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MACROECONOMIC IMPACT OF INTERNATIONAL TRADE AGREEMENTS ON UZBEKISTAN'S ECONOMY

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Abstract

This study examines the optimal sequence for Uzbekistan's integration strategies into the World Trade Organization (WTO) and the Eurasian Economic Union (EAEU). We explore four main scenarios: joining the WTO without entering the EAEU, becoming an EAEU member without WTO accession, first joining the WTO then the EAEU, and initially entering the EAEU followed by WTO accession. The results suggest that Uzbekistan would benefit most from initially joining the WTO and then the EAEU, as this approach offers greater trade liberalization and generates more significant positive outcomes.

Keywords: Uzbekistan, WTO, EAEU, GTAP CGE model, trade integration.

XALQARO SAVDO SHARTNOMALARINING O'ZBEKISTON IQTISODIYOTIGA MAKROIQTISODIY TA'SIRI

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Makroiqtisodiyot va mintaqaviy tadqiqotlar instituti PhD talabasi

Annotatsiya

Ushbu tadqiqot O'zbekistonning Jahon savdo tashkiloti (JST) va Yevroosiyo iqtisodiy ittifoqi (YEOf)ga integratsiyalashuv strategiyalarining maqbul ketma-ketligini o'rganadi. Biz to'rtta asosiy stsenariyni ko'rib chiqamiz: YeOfga kirmasdan JSTga a'zo bo'lish, JSTga kirmasdan YeOf a'zosi bo'lish, avval JSTga, keyin YeOfga a'zo bo'lish va dastlab YeOfga kirish, keyin esa JSTga kirish. Natijalar shuni ko'rsatadiki, O'zbekiston dastlab JSTga, keyin esa YeOfga a'zo bo'lishdan ko'proq foyda ko'radi, chunki bu yondashuv savdoni yanada erkinlashtirishni taklif qiladi va yanada muhim ijobiy natijalar beradi.

Kalit so'zlar: O'zbekiston, JST, EAEl, GTAP CGE modeli, savdo integratsiyasi.

МАКРОЭКОНОМИЧЕСКОЕ ВОЗДЕЙСТВИЕ МЕЖДУНАРОДНЫХ ТОРГОВЫХ СОГЛАШЕНИЙ НА ЭКОНОМИКУ УЗБЕКИСТАНА

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Аннотация

В данном исследовании рассматривается оптимальная последовательность стратегий интеграции Узбекистана во Всемирную торговую организацию (ВТО) и Евразийский

экономический союз (ЕАЭС). Мы рассматриваем четыре основных сценария: вступление в ВТО без вступления в ЕАЭС, членство в ЕАЭС без вступления в ВТО, сначала вступление в ВТО, затем в ЕАЭС и первоначальное вступление в ЕАЭС с последующим вступлением в ВТО. Результаты показывают, что Узбекистан получит наибольшую выгоду от первоначального вступления в ВТО, а затем в ЕАЭС, поскольку этот подход предлагает большую либерализацию торговли и генерирует более существенные положительные результаты.

Ключевые слова: Узбекистан, ВТО, ЕАЭС, модель GTAP CGE, торговая интеграция.

Introduction

International trade contributes to the economic growth of developing countries by increasing gross domestic income, employment and poverty reduction. The three main reasons countries engage in trade are comparative advantage, increasing returns to scale, and imperfect competition.[18] Trade agreements can be regional or multilateral, but regional trade remains preferable, although economically inferior to multilateral trade. But both types of trade continue to coexist. Uzbekistan, a country with a rich history and strategic geographical location, has been actively engaging in international trade agreements to boost its economic growth and development. The signing of trade agreements with various countries and trading blocs has opened up new opportunities for Uzbekistan to expand its export markets, attract foreign direct investment, and enhance its overall economic competitiveness. In accordance with the decision of the President of the Republic of Uzbekistan No. 181 “On additional measures to accelerate the process of becoming a member of the World Trade Organization of the Republic of Uzbekistan” signed on June 2, 2023, in the Presidential Administration The introduction of the position of the special representative of the President of Uzbekistan on issues of the World Trade Organization shows how important the organization is for Uzbekistan. [17] Membership in the WTO or the EAEU presents great advantages and, at the same time, challenges for developing countries like Uzbekistan. WTO membership opens open doors to the international market [7], and EAEU participation benefits neighboring countries primarily by reducing non-tariff barriers [14] and enhancing policy coordination. [16] The results of our analysis rely on the use of a well-developed quantitative tool - the Computable General Equilibrium Model of the Global Trade Analysis Project (GTAP CGE) - to simulate the trade integration of Uzbekistan into the WTO, then into the EAEU and vice versa, and assess its impact on the domestic economy. The results show that membership in the WTO is preferable if joining one of the two organizations requires membership in only one.

