

QUANTITATIVE ASSESSMENT OF OVERCOMING NON-TARIFF BARRIERS IN TRADE BETWEEN THE EAEU AND THE EU

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Abstract: *The paper examines the problem of quantifying non-tariff barriers and their impact on trade between the European Union (EU) and the Eurasian Economic Union (EAEU). In modern international trade, non-tariff measures, such as technical standards, sanitary and phytosanitary regulations, licensing requirements and administrative procedures, are increasingly used as instruments of trade regulation. Although these measures often pursue legitimate objectives related to consumer protection, public health and environmental safety, they may also function as hidden forms of protectionism that restrict foreign producers' access to markets. The purpose of this study is to systematize existing theoretical and empirical approaches to the analysis and quantification of non-tariff barriers and to identify the main institutional differences between the regulatory systems of the EU and the EAEU. The study is based on a literature review, comparative institutional analysis and an exploratory econometric assessment. The study uses the logic of gravity models, discusses the calculation of ad valorem tariff equivalents and adds a PPML estimation based on open CEPII Gravity and CEPII NTM-MAP data. The results of the study show that differences in technical regulation, certification procedures and administrative practices between the two integration blocs create regulatory distance and increase transaction costs for firms. Empirical studies suggest that partial harmonization of standards and mutual recognition of conformity assessment procedures may significantly increase bilateral trade flows. The exploratory PPML estimation for EU–EAEU trade in 2010–2020 indicates a statistically significant relationship between NTM coverage and bilateral trade flows. However, the estimates are affected by the aggregated nature of the data, so they should not be treated as final causal results. The paper concludes that overcoming non-tariff barriers requires a combination of*

institutional coordination, gradual regulatory harmonization and the use of quantitative analytical methods.

Key words: *non-tariff barriers, non-tariff measures, international trade, European Union, Eurasian Economic Union, trade integration, trade policy*

JEL classification: *F13, F14, F15*

1. INTRODUCTION

In recent decades, international trade has undergone a significant transformation: traditional customs tariffs have substantially decreased, while non-tariff measures (NTMs) have come to the fore and have become a defining characteristic of modern trade relations. Both the European Union (EU) and the Eurasian Economic Union (EAEU) have developed comprehensive systems of technical, sanitary, veterinary and phytosanitary regulation, as well as administrative procedures. Although these measures are aimed at protecting health, safety and the environment, they can create significant barriers to trade, especially when regulatory systems differ substantially. At the same time, it is important to emphasize the dual nature of NTMs: in some cases, they not only restrict trade but may also stimulate it by increasing consumer confidence in product quality (Beghin, Disdier, Marette & Van Tongeren, 2012).

The EU and the EAEU are large but institutionally different integration entities. The EU demonstrates a high degree of harmonisation and mutual recognition, while the EAEU, which has been operating since 2015 on the basis of the Customs Union, continues to strengthen its regulatory framework. This creates a complex set of non-tariff barriers that are difficult to quantify. The lack of systematic assessments complicates institutional dialogue and limits opportunities for

trade facilitation.

The relevance of the problem has increased in the context of geopolitical tensions. Since 2014, and especially after 2022, sanctions and counter-sanctions have become one of the dominant forms of non-tariff restrictions, significantly strengthening regulatory and administrative barriers (Crozet & Hinz, 2020). In 2021, before the major sanctions escalation of 2022, the EU was the largest trading partner of the EAEU, accounting for about 40% of the union's foreign trade (Eurasian Economic Commission, 2021). A significant part of this turnover came from commodities, while industrial products faced disproportionately high levels of non-tariff measures.

This paper aims to systematise knowledge about non-tariff barriers between the EU and the EAEU and to complement the institutional analysis with an exploratory econometric assessment. The study addresses the following research questions:

What theoretical and empirical approaches exist for quantifying NTMs?

What are the main institutional differences in the regulatory systems of the EU and the EAEU that lead to an increase in trade costs?

