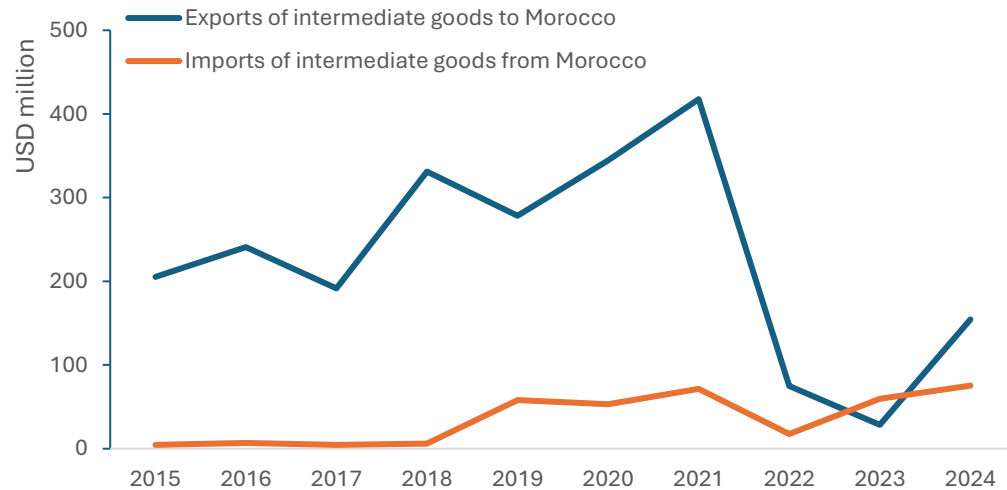
Diagonal cumulation: absent.

No FTA in force.

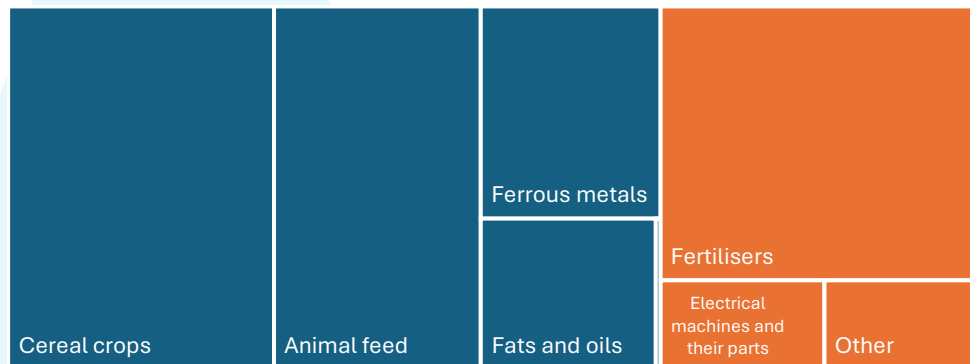
Conclusion: low potential



Morocco



■ Export of intermediate goods, 2024 ■ Import of intermediate goods, 2024



Sources: own calculations based on WITS and UN Comtrade data

Share in Ukraine trade in intermediate goods:

- Exports: 0.4%
- Imports: 0.3%

Market overlap of product structures:

- Ukraine exports: 52%
- Ukraine imports: 5%

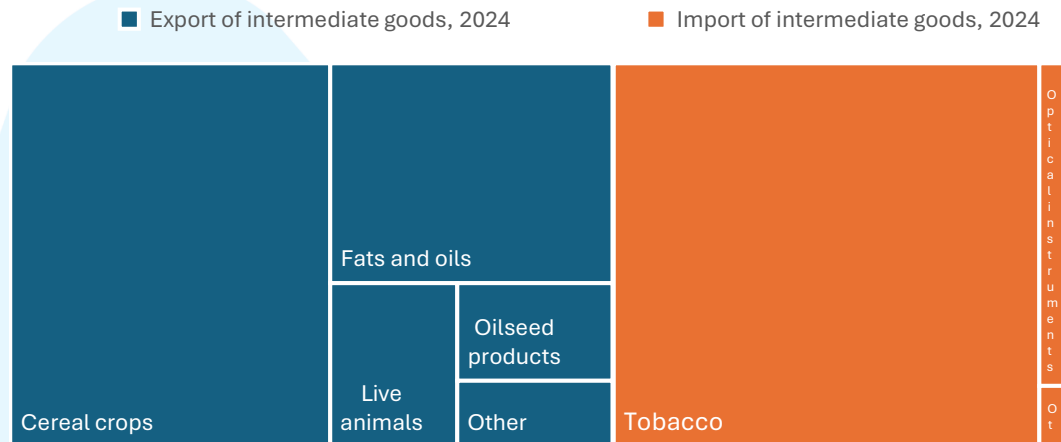
Diagonal cumulation: absent.