Literature Review

As any economic choice depends on a cost-benefit analysis, the decision of international integration for any country brings certain risks and difficulties. That is, trade barriers, such as import restrictions or safety standards aimed at protecting domestic consumers, especially goods such as food and medical supplies, can hinder integration. Other common risks are economic vulnerability [12], trade imbalance [10], income inequality [9], last but not least exchange rate risks [6] and dependence on foreign capital. [11] An important question raised by the American scholar Bhagwati is whether joining regional trade agreements supports or hinders the ultimate goal of achieving multilateral free trade [1;2] presented by Krishna and McLaren and the most some models, such as the frequently mentioned models, suggest that regional trade agreements may hinder the achievement of multilateral free trade [5;8]. Also, the reasons and consequences of a

number of local economists becoming members of the World Trade Organization of Uzbekistan were studied. [Error! Reference source not found.;Error! Reference source not found.] Apparently, there is not enough empirical literature focusing on the trade integration efforts of the Central Asian region, in particular, Uzbekistan. Tumbarello is the closest study to the focus of this study [13]. That is, the sequence of joining both organizations (first the EAEU, then the WTO or vice versa) depends on the overall gains and losses for Uzbekistan. How, then, can one be sure that the marginal gains (gains minus losses) in one sequence of integration prevail over those in other sequences, first WTO and then EAEU? This is the main research hypothesis that we try to explore and analyze in the following sections.

Research Metodology

As Uzbekistan is in the process of deciding which path to take in the integration sequence, the best methodology we can implement for analytical purposes at this time is simulation tools. General equilibrium (GE) models play a crucial role in analyzing the interaction between social accounting matrices (SAMs) in different global regions through trade. These models help assess the benefits and risks associated with changing tariff and non-tariff regulatory measures in various sectors. To create concepts specific to Uzbekistan, it is possible to use the globally calculable general economic equilibrium (CGE) model shown in the works of Li [7], Balisteri (2017) [16], Balisteri (2014) [15], Brown [3] and others. This project uses a static multi-regional, multi-sector, standard Global Trade Analysis Project Computable General Equilibrium (GTAP CGE) model. The CGE model is a system of equations that describes the entire economy. The model recognizes the interactions and complex relationships between key markets in each economy.

Analysis and Results

This section discusses scenarios conducted by the project and results from the simulated scenarios. In the GTAP CGE model, the regions and industrial sectors are aggregated based on the research’s interest. In our case, we aggregate the regions as Uzbekistan, EAEU (members), China, Turkey and Korea (the largest trade partners of Uzbekistan), ROW (rest of the world) and the sectors as Agriculture, Extraction, ProcFood (processing foods), Manufacture, Vehicles, Other Services (other services) which are the key sectors in Uzbekistan (Table 1).

Table 1.

Aggregated regions and sectors¹

Aggregated regions	Aggregated sectors
Uzbekistan	Agriculture
EAEU	Extraction
China	ProcFood (processing foods)
Korea	Manufacture
Turkey	Vehicles
ROW	Other Services (other services)

Scenarios. The project implements four main scenarios: S1-accession to the WTO without accession to the EAEU; S2-Membership of the EAEU without joining the WTO; S3-First becoming a member of the WTO, then membership of the EAEU; S4-first to enter the

EAEU and then to enter the WTO.

In the first scenario (S1), the study simulates that Uzbekistan becomes a member of the WTO and does not consider joining the EAEU. In this case, we can take Kazakhstan's tariff commitment to WTO membership as a criterion, as if Uzbekistan is a WTO member and accepts Kazakhstan's WTO membership as a project. Table 2 shows Kazakhstan's overall average tariffs before and after WTO accession and tariff shocks to Uzbekistan by aggregated sectors. From the table below, we can see that the tariffs introduced for agriculture, mining, food processing, manufacturing, and vehicles have significantly decreased after joining the WTO.

Table 2.

