

## DE-DOLLARISATION IN INTERNATIONAL PAYMENTS: TREND OR FICTION

Vesela Todorova<sup>1</sup>, Monika Moraliyska<sup>1</sup>, Iva Raycheva<sup>2</sup>

Received 08.02.2024.

Sent to review 28.02.2024.

Accepted 10.07.2024.

Original article



<sup>1</sup> International Economic Relations & Business Dept., University of National and World Economy, Bulgaria

<sup>2</sup> Statistics and Econometrics Dept., University of National and World Economy, Bulgaria

**Corresponding Author:**

Monika Moraliyska

**Email:** [mmoraliyska@unwe.bg](mailto:mmoraliyska@unwe.bg)

**JEL Classification:** F31, F36, F37

**Doi:** 10.2478/eoik-2024-0018

**UDK:** 339.72.053:336.794]:004.9

### ABSTRACT

The present research paper is focused the widely debated topic related to de-dollarization. It examines the trend of de-dollarization to check if the statements that the dollar is losing its weight and is about to lose its leading position in international trade payments are substantiated. Firstly, the theoretical framework behind the dollarization is explored. Secondly, the factors believed to be the basis of the de-dollarization process have been identified and analyzed, which are related to: geopolitical processes, changes in international payments policy in some BRICS countries, changes in international trade, etc. A performed analysis of the currency turnover in international trade, based on data from official sources, was made through forecast regression, which predicts the development of the share of the dollar in international payments. A correlation matrix was also calculated, showing the correlation links between the dollar and the other leading currencies. The hypothesis, which is confirmed by the practical research, is that the de-dollarization process is proceeding slowly and uncertainly, and will continue to develop at a low pace leading to insignificant changes in the structure of the currency composition of international payments in the short and medium term. Further research could further explore each of the factors that could lead to a real dedollarisation trend in international payments.

**Keywords:** *international payments, foreign exchange, currency, dedollarisation*

## 1. INTRODUCTION

The concept of de-dollarization in international payments refers to a shift away from using the US dollar as the dominant currency in global transactions. This shift can involve various strategies, such as diversifying currency reserves, settling trade in alternative currencies, or establishing regional payment systems (Bahmani-Oskooee & Harvey, 2006; Li, et al., 2024).

The topic of de-dollarization in international payments is important due to the potential implications it could have on global financial stability, economic relations between countries, and the overall power dynamics in the international financial system. The US dollar has historically held a dominant position in international transactions, serving as the primary reserve currency and being widely used for trade settlements (Singh, 2014). It can be traced back to the Bretton Woods system established after World War II. Under this system, the US dollar was pegged to

gold and other currencies were pegged to the US dollar. This arrangement, known as the dollar standard, was further solidified with the collapse of the Bretton Woods system in the early 1970s. Since then, the US dollar has become the primary currency for international trade and investment, accounting for a significant portion of global foreign exchange reserves (Abid & Saqlain, 2023). We can say that in today's global financial landscape, the dominance of the US dollar in international payments has been a long-standing reality. The US dollar has served as the primary reserve currency, a common medium of exchange, and a unit of account for international transactions (Lin et al., 2017).

The US dollar's dominance in global transactions has several key implications (Detken & Hartmann, 2002). Firstly, it gives the United States significant control over the global financial system. This control allows the United States to exert influence over other countries' economic policies and decisions. For example, the US can use its position to impose economic sanctions or restrictions on countries that do not align with its political or economic interests. Secondly, the dominance of the US dollar allows the United States to benefit from seigniorage, which is the profit that a country generates by printing money. As the global reserve currency, the US dollar gives the United States the privilege of being able to finance its deficits by issuing its own currency. This gives the United States a unique advantage in terms of its ability to borrow and spend without facing significant consequences such as high inflation or declining currency value. The US dollar's dominance can be attributed to several factors. These include the size and strength of the US economy, the stability of the US financial system, and the widespread acceptance and use of the US dollar in international transactions. However, the dominance of the US dollar also comes with risks and vulnerabilities. One risk is the exposure to fluctuations in the value of the US dollar. Fluctuations in the value of the US dollar can have significant impacts on global trade and financial markets.

However, in recent years, there has been growing interest and discussion surrounding the concept of de-dollarization in international payments (Singh, 2014). De-dollarization refers to the reduction in the use of the US dollar in international transactions, as countries seek to diversify their currency holdings and decrease their dependence on the US dollar. This trend has been driven by various factors, including geopolitical considerations, economic considerations, and the desire to reduce risks associated with US economic power. The de-dollarization trend has important implications and challenges for the global financial system. Financial institutions and policymakers need to understand the drivers, consequences, and potential scenarios of de-dollarization in order to effectively manage currency volatility, liquidity, and stability in international payments (Mičić, 2015).

The topic of de-dollarization in international payments is also of significant importance due to its potential impact on the global financial system. The dominance of the US dollar in international transactions has long been a source of economic power for the United States. The US dollar's status as the world's reserve currency gives the United States certain privileges and advantages, such as the ability to easily access funding at lower costs and maintain its economic influence. However, the increasing interest in de-dollarization poses a challenge to the current global financial order. As more countries explore alternatives to the US dollar in international transactions, it could potentially lead to a shift in global economic dynamics. Additionally, the potential de-dollarization trend raises questions about the stability and reliability of the US dollar as a global reserve currency.

In recent years, there have been discussions and debates regarding the potential trend of de-dollarization. While some argue that de-dollarization is a significant and growing trend, others believe it to be more of a fictional concept. The subject of the present research is the phenomenon of de-dollarization in international payments. The purpose of this research paper is to

examine the concept of de-dollarization in international payments and determine whether it is a significant trend or fiction. To achieve these goals, the paper will review existing research on de-dollarization, evaluate the factors driving de-dollarization trends, and make a forecast about the share of the US dollar in international transactions in the short and medium period.

The limitations of the present research are connected with the used data. The forecast was made for two three-year periods due to the availability of three-year data from 1989 to 2022. The forecast was made using a trend forecast without examining the relationship with factors that would have an impact, f.e. the geopolitical environment. Due to the availability of data for the euro from 2001, the correlation matrix was made with data for all currencies from 2001 to 2022.

