

The Impact of Russia's "De Dollarization" on the International Status of the US Dollar

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Abstract: After the Ukraine incident, the United States and European countries jointly implemented economic sanctions against Russia. In order to get rid of the impact of the US dollar on the Russian financial sector, Russia comprehensively carried out the wave of "de dollarization", implemented "de dollarization" in foreign exchange reserves, settlement fields and clearing systems, and issued the "ruble settlement order", forming a model effect in the world. In combination with Russia's "de dollarization" measures, this paper quantifies the extent of Russia's dollarization by means of asset substitution, quantifies the international status of the U.S. dollar by the global share of the U.S. dollar reserves, and conducts regression analysis. It is concluded that although Russia's "de dollarization" cannot shake the hegemony of the U.S. dollar in the short term, this measure has a negative impact on the international status of the U.S. dollar in the field of international foreign exchange reserves, promoting the internationalization of the RMB, It provides reference for countries around the world to "de dollarize".

Keywords: Russia; De dollarization; USD reserve; RUB settlement order; Demonstration effect

1. Introduction

In today's world, the United States, as the leader in the international monetary system, with its political power as the support, has formed the hegemony of the dollar in the world, and has united with European countries to implement economic sanctions against Russia. In order to get rid of the impact of the US dollar on the Russian financial field, Russia has comprehensively carried out the wave of "de dollarization", which has accelerated the global process of "de dollarization" [1]. Even though it is difficult to eliminate the impact of the US dollar hegemony on the Russian financial field in the short term, whether it will have a negative impact on the international status of the US dollar is a question worth studying. The "de dollarization" of Russia in the financial field can avoid the "long arm jurisdiction" of the United States, and avoid the inflation brought by the United States' over issuance of dollars to Russia. At the same time, it has promoted the internationalization of the RMB and provided a reference for the "de dollarization" of the world. At this stage, the literature in this field mainly focuses on the causes of "de dollarization" in the world and the impact of "de dollarization" on the internationalization of RMB and the international status of the US dollar. For example, Hou Zhaohui studied the reasons for the "dollarization" and "de dollarization" of the Shanghai Cooperation Organization, pointed out the shortcomings of the current "de dollarization" measures, and made recommendations; Wang Xiaoquan studied the impact of the "de dollarization" of the Chinese and Russian settlement and payment systems on the prospect of RMB settlement, and concluded that the "de dollarization" of China and Russia in the field of settlement and payment has brought opportunities for RMB internationalization; Li Huanli and Li Shikai studied the impact of the strong dollar cycle and the de dollarization wave on the RMB internationalization strategy, and proposed to strengthen the advantages of the de dollarization wave on the RMB internationalization and weaken the adverse effects of the strong dollar cycle on the RMB internationalization; Xu Wenhong studied the impact of Russia's "de dollarization" on the hegemony of the US dollar, and concluded that Russia's "de dollarization" initiative is the most typical and most radical in the world. Even if the hegemony of the US dollar cannot be shaken in the short term, it has a significant demonstration effect on the formation of the worldwide trend of "de dollarization". These documents quantify the degree of "dollarization" in various countries with asset substitution, that is, measure the proportion of foreign currency deposits in broad money M2 [2]. Few documents quantify the international status of the U.S. dollar and link it with Russia's "de dollarization". Since the US dollar has always been the largest official reserve currency

and the largest trade settlement currency in the world, this paper will use the global share of US dollar reserves to quantify the international status of the US dollar, providing a method for others to study the impact of "de dollarization" on the international status of the US dollar.