Kazakhstan’s tariff and its shocks to Uzbekistan²

	Kazakhstan’s tariff pre- and post-WTO entry			Tariff shocks to Uzbekistan after WTO entry	
	2010	2020	Change, %	Now	After
1 Agriculture	11.4	8.7	-23.6	15.3	11.7
2 Extraction	7.1	4.0	-43.2	14.4	8.2
3 ProcFood	11.5	7.0	-38.8	7.5	4.6
4 Manufacturing	8.2	5.9	-27.7	7.7	5.6
5 Vehicles	8.6	7.1	-17.6	13.1	10.8
6 OthServices	2.5	5.0	100.0	0.0	0.0

The second scenario (S2) simulates the accession of Uzbekistan to the EAEU without joining the WTO. The scenario predicts a post-shock situation in Uzbekistan, as the borders between the EAEU members, namely Russia, Kazakhstan, Belarus, Kyrgyzstan, Armenia and Uzbekistan, are open for bilateral trade.

In addition, Uzbekistan imposes the Union's Common External Tariff (CET) on outsiders (countries that are not members of the EAEU). Next, the result examines the effects of trade creation and trade diversion.

The third (S3) and fourth scenarios (S4) explore membership sequencing. The first examines Uzbekistan's first entry into the WTO and second entry into the EAEU, and the second examines the opposite situation in depth. In this case, we use the main scenario feature of GTAP CGE modeling. Now that we have the results of S1, we run a simulation of S2 based on the new equilibrium of S1. In short, the simulation of S3 based on S1 can be understood as if Uzbekistan became a member of the WTO first, and then the EAEU. S4 takes the opposite approach. Finally, we can compare the two results, interpret them, and provide conclusions and policy-oriented suggestions.

Results

The CGE GTAP model results presented in Table 3 show that Uzbekistan's real GDP growth is 0.113 and 0.092 percent in S1 and S2, respectively. This result shows that changes in the international trade policy of small economies like Uzbekistan do not necessarily have a significant impact on other economies. As for S3, the real GDP of Uzbekistan has a negative (-0.03), and S4 has a positive effect of 0.08 percent. These results are related to the high total external tariffs of the EAEU, in contrast to the average aggregate tariff of Uzbekistan's

WTO membership in S1.

Table 3.

Real GDP change, % ³				
Countries	S1	S2	S3	S4
Uzbekistan	0.121	0.092	-0.03	0.08
EAEU	0.001	0.002	0	0
China	0	0	0	0
South Korea	0	0.001	0	0
Turkey	0.001	0.001	0	0
Rest of World	0	0	0	0

These estimates follow economic liberalization, where terms of trade should move in parallel with changes in real GDP. However, simulation results contradict this theory because real GDP is inversely related to the terms of trade. Table 6 shows a striking contrast from Table 3: S1, S2, and S3 have negative terms-of-trade changes, while S3 has a positive sign. Kehoe & Rule (2008) also noted that real GDP may even increase in response to negative terms of a trade shock. [4] Other empirical studies have shown that the inverse relationship between Real GDP growth and the terms of trade can occur for several reasons, such as import prices rising faster than export prices, exchange rate fluctuations, composition effects, where countries have high-price they export low-cost products as opposed to importing goods and services. In addition, negative terms of trade shocks can have a positive effect on real GDP if they change comparative advantages and open up new growth opportunities or improve productivity.

Table 4.

Change in terms of trade (TOT), % ⁴				
Countries	S1	S2	S3	S4
Uzbekistan	-0.294	-0.189	0.29	-0.5
EAEU	-0.009	-0.002	0.01	-0.01
China	0.002	0.002	0	0
South Korea	0.003	0.01	0	0
Turkey	0.025	0.056	0.02	0.02
Rest of World	0	-0.001	0	0

Conclusion and Recommendations

In this study, two experiments were considered to study the impact of WTO and EAEU membership on the economy of Uzbekistan under four scenarios. The first experiment consists of two scenarios examining the comparative benefits between WTO membership (S1) and EAEU membership (S2). The results of the study show that WTO membership can create more favorable economic conditions for Uzbekistan if joining one of the two organizations requires membership in only one.

The second experiment examines the correct sequence of joining the two organizations, with either WTO membership in Scenario 3 followed by WTO accession, or Scenario 4 joining the WTO followed by WTO accession. As part of this experiment, the S4 is

³ Prepared by the author

⁴ Prepared by author

expected to be more economical than the S3. This result is mainly related to the differences between the average tariff obligations collected within the framework of the WTO and the EAEU. As mentioned above, the unpleasant experience of Kazakhstan confirms this sequence.

Without a doubt, creates many fruitful opportunities for the countries that are members of the World Trade Organization. However, not all countries have sufficient economic resources. While some countries lack resources, others do not have enough manpower. Taking into account that our country currently has enough economic and natural resources, membership in the WTO will lead to further improvement of the economic potential of our country, increase the well-being of the population, and gain its place in international trade.

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