## 2. LITERATURE REVIEW

Existing research on de-dollarization in international payments provides valuable insights into the phenomenon. Researchers have examined historical examples of de-dollarization attempts, such as the creation of the Euro and its potential impact on the dominance of the US dollar (Moralyska, 2023). They have also analyzed the factors driving de-dollarization trends, including concerns over US economic stability, geopolitical factors, and efforts to enhance regional economic integration. In addition, scholars have debated the significance of de-dollarization as a trend. Some argue that de-dollarization is a significant trend that could challenge the dominance of the US dollar and lead to a multipolar international monetary system. Others, however, believe that de-dollarization is more of a fiction and that the US dollar will continue to maintain its dominant position due to various factors such as the depth and liquidity of US financial markets, the network effects of using the dollar in international transactions, and the lack of viable alternatives.

Dollarization refers to the use of a foreign currency, typically the United States dollar, as a legal tender in a country (Yeyati, 2003). De-dollarization, on the other hand, is the process of transitioning away from the use of the US dollar and towards other currencies. According to the sources, de-dollarization is a global trend that involves transitioning away from the usage of the US dollar and towards other currencies (Galindo & Leiderman, 2005).

Several sources discuss the key stylized facts of dollarization and de-dollarization in the region (Narlikar, 2005). One such source highlights the risks associated with de-dollarization. In particular, concerns are raised regarding the effectiveness of monetary policy in a dollarized economy and the potential loss of seigniorage revenue (Lebedeva, & Shkuropadska, 2023). These concerns, however, are found to lack empirical support. Another source (Platonova, 2019) emphasizes the importance of precautionary and regulatory measures and suggests the development of financial instruments that are designed to hedge against currency risk. Additionally, the literature (Bocola & Lorenzoni, 2020) focuses on the need for deepening domestic financial markets in local currency assets and gradually lengthening the maturity of these assets. Hirschhofer (2019) supports denomination trade finance in local currencies, and considers that this would boost trade and have a long-term positive effect on stability, trade volume and growth.

Overall, the literature on de-dollarization highlights the potential risks and vulnerabilities associated with dollarization and provides insights into policies and measures that can be taken to promote de-dollarization and mitigate these risks (Liu & Papa, 2022). The sources also highlight the role of the US dollar as a large, liquid, and global currency (Narlikar, 2005). However, it is important to note that de-dollarization is a complex and multifaceted process that varies across countries and regions (Galindo & Leiderman, 2005). The sources suggest that the US dollar's dominance in the international financial system is supported by factors such

as the US balance of payments, strong returns on US dollar assets, and the stability of the US economy. However, the recent financial crisis has led to a deterioration of US net foreign assets, affecting the role of the US dollar as a global currency.

Some key factors driving the process of de-dollarization include geopolitical shifts, concerns about the effectiveness of monetary policy in a dollarized economy, and risks associated with dollarization. Additionally, the ability to exchange currencies in foreign exchange markets and access easily liquid sources of foreign exchange is crucial for global actors in the world economy. These factors, along with the importance of developing precautionary and regulatory measures, deepening domestic financial markets in local currency assets, and managing potential vulnerabilities are also highlighted in the literature (Platonova, 2019).

Tan (2023) considers three reasons why the nations want to break up with the US dollar: 1/ The US is the issuer of the world's reserve currency, which is also the dominant currency in international trade and payments systems and the US monetary policies are holding other countries "hostage"; 2/ The strong US dollar is getting too expensive for emerging nations and other countries to maintain 3/ The fact that the US became a net oil exporter with the rise of the shale-oil industry and oil exporters, which play a crucial role in the USD status, started to re-orient themselves to other countries and their currencies. Wenhong (2023) also suggests that de-dollarization is driven by a variety of factors, including concerns about the effectiveness of US monetary policy, the high costs associated with maintaining the US dollar as a reserve currency, and the desire for greater monetary independence.

Some sources highlight the geopolitical ramifications of de-dollarization, in particular such connected to the current war of Russia in Ukraine (Wenhong, 2023), illustrating the decline of US imperial hegemony and the rise of multipolarity on the world stage (Platonova, 2019). The sources provide a comprehensive understanding of de-dollarization, discussing the key factors driving this process and the associated risks and vulnerabilities. The sources also emphasize the importance of precautionary and regulatory measures to manage these risks, such as limiting mismatches in liability dollarization and developing financial instruments to hedge against currency risk (Narlikar, 2005). Overall, the literature on de-dollarization highlights the global macroeconomic trend of transitioning away from the usage of the US dollar and towards other currencies.

The transition away from the use of the US dollar and towards other currencies is a global macroeconomic trend with geopolitical ramifications such as the decline of US imperial hegemony and the rise of multipolarity (Galindo & Leiderman, 2005). Other authors also suggest that de-dollarization involves a transitioning away from the usage of the US dollar and towards other currencies (Tan, 2023; Hongxu, 2023; Liu & Papa, 2022), which is driven by various factors such as geopolitical shifts, concerns about the effectiveness of monetary policy in a dollarized economy, and risks associated with dollarization.

### 3. THEORETICAL FRAMEWORK

In order to understand the dynamics of de-dollarization in international payments, it is important to consider relevant economic theories and factors influencing currency preferences in international transactions. Various economists, researchers, and scholars in the field of monetary economics, finance, and network theory have worked on the theory of network effects. According to this theory, the more widely a currency is used and accepted in international transactions, the more attractive it becomes for other participants to use it as well. This is because using a widely accepted currency reduces transaction costs and provides greater liquidity, making it more convenient and efficient for international trade and finance (Shevchenko, 2023).

Another economic theory that is relevant to the de-dollarization debate is the concept of optimum currency areas. According to the optimum currency area theory, developed by [Mundell \(1961\)](#), a currency becomes dominant in international payments when it serves the needs of a specific region or group of countries. Based on these theories, it can be argued that the dominance of the US dollar in international payments is partly driven by its status as currency of a big and integrated economy, as well as its historical role as a safe haven currency.