No FTA in force.

Conclusion: low potential



Lebanon



Sources: own calculations based on WITS and UN Comtrade data

Share in Ukraine trade in intermediate goods:

- Exports: 1.1%
- Imports: 0.00%

Market overlap of product structures:

- Ukraine exports: 45%
- Ukraine imports: 9%

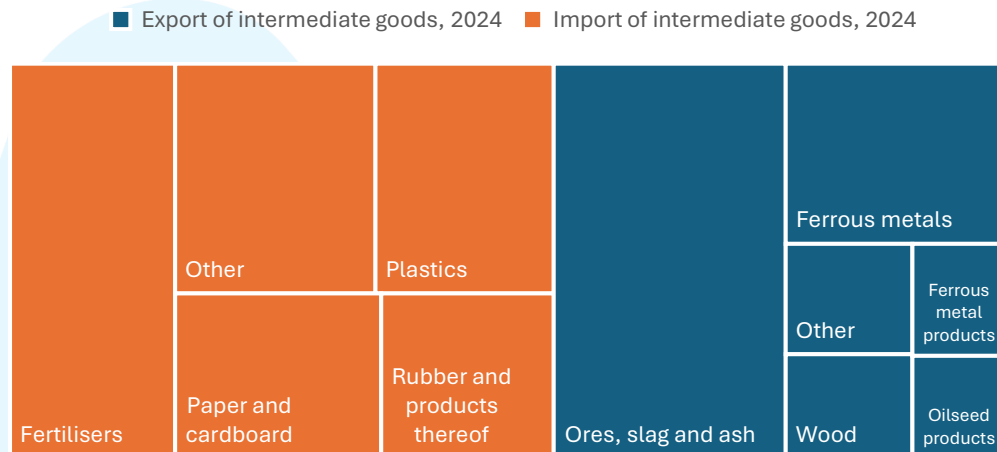
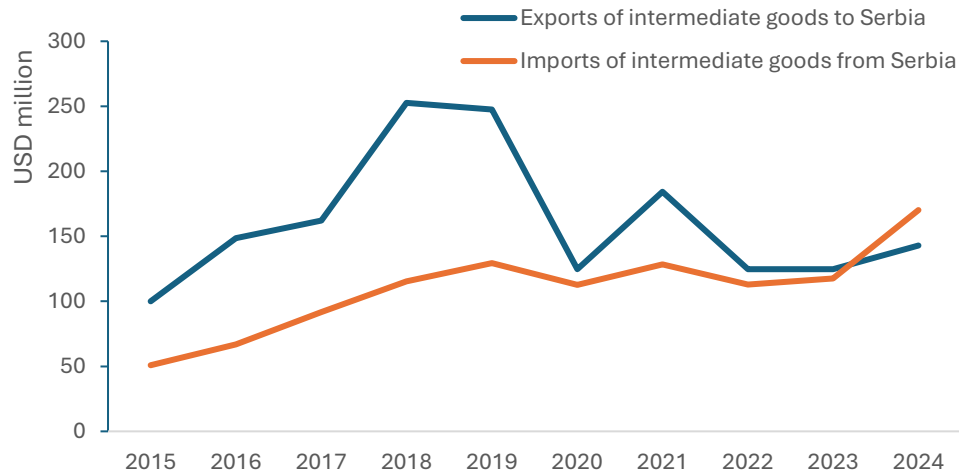
Diagonal cumulation: absent.

No FTA in force.

Conclusion: low potential



Serbia



Sources: own calculations based on WITS and UN Comtrade data

Share in Ukraine trade in intermediate goods:

- Exports: 0.4%
- Imports: 0.7%

Market overlap of product structures:

- Ukraine exports: 55%
- Ukraine imports: 30%

Diagonal cumulation: absent.