What is the relationship between non-tariff measures and EU–EAEU trade flows according to existing research and exploratory PPML estimation?

2. RESEARCH GOALS AND METHODOLOGY

The present study has two main objectives.

To systematise modern theoretical and empirical approaches to the analysis and quantification of non-tariff trade barriers.

To identify key institutional discrepancies between the regulatory systems of the EU and the EAEU that directly affect trade flows between the two integration blocs.

To achieve these objectives, a combination of three methods is used.

The first method is a systematic literature review, including the analysis of peer-reviewed scientific publications, working papers and official reports of international organisations such as UNCTAD, WTO, OECD and the Eurasian Economic Commission for the period 2000–2024.

The second method is comparative institutional analysis. The regulatory frameworks of the EU and the EAEU are compared in four areas: technical barriers to trade, sanitary and phytosanitary measures, customs procedures and mutual

recognition mechanisms.

The third method is a limited econometric exercise based on the gravity-model approach. The empirical part uses open data from the CEPII Gravity database and CEPII NTM-MAP. The sample includes bilateral trade flows between 27 EU member states and 5 EAEU member states over the period 2010–2020. The model is estimated using the Poisson Pseudo-Maximum Likelihood (PPML) estimator. This method is useful in this context because it estimates trade flows in levels and can include zero trade flows.

3. RESULTS AND DISCUSSION

3.1. THEORETICAL APPROACHES TO QUANTIFICATION OF NON-TARIFF MEASURES

Quantifying non-tariff barriers is a difficult task due to their diversity, often hidden nature and dependence on the institutional and sectoral context. Two broad approaches are commonly used in the academic literature: frequency-based indicators and equivalence-based methods.

Frequency-based methods calculate either the number of product lines subject to non-tariff measures or the share of imports affected by such measures. Despite their simplicity, these indicators do not measure the restrictive impact of non-tariff measures in monetary terms. For example, according to the UNCTAD TRAINS database, the frequency of NTM use is very high in both the EU and EAEU markets, especially in sectors subject to technical, sanitary and phytosanitary regulation (UNCTAD, 2023). However, a high frequency index does not necessarily mean that all measures are equally restrictive, since some NTMs may pursue legitimate regulatory objectives.

Equivalence-based methods aim to calculate the *valorem* equivalent (AVE) of non-tariff measures. The AVE is interpreted as a hypothetical tariff rate that would have the same trade-reducing effect as the non-tariff measure under consideration. One basic approach is based on comparing domestic and world prices, assuming that the price gap reflects the cumulative effect of trade barriers. A more common approach is based on gravity models of international trade. These models estimate the impact of NTMs on trade flows while controlling for standard gravity variables such as GDP, geographical distance, common language, tariffs and other bilateral characteristics. The estimated trade effect can then be converted into an AVE using the assumed elasticity of import demand (Kee, Nicita & Olarreaga, 2009; Santos Silva & Tenreyro, 2006).

Modern empirical research often uses the Poisson Pseudo-Maximum Likelihood (PPML) estimator,

which is particularly suitable for gravity models because it allows trade flows to be estimated in levels and can accommodate zero trade flows and heteroskedasticity (Santos Silva & Tenreyro, 2006). However, the gravity approach also has limitations. These include the risk of endogeneity, measurement problems and the difficulty of separating the restrictive and confidence-enhancing effects of NTMs. For example, sanitary and phytosanitary measures may restrict imports due to strict compliance requirements, but they can also stimulate trade by increasing consumer confidence in product safety (Disdier & Fontagné, 2008).

An important extension of the gravity framework is the concept of regulatory distance, which reflects differences in the institutional and regulatory environment between countries. Although regulatory distance is not always directly observable, such differences can be interpreted as implicit trade costs and assessed indirectly through their impact on trade flows (Novy, 2013; Head & Mayer, 2014). Empirical evidence suggests that reducing regulatory distance can increase trade volumes, but the magnitude of the effect depends on the sector, the type of measure and the quality of institutional implementation.