2. Russia implements "de dollarization" measures in various fields

2.1 Russia's "de dollarization" of foreign exchange reserves

After the establishment of the Bretton Woods system, the U.S. dollar has been the world's largest official reserve currency and the largest trade settlement currency for a long time. Although it was impacted by the Japanese yen and the euro, the global share of U.S. dollar reserves and settlement fluctuated [3], but based on the strong political and military strength of the United States, and the advantage of the U.S. dollar as the preferred currency in the trade settlement of bulk commodities and standardized intermediate commodities, Many sovereign countries are full of confidence in the US dollar, hold a large number of US Treasuries, and regard the US dollar as a safe haven currency [2], without fundamentally shaking the international status of the US dollar. It can be seen from Figure 1 that by 2015, the global share of US dollar reserves was close to two-thirds, and the global share of cross-border settlement was also more than 40%. However, with the development of the wave of "de dollarization", the Russian Central Bank reduced its holdings of U.S. government bonds in a large amount, showing a trend of reducing the share of U.S. dollar reserves in foreign exchange reserves, gradually increasing the share of euro, yen and RMB reserves [4], and holding a large amount of gold to increase gold reserves. It can be seen from Figure 2 that since 2015, the global share of US dollar reserves has declined year by year, from 65.75% in 2015 to 58.81% in 2021. At the same time, the share of reserves of euro, yen and RMB has shown an upward trend. From 2015 to 2021, the initial 19.15% of euro will rise to 20.59% in 2021, the yen will rise from 3.75% to 5.52%, and the share of reserves of RMB will increase year by year after being established as an international currency in 2015, In 2022, the weight of RMB in the new special drawing rights (SDR) basket will rise to 12.28%, which will promote the internationalization of RMB. It can be seen that the share of the decline in US dollar reserves has been replaced by the euro, yen and RMB. The proportion of the euro, yen and RMB in foreign exchange reserves of all countries has gradually increased. Since the global share of US dollar reserves is one of the important quantitative indicators of the international status of the US dollar, Russia's "de dollarization" of foreign exchange reserves has had a negative impact on the international status of the US dollar.

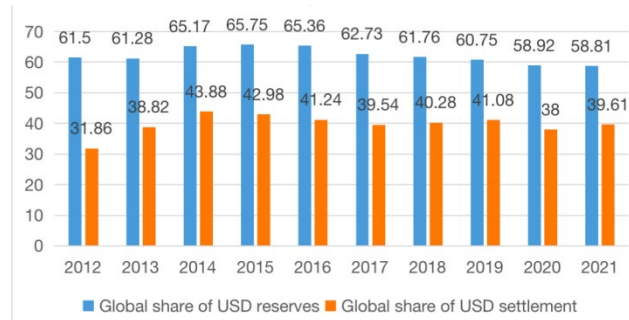


Figure 1: The global share of dollar reserves and settlements

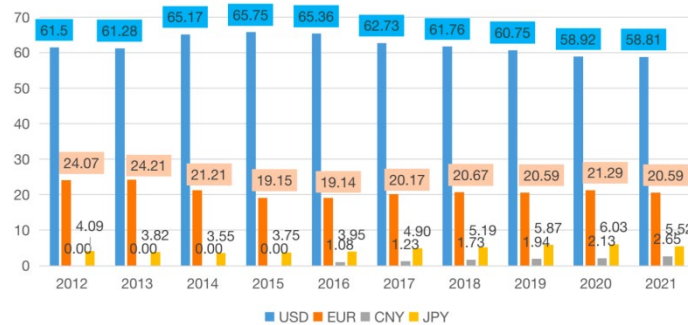


Figure 2: Four currencies' share of global reserves

2.2 Russia signs currency swap agreements with other countries to bypass the US dollar and use other currencies to complete trade settlement

In the 1970s, the United States signed agreements with Saudi Arabia and other oil exporting countries, stipulating that oil exports can only be settled in dollars. On the one hand, countries with import demand for oil need to reserve a large number of dollar assets to prepare for future oil purchases; On the other hand, countries with an export demand for oil will use the dollars obtained from selling oil to buy financial assets in the United States. In this process, the U.S. dollar returns to the United States, which avoids inflation caused by the government issuing additional dollars to meet the demand of oil importing countries for dollars ^[2]. The petroleum dollar system formed by the anchoring of oil prices and dollars constitutes an important basis for the hegemony of dollars. With the rapid development of the shale oil industry in the United States, the United States has formed a relationship of competitors with energy exporters such as Russia and Saudi Arabia. In international trade, Russia has signed currency swap agreements with Iran, Türkiye, China and other countries, bypassing the US dollar in trade settlement and adopting bilateral local currency settlement, which reduces exchange rate risk and avoids US sanctions in the field of settlement. ^[1] In the spot oil transaction, the signing of the "oil for commodity" agreement between Russia and Iran has avoided the risks brought by the settlement of US dollars. At the same time, this measure has reduced the share of US dollars in the bilateral trade; In the futures trading, the St. Petersburg International Commodity Exchange of Russia launched Ural crude oil futures denominated in rubles in 2016, accelerating the "de dollarization" of crude oil futures trading. At the same time, various bulk commodity trade between Russia, India and Türkiye are conducted in non US dollar currencies. ^[2] The export contracts of large Russian oil companies completely stopped settling in US dollars, and the proportion of Euro and RMB in Russian trade settlement continued to expand. From the trade settlement data of China and Russia, in 2015, nearly 90% of the trade settlement between China and Russia was in US dollars. ^[4] In 2020, the proportion of US dollar settlement in Sino Russian trade decreased from 62% to 55.8%, a decrease of 6.2 percentage points. ^[5] At the same time, the domestic currency settlement share of the two countries accounted for 24% of the total settlement amount, and the RMB settlement share rose to 17% ^[4]. The improvement of the RMB settlement ratio in China Russia trade settlement is an important step in the settlement field of RMB internationalization.

