Model Analysis of the Effect of the Nominal Exchange Rate on Economic Growth in the Conditions of A Digital Economy

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Abstract- **The transition toward a digital economy is reshaping macroeconomic transmission mechanisms, including the channels through which exchange rate movements influence economic growth. This paper aims to conduct a model-based analysis of the effect of the nominal exchange rate on economic growth under conditions of digital economic development. The study integrates classical and modern exchange rate theories with digital economy concepts to examine how digitalization modifies trade competitiveness, capital flows, and productivity responses to exchange rate changes. Using an analytical modeling framework supported by recent empirical evidence from the literature, the research explores both direct and indirect effects of nominal exchange rate fluctuations on output growth, including through digital trade expansion, cross-border e-commerce, and digitally enabled financial transactions. Particular attention is given to the role of digital infrastructure, fintech development, and data-driven business models in reducing transaction costs and increasing the sensitivity of economic growth to exchange rate dynamics. The findings suggest that in a digital economy, the impact of the nominal exchange rate on growth becomes more nuanced: exchange rate stability supports investment and digital trade integration, while excessive volatility undermines growth by increasing uncertainty in digitally interconnected markets. The study concludes that effective exchange rate management, combined with policies promoting digital transformation, enhances the growth-supporting role of the nominal exchange rate. The results offer valuable implications for macroeconomic policy design in digitally transforming economies.**

Keywords*:* Digital economy, nominal exchange rate, economic growth, model analysis, currency policy, export, import, investment.

1. INTRODUCTION

In the context of increasing global trends in the world a number of scientific studies are being conducted on the problems of the influence of the dynamics of the exchange rate on the national economy in the international currency market. Fluctuations in the dynamics of the nominal exchange rate of the national currency in relation to other currencies, negative situations arising from this, the impact of an increase in the nominal exchange rate of the national currency on the price and competitiveness of exported goods, the cost of import payments and the ability of residents to import, the risk of a decrease in the world price of products exported by national enterprises increase, taking measures to protect the dynamics of the national currency in the country from sharp fluctuations are among the main priorities of the scientific research being carried out in this regard [1,2,3].

In the new Uzbekistan, special attention is paid to the issues of maintaining the dynamics of the exchange rate of the national currency from sharp fluctuations in order to expand the national export potential, increase the investment flow to the country, attract new techniques and technologies to the production process by accelerating the transition to the digital economy, and develop foreign trade relations. "The main directions of our state's economic policy for the well-being of our society envisage maintaining macroeconomic balance, deepening structural and institutional changes, and ensuring high growth rates of the gross domestic product based on the adopted programs. The way of regulating relations regarding the currency that ensures free conversion, introduction of modern market mechanisms in the formation of the national currency rate is showing its effectiveness. [12]

Ensuring the stability of the national exchange rate and the level corresponding to the price scale is a necessary condition for reducing the level of inflation in the country and developing foreign trade relations. [11] The effective solution of the tasks set in this regard is based on the projects carried out with the participation of foreign investments, linking the prices of goods sold in the territory of the country to foreign currencies and conditional units, taking into account the domestic demand in the formation of the money supply as a mechanism that determines the initial structure of the country's budget, commercial banks market and determining the impact of changes in foreign exchange rates in the open currency position and the significant decrease in the ability to redistribute liquidity in one currency to another currency in the assessment and control of liquidity risk, requires the implementation of scientific research aimed at evaluating the prospective indicators of the dynamics of the exchange rate of the national currency to foreign currency on the country's economy [4,5,6].

2. LITERATURE REVIEW

Specific theoretical and practical aspects of issues of ensuring the stability of the exchange rate of the national currency and its impact on foreign trade relations A. Marshall, A. Lerner, S. Fisher, Rose, Andrew K., RECaves, JAFrankel, RWJones, A. Babula, I. Ötker- Robe, C. Reinhart, K. Rogoff, J. Frankel, J. Williamson, M. Obstfeld, K. Rogoff, R. Hausmann, P. Wickham, H. Poirson, K. Rogoff, A. Husain, A. Mody, R. Brooks, N. Oomes, M. Friedman, R. Mandell, F. Mahlup, etc. have been researched in the scientific research of a number of foreign economists.[9]