The gravity model is a widely used framework in international trade theory that explains the patterns of trade between countries. It provides insights into the determinants of trade flows between countries. The gravity model is applied by [Nilsson & Matsson \(2009\)](#), who explore the openness of EU trade policy and the use of EU trade preferences. The gravity model is a tool for understanding the relationship between exchange rates and international trade ([Mistrea, 2023](#)). Factors Influencing Customer Loyalty in the Retail Banking Sector: A Study of Financial-Banking Services in the Republic of Moldova. *Oppor Chall. Sustain.*, 2(2), 81-92. <https://doi.org/10.56578/ocs020203>). Theoretical foundations for the gravity model have helped explain the patterns of international trade and have been extensively used to estimate various economic issues, including the effects of trade preference schemes, regional trading blocs, customs unions, and exchange-rate regimes.

As it concerns the theory of de-dollarization, one conceptual model for understanding de-dollarization processes in developing countries is the financial risk model. In it, the focus is on the potential financial risks that may arise as a consequence of increased exchange rate flexibility in countries with significant dollar-denominated debt. Some governments in developing countries contemplate the possibility of increasing the flexibility of their exchange rates despite having accumulated substantial dollar-denominated debt ([Besancenot & Vranceanu, 2007](#)).

Another conceptual model for understanding de-dollarization processes is the institutional framework model ([Aghion et al., 2009](#)). In this model, the focus is on the role of institutions and policies in shaping de-dollarization processes. These models help to understand the motivations, risks, and potential outcomes associated with de-dollarization efforts in developing countries ([Besancenot & Vranceanu, 2007](#)).

When engaging in international transactions, there are several factors to consider when choosing a currency: the stability and economic strength of the currency; its liquidity and availability; the volatility and potential risks associated with the currency; the level of acceptance and familiarity with the currency; the level of control and regulation over the currency, and others. The trading relationship and bargaining power between the exporter and importer can also influence the choice of invoicing currency.

In addition to the factors mentioned above, other factors that can determine the choice of currency for international transactions include: the level of exchange rate stability and predictability, the costs associated with currency conversion and transaction fees, the potential impact of currency fluctuations on the profitability of the transaction, and the availability and cost of hedging instruments for managing currency risk. Additionally, the political and regulatory environment between the trading countries, as well as any existing trade agreements or currency pegs, can also influence the choice of currency for international transactions. Cultural factors and historical ties between trading partners may also play a role in determining the preferred currency for conducting transactions. Finally, considerations such as the ease of conducting business in a particular currency, the level of infrastructure and support for that currency in international banking and finance, and the potential impact on the overall relationship between the trading parties should also be taken into account when choosing a currency for international transactions.

The U.S. dollar continues to be the primary choice for export invoicing. Factors such as the share of U.S. exports, inflation in developing nations, and exchange rates in advanced economies greatly influence its dominance. The significant role of trade share in determining the invoicing currency signals a growing strength of currencies from developing countries, notably the Chinese yuan. These findings support the dominant currency paradigm (Twarowska-Mól, 2023).

Boz et al. (2020) make insightful analyses in their studies. First, there has been a growing trend of using both the US dollar and the euro for invoicing, even though the share of global trade represented by the US and the euro area has decreased. Second, in certain parts of Africa, the euro is utilized as a vehicle currency, and some European nations have observed significant shifts towards invoicing in euros. Thirdly, following the dominant currency paradigm's suggestion: countries that invoice more in US dollars (euros) tend to encounter higher exchange rate pass-through to their import prices; additionally, their trade volumes are more responsive to fluctuations in these exchange rates.

Goldberg and Tille (2008) demonstrate that the majority of trade transactions with the United States, particularly for smaller countries, heavily rely on the dollar. This is especially true for transactions involving goods traded on organized exchanges or reference-priced. The role of the dollar as a transaction currency in international trade displays elements of industry convergence around a single currency. Industries dealing with highly substitutable goods have strong incentives to align their invoicing choices. The use of euro as an invoicing currency is primarily explained by trade closeness with the euro-area or direct participation in it. The importance of the U.S. dollar in world trade invoicing can be attributed to several factors including its significance as both producer and consumer, exchange rate regime considerations based on various country's pegs to the dollar, and because relatively homogeneous goods continue playing an important role in international trade transactions.

The euro has been the second most significant global currency, trailing only behind the dollar and surpassing the yen. While the euro remains the second most actively traded currency in global foreign exchange markets after the US dollar, its share in global foreign exchange settlements declined in 2021. The share of the euro as an invoicing or settlement currency for extra-euro area trade declined slightly in 2021. Around 59% of extra-euro area exports of goods were invoiced in euro in 2021. The share of extra-euro area imports of goods invoiced in euro remained broadly unchanged in 2021, at above 51% (European Central Bank, 2022).

Auboin (2012) shows theoretical and practical reasons for the current dominance of the US dollar and the euro in the international trade invoicing. The author supposes that in the medium-to-long term the RMB will become a major currency in international trade settlement.

Liu & Lu (2019) conclude that exporters favor using the currency of a country with a more advanced financial market, particularly small exporters in financially fragile sectors. Moreover, high exchange rate volatility will raise the likelihood of using an intermediary or third-party currency. Their findings have implications for emerging market economies, emphasizing the impact of financial policies on invoicing currency trends. The empirical results support the hypothesis that there is a positive relationship between the extent of invoicing in the importer's national currency and exchange rate risk, and a negative relationship between invoicing in the exporter's currency as well as invoicing in a third currency and exchange rate risk (Donnenfeld and Haug, 2003).

There are country-specific factors for choosing of currency for international transactions as well. For Dutch companies trading with OECD countries, the depth of the foreign exchange market of a currency, a country's share in world trade, and a country being part of the European

Union are key determinants of vehicle currency use (Ligthart & Silva, 2007).