According to the UNCTAD classification of non-tariff measures, categories A–P cover a wide range of import- and export-related measures. In the context of EU–EAEU trade, the following categories are particularly relevant:

- A – Sanitary and phytosanitary measures (SPS);
- B – Technical barriers to trade (TBT);
- C – Pre-shipment inspection and other formalities;
- D – Contingent trade protective measures;
- E – Non-automatic import licensing, prohibitions, quotas, quantity-control measures and other restrictions not including SPS and TBT.

Different assessment methods are appropriate for different categories of NTMs. For SPS and TBT measures, regulatory-distance indices and coverage indicators are often used. For contingent trade protective measures, direct ad valorem equivalents can sometimes be calculated. For licensing requirements, quotas and prohibitions, quasi-experimental methods such as difference-in-differences or the synthetic control method may be more appropriate, especially when the objective is to evaluate the effect of a specific policy change (Crozet & Hinz, 2020).

Table 1.

Import	Technical measures	A. Sanitary and Phytosanitary Measures B. Technical barrier to trade C. Pre-shipment inspections & other formalities
	Non-technical measures	D. Contingent trade protective measure E. Non-automatic import licensing, prohibitions, quotas, quantity-control measures and other restrictions not including SPS and TBT. F. Price control measure including additional tax & charge G. Finance measure H. Measure affecting competition I. Trade related investment measure J. Distribution restriction K. Restriction on post sale service L. Subsidy&other form of support M. Govt. procurement restriction N. Intellectual property O. Rule of origin
Export		P. Export related measure

Source: UNCTAD, 2019

3.2. INSTITUTIONAL DIFFERENCES BETWEEN THE REGULATORY SYSTEMS OF THE EU AND THE EAEU

Comparative analysis shows that the regulation of commodity markets in the EU and the EAEU is

characterised by different levels of institutional maturity and regulatory integration. The European Union functions as a highly integrated association with a single legal space in which directly applicable regulations and directives implemented by member states are used. In sectors with

harmonised requirements, products bearing the CE marking can move freely within the Union without additional conformity assessment procedures. In areas where harmonisation is incomplete, the principle of mutual recognition applies and is supported by a developed system of market surveillance and digital tools (European Commission, 2023).

The Eurasian Economic Union, unlike the EU, is a younger integration association. Despite the existence of supranational technical regulations and a common customs code, the harmonisation process remains incomplete. In practice, national standards and additional requirements imposed by national authorities may still remain, which can lead to duplication of certification procedures. For example, firms may need to obtain EAC certification even when international certificates are already available. Although the principle of mutual recognition is formally established, market participants may still face requests for additional documents when moving goods between the member states of the Union (Eurasian Economic Commission, 2022).

In the field of sanitary and phytosanitary regulation, the EU applies a precautionary approach, which is reflected in strict food-safety standards and a high degree of digitalisation, including the TRACES system for veterinary control. Common SPS requirements also exist in the EAEU, but their practical application depends to a greater extent on national veterinary and phytosanitary services. This may create risks of repeated inspections and additional documentation requirements, in contrast to EU practice, where such procedures are more strongly centralised and digitalised (European Commission, 2023).

Significant differences are also observed in the level of customs and administrative digitalisation. The EU has achieved a relatively high degree of automation of customs procedures through unified digital systems. In the EAEU, digital initiatives such as single-window mechanisms and electronic seals are still at different stages of implementation, which may increase administrative costs for businesses (Eurasian Economic Commission, 2022).

Thus, the regulatory distance between the EU and the EAEU is caused not so much by differences in stated regulatory objectives as by differences in the depth of harmonisation, the degree of digitalisation and actual enforcement practices. These differences create additional costs for companies, especially for small and medium-sized enterprises, for which the cost of repeated certification and additional administrative procedures may become a serious barrier to market entry.