Some theoretical and practical aspects of the problem Z. Berdinazarov, T. Bobokulov, A. Vakhabov, N. Jumaev, D. Ibragimov, G. Ismailova, T. Rasulov, Sh. Rajabbaev, N. Sirojiddinov, E. Khoshimov, S. Chepel, Sh. Yakubovaand expressed in the scientific researches of others. However, the question of the impact of the exchange rate dynamics on the foreign exchange market on the economy has not been studied by Uzbek scientists as an independent scientific research object.[13]

One of the main theories about the exchange rate is the theory of "leading currencies". The founders of this theory are American economists - J. Williams, A. Hansen, English economists - R. Hawtrey, F. Grahams count.

According to this theory, currencies are divided into three groups [7,8]:

1. Leading currencies (US dollar and British pound).
2. Hard currencies (currencies of 10 developed countries).
3. Soft currencies (non-convertible currencies).

In addition to the regulation of international currency relations, the exchange rate of the national currency has begun to be considered as one of the important means of implementing an effective macroeconomic policy. Recently, developing countries have been paying more attention to the analysis of the impact of the exchange rate on their main macroeconomic indicators. The role of the exchange rate is of great importance due to its impact on the export (foreign trade) sector of the economy, domestic production, consumption, investments, growth of labor productivity, as well as interest rates. Moreover, in modern world markets, the national currency exchange rate has become one of the important factors of ensuring competitiveness between national economies.

In addition, a "strong" currency policy implies an increase in the real income of the population. However, economic growth may slow down in the initial period. E.T. said that excessive strengthening of the national exchange rate will lead to expected risks. Gaydar and V.A. Economists like Mau have pointed out.[10]

Contrary to the opinion of the above-mentioned economists, J. Calvo and K. Reinhart studied and analyzed the exchange rates of different countries and came to the conclusion that the devaluation of the national currency has a negative, not a positive, effect. about the country's economic growth. In particular, they include the currencies of countries with a low and medium level of development.

At the same time, the famous Austrian economist F. Makhlup conducted fundamental research in such areas as the supply and demand balance of the exchange rate, factors affecting it, export and import elasticity, capital movements and transfers in the scientific research work entitled "Exchange rate theory".[11]

The Australian economist T. Swan in his research work "Swan Model" carried out fundamental studies of exchange rate policy and macroeconomic balance issues from the point of view of a small open economy.

Economists R. Mandell and M. Fleming in the famous "Mandell-Fleming" model9 have fundamentally researched the effect of exchange rate policy on macroeconomics from the point of view of open economy and different exchange rate regimes.

Russian economist A. Nagovitsyn has conducted extensive research on the improvement of the theoretical and methodological foundations of currency policy and currency relations, and connects its effectiveness with the need to strengthen the institutional foundations of currency relations and their financial stability.

In the research conducted by our local economists T. Bobakulov and T. Rasulov, the main focus is on ensuring the stability of the exchange rate and improving the theoretical and methodological foundations of currency relations.

Renowned scientist R. Dornbush conducted a scientific analysis in his book "Dynamics of Exchange Rate and Expectations" and justified the factors affecting the dynamics of the national currency rate. In particular, he states: "If the depreciation of the national currency is expected, the interest rate on assets denominated in this currency should increase proportionally to the interest rate in the outside world."

3. RESEARCH METHODOLOGY

In addition to capital movements, interest rates and international reserves also significantly affect the dynamics of the exchange rate. It is known from practice that the activities of developed countries in the regime of floating exchange rate are very slow in influencing the exchange rate. It is characteristic of these countries to rely more on changes in interest rates and international reserves in the process of adjusting to macroeconomic fluctuations, rather than on changes in the exchange rate. As a result of the research carried out by the experts of the IMF, it was found that the volatility of interest rates in developing countries with a floating exchange rate is higher than in other industrialized countries. In addition, it is noted that in developing countries with a floating exchange rate, the volatility of the level of international reserves becomes more important than in industrialized countries.