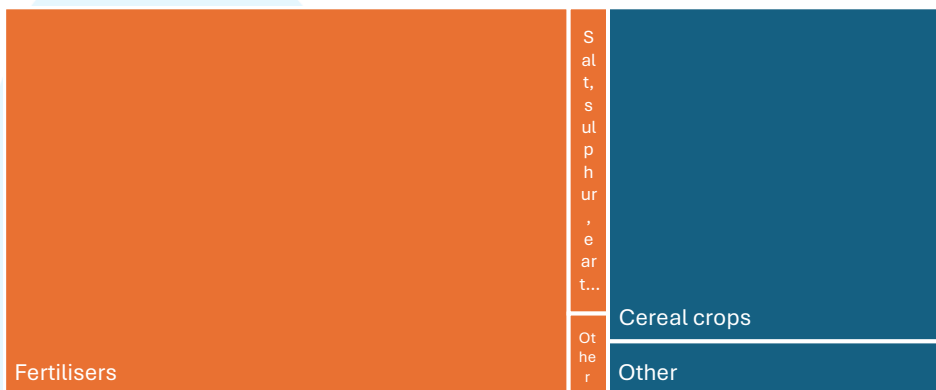
No FTA in force (negotiations occurred, but no free trade agreement was concluded).

Serbia is not a member of the WTO; still, the countries have been trading under the most-favoured-nation (MFN) regime.

Conclusion: low potential



Jordan



Sources: own calculations based on WITS and UN Comtrade data

Share in Ukraine trade in intermediate goods:

- Exports: 0.1%
- Imports: 0.3%

Market overlap of product structures:

- Ukraine exports: 45%
- Ukraine imports: 9%

Diagonal cumulation: absent.

No FTA in force.

Conclusion: low potential



Tunisia



Sources: own calculations based on WITS and UN Comtrade data

Share in Ukraine trade in intermediate goods:

- Exports: 0.5%
- Imports: 0.1%

Market overlap of product structures:

- Ukraine exports: 48%
- Ukraine imports: 15%

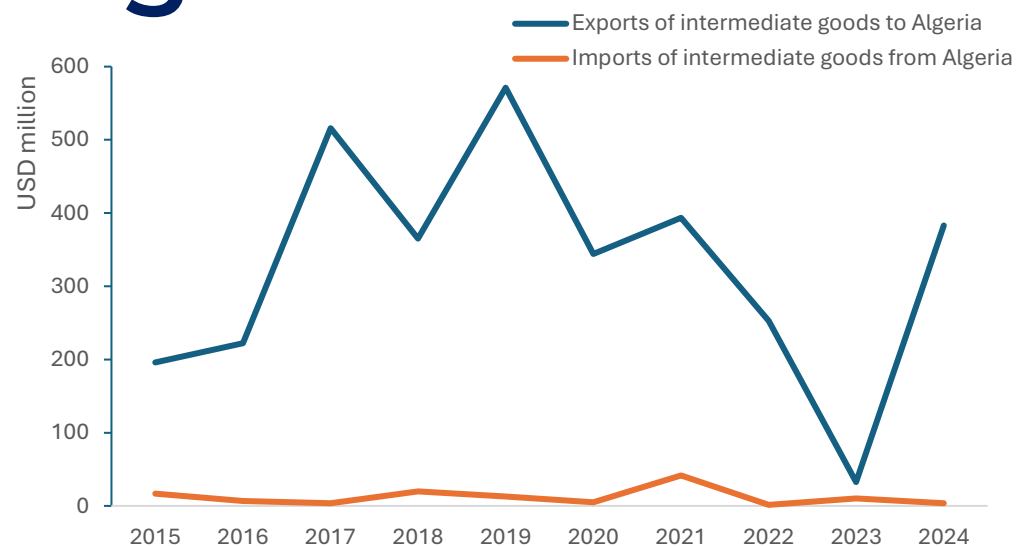
Diagonal cumulation: absent.

No FTA in force.