3.3. EMPIRICAL ASSESSMENTS OF THE IMPACT OF NON-TARIFF BARRIERS ON TRADE

According to international empirical studies, reducing non-tariff barriers can lead to a significant increase in trade flows, in some cases producing effects comparable to tariff liberalisation (World Trade Organization, 2012; Francois, Hoekman & Manchin, 2013). However, the magnitude of these effects depends on the type of non-tariff measure, the sector concerned, the level of data aggregation and the institutional distance between trading partners.

Sectoral evidence also indicates that the trade impact of NTMs is highly heterogeneous. In the automotive industry, differences in technical standards and the need for repeated certification of vehicles may generate additional compliance costs and time delays. In the pharmaceutical sector, duplication of GMP compliance inspections and regulatory procedures may increase costs for producers and slow down the market launch of medicines. In agriculture and food trade, SPS barriers, including differences in permissible residue levels, traceability requirements and veterinary rules, may significantly reduce export potential, especially for firms with limited administrative and financial resources.

At the same time, the existing literature emphasises that non-tariff measures cannot automatically be interpreted as purely protectionist barriers. In some cases, they perform legitimate functions related to product safety, consumer protection, public health and environmental standards. Therefore, the empirical task is not simply to count NTMs, but to distinguish between measures that reduce welfare by increasing unnecessary trade costs and measures that improve market functioning by reducing information asymmetry and increasing consumer confidence.

3.4. THE IMPACT OF SANCTIONS AS A SPECIAL FORM OF NTM AND THE EFFECT OF TRADE REDIRECTION.

Since 2014, and especially after 2022, sanctions have become one of the dominant non-tariff restrictions in trade relations involving Russia and, indirectly, the EAEU. European sectoral sanctions, restrictions on the export of dual-use goods, financial restrictions and retaliatory food embargoes have formed a set of measures that function economically as prohibitions or very high trade barriers.

Sanctions differ from ordinary non-tariff measures because their primary purpose is not technical regulation, consumer protection or product safety, but political and strategic pressure. Nevertheless,

from the point of view of trade flows, they may operate similarly to prohibitive NTMs: they limit market access, increase transaction costs, force companies to search for alternative routes and create uncertainty. Previous empirical studies on the 2014–2016 sanctions episode show that both sanctions and counter-sanctions had a negative impact on trade flows between Russia and European countries (Bělin & Hanousek, 2019; Crozet & Hinz, 2020).

The effect of sanctions is also complicated by trade redirection. Some goods that can no longer be supplied directly may enter the market through third countries, parallel-import mechanisms or alternative logistics routes. This does not fully remove the barrier, but changes its economic form. Instead of a simple decline in trade, one may observe longer routes, higher transport costs, intermediary margins and changes in the geographical structure of trade. Estimating the magnitude of this effect requires more sophisticated econometric methods, such as the synthetic control method, which can be used to construct a counterfactual scenario without sanctions (Crozet & Hinz, 2020).

In general, sanctions regimes have not only reduced direct trade but have also contributed to the fragmentation of the regulatory and logistical space. Even if political conditions improve in the future, restoring the previous level of interaction would require a long process of rebuilding trust between regulators, firms and financial institutions.

3.5. EXPLORATORY PPML ESTIMATION FOR EU–EAEU TRADE

This section adds an exploratory empirical assessment to the theoretical and institutional analysis. It examines whether non-tariff measures are statistically associated with trade flows between the EU and the EAEU. The estimation uses open data from CEPII Gravity and CEPII NTM-MAP for the period 2010–2020. The results should be interpreted as exploratory evidence and not as a precise causal estimate.

Data and variables

The sample covers bilateral trade flows between 27 EU member states and 5 EAEU member states: Armenia, Belarus, Kazakhstan, Kyrgyzstan and Russia. Trade flows, GDP, geographical distance and contiguity are taken from the CEPII Gravity database. The dependent variable is the trade flow from exporter i to importer j in year t .