In order to comprehensively analyze the impact of the exchange rate on the transition and developing economies, it is necessary to take into account three main features of the national economy:

- most countries' economies will be relatively small because their export supply and import demand cannot influence world commodity prices. In the economic literature, these countries are often referred to as "price takers".(ingl. price takers);
- the national currencies of the countries have a relatively low level of confidence, and the exchange rate changes are relatively significant for the economic entities of these countries;
- countries are generally open economies, meaning that foreign trade and capital flows are sufficient to affect the domestic economy (domestic prices, goods, services, and money supply) of these countries.

In the long term, the appreciation of the exchange rate will help to increase the flow of investments (including the import of machinery and equipment), as a result of which structural changes and modernization of the economy will take place.

Devaluation of the national currency

In the short term	***In the long run***
• As the price of imported goods increases, the volume of imports decreases **• The flow of external financial resources will decrease** **• The standard of living of the population will decrease**	**• The prices of exported goods will be reduced (the efficiency of production of exported goods will also increase with competitive goods)** **• Declining confidence in the national currency** **• Inefficient economic structure** **• Increase in foreign debt**

Appreciation of the national currency

In the short term	***In the long run***
• As the price of imported goods decreases, the volume of imports increases **• The flow of external financial resources will increase**	**• Ethe price of exported goods will increase** **• Production growth slows down** **• Exports will slow down** **• Investments will increase**

	• **The real income of the population will increase**

Figure 1. Possible areas of influence of the national exchange rate

We have summarized the possible directions of exchange rate exposure in Figure 1. In fact, the extent and character of the exchange rate influence depends on exactly which factors ensure the country's economic growth, in other words, on the structure of the economy. In it, conditionally short-term and long-term periods of de-framing and framing of the national currency are analyzed.

Before discussing the relationship between the exchange rate and individual sectors of the economy, the relationship between the exchange rate and GDP growth, let's look at the relationship (see Figure 2) [9,10].

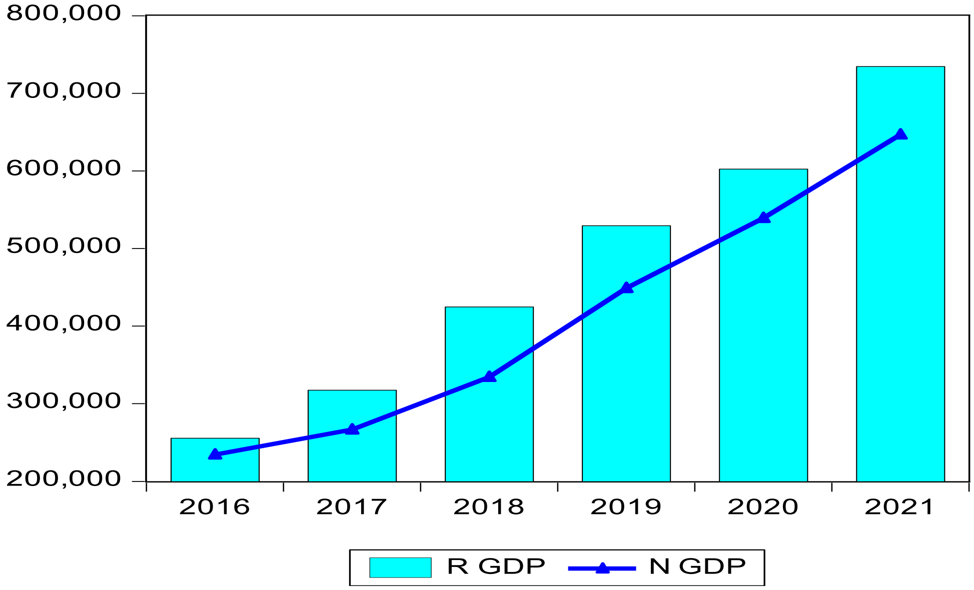

Figure 2. Real and nominal GDP dynamics of Uzbekistan (2016-2021)

According to it (Figure 2), the real GDP of Uzbekistan (R GDP) in the fourth quarter of 2016 was 47,816 million. amounted to soums, and the nominal GDP (N GDP) was 43,278 mln. was soum. These figures are 529,391 million in the fourth quarter of 2019, respectively. amounted to soums, and nominal GDP amounted to 448,979 mln. was soum. In the fourth quarter of 2021, the real GDP of Uzbekistan will be 734,587 mln. amounted to 646,876 million soums, and the nominal GDP was soum [10,11].