Conclusion: low potential

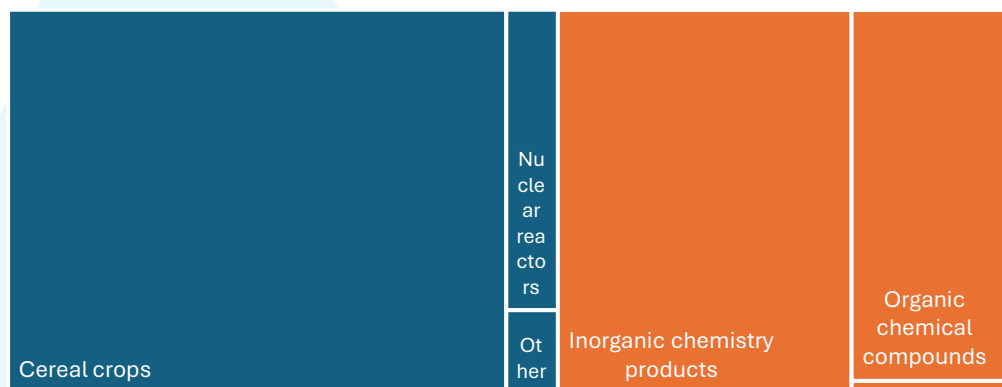


Algeria



■ Export of intermediate goods, 2024

■ Import of intermediate goods, 2024



Sources: own calculations based on WITS and UN Comtrade data

Share in Ukraine trade in intermediate goods:

- Exports: 0.1%
- Imports: 0.01%

Market overlap of product structures:

- Ukraine exports: 60%
- Ukraine imports: 0%

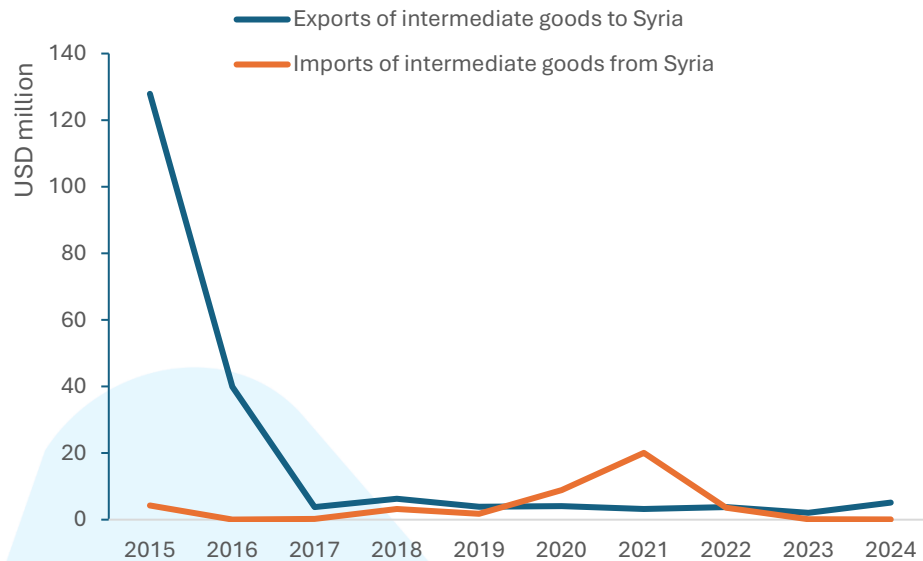
Diagonal cumulation: absent.

No FTA in force.

Conclusion: low potential



Syria



Share in Ukraine trade in intermediate goods:

- Exports: 0.00%
- Imports: 0.00%

Market overlap of product structures:

- Ukraine exports: 55%
- Ukraine imports: 4%

Diagonal cumulation: absent.

No FTA in force.

Due to previous embargoes and sanctions, trade has been significantly restricted or almost absent.

Conclusion: low potential

Sources: own calculations based on WITS and UN Comtrade data



Difference-in-Differences (DiD) Model

- Analysis of the impact of diagonal cumulation in trade in intermediate goods within trade triangles
- Countries in the group affected by diagonal cumulation:
 - EFTA: 2012
 - Georgia: 2020
 - North Macedonia: 2023
 - Moldova: 2024
- **Result:** the effect is statistically insignificant over the analysed period.