The NTM variable is taken from CEPII NTM-MAP. It is measured as the country-level NTM coverage ratio. This indicator shows the share of imports or product lines covered by at least one non-tariff measure. It is useful for an initial empirical assessment, but it is an aggregated indicator. It does not measure the strictness of individual measures or the compliance costs faced by firms.

For importing country j , the NTM coverage ratio is defined as follows:

$$NTM_Coverage_j = \frac{\sum_{k=1}^K D_{jk} * V_{jk}}{\sum_{k=1}^K V_{jk}}$$

where:

$D_{jk} = \{1, \text{ if product } k \text{ imported by country } j \text{ is covered by at least one NTM};$

$D_{jk} = \{0, \text{ otherwise}$

In this formula, j means the importing country, k defined as a product line, K is the total number of product lines, V_{jk} is the import value of product k in country j , and D_{jk} is an indicator showing whether product k is covered by at least one non-tariff measure. The index ranges from 0 to 1. Values close to 1 indicate that most imports are covered by NTMs, while values close to 0 indicate limited coverage.

After data cleaning and the removal of observations with missing values in the key variables, the final regression sample contains 2,018 observations. Descriptive statistics for the main variables are presented in Table 2.

Table 2. Descriptive statistics for the available EU–EAEU sample, 2010–2020.

Variable	Obs.	Mean (SD; min-max)
Trade flow	3,080	1,23m (4,21m; 0-53,03m)
log(1+flow)	3,080	10.267 (3.889; 0-17.786)
GDP exporter	3,010	473,2m (783,6m; 4,8m-3,977,3m)
GDP importer	3,010	473,2m (783,6m; 4,8m-3,977,3m)
Distance	2,970	3,076.2 (1,593.3; 173-6,924)
Contiguity	2,970	0.059 (0.236; 0-1)
NTM coverage	2,101	0.849 (0.163; 0.585-0.980)

In Table 2, m denotes million. The variable

$\log(1 + \text{trade flow})$ is shown only for descriptive purposes. The PPML model itself is

estimated in levels and can include zero trade flows.

Model specification

The baseline gravity model is estimated using the Poisson Pseudo-Maximum Likelihood (PPML) method. The model is specified as follows:

$$E[X_{ijt} | Z_{ijt}] = \exp(\beta_0 + \beta_1 \ln GDP_{it} + \beta_2 \ln GDP_{jt} + \beta_3 \ln Distance_{ij} + \beta_4 Contiguity_{ij} + \beta_5 NTM_j + \gamma_t + \delta Direction_{ij})$$

Where X_{ijt} is the bilateral trade flow from exporter i to importer j in year t . GDP_{it} is the GDP of the exporting country, and GDP_{jt} is the GDP of the importing country. $Distance_{ij}$ is the geographical distance between countries i and j . $Contiguity_{ij}$ is a dummy variable equal to 1 if the two countries share a common border and 0 otherwise. NTM_j is the NTM coverage ratio of the importing country. γ_t means year fixed effects. $Direction_{ij}$ is a direction dummy.

The direction dummy is coded as follows:

$Direction_{ij} = 1$ corresponds to EU imports from EAEU countries, while $Direction_{ij} = 0$ corresponds to EAEU imports from EU countries.

The PPML estimator maximises the following pseudo-log-likelihood function:

$$L(\beta) = \sum_{i,j,t} [X_{ijt} \ln(\mu_{ijt}) - \mu_{ijt}]$$

where:

$$\mu_{ijt} = \exp(Z_{ijt}\beta)$$

Here, X_{ijt} is the observed trade flow, μ_{ijt} is the predicted trade flow, and $Z_{ijt}\beta$ is the linear index of explanatory variables and estimated coefficients. The constant term involving $\ln(X_{ijt}!)$ is omitted because it does not affect maximisation with respect to β .