The effect of the exchange rate on economic activity is observed through both aggregate demand and aggregate supply. In terms of aggregate demand, GDP can be expressed by the following formula:

$$\boldsymbol{Y = C + I + G + X - U} \quad (1)$$

Here, Y is GDP, C is consumption, I is gross investment, G is consumption expenditure, X is export, U is import.

Theoretically, the depreciation of the soum leads to an increase in the volume of exports and a decrease in imports, which in turn leads to an increase in GDP.

On the other hand, the depreciation of the soum implies an increase in prices, which leads to a decrease in aggregate demand (which leads to a decrease in economic activity).

In terms of aggregate supply, GDP can be expressed by the following formula:

$$\boldsymbol{Y = f(K, L, T)}\ \mathbf{(2)}$$

Here, Y - GDP, K - capital, L - labor force, T - technological progress.

Depreciation of the soum from the point of view of aggregate supply leads to an increase in the price of imported manufactured goods and, as a result, to a decrease in aggregate supply (leading to a decrease in GDP).

Based on the above equations, considering the exchange rate as an explanatory variable, let's try to estimate the relationship between the soum exchange rate and GDP. To do this, we will consider the factors affecting GDP through aggregate demand and supply.

The variables used in the demand equation (2.3.3) can be expressed as separate functions - C(Y), I(R), G(G), X(R,E), U(R,E). Then we present the following formula:

$$Y = l(R, G, E) \qquad (3)$$

Here: Y - GDP, R - nominal interest rate, G - government expenditure, E - nominal exchange rate.

Instead of nominal interest rateswe got M0 monetary aggregate (cash in circulation) which is inversely proportional to interest rates. Hence, GDP in terms of demand can be expressed as the following regression equation:

$$Y = \alpha 1 + \beta 1 * M0 + \gamma 1 * E + \delta 1 * G + \varepsilon 1 \qquad 4)$$

Here: Y - GDP, M0 - cash in circulation, E - nominal exchange rate, G - government expenditures, a1b1g1d1 - regression coefficients, e1 - regression residuals.

In terms of supply, the factors affecting capital and labor are the interest rate, the exchange rate, and labor, and their relationship can be expressed using the following formula:

$$Y = \alpha 2 + \beta 2 * W + \gamma 2 * M0 + \delta 2 * E + \varepsilon 2 \qquad (5)$$

Here, Y – GDP, W – average monthly wage, M0 – cash in circulation, E – nominal exchange rate, a2b2g2d2 – regression coefficients, e2 – regression residuals.

Combining the aggregate demand and supply equations, we get the following formula:

$$lnY = \alpha + \beta * lnM0 + \gamma * lnE + \delta * lnG + \eta * lnW + \varepsilon \qquad (6)$$

Here, Y is GDP, M0 is cash in circulation, E is the nominal exchange rate, G is government spending, W is the average monthly salary, a, b, g, d, η are regression coefficients, and e is regression residuals. All variables are logarithmized accordingly.

4. ANALYSIS AND RESULTS

The variables in our analysis cover quarterly data between 2016 and 2021. In the table below, we refer to the correlation matrix of these variables (Table 1).

Table 1: Macroeconomic variables correlation coefficient

	LN_Y	LN_E	LN_W	LN_G	LN_M0
LN_Y	1.000000	0.593765	0.592932	0.978647	0.644613
LN_E	0.593765	1.000000	0.858749	0.692265	0.939558
LN_W	0.592932	0.858749	1.000000	0.736291	0.876786
LN_G	0.978647	0.692265	0.736291	1.000000	0.747482
LN_M0	0.644613	0.939558	0.876786	0.747482	1.000000

As can be seen from the given data, the signs of the correlation coefficients of the variables are economically expected. According to him, the correlation coefficient between GDP and the soum exchange rate (0.56), average monthly salary correlation coefficient (0.59), public expenditure (0.97) and money supply (0.64) showed a correlation coefficient.

To check their stationary state, we perform the following several tests:

Table 2: Common root test

Phillips Perron test	-3.864438	1% critical value	-3.752946
		5% critical value	-2.998064
		10% critical value	-2.638752
*MacKinnon critical values for rejecting the unit root hypothesis.			