#### 4. METHODOLOGY

Table 1 provides an overview of the most traded currencies in foreign exchange markets. It is interesting to note that total transactions have more than doubled in the past decade, from US dollars 3.9 trillion in 2010 to US dollar 7.5 trillion in 2022 reported in the Bank of International Settlement's most recent „Triennial Bank Survey“ (Bank of International Settlements, 2022).

In 2022 the leading currency in foreign exchange transactions continues to be the US dollar with share of 88,4 %. On second place is the Euro (30,5 %), followed by the Japanese Yen (16,7 %) and the British pound (12,9 %).

The share of other currencies, excluded from the top eight most used currencies in 2022 is over one fourth of the total volume of foreign exchange transactions (26,6 %) and it is following a sustainable trend of increase in the research period.

Table 1. Currency Distribution in Foreign Exchange Transactions

Currency	OTC turnover									
	2010		2013		2016		2019*		2022	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
USD	3 371	84,9	4 662	87,0	4 437	87,6	5 811	88,3	6 639	88,4
EUR	1 551	39,0	1 790	33,4	1 590	31,4	2 126	32,3	2 292	30,5
JPY	754	19,0	1 235	23,0	1 096	21,6	1 108	16,8	1 253	16,7
GBP	512	12,9	633	11,8	649	12,8	843	12,8	968	12,9
CNY	34	0,9	120	2,2	202	4,0	285	4,3	526	7,0
AUD	301	7,6	463	8,6	349	6,9	446	6,8	479	6,4
CAD	210	5,3	244	4,6	260	5,1	332	5,0	466	6,2
CHF	250	6,3	276	5,2	243	4,8	326	4,9	390	5,2
Other	961,3	24,2	1 290,8	24,1	1 306,6	25,8	1 885,7	28,7	1 999,1	26,6
Total	3 973	200,0	5 357	200,0	5 066	200,0	6 581	200,0	7 506	200,0

Source: 2022 Triennial Bank Survey of BIS (Bank of International Settlement, 2022)

Notes: Because two currencies are involved in each transaction, the sum of the percentage shares of individual currencies totals 200% instead of 100%. Adjusted for local and cross-border inter-dealer double-counting (ie “net-net” basis).

\* Revised data.

The methodology of the present analysis used data on Foreign exchange turnover from 1989 to 2022 using the BIS statistics (Bank of International Settlements, 2022), and taking data for 35 currencies.

This study involves the permanent development trend and a forecast based on a regression model or trend forecasting with confidence interval with a 95% probability of certainty . The model has the following analytical form:

$$FET = \beta_0 + \beta_1 t + u \quad (1)$$

FET - Foreign exchange turnover estimated values of trend,

t – time,

$\beta_0$  – constant,

$\beta_1$  – parameter

$u$  - residual component.

To measure the interdependence between the individual currencies, the correlation coefficient was used, and a correlation matrix was made between the individual currencies. The „measure of the association between two random variables is the correlation coefficient.“ (Wooldridge, 2009) Correlation coefficient formula:

$$R = \sqrt{\frac{(\sum_{i=1}^n (y_i - \bar{y})(\hat{y}_i - \bar{y}))^2}{(\sum_{i=1}^n (y_i - \bar{y})^2)(\sum_{i=1}^n (\hat{y}_i - \bar{y})^2)}} \tag{2}$$

R – correlation coefficient

$y_i$  - actual values,

$\bar{y}$  - mean values,

$\hat{y}$  - theoretical values.

## 5. FORECAST REGRESSION ANALYSIS

The analysis of the dynamics of Foreign exchange turnover in the article is limited to the study of the permanent development trend and forecasting the future development through an appropriate forecast. The criterion used to check for the presence of a trend is autocorrelation coefficients. The first-order autocorrelation coefficient is statistically significant (at  $\alpha=0.004$ ). This is indicative that a trend is observed in the development of Foreign exchange turnover in the investigated time series.

The coefficient of determination was used as criteria for selecting the most appropriate function describing the trend. The coefficient has the highest value for the linear function that best describes the development. (R square – 0.932).

The estimated form of the model is:

$$FET = -862,70 + 569,13t$$

Table 2 presents the results of the model adequacy test, the estimated Mosel parameters and their statistical significance. 93.2% of the variation in the time series can be explained by the presence of a linear trend in its dynamics. There is reason to believe that the model is adequate  $F(137,016)$  Sig = 0.000 <  $\alpha = 0.05$ . The results of the model show that there is an average growth of Foreign exchange turnover every 3 years in the amount of 569,13 billions of US dollars.

Table 2. Trend modeling results

Coefficients	B	Std. error	t	Sig
<b>(Constant)</b>	-862,70	357,84	-2,41	0,037
<b>t</b>	569,13	48,62	11,71	0,000
F(137,016)				0,000
R - 0,965				
R Square - 0,932				

Source: Authors' calculations with data of BIS (Bank of International Settlement, 2022)

To assess the predictive value, the coefficients of determination  $R^2$  and BIC were evaluated for the methods of forecasting by trend, exponential smoothing and ARIMA models. After comparing them, the best method for forecasting Foreign exchange turnover was selected trend forecast model.

Table 3. Predicted values for Foreign exchange turnover

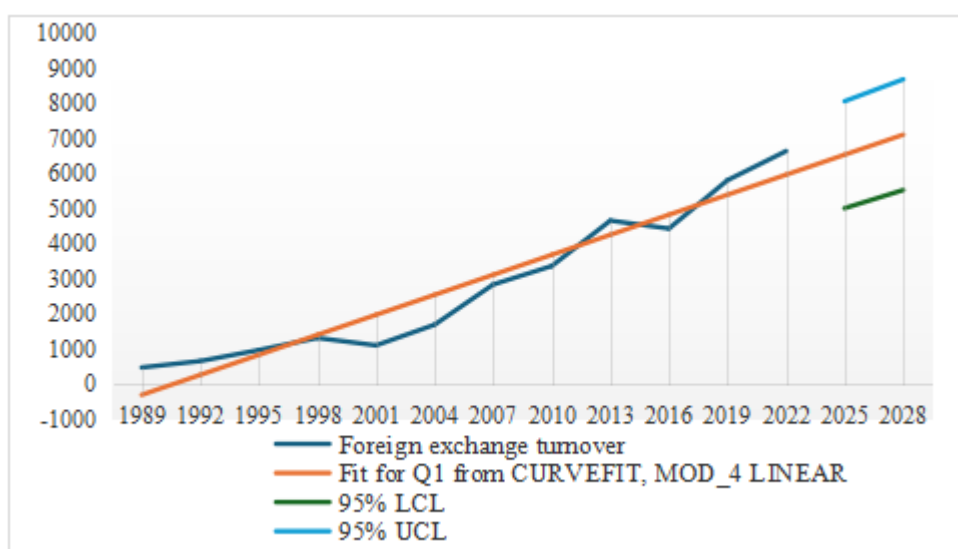
Year	Predicted	95% LCL	95% UCL
2025	6536,03	5014,83	8057,23
2028	7105,16	5530,88	8679,44