To examine whether the relationship between NTM coverage and trade flows differs by direction, Model 2 includes an interaction between NTM_j and $Direction_{ij}$:

$$E[X_{ijt} | Z_{ijt}] = \exp(\beta_0 + \beta_1 \ln GDP_{it} + \beta_2 \ln GDP_{jt} + \beta_3 \ln Distance_{ij} + \beta_4 Contiguity_{ij} + \beta_5 NTM_j + \beta_6 (NTM_j \times Direction_{ij}) + \gamma_t)$$

In this specification, the NTM coefficient depends on the direction of trade. For EAEU imports from

EU countries, where $Direction_{ij} = 0$, the NTM effect is:

$$\frac{\partial \ln E[X_{ijt}]}{\partial NTM_j} = \beta_5$$

For EU imports from EAEU countries, where $Direction_{ij} = 1$, the combined NTM effect is:

$$\frac{\partial \ln E[X_{ijt}]}{\partial NTM_j} = \beta_5 + \beta_6$$

Therefore, the interaction coefficient β_6 does not represent the full NTM effect by itself. It shows how the NTM effect changes when the direction of trade switches from EAEU imports from EU countries to EU imports from EAEU countries.

In some studies, an estimated NTM coefficient is converted into an ad valorem equivalent (AVE) using the following formula:

$$AVE = \exp\left(-\frac{\beta_{NTM}}{\varepsilon}\right) - 1$$

Where:

AVE is the ad valorem tariff equivalent, β_{NTM} is the estimated coefficient of the NTM variable, and ε is the absolute value of import demand elasticity. In this paper, the AVE formula is presented only for methodological completeness. The AVE conversion is not used as a final result because the NTM coefficient is sensitive to model specification and data aggregation.

Results

Table 3 reports two PPML specifications. Model 1 is the main exploratory result. Model 2 is a sensitivity check showing whether the NTM coefficient changes by trade direction.

Variable	Model 1	Model 2
ln GDP export	0.821*** (0.024)	0.827*** (0.023)
ln GDP import	0.677*** (0.025)	0.624*** (0.023)
ln distance	-0.524*** (0.083)	-0.300*** (0.087)
Contiguity	0.634*** (0.091)	0.736*** (0.090)
NTM coverage	-10.425*** (1.589)	35.998*** (4.071)
NTM x EU imp.	-	-48.602*** (4.251)
2020 dummy	-0.500*** (0.188)	-0.495*** (0.184)
Year FE	Yes	Yes
Direction FE	Yes	Interaction
Obs.	2,018	2,018

Notes: Robust standard errors are reported in parentheses. *** $p < 0.01$.

The main gravity variables behave as expected. Exporter and importer GDP are positively

associated with bilateral trade flows, while geographical distance is negatively associated with trade. The coefficient of contiguity is positive, indicating that neighbouring countries tend to trade more intensively. The 2020 dummy is negative, which is consistent with the disruption of international trade during the COVID-19 period.

In Model 1, the coefficient of NTM coverage is negative and statistically significant. This suggests that higher NTM coverage in the importing country is associated with lower bilateral trade flows. However, the magnitude of the coefficient is very large and should not be interpreted as a precise causal effect. A mechanical conversion of this coefficient into an ad valorem equivalent would produce an implausibly high tariff equivalent. This is because the country-level NTM coverage variable measures the presence of NTMs, but does not capture the actual strictness of individual measures or the compliance costs faced by firms.

Model 2 shows that the estimated relationship between NTM coverage and trade flows is sensitive to the direction of trade. For the reference direction, EAEU imports from EU countries, the coefficient of NTM coverage is positive, which is counter-intuitive and should be interpreted with caution. For EU imports from EAEU countries, the combined NTM coefficient is calculated as:

$$\beta_5 + \beta_6 = 35.998 - 48.602 = -12.604$$

This means that, for EU imports from EAEU countries, higher NTM coverage is associated with lower bilateral trade flows in the interaction specification.