Thus, the augmented Phillips Perron test shows that the time series under consideration is non-stationary. The hypothesis of the existence of a unit root is rejected at all considered significance levels, and therefore the transformed series is stationary, and the original series is a first-order integral. A similar analysis was performed for other time series.

Engel and Granger argue that a linear combination of two or more non-stationary series with the same order of integration can be stationary. If such a stationary linear combination exists, then it is common to say that the series is cointegrated. A stationary linear combination is usually called a cointegration equation, which can be interpreted as a relationship between variables.

To conduct the cointegration test, the autoregressive methodology developed by Johansen is used:

Table 3: Johansen cointegration test

Johansen cointegration test			
The null hypothesis	**Trace statistics**	**Maximum eigenvalue statistics**	**(Prob.) Probability**
r=0	129.0109	69.81889	0.921594
r<1	73.00210	47.85613	0.842111

In this case, the levels of cointegration were 129.01 (Trace stat), 69.81 (max. eigenvalue) under the null hypothesis.

Within the Johansen test, two auxiliary tests were performed (Treyc test and Max eigenvalue test). In both tests, the null hypothesis is that the cointegrating vectors are at most r, and the alternative is that they are r+1. In this case, the number r is called the degree of cointegration.

Table 4: Granger causality test

Granger causality test

Null hypothesis:	**F-Statistics**	**P-value**	**Result**
LN Y does not Granger cause LN E	0.85390	0.4432	Don't refuse
Ln W Ln E does not give Granger cause	0.12933	0.8795	Don't refuse
Ln G does not Granger cause Ln E	0.51139	0.6086	Don't refuse
Ln E does not Granger cause Ln Y	5.17255	0.0176	Refusal

In the Granger causality test, the F-statistic level (0.85) showed the effect of the exchange rate on economic growth.

The Granger causality test also showed that there is a degree of correlation between economic growth (LN Y) and the nominal exchange rate.

Alternatively, we now use the least squares (OLS), autoregressive conditional heteroskedasticity (ARCH) and vector autoregression (VAR) models to analyze the relationship between economic growth and the nominal exchange rate.

$$\boldsymbol{lnY = \alpha + \beta * lnM0 + \gamma * lnE + \delta * lnG + \eta * lnW + \varepsilon} \quad \textbf{(5)}$$

Here, Y is GDP, M0 is cash in circulation, E is the nominal exchange rate, G is government spending, W is the average *monthly salary, a, b, g, d, η are regression coefficients, and e is regression residuals. All variables are logarithmized accordingly.*

Based on this formula, we built our model using 2016 and 2021 quarterly data.

Table 6: OLS, ARCH and VAR model of economic growth and exchange rate

Model statistics	Model 1 (OLS)	Model 2 (ARCH)	Model 3 (VAR)
R-squared	0.983813	0.983794	0.977751

Adjusted R-squared	0.981385	0.981363	0.957525
Regression standard error	0.102634	0.102694	0.078007
The remainder of the square sum	0.210676	0.210919	0.084211
Log likelihood	22.77134	24.70519	30.84537
Average dependency variance	12.29593	12.29593	8.951963
SD garden variable	0.752240	0.752240	0.408605
Akaike criterion	-1.564278	-1.475432	-11.57664
Schwarz criterion	-1.131833	-1.131833	-8.849034
F-statistics	-1.309403	-24.24892	48.34098
Prob (F-statistic)	0.2052	0.0000	0.0162

According to Table 6, our first model (OLS) of the relationship between economic growth and nominal exchange rate in the method of least squares is the coefficient of determination R-squared (0.9838), standard error of regression (0.10), residual sum of square (0.21), SD dependent variable (0.75), showed an average dependence difference (12.29), Prob F-statistic (0.2052).

In our second (ARCH) model, the coefficient of determination of the relationship between economic growth and the nominal exchange rate is R-squared (0.9837), standard error of regression (0.10), residual sum of squares (0.21), SD dependent variable (0.40), mean dependence difference (12.29), Prob The F-statistic showed (0.0000). The performance of our two models above showed close results.