Source: Authors' calculations with data of BIS (Bank of International Settlement, 2022)

Table 3 presents the estimated values and confidence intervals. The forecast is for 2025 and 2028, covering a 6-year period.

For 2025 the estimated value of Foreign exchange turnover according to the model will amount to 6536.03 billions of US dollars, and with a 95% probability of certainty, the actual value of the indicator for 2025 will be between 5014.83 and 8057.23 billions of US dollars. For 2028 the estimated value of Foreign exchange turnover according to the model will amount to 7105.16 billions of US dollars, and with a 95% probability of certainty, the actual value of the indicator for 2028 will be between 5530.88 and 8679.44 billions of US dollars. The results are presented graphically in Figure 1, where the lower and upper bounds of the confidence interval are clearly visible.

Figure 1. Trend forecast model for Foreign exchange turnover with confidence interval



Source: Authors' calculations with data of BIS (Bank of International Settlement, 2022)

In order to emphasize the place of the dollar among other currencies, a trend forecast was also made for the percentage share.

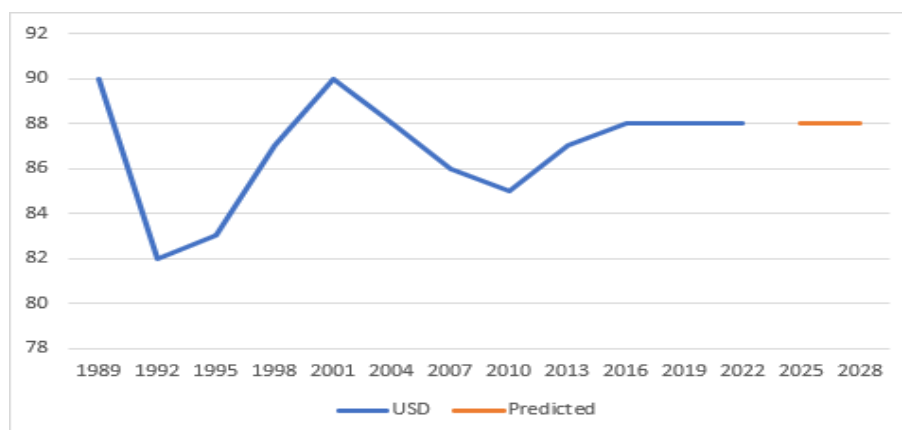
Table 4. Predicted percentage for Foreign exchange turnover

Year	Predicted	95% LCL	95% UCL
2025	87,78%	87,49%	87,97%
2028	87,82%	87,56%	87,99%

Source: Authors' calculations with data of BIS (Bank of International Settlement, 2022)

Table 4 presents the estimated percentage and confidence intervals for Foreign exchange turnover. The share of the dollar is forecast to remain at 88% with some fluctuations after the decimal point. The absolute values in Table 3 show a decrease, but as a percentage share of the estimated value for all currencies it remains at the same level as seen in Table 4.

Figure 2. Trend forecast model for Foreign exchange turnover with confidence interval for percentage share



Source: Authors' calculations with data of BIS (Bank of International Settlement, 2022)

In order to study the correlation dependence between individual currencies, Table 5 presents a correlation matrix, which is composed of the correlation coefficients between the values of Foreign exchange turnover of the studied 35 currencies from 2001 to 2022.

Table 5. Correlation matrix

	USD	EUR	JPY	GBP	CNY	AUD	CAD	CHF	BRL	TRY	MYR	RUB	BHD
USD	1,00	0,98	0,94	0,99	0,90	0,96	0,98	0,97	0,96	0,69	0,73	0,52	0,78
EUR	0,98	1,00	0,94	0,98	0,82	0,98	0,95	0,99	0,93	0,69	0,74	0,57	0,71
JPY	0,94	0,94	1,00	0,91	0,78	0,98	0,89	0,89	0,96	0,83	0,91	0,70	0,56
GBP	0,99	0,98	0,91	1,00	0,90	0,94	0,97	0,98	0,91	0,62	0,67	0,46	0,79
CNY	0,90	0,82	0,78	0,90	1,00	0,76	0,95	0,83	0,82	0,42	0,51	0,16	0,92
AUD	0,96	0,98	0,98	0,94	0,76	1,00	0,91	0,94	0,95	0,78	0,85	0,69	0,60
CAD	0,98	0,95	0,89	0,97	0,95	0,91	1,00	0,96	0,90	0,56	0,67	0,35	0,84
CHF	0,97	0,99	0,89	0,98	0,83	0,94	0,96	1,00	0,88	0,58	0,68	0,46	0,74
BRL	0,96	0,93	0,96	0,91	0,82	0,95	0,90	0,88	1,00	0,84	0,80	0,68	0,67
TRY	0,69	0,69	0,83	0,62	0,42	0,78	0,56	0,58	0,84	1,00	0,85	0,93	0,18
MYR	0,73	0,74	0,91	0,67	0,51	0,85	0,67	0,68	0,80	0,85	1,00	0,75	0,19
RUB	0,52	0,57	0,70	0,46	0,16	0,69	0,35	0,46	0,68	0,93	0,75	1,00	-0,02
BHD	0,78	0,71	0,56	0,79	0,92	0,60	0,84	0,74	0,67	0,18	0,19	-0,02	1,00

Source: Authors' calculations with data of BIS (Bank of International Settlement, 2022)

One of the significant studied correlations that is the subject of current development is the relationship between the dollar and the euro. In the correlation matrix, we can trace that the correlation coefficient between them is 0.98, which indicates very strong correlation. The next currency of interest is the Chinese Yuan. The relationship between the dollar and the Chinese yuan is again very strong, the correlation coefficient is 0.90. Most of the examined relationships of the dollar with other currencies show the presence of a strong correlation dependence, except for the Turkish lira, the Malaysian ringgit, the Russian ruble and the Bahraini dinar, with which the relationship is only strong.

