IMPACT OF GLOBAL ECONOMIC DEVELOPMENT TRENDS ON THE DEVELOPMENT OF NATIONAL ECONOMIES.

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Abstract. This article investigates the impact of global economic development trends on the economic growth of national economies, with a particular focus on Uzbekistan. The study analyzes key macroeconomic indicators such as GDP growth, inflation rates, unemployment levels, foreign direct investment (FDI), and trade balances, using statistical software and data tables to assess the influence of global trends on Uzbekistan's economy from 2001 to 2023. Time series analysis and regression models are employed to identify relationships between global economic shifts and national economic outcomes. The findings reveal that while global economic trends, including trade liberalization and technological advancements, positively influence Uzbekistan's economic growth. In our study, we specifically employed time series models, including OLS and VAR models. Furthermore, tables offers a clear visualization of how global economic integration impacts Uzbekistan's economic performance and highlights the broader implications of globalization for emerging economies.

Key words: globalization, foreign trade investment (FDI), international trade, Uzbekistan, developed vs. developing countries.

1.Introduction.

In today's increasingly interconnected world, the impact of global economic development trends on national economies is undeniable. As economies around the world become more interdependent, both developed and emerging countries, such as Uzbekistan, experience the effects of these trends on their growth, stability, and overall development. Globalization, technological advancements, and shifts in international trade and finance influence key macroeconomic indicators such as GDP growth, inflation, foreign direct investment (FDI), unemployment, and trade balances[1] [52].

This paper seeks to explore the specific impact of global economic development trends on Uzbekistan, focusing on macroeconomic indicators such as GDP growth, inflation, FDI, unemployment rates, and trade balances. Utilizing statistical methods, including time series analysis and regression models, this study analyzes how these global trends have affected Uzbekistan's economy over the past 15 years. The objective of this research is to provide a clearer understanding of how global economic shifts, including changes in global trade,

[52] Held & McGrew, 1999; Scholte, 2000

investment flows, and technological innovations, influence the development of national economies, with a particular emphasis on Uzbekistan's economic performance [53].

This study holds several key implications. First, it provides valuable insights for policymakers who aim to develop and implement effective economic strategies that can mitigate the effects of global economic trends on Uzbekistan's economy, especially by focusing on key macroeconomic indicators such as GDP growth, inflation, and trade balance. Second, it offers practical recommendations for businesses seeking to understand and adapt to the global economic environment, ensuring they remain competitive in an increasingly interconnected market. Finally, the findings contribute to the broader discourse on Uzbekistan's economic development by highlighting the importance of global economic trends in shaping national economic policies and strategies, underscoring the need for greater integration and adaptation to global markets for sustained growth.

2.Literature review.

The relationship between global economic development trends and national economies has been the subject of extensive academic research. As global interconnectedness intensifies through trade, investment, and technological advances, the economic performance of individual countries is increasingly influenced by global trends. This literature review explores key theories and studies that examine the impact of global economic trends on national economies, with a specific focus on Uzbekistan, using relevant macroeconomic indicators such as GDP growth, inflation, unemployment, trade balance, and foreign direct investment (FDI).

According to scholars like Bhagwati (2004) and Friedman (2005), globalization drives economic development by enabling greater access to international markets, fostering competition, and facilitating the flow of capital and technology. For countries like Uzbekistan, which are integrating into the global economy, these processes present both opportunities and challenges. The integration into global markets offers potential growth through increased exports, technology transfer, and foreign investment, as noted by Dunning (2001). However, it also exposes countries to global economic volatility and risks, such as fluctuations in commodity prices and external financial crises (Stiglitz, 2002).

The literature suggests that global economic development trends have profound implications for the development of national economies, including Uzbekistan. Globalization, technological advancements, foreign direct investment, and global trade trends all shape Uzbekistan's economic landscape. While these trends present significant opportunities for growth, they also bring challenges related to economic dependence, income inequality, and vulnerability to external shocks. Understanding the interplay between global economic trends and national economic indicators is essential for formulating effective policies that promote sustainable development in Uzbekistan.