In our third (VAR) vector autoregression model, the coefficient of determination of the relationship between economic growth and the nominal exchange rate is R-squared (0.97), standard error of regression (0.07), residual sum of squares (0.08), SD dependent variable (0.75), average dependence difference (8.9). , showed Akaike's criterion (11.57664) and Prob's F-statistic (0.0162).

As in the cointegration equations in our three regression models above, the coefficients of the variables have the expected signs. The relationship between the national currency exchange rate and the economic growth (gross domestic product) of the Republic of Uzbekistan indicates that the increase in the exchange rate of the som leads to the growth of the gross domestic product of the Republic of Uzbekistan. In fact, this corresponds to the views of economists (Diaz-Alejandro, Krugman, Barbone), who empirically showed that the long-term appreciation of the national currency rate leads to economic activity.

As part of the scientific study, we made a proposal to determine the effect of changes in foreign exchange rates on the open currency position and a significant decrease in the possibility of redistributing liquidity in one currency to another currency in the evaluation and control of market and liquidity risk of commercial banks.

In this case, the liquidity risk of commercial banks is understood as the probability of suffering a loss (loss) and (or) not receiving the planned income, which may occur due to the failure of the bank to fulfill its obligations on time.

Market risk of commercial banks is the probability of suffering a loss (loss) and (or) not receiving the planned income as a result of changes in exchange rates, interest rates and prices of financial instruments.

In order to effectively implement the market risk management policy, the bank's internal procedure can be developed by the bank's management. In this procedure, the nature and complexity of banking activity should be taken into account.

As a result of our analysis, the positive correlation between the exchange rate of the Republic of Uzbekistan and economic growth (GDP) can be explained by several factors:

1. Taking into account the small size of the national economy compared to the countries of the world, the role of imported raw materials and means of production in the production process of the country is considered important. In this context, if the soum appreciates, this group of goods will lead to a decrease in the cost of production, and, other things being equal, to an increase in local production.
2. Appreciation of the soum among foreign investors increases confidence in the economy of Uzbekistan, as a result of which the volume of direct foreign investments in the country increases.
3. In the period under analysis from the point of view of export, both prices and foreign demand for goods exported from the Republic of Uzbekistan will increase in world markets. As a result, the volume of exports will also increase in the context of an increase in the value of the soum.

In order to analyze the prognostic data of the national currency of the Republic of Uzbekistan against the US dollar, an econometric analysis of the average exchange rates in 2012-2021 was conducted using the "panel data" method.

Table 7: Forecast values of the US dollar against the Uzbek som

Year	Linear = 1178.8x - 2E+06R² = 0.9034	Exponential y = 1E-194e0.2256x R² = 0.9089
2022	11,476.82	12,729.96
2023	12,655.66	13,963.47
2024	13,834.50	15,268.27

In this case, the forecast indicators of the value of the national currency against the US dollar for 2020-2023 according to the linear and exponential scenario methodswas determined (Table 7). According to the results of the econometric analysis, at the end of 2022, the value of the national currency against the US dollar is expected to be 11,476 soums in the linear scenario method, and 12,729 soums in the exponential scenario method [19,20].

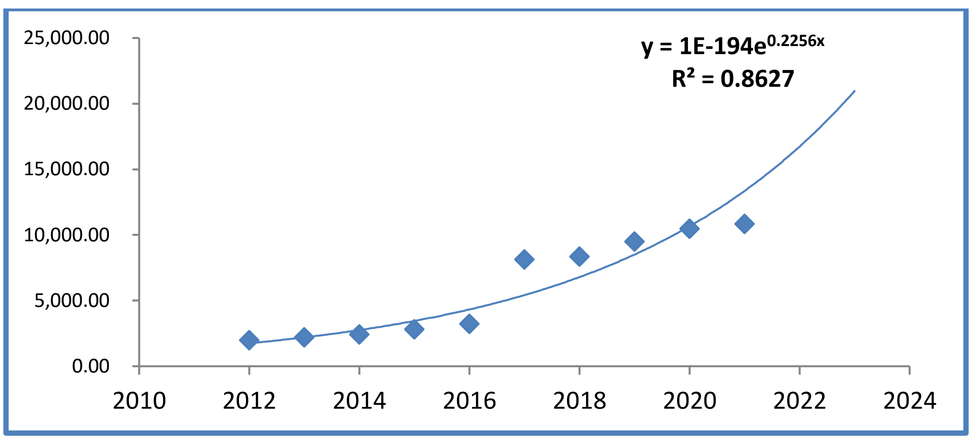

Figure 3. Exponential forecast values of the U.S. dollar against the Uzbek som

At the end of 2023, the value of the national currency against the US dollar is expected to be 12,655 soums in the linear scenario method, and 13,963 soums in the exponential scenario method. At the end of 2024, the value of the national currency against the US dollar is expected to be 13,834 soums in the linear scenario method and 15,268 soums in the exponential scenario method.