General Equilibrium Model: the Case of Turkey

We use an applied general equilibrium model for Ukraine developed within the study “*Assessment of the Economic Impact of a Potential Free Trade Agreement between Ukraine and Turkey*”, conducted with the support of the USAID Competitive Economy Program in Ukraine (Movchan et al., 2020).



Modelling of Import Tariffs

Baseline scenario

Complete elimination of all tariffs by Ukraine on imports of goods from Turkey.

Complete elimination of all tariffs by Turkey on imports of goods from Ukraine.

FTA: bilateral cumulation

Elimination of tariffs on goods that meet the rules of origin requirements based on bilateral cumulation.

FTA: diagonal cumulation

Elimination of tariffs on goods that meet the rules of origin requirements based on diagonal cumulation.

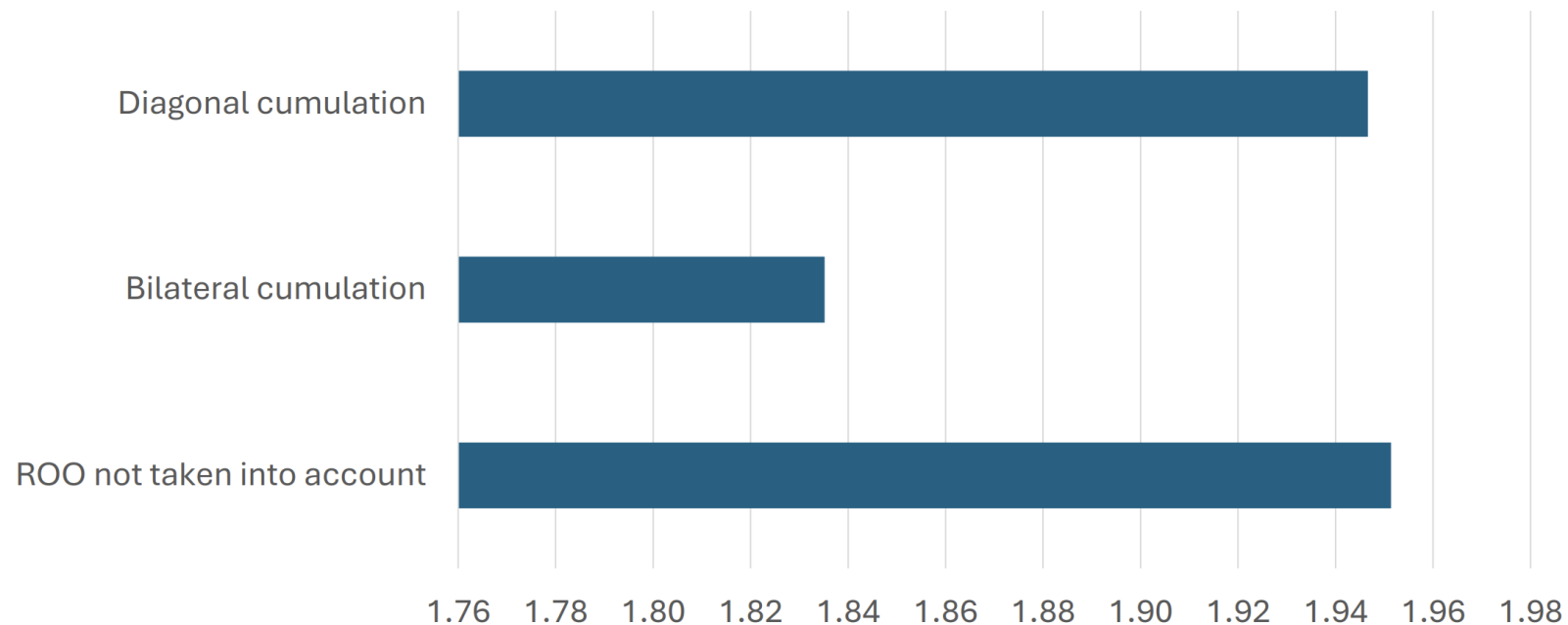


Model Modification

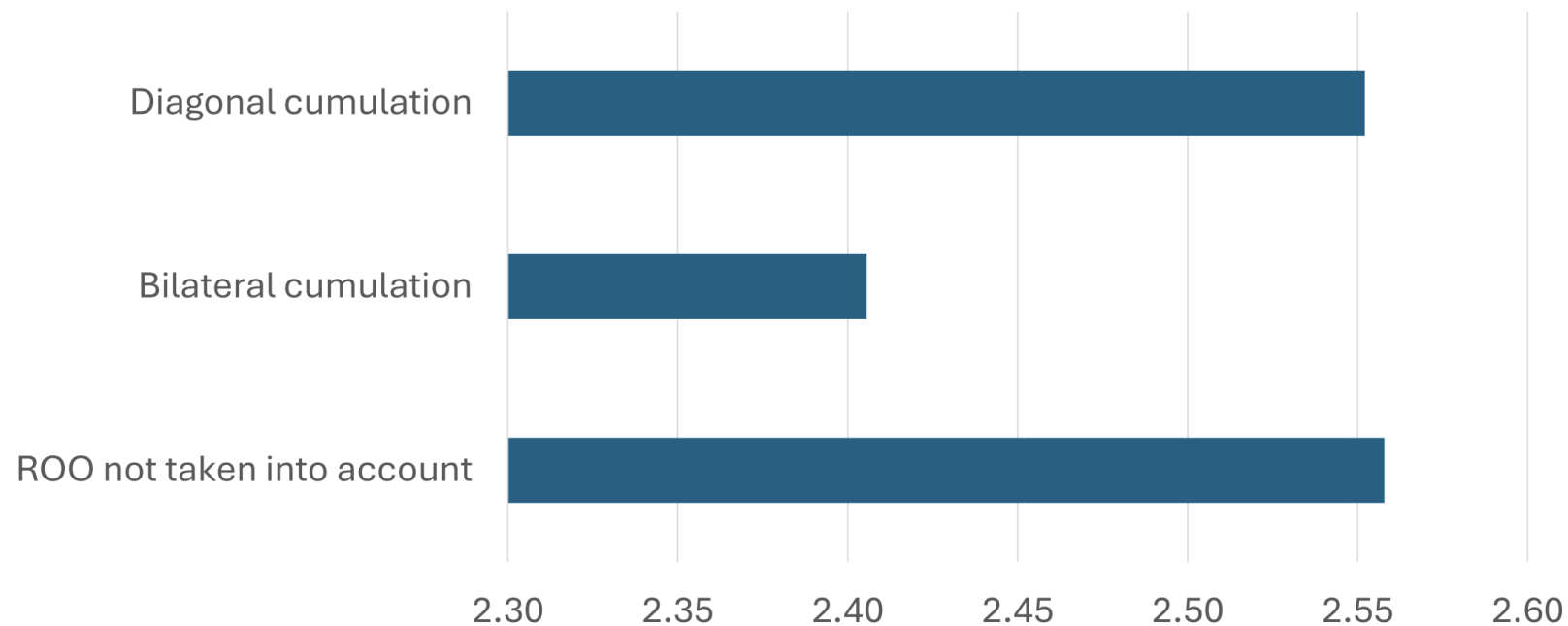
- The share of imports in output (at basic prices) determines whether tariff liberalisation takes place.
- **Sectors for which this is relevant:**
 - Production of petroleum products and coke
 - Production of chemical products, including rubber
 - Production of machinery and equipment
- **Diagonal cumulation with the EU.**



Impact on real GDP



Impact on welfare



Conclusions

- The introduction of diagonal cumulation should soften the impact of rules of origin on the use of trade preferences under FTAs.
- The revised PEM Convention introduces full cumulation, which is expected to offer additional advantages over diagonal cumulation.
- Ukraine acceded to the PEM Convention in 2018; however, its use is currently limited to only a few trading partners.
- The analysis of trade in intermediate goods with these partners does not allow for concluding that there have been statistically significant economic effects from PEM accession.
- At the same time, analysis of trade patterns and the results of the general equilibrium model for Ukraine show that Ukraine has not yet fully exploited the potential of the PEM Convention. Functioning FTAs with large partners, such as Turkey, are estimated to have a significant positive impact.



Our Contacts

Website: ier.com.ua

Email: Movchan@ier.kyiv.ua

Instagram: https://www.instagram.com/ier_kyiv/

Facebook: <https://www.facebook.com/IER.Kyiv/>

Telegram: <https://t.me/ukreconomic>

Twitter: https://x.com/IER_Kyiv