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Brics New Currency: An Investigation of Trade Dynamics to De-Dollarizing Intra-Brics Trade with the Reference of Indian Bilateral Trade Contracts

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ABSTRACT

This article analyzes the current systematic barriers to currency swaps and trade finance using the national currencies of the BRICS (also known as "de-dollarization"). We had suggests a quick, staged fix to bridge these gaps and lower the risk of trade among the BRICS countries. The findings indicate that: 1) Russia is increasingly choosing the Euro as its preferred arrangement currency within BRICS, indicating a disconnect between the goals of BRICS's de-dollarization and the settlement currency choice of Russian traders; 2) the Contingency Reserve Arrangement of the New Development Bank contains systemic barriers that prohibit direct currency swaps between BRICS Nations; and 3) although financial technology applications and settlement and payment systems are being integrated, there are no efforts being made to fundamentally address the systematic economic variables impeding national settlement use.

Keywords: BRICS Nations, Intra trade, Currency swap, De-dollarization, Foreign exchange, Bilateral trade contracts

INTRODUCTION

In order to obtain greater control over transactions and avoid currency exchange losses, the BRICS countries are in favor of creating a Multilateral Clearing Union as an approach of accomplishing their long-standing goal of de-dollarizing their trade contracts and reserves. The Multilateral Clearing Union implemented the Contingency Reserve Arrangement. Nevertheless, it fell short of its original objective due to its IMF linkage requirements and limited scope, which is an indication of confidence among BRICS member states. Furthermore, several kinds of systemic barriers—which are covered in greater detail in the paragraph that follows—obstruct the wider use of the BRICS countries' native currencies in trade finance.

REVIEW OF LITERATURE

The BRICS New Development Bank released its strategy document. An extended road map for the direction of the BRICS nations' economic cooperation is provided by the significance of BRICS in the global economy and the International Partnership for Development. The strategic analysis argues that reforming the current Western institutions would not be helpful to the BRICS countries very soon. Because of this, it emphasizes the importance of creating a new Multilateral Clearing Union (MCU), which will serve as a currency swap pool among the BRICS and handle issues related to trade finance, financial crisis aversion, balance-of-payments, and the overall restoration of sovereignty through de-dollarizing BRICS trade (NDB, 2017). This objective was again restated in the 2017 BRICS Xiamen Summit declaration. Concurrent with the Xiamen meeting, the R5+ (Ruble, Rand, Rupee, Renminbi, Real) currency project was unveiled, incorporating the currencies of BRICS+ nations as well. Its goal was to promote national currency use for long-term projects, investments, the creation of a single payment card and settlement/payment systems, as well as collaboration in moving the currencies of the BRICS+ countries closer to reserve currency status (Lissovolik, 2017).

The BRICS nations established the $100 billion Contingency Reserve Arrangement (CRA),that ultimately gave rise to the newly formed Multilateral Clearing Union of the New Development Bank, to boost the number of settlements in national currency and serve as a pool for currency converting in upcoming time. To ease short-term tensions between a nation's current and capital accounts on balances of payments (BoP), the CRA created two currency swap instruments: a liquidity instrument to close existing gaps in the BoP and a preventive tool to prevent future gaps in the BoP. A country could only access 30% of the share funding for capital (the "de-linked portion") under certain conditions; the remaining 70% of available funds required an on-track contract with the IMF.

Curiously, a swap transaction was defined as follows: "the central bank of the Asking for Party trades US dollars (USD) from the central bank of the Providing Party as a substitute for the Asking for Party Currency, and buying back the Asking for Party Currency in exchange for USD at an afterward date" (Biziwick et al., 2015, p. 316), rather than having a direct currency swap mechanisms as stated in the MCU procedure report.

CRA took its cues from the ASEAN+3 