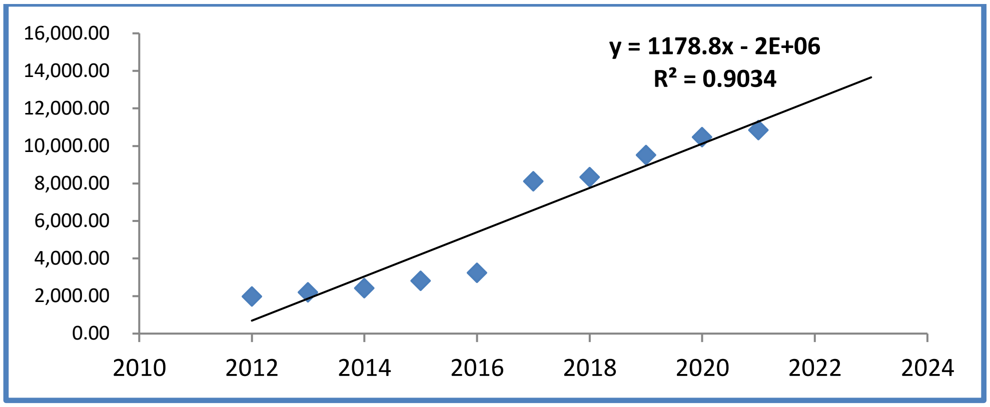

Figure 4. Linear forecast values of the US dollar against the Uzbek som

Since the linear and exponential scenario shows the coefficient of determination of forecast values (90%), the level of reliability of the results of this analysis is high and it is appropriate to take them into account.

Based on the analyzes carried out, the prices of goods (works, services) sold in the territory of the Republic of Uzbekistan should be linked to the exchange rate in some cases. On our part, the Cabinet of Ministers of the Republic of Uzbekistan dated May 14, 2020 "Measures to further improve the monitoring of foreign trade operations in the Republic of Uzbekistan some were invited.