[53] Shangquana, 2000

3.Methodology.

3.1 Theoretical framework.

Ordinary Least Squares (OLS) was invented by Carl Friedrich Gauss in the early 19th century as part of his work on error theory. Initially that method applied for key statistical method used to estimate the parameters of linear regression models. Later on this method discovered in field of economies, number of scholars use method as formulation of minimize the sum of squared deviations between the observed values of the dependent variable and the predicted values generated by the model.

OLS has become a widely used tool in econometrics, particularly for analyzing relationships between economic variables. This method is valuable in empirical economics, as it allows researchers to quantify relationships between variables and analyze economic trends. Specifically, OLS is applied to assess the relationships between economic factors and overall economic development within the context of global economic trends.

Most of the scholars applied Ordinary Least Squares to analyze the link between economic development and various economic factors. Such as Hausman, Hwang, and Rodrik (2007) [54]used OLS to study how export diversification and the shift to high value-added production influence economic growth of developing countries. Moreover, Balassa (1985) [55] employed OLS to examine the effect of export orientation on economic growth, emphasizing the positive relationship between effective export policies and sustainable growth in developing countries. Additionally, Leimer and Stern (1970)[56] used OLS to estimate gravity models of international trade. They investigated how factors such as geographical distance, tariffs, and trade agreements influence trade volumes between countries, which laid the foundation for subsequent research in trade econometrics. Chenery and Sirquin (1975) [57]also applied OLS to analyze the impact of economic factors on structural changes in developing economies, suggesting that growth in specific sectors significantly influences GDP growth and economic transformation in these countries

3.2 Empirical framework.

In this study, we adopt a quantitative approach using a multivariate time series model to analyze the relationships between Uzbekistan's exports and key economic indicators. Specifically, we focus on the following variables:

Variable name	Conventional designation	Variable type	Description
GDP per capita	GDPpc	Dependent	Annual GDP per capita figures

[54] Hausman, R., Hwang, J., & Rodrik, D. (2007). **Export structure and economic growth: A study of export diversification and GDP growth.** *Journal of International Economics*, 73(2), 149-164.
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[57] Chenery, H. B., & Sirquin, M. (1975). **Patterns of development and structural change in developing countries.** *American Economic Review*, 65(2), 395-405.

Trade_GDP	Trade_GDP	Independent	Annual trade rate indicators
Net_flows	Net_flows	Independent	Annual net flows figures
Inflation	Inflation	Independent	Annual inflation rates
Currency Rate (US Dollar)	Ex_rate	Independent	Annual exchange rate indicators
Foreign direct investment	FDI	Independent	Annual FDI Flow Rates
Unemployment rate	Unemployment	Independent	Annual unemployment rates
Exch_rate	Exch_rate	Independent	Annual exchange rates
Energy	E	Independent	Annual energy figures
Tech_export	Tech_export	Independent	Annual tech export figures
Inflation	I	Independent	Annual inflation rates
PLSPPP (GDP) to market exchange rate	PLSPPP (GDP)	Independent	Annual PPP (GDP) exchange rates
Oil (% of GDP)	O (% of GDP)	Independent	Annual Oil GDP figures

The following hypotheses are tested in this study regarding the relationship between Uzbekistan's economic development and export performance:

- **H_0**: There is no relationship between the dependent variable (GDP per capita) and the independent variables (economic indicators).
- **H_1**: There is a relationship between the dependent variable (GDP per capita) and the independent variables (economic indicators). This is the alternative hypothesis.

To test these hypotheses, we use an econometric model based on multifactor time series analysis, which examines the interactions between the dependent and independent variables over the period from 2000 to 2023.