2.3 Russia has created a new clearing system SPFS to avoid Western sanctions

In 2014, after the Ukraine incident, western countries imposed sanctions on Russia in various fields. Among them, in the financial field, the United States imposed sanctions on the bank cards of seven Russian banks, stopping their transfer and payment functions. For a while, a large number of deposits of these seven banks were withdrawn, triggering a panic run among Russian banks. The Russian people were also forced to reduce their travel abroad, which had a significant impact on the Russian economy in a short period of time. In March 2022, the European Union decided to exclude seven Russian banks from the SWIFT payment system. This is not the first time that the SWIFT system has been used as a tool for financial sanctions. In recent years, Iran, North Korea and other countries have been cut off from the SWIFT system. SWIFT system, as a non-profit inter-bank system, is actually a "financial nuclear weapon" controlled by the United States, posing a huge threat to trade settlement of other countries that rely on the path of the system. ^[2] It can be seen that SWIFT system has become the core issue of sanctions and anti sanctions in current international political and economic relations. ^[6] In response to the targeted sanctions imposed by the United States and Europe against the Russian financial payment system, Russia launched the Bank of Russia Financial Message Transmission System (SPFS) in 2012. Through legislation and cost reduction, Russia strengthened the connection between its domestic financial institutions and SPFS, expanded the influence of SPFS, and cooperated with financial institutions in more countries around the world. By the end of September 2022, 440 bank customers in the world had access to the financial information transmission system (SPFS) developed by the Russian Central Bank. ^[4]

3. The promulgation of the Russian "Ruble Settlement Order" and its demonstration effect in the world

In order to reduce the impact of the economic sanctions of Western European countries on Russia, the promulgation of the "ruble settlement order" is a powerful measure of Russia's anti sanctions against Western European countries, and also a major event in the process of "de dollarization". On

April 1, 2022, the "Ruble Settlement Order" officially came into effect, which means that if Western European countries want to purchase natural gas, they need to open a ruble account in the Russian Natural Gas Industrial Bank to deposit foreign currencies. The Russian Natural Gas Industrial Bank will automatically convert foreign currencies into rubles at the exchange rate and remit them to the Russian Natural Gas Industry Corporation. Before the issuance of the "Ruble Settlement Order", Western European countries can purchase natural gas from Russia through euros or dollars. Russia, as the exporter, needs to convert the foreign currency into rubles according to the exchange rate after receiving the foreign currency, bearing the settlement cost and exchange rate risk. However, the issuance of the "Ruble Settlement Order" transferred this risk to Western European countries as importers, which is conducive to the stability of the ruble exchange rate. At the same time, it also avoided the possibility that Russia would freeze the ruble by depositing it in western bank accounts. [7]The promulgation of the "ruble settlement order" is a demonstration of Russia's "de dollarization" process. Because the United States has formed a global hegemony in the United States dollar, and also controls the SWIFT payment system of the World Bank Financial Telecommunication Association, which is known as the financial "nuclear weapon", when a country has a conflict of interest with the United States, it will fear financial sanctions from the United States. At this time, the demonstration effect made by Russia will be amplified, and other countries in the world will find an appropriate way to avoid the United States dollar in the field of settlement and use other currencies for settlement. Therefore, the promulgation of the "Ruble Settlement Order" provides a new idea for countries around the world to "de dollarize" in the field of settlement. However, if you want to learn from Russia's implementation of the "ruble settlement order", you need to have the following conditions: as a commodity for settlement, it must be indispensable to other countries, otherwise it will not be sustainable. [7]