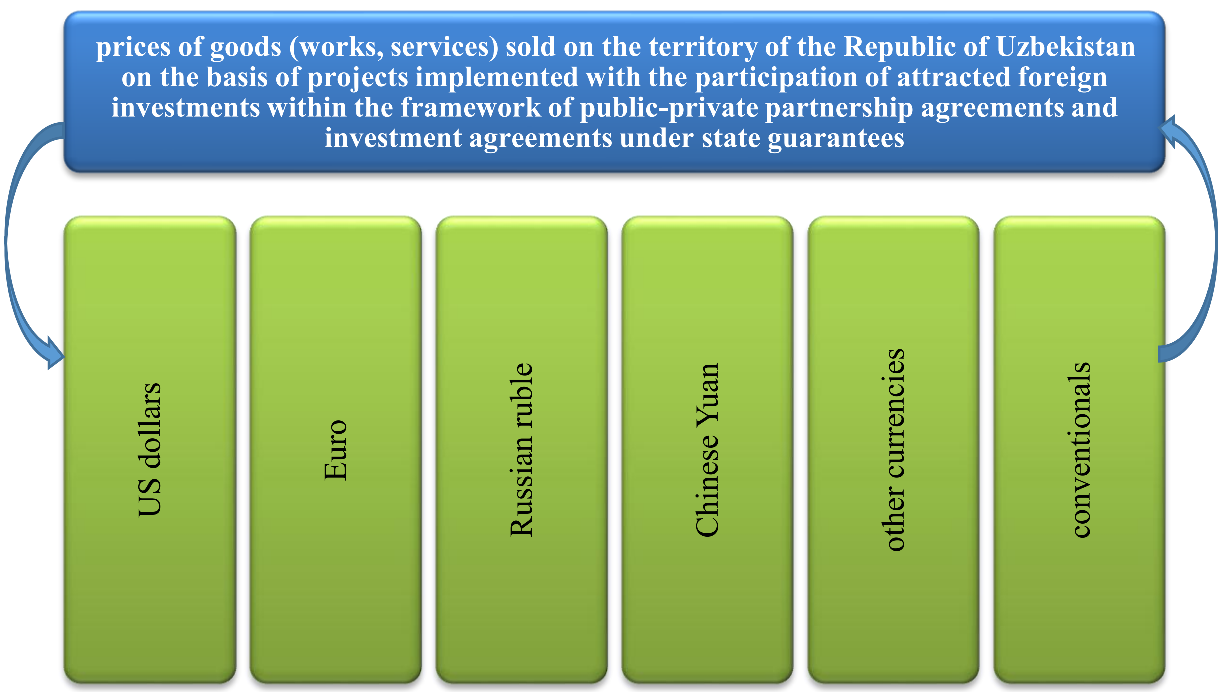

Figure 5. Proposal for measures to further improve the monitoring of foreign trade operations in the Republic of Uzbekistan dated May 14, 2020 of the Cabinet of Ministers of the Republic of Uzbekistan

According to international experience, public-private partnership (PPP) is one of the main mechanisms for expanding the resource base and mobilizing unused resources in order to increase the efficiency of economic development and management of state (society) property. The public-private partnership mechanism is widely used in most sectors of the economy in all developed countries of the world. In particular, with the help of public-private partnership, investments are directed to road infrastructure, airports, railways, agriculture, education, and medicine. In terms of public-private partnership, Great Britain, Germany, and the United States are leading the world. Public-private partnership projects are also developing in other countries, such projects are developing in the CIS countries in the Russian Federation and Kazakhstan.

If we take into account the interests of the state, entrepreneurs and the population in PPP, if the investors invest their money and get the appropriate profit, the entrepreneurs will get a profit for their business activities, the interest of the state is directly combined with the interest of the population in solving their social problems. Because together with the increase in taxes and other mandatory payments to the state budget, the unemployment will be reduced in our society and an opportunity will be created to improve the well-being of the population.

In many countries in transition, we can see that the initial stages of economic reforms have a direct impact on the level of the exchange rate along with the gross domestic product. Despite the existence of restrictions on the movement of capital in a transformational economy, the interest rate differential affects the transfer of resources from the national asset market to the foreign exchange market. The state of the trade balance is of great importance for the stability of the currency and financial market of the transit economy.

5. CONCLUSION

The analysis carried out in the article shows that the nominal exchange rate in the digital economy is one of the main factors of economic growth, and its change has a significant impact on domestic and foreign economic processes. The influence of the exchange rate on economic growth was determined through model analysis, and it was emphasized that the stability of the currency is an important factor in the development of the national economy. Based on the results of the article, it is recommended to develop policies aimed at stabilizing the currency in the process of transition to the digital economy in the national economy. The long-term factors of the exchange rate, which are characteristic of the market economy, although they have their own characteristics, do not lose their importance in the conditions of the transit economy. The dynamics of the national currency exchange rate was formed under the influence of internal and external factors based on the mutual ratio of supply and demand in the currency market. It was determined that the national currency may depreciate due to factors such as changes in external and internal economic conditions under the influence of the pandemic, an increase in devaluation expectations due to a sharp devaluation of the currencies of the main trading partners, as well as an increase in the demand for foreign currency in the domestic currency market.

It was determined that in the formation of the money mass, first of all, it is necessary to take into account the internal demand, not due to the external economic component. In this approach, the country's budget serves as a mechanism for determining the initial structure of financial flows, and national monetary authorities control the process of creating the entire resource base using internal emission instruments and allow for independent policy in accordance with national priorities.

According to the result of the correlation matrix of the effect of the change of the national currency exchange rate on macroeconomic indicators, it was found that the change of the national currency rate has a very large effect on the indicators of money supply (0.80), balance of trade (0.96) and balance of payments (0.99), and our analysis shows that the exchange rate affects consumption showed a low impact on the price index (0.36).

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