## 6. RESULTS

The conducted statistical research shows the presence of an increasing trend of development, finding that every 3 years Foreign exchange turnover increases on average by 569.13 billions of US dollars. The forecast made for the absolute values for 2 periods of 3 years is indicative of some decrease in the value of the dollar, with the lowest value that it can reach according to the confidence interval being 5014.83 billions of US dollars for 2025 and 5530.88 billions of US dollars for 2028. In parallel, a forecast was made for the percentage share of the dollar in relation to the total volume, which showed that the dollar will remain at the level maintained from 2016 to 2022, 88%. Foreign exchange turnover of the dollar is in a strong or very strong correlation dependence with another 34 studied currencies, and with the euro and the Chinese yuan it is in a very strong correlation dependence.

## 7. DISCUSSION

The use of the US dollar as a global strategic reserve creates conditions for its hegemony in the world monetary system. In the 1970s, an agreement was signed between the United States and Saudi Arabia to sell oil from Saudi Arabia and other oil-producing countries for payment in US dollars. This allowed the Federal Reserve to then give up pegging the dollar to gold, but maintaining its price, allowing the US to print dollars uncontrollably to finance its domestic deficit and thereby influence the world monetary system. The demand for dollars allows the US to have the largest national debt in the world – in the end of 2023 it was US dollar 33.9 trillion (US Debt Clock, 2024). This aroused concern in countries, whose sovereignty was threatened. Some countries are trying to limit their dependence on the US currency. In December 2018 the European Union adopted a recommendation to promote a wider use of the euro in international energy agreements and transactions (European Commission, 2018). The annual import of energy resources carried out by the European Union is more than EUR 300 billion, and only 2% of it is from the USA. Nevertheless, 85% of payments are made in US dollars. Although the European Commission's proposals to limit dollar trade are advisable, they clearly indicate a weakening of the role of the US currency. In addition, Jean-Claude Juncker, former president of the European Commission, noted that it is absurd for European companies to buy European aircraft with American currency instead of euros (Reuters, 2018). These statements represent a major shift in attitudes toward the dollar.

The transition to trade in national currencies is made possible thanks to the fact that large economies such as those of Russia, China, India, as well as the BRICS regional organization are developing the practice of alternative trade outside the dollar zone. Such trade is a step in the direction of expanding the multipolar international system in parallel with the reduction of operations in US dollars. This is an irreversible trend of increasing de-dollarization and gradually limiting the hegemony of the US dollar.

The New Development Bank (NDB), formerly known as the BRICS New Development Bank, from 2015 henceforth promotes trade, investments and provides up to 50% of loans in national currencies (Chenoi, 2023). The BRICS bank has set itself the goal of providing loans in the amount of USD 5 billion in 2024 (Reuters, 2024). Major economies from the Global South are developing cross-border payment systems that are alternatives to the US-dominated SWIFT. One of these systems is the China Cross-Border Interbank Payment System - CIPS<sup>1</sup>, which is used by many developing countries for international payments. India is also developing its own

<sup>1</sup> *Cross-order Interbank Payment System (CIPS)* - A Chinese payment system that offers clearing and settlement services for cross-border payments and trade in renminbi (RMB). Supported by the People's Bank of China, CIPS was launched in 2015 in order to internationalize the use of RMB. Shareholders in CIPS are foreign banks - HSBC, Standard Chartered, the Bank of East Asia, DBS, Citi, Australia and New Zealand Group and BNP Paribas.

payment system. From 2019, part of the supplies to Russia of fuel, oil and minerals are paid for in their own currency.

According to the latest IMF data, the US dollar accounts for 58,4 % of official foreign exchange reserves (the share of the Euro is approximately 20,0 %). Indeed, the share of US currency has been declining in recent years, but the rate of its decline is only a tenth of a percent over the years. By comparison, the share of the yuan as an alternative to the US currency in international currency reserves is 2,3 % (IMF, 2024).

China is taking retaliatory measures to limit the use of the dollar. The People's Bank of China, which is the largest holder of US bonds, is sharply reducing its US holdings. Russia, which suffered the most from American sanctions, is also taking drastic measures to limit the influence of the American currency. It reduces its dollar reserves almost in half, replacing a part of them with gold. In parallel, it introduces a national payment system as an alternative to SWIFT.

However, the latest global crisis confirmed that the dollar is still strong, serving as a haven for investors. This is the place to recall the "Triffin Dilemma" about the internal contradiction of the status of the reserve currency. The national monetary unit, acting as a reserve currency, expresses relations related to the state of its economy and it depends on the economic policy of the respective country. Any change in the economy also affects the stability of the currency. In the end, this affects its external value. The objectives of the economic policy of the country with a reserve currency cannot always coincide with the requirements of the external factor.

Another internal contradiction of the reserve currency is related to the lack of a mechanism for regulating its entry into the sphere of international payment turnover. In order for a currency to enter the channels of international payments and then be included in the foreign exchange reserves of other countries, it is necessary for the country issuing such currency to maintain a passive balance of payments. This provokes the country with a reserve currency to take advantage of the reserve status of its currency, since it is profitable for it to pay abroad with its own currency. Its balance of payments deficit became unmanageable, and the currency lost international credibility. Then the other countries that have accumulated reserves in such a currency have a natural desire to get rid of it. Thus, the passive balance of payments of the country with a reserve currency becomes a negative factor with all the negative consequences for the currency system. This phenomenon is known in the economic literature as "Triffin's Dilemma". The contradiction in which the dollar falls is intrinsic to the status of the reserve currency, is insurmountable, because it is impossible to find an optimal mechanism for combining the national forms of regulation of currency relations with the international ones (Stoimenov, 2011).