DISCUSSION

Overall, the PPML estimation suggests that NTM coverage is statistically associated with EU–EAEU trade flows. However, the magnitude of the estimated coefficients is not sufficiently stable to support precise policy conclusions. The results support the general argument that regulatory distance matters for trade, but they do not allow the paper to claim a specific tariff-equivalent cost of NTMs.

A more reliable assessment would require more disaggregated data, including HS-level trade flows, product-level NTM indicators and time-varying tariff data. Such data would make it possible to distinguish ordinary regulatory barriers from the effects of sanctions, product composition and other structural differences. Therefore, the empirical results should be interpreted as exploratory evidence that complements the theoretical and institutional analysis rather than as a definitive causal estimate.

CONCLUSION

This article examines the problem of quantifying the impact of non-tariff barriers on mutual trade between the European Union and the Eurasian Economic Union. The study systematises methodological approaches, ranging from index-based methods to ad valorem equivalents and gravity models, and identifies the strengths and weaknesses of existing tools.

Comparative institutional analysis shows that differences in technical regulation, conformity assessment, SPS procedures and administrative practices create a significant gap between the regulatory frameworks of the two integration blocs. Empirical evidence from the literature indicates that these differences may generate substantial trade costs. Partial harmonisation and mutual recognition could increase trade turnover, but political and legal realities limit the possibilities of deep integration.

The exploratory PPML estimation presented in Section 3.5, based on open CEPII data for 2010–2020, shows a statistically significant association between NTM coverage and bilateral trade flows. However, the estimated coefficients strongly depend on the model specification and the level of data aggregation. The country-level NTM coverage ratio reflects not only regulatory constraints but also other structural differences, which makes a precise ad valorem conversion unreliable. The results should therefore be treated as a preliminary empirical indication, not as a final estimate of the causal effect of NTMs.

The analysis confirms that non-tariff measures remain an important factor affecting trade and economic cooperation between the EU and the EAEU. Institutional differences create regulatory distance and increase transaction costs for firms. Sanctions imposed since 2014, and especially after 2022, have further strengthened these barriers, although their actual trade impact is partly complicated by trade redirection through third countries and alternative logistics routes.

Reducing trade costs within the EAEU requires coordinated efforts by regulators, businesses and the research community. The Eurasian Economic Commission and the national authorities of the EAEU could start with an audit of the “paper mutual recognition” system in order to identify and eliminate national requirements that duplicate supranational technical regulations. Another important area is the digitalisation of sanitary and phytosanitary certification, including the creation of a unified electronic database of issued veterinary and phytosanitary certificates, similar to the European TRACES system. In addition, pilot sectoral agreements on the mutual recognition of

test results with the EU in less sensitive industries could help reduce trade barriers.

For the European Union, it may be useful to consider a gradual approach to the recognition of regulatory equivalence in selected technical areas, as well as to support technical assistance initiatives aimed at the digitalisation of customs procedures in the EAEU. For the business community, key adaptation tools include the use of quantitative assessment instruments based on UNCTAD TRAINS data and a strategy of certification localisation, including CE marking for the EU market and EAC certification for the EAEU market.

The research community can contribute by applying synthetic control methods and dynamic gravity models to assess the effects of sanctions and parallel imports, as well as by analysing the impact of non-tariff regulatory measures in order to distinguish objective regulatory differences from administrative barriers. Taken together, these measures can increase the transparency of procedures, reduce costs and support more predictable trade relations between the EAEU and its external partners.