The relationship between the dependent variable (GDP per capita) and the independent variables (such as exports, inflation, exchange rates, FDI, etc.) is described using the following equation:

GDPpci=β0+β1Trade_GDPi+β2Net_flowsi+β3Inflationi+β4Ex_ratei+β5FDIi+β6Unemploymenti+β7Export_growthi+ϵi(1) GDPpc_i = \beta_0 + \beta_1 Trade_GDP_i + \beta_2 Net_flows_i + \beta_3 Inflation_i + \beta_4 Ex_rate_i + \beta_5 FDI_i + \beta_6 Unemployment_i + \beta_7 Export_growth_i + \epsilon_i \quad \text{(1)}GDPpci=β0+β1Trade_GDPi+β2Net_flowsi+β3Inflationi+β4Ex_ratei+β5FDIi+β6Unemploymenti+β7Export_growthi+ϵi(1)

Where:

β0\beta_0β0 is the intercept of the model.

ϵi\epsilon_iϵi is the error term.

The β\betaβ coefficients represent the relationship between the dependent variable (GDP per capita) and the independent variables, including Trade_GDP, Net_flows, Inflation, Ex_rate, FDI, Unemployment, and Export_growth.

Vector Autoregression (VAR) Model:

To examine the dynamic interrelationships between the selected indicators over time, we used the VAR model. This model captures the influence of each variable on the others with their lags.

Yt=α+β1Yt−1+β2Yt−2+⋯+βpYt−p+ϵt(2)Y_t = \alpha + \beta_1 Y_{t-1} + \beta_2 Y_{t-2} + \cdots + \beta_p Y_{t-p} + \epsilon_t \quad \text{(2)}Yt=α+β1Yt−1+β2Yt−2+⋯+βpYt−p+ϵt(2)

We applied the VAR model to examine the dynamic relationships between Uzbekistan's GDP per capita, trade and investment indicators, inflation, and other key economic factors. Using STAT 18 software, we were able to estimate the model and forecast the behavior of these economic indicators over time. The VAR model allows us to understand how past values of FDI, trade-to-GDP ratio, exchange rates, and other variables impact future economic performance and growth in Uzbekistan.

This forecasting approach is widely recognized globally and is essential for analyzing multivariate time series data in econometric research.

4. Results.

In this study, GDP per capita (GDPpercepita) is used as the dependent variable, while the independent variables include inflation, foreign direct investment (FDI), unemployment, Trade to GDP ratio (Trade_GDP),net capital flows,currency exchange rate (US Dollar),exchange rate (Exch_rate), energy consumption,technology exports, PPP-adjusted GDP to market exchange rate and

oil as a percentage of GDP (Oil % of GDP change).GDP per capita is chosen as the dependent variable because, according to the World Bank methodology, it is an indicator of the country's development level. The remaining independent variables are selected macroeconomic indicators that can influence GDP and were chosen to test the hypotheses posed in the study.

The study uses data for the years 2001-2023, with all indicators sourced from the World Bank (worldbank.org) website.

These indicators are used to analyze the impact of global economic development trends on the growth of national economies, with a particular focus on Uzbekistan's economic development.

Overall, the data indicates gradual economic improvements in some areas, despite occasional setbacks due to global or regional crises.

Fig.

5.Conclusion.

Based on the results of our study, we can conclude that recent global economic trends have positively influenced the development of national economies, particularly Uzbekistan. Specifically, Uzbekistan's export sector has demonstrated consistent growth in recent years, playing a crucial role in both short-term and long-term economic development. This growth contributes to key economic indicators such as an increase in GDP per capita, a reduction in unemployment, and an enhanced inflow of foreign direct investment and foreign exchange. These trends align with the World Bank's criteria for measuring economic development.

Therefore, to further capitalize on Uzbekistan's export potential, expanding free economic zones and improving infrastructure for foreign investors emerge as critical policy options. Building on the positive findings of this study, further research will continue to address remaining challenges and explore unresolved issues, with a focus on their impact in future study.

6. References.

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