In what direction could de-dollarization and the use of payments in national currencies develop? The most important factor for this is the level of development of the respective country. The increase in demand for currency for the purpose of international exchange depends on its commodity convertibility, which is the basis for a strong economy. It can ensure a stable flow of national monetary resources, which is an important prerequisite for a stable and developed financial market.

It is very important that the respective currency is not exposed to geopolitical risks. Any sanctions are a brake on such a status, as they greatly reduce the attractiveness of its currency component. It is also necessary to synchronize national regulatory standards with international ones. This is extremely important for strengthening the international positions of the respective currency, the purpose of which is to be included in the international currency markets. Market participants seek to use a currency that can be quickly and efficiently converted into a national currency or invested in the most liquid and highly profitable financial instrument possible.

Investing in financial instruments denominated in national currencies represents a significant

incentive for de-dollarization. Particular hopes for de-dollarization are placed on the yuan. Together with the China Trading Platform - CFETS and the Shanghai Clearing House - SHCH, the possibility of a common infrastructure solution for trading national currencies is being discussed. The implementation of similar projects creates an opportunity to increase the volume of liquidity of Chinese and Russian banks and stimulate the countries' transition to payment in national currencies and activate the de-dollarization process.

One should take into account the fact that the position of the dollar in the world economy remains solid. International prices are mainly determined in US dollars. Financial markets also predominantly use this currency. The use of the dollar and US bonds as a strategic reserve also helps to maintain the strategic position of the dollar and US hegemony. All this shows that the system, which in the future could become an alternative to the dollar, requires a long period of changes in the countries of the Global South, mainly in their financial mechanisms, changing their monetary and credit policies. Under these conditions, their integrated currency market is of great importance for de-dollarization in these countries, on which direct quotations of national currencies are formed, new financial instruments are created in national currencies, market mechanisms are developed to stimulate foreign exchange transactions and economic agents actively carry out payments for foreign economic operations.

The rise of the currencies of the BRICS countries contributes to the weakening of the US dollar. Rising inflation worldwide is almost halving the value of the US currency, prompting investors to replace their dollar holdings. This pushes gold and silver as store of value assets. The American currency is losing its previous advantages and can hardly compete with the price of gold and silver. The world economy shows a growing tendency towards currency diversification. This presents the US currency with increasing challenges. Not a few central banks are increasing their gold reserves and encouraging the use of local currencies to cushion the effects of a weaker dollar. The BRICS activity for de-dollarization should be noted here.

In other words, the post-World War II role of the US dollar as a global currency is under threat from new economic blocs that have launched alternative trade and investment platforms on the one hand. On the other hand, the expansion of BRICS accelerates the process of de-dollarization in the world economy, regardless of the fact that foreign exchange reserves in US dollars are relatively preserved, but without the prospect of a clear alternative.

Thus, the present discussion, in line with the present empirical study, are in conformity with the forecast of prof. Barry Eichengreen from the University of California, Berkeley, that the process of de-dollarization is going slowly and gradually, and that the "the rhetoric is way ahead of the reality" (Coy, 2018). Despite the erosion of the dollar, its replacement will take years, however the US can no longer take its preeminence as a world leader for granted.

## 8. CONCLUSION

Overall, de-dollarization in international payments is a complex and multifaceted topic. It is subject to various factors and motivations, including geopolitical considerations, economic considerations, and the availability of viable alternatives to the US dollar. As discussed in the literature review, there are arguments both for and against the idea of de-dollarization as a significant trend. While some argue that de-dollarization is a highly significant trend driven by the desire to reduce dependence on the US dollar and mitigate risks associated with US economic power, others contend that the US dollar will continue to dominate international payments due to its liquidity, stability, and the absence of viable alternatives. Given the changing dynamics of the global economy, it is important to closely monitor and analyze de-dollarization trends in international payments. This paper has explored the concept of de-dollarization in international

payments and its potential as a trend or fiction. Its empirical research has shown that the US dollar is expected to keep its primary place and leading role in international payments. It could gradually lose a bit of its strength but no significant changes in its share in international finance is expected in the short and middle run. The reasons for that is its strong position as reserve currency, haven currency and currency for international trade payments. The plans for the creation of regional currencies and currency zones, as well as for payment in national or alternative currencies are still in their early phase of development. Thus, we consider the present process of de-dollarization resembles more a fiction than a trend.

The implications for future research are connected with the further investigation of the process of de-dollarization, its factors, drivers and possible policy effects concerning national economies' policies, foreign exchange reserves and trade, and international payments methods.

### **Acknowledgment**

The research paper has been fulfilled within project NID NI-11-2023 of the University of National and World Economy titled "PAYMENTS IN INTERNATIONAL TRADE - TRENDS AND PERSPECTIVES", with project manager Assoc. Prof. Vesela Todorova.