4. Collect data, construct regression equation, and conduct regression analysis

By collecting the proportion of Russian foreign currency deposits in the broad currency M2 in the central bank of Russia and WIND database from 2012 to 2021, and the global share of US dollar reserves in the IMF official website, this paper uses the proportion of Russian foreign currency deposits in the broad currency M2 as the explanatory variable X1, the yellow gold reserves held by Russia as the explanatory variable X2, and the global share of US dollar reserves as the explanatory variable Y, and builds a regression model in the EVIEWS software.

As shown in Table 1, according to OLS regression, the estimated regression equation is:

$$\hat{Y} = 56.95 + 18.93X_1 - 0.88X_2 \quad (1)$$

Under the 95% confidence interval, the F test statistic is significant, indicating that explanatory variables X1 and X2 can explain the explained variable Y, and the p values of explanatory variables X1 and X2 are both less than 0.05, indicating that the coefficients of X1 and X2 are significant, and the adjusted R2 is 0.88, indicating that the fitting effect of this model is good. The coefficient of X1 is positive 18.93, indicating that when the proportion of Russian foreign currency deposits in broad currency M2 decreases by 0.1, the global share of US dollar reserves decreases by 1.89%. The coefficient of X2 is negative 0.88, indicating that when the gold reserves held by Russia increased by 1000 tons, the global share of US dollar reserves decreased by 0.88%.

Table1: Result of regression

Variable	Coefficient	Std. Error	t-Statistic	Prob.
X1	18.92934	1.652141	11.45746	0.0000
X2	-0.877764	0.284639	-3.083783	0.0039
C	56.95182	0.895155	63.62233	0.0000
R-squared	0.833696	Mean dependent var		62.53000
Adjusted R-squared	0.824707	S.D. dependent var		2.057190
S.E. of regression	0.861305	Akaike info criterion		2.611302
Sum squared resid	27.44830	Schwarz criterion		2.737968
Log likelihood	-49.22604	Hannan-Quinn criter.		2.657100
F-statistic	92.74222	Durbin-Watson stat		0.711359
Prob(F-statistic)	0.000000			

5. Conclusion

It can be seen from the regression results that when Russia reduces the dollarization degree and increases the gold reserves, the global share of the dollar reserves also shows a downward trend, which shows that Russia's "de dollarization" measures have indeed had a negative impact on the international status of the dollar in the field of international foreign exchange reserves. However, from the regression coefficient, the decline of Russia's dollarization degree by 0.1 has only 1.89% impact on the share of dollar reserves, and the increase of Russia's gold reserves by 1000 tons has only 0.88% impact on the share of dollar reserves. Since 2012, Russia's dollarization degree has increased first and then decreased, reaching 0.59 at the highest. Russia's gold reserves have increased year by year. The global share of dollar reserves fluctuates around 60%, reaching 65.75% at the highest. Even though the share of dollar reserves has gradually decreased since 2015, by the end of 2021, the dollar reserves still account for 58.81% of the global reserves - more than half of the global reserves, At this time, Russia's foreign currency deposits accounted for 0.28% of the broad money M2 and held 2300 tons of gold reserves. This shows that Russia's "de dollarization" has a limited negative impact on the international status of the U.S. dollar. In the short term, its series of "de dollarization" measures cannot shake the hegemony of the U.S. dollar. However, Russia's "de dollarization" wave in foreign exchange reserves, international settlement and clearing systems is a powerful counterattack against European and American financial sanctions, especially the promulgation of the "rouble settlement order", It gave full play to its energy advantages, took advantage of the indispensability of natural gas to European countries, and took this as a support point, requiring European countries to bypass the US dollar when purchasing natural gas from Russia and settle in rubles. At the same time, Russia's "de dollarization" also provides favorable conditions for the internationalization of RMB in the field of international settlement, which is conducive to the application of RMB cross-border payment system, the development of cross-border settlement business and the signing of bilateral local currency swap agreements, promotes the improvement of the RMB currency swap system, provides a method reference for the "de dollarization" of countries around the world, and accelerates the global "de dollarization", It has made a "demonstration effect" to break the dollar dominated international monetary system.

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