It should be recognised that, under current geopolitical conditions, the implementation of most of these recommendations is extremely difficult. Direct dialogue between EU and EAEU regulatory authorities has practically ceased, and mutual trust has been undermined by the sanction's standoff. In the short term, intra-union measures, such as digitalisation within the EAEU and the reduction of internal barriers, together with targeted business initiatives aimed at adapting to existing restrictions, appear more realistic. Long-term normalisation of trade relations would require not only political will but also a long process of restoring institutional cooperation.

REFERENCES

- [1] Anderson, J. E., & van Wincoop, E. (2004). Trade costs. *Journal of Economic Literature*, 42(3), 691–751. <https://doi.org/10.1257/0022051042177649>
- [2] Beghin, J. C., Disdier, A. C., Marette, S., & Van Tongeren, F. (2012). Welfare costs and benefits of non-tariff measures in trade: A conceptual framework and application. *World Trade Review*, 11(3), 356–375. <https://doi.org/10.1017/S1474745612000201>
- [3] Bělín, M., & Hanousek, J. (2019). Economic effects of sanctions and counter-sanctions for Russia and the EU. CEPR Discussion Paper No. DP13958. Centre for Economic Policy Research.
- [4] Conte, M., Cotterlaz, P., & Mayer, T. (2022). The CEPII Gravity Database. CEPII Working Paper No. 2022-05. CEPII.
- [5] Crozet, M., & Hinz, J. (2020). Friendly fire: The trade impact of the Russia sanctions and counter-sanctions. *Economic Policy*, 35(101), 97–146. <https://doi.org/10.1093/epolic/eiaa006>
- [6] Disdier, A. C., & Fontagné, L. (2008). The impact of regulations on agricultural trade: Evidence from SPS and TBT agreements. *American Journal of Agricultural Economics*, 90(3), 712–726. <https://doi.org/10.1111/j.1467-8276.2007.01127.x>
- [7] Eurasian Economic Commission. (2021). EAEU foreign trade in 2021: Statistical overview. Eurasian Economic Commission.
- [8] Eurasian Economic Commission. (2022). On the state of competition in cross-border markets of the Eurasian Economic Union. Eurasian Economic Commission.
- [9] European Commission. (2023). Union Customs Code – Annual Progress Report 2023. European Commission.
- [10] Francois, J., Hoekman, B., & Manchin, M. (2013). Non-tariff measures, trade costs and growth. World Bank Policy Research Working Paper No. 6613. World Bank.
- [11] Gourdon, J. (2014). CEPII NTM-MAP: A tool for assessing the economic impact of non-tariff measures. CEPII Working Paper No. 2014-24. CEPII.
- [12] Head, K., & Mayer, T. (2014). Gravity equations: Workhorse, toolkit, and cookbook. In G. Gopinath, E. Helpman, & K. Rogoff (Eds.), *Handbook of International Economics* (Vol. 4, pp. 131–195). Elsevier. <https://doi.org/10.1016/B978-0-444-54314-1.00003-3>
- [13] Kee, H. L., Nicita, A., & Olarreaga, M. (2009). Estimating trade restrictiveness indices. *The Economic Journal*, 119(534), 172–199. <https://doi.org/10.1111/j.1468-0297.2008.02209.x>
- [14] Novy, D. (2013). Gravity redux: Measuring international trade costs with panel data. *Economic Inquiry*, 51(1), 101–121. <https://doi.org/10.1111/j.1465-7295.2011.00439.x>
- [15] OECD. (2018). Trade costs in the global economy: Measurement, aggregation and decomposition. OECD.

- [16] Santos Silva, J. M. C., & Tenreyro, S. (2006). The log of gravity. *The Review of Economics and Statistics*, 88(4), 641–658. <https://doi.org/10.1162/rest.88.4.641>
- [17] UNCTAD. (2019). International classification of non-tariff measures. United Nations.
- [18] UNCTAD. (2023). TRAINS Database. <https://trains.unctad.org>
- [19] World Trade Organization. (2012). World Trade Report 2012: Trade and public policies – A closer look at non-tariff measures. World Trade Organization



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