## REFERENCES

- Abid, M. & Saqlain, M. (2023). Utilizing Edge Cloud Computing and Deep Learning for Enhanced Risk Assessment in China's International Trade and Investment. *International Journal of Knowledge and Innovation Studies*, 1(1), 1-9. <https://doi.org/10.56578/ijkis010101>
- Bahmani-Oskooee, M., & Harvey, H. (2006). How sensitive are Malaysia's bilateral trade flows to depreciation?. <https://doi.org/10.1080/00036840500405490>
- Bank of International Settlements, 2022. Triennial Central Bank Survey of foreign exchange and Over-the-counter (OTC) derivatives markets in 2022. <https://www.bis.org/statistics/rpfx22.htm>
- Bocola, L. and Lorenzoni, G. (2020) . Financial Crises, Dollarization, and Lending of Last Resort in Open Economies, *The American Economic Review*, 110(8), 2524-2557. <https://doi.org/10.1257/aer.20180830>
- Chenoi, A. (2023). Budushtee dollara i pozicija Indii v otnoshenii inih globalnih rezervnih valjut. [https://ru.valdaiclub.com/a/highlights/budushchee-dollar-i-pozitsiya-indii/?sphrase\\_id=717745](https://ru.valdaiclub.com/a/highlights/budushchee-dollar-i-pozitsiya-indii/?sphrase_id=717745)
- Ченой, А. (2023). Будущее доллара и позиция Индии в отношении иных глобальных резервных валют. [https://ru.valdaiclub.com/a/highlights/budushchee-dollar-i-pozitsiya-indii/?sphrase\\_id=717745/](https://ru.valdaiclub.com/a/highlights/budushchee-dollar-i-pozitsiya-indii/?sphrase_id=717745/)
- Coy, P. (2018). The Tyranny of the U.S. Dollar. <https://www.bloomberg.com/news/articles/2018-10-03/the-tyranny-of-the-u-s-dollar?embedded-checkout=true>
- European Commission, 2018. Communication from the Commission to the European Parliament, the European Council (Euro Summit), the Council, the European Central Bank, the European Economic and Social Committee and the Committee of the Regions - Towards a stronger international role of the euro. Brussels, 5.12.2018 COM(2018) 796/4
- Galindo, A. and Leiderman, L. (2005) Living with Dollarization and the Route to De-dollarization. Available at: <https://doi.org/10.2139/ssrn.1818726>
- Hirschhofer, H. (2019) Gradual De-Dollarization and More Financing in Local Currencies Boost Trade. Available at: <https://onlinelibrary.wiley.com/doi/10.1111/1758-5899.12712>
- Hongxu, W. (2023) The Intensifying Trend Of Global De-Dollarization – Analysis. <https://www.eurasiareview.com/04042023-the-intensifying-trend-of-global-de-dollarization-analysis/>
- IMF, 2024. Currency composition of Official Foreign Exchange Reserves (COFER). Available at: <https://data.imf.org/?sk=e6a5f467-c14b-4aa8-9f6d-5a09ec4e62a4>
- Lebedeva, L., & Shkuropadska, D. (2023). Turnover in EU Monetary Policy in a Crisis. *ECONOMICS - Innovative and Economics Research Journal*, 11(1), 177-194. <https://doi.org/10.2478/eoik-2023-0011>
- Le, N., Mai, N. T. B., Ngo, N. T., & Dang, H. T. T. (2024). The Moderating Role of Trust in the Adoption of Self-Service Payment Systems by Consumers. *Journal of Organizations, Technology and Entrepreneurship*, 2(2), 65-83. <https://doi.org/10.56578/jote020201>
- Lin, X., Xiao, Y., Liang, Y., & Zhang, X. (2017). A Research on the Belt and Road Initiatives and Strategies of RMB Internationalization. <https://doi.org/10.5430/bmr.v6n1p13>
- Liu, Z, Z. and Papa, M. (2022) Can BRICS De-dollarize the Global Financial System. <https://www.cambridge.org/core/elements/can-brics-dedollarize-the-global-financial-system/0AEF98D2F232072409E9556620AE09B0>
- Mičić, N. (2015). Instruments of Payment - Bank Quarantees. *Economics - innovative and economics research journal*, 3(2), 89-107. <https://doi.org/10.1515/eoik-2015-0020>
- Mistrean, L. (2023). Factors Influencing Customer Loyalty in the Retail Banking Sector: A Study of Financial-Banking Services in the Republic of Moldova. *Opportunities and Challenges in Sus-*

- Moralyska, M. (2023). Measuring the Justness of the European Green Transition. *Collection of papers new economy*, 1(1), 30-41. <https://doi.org/10.61432/CPNE0101030m>
- Narlikar, A. (2005) The World Trade Organization.  
<https://doi.org/10.1093/actrade/9780192806086.001.0001>
- Platonova, N, I. (2019) De-dollarization as a Manifestation of the Transition of International Monetary Relations to Polycentrism. <https://doi.org/10.2991/icefb-19.2019.18>
- Platonova, N, I. (2019) De-dollarization as a Manifestation of the Transition of International Monetary Relations to Polycentrism. <https://doi.org/10.2991/icefb-19.2019.18>
- Platonova, N, I. (2019) De-dollarization as a Manifestation of the Transition of International Monetary Relations to Polycentrism. <https://www.atlantis-press.com/proceedings/icefb-19/125925169>
- Reuters, 2018. EU's Juncker wants bigger global role for euro.  
<https://www.reuters.com/article/idUSKCN1LS0BG/>
- Reuters, 2024. BRICS development bank aims to make \$5 bln in loans in 2024.  
<https://www.reuters.com/business/finance/brics-development-bank-aims-make-5-bln-loans-2024-2024-03-26/>
- Shevchenko, I. (2023). A Methodical Approach to Determining the Level of Development of Digital Trade in Global Markets. *Collection of Papers New Economy*, 1(1), 196-216.  
<https://doi.org/10.61432/CPNE0101196s>
- Stoimenov, M. (2011). *Mejdunarodni finansi*, izd. Trakija-M, 527-529.  
/Стоименов, М. (2011). *Международни финанси*, изд. Тракия-М, 527-529.
- Tan, H. (2023) De-dollarization: 3 reasons why nations want to break up with the USD.  
<https://markets.businessinsider.com/news/commodities/de-dollarization-reasons-why-countries-move-away-us-dollar-2023-7>
- US Debt Clock, 2024. Statistics. <https://www.usdebtclock.org/>
- Wenhong, X. (2023). De-dollarization as a Direction of Russia's Financial Policy in Current Conditions, *Studies on Russian Economic Development*, 34(1).9-18.  
<https://doi.org/10.1134/s1075700723010185>
- Wenhong, X. (2023) De-dollarization as a Direction of Russia's Financial Policy in Current Conditions.  
<https://doi.org/10.1134/s1075700723010185>
- Yeyati, L, E. (2003) Financial De-dollarization: A Carrot and Stick Approach.  
<https://ideas.repec.org/p/udt/wpbsdt/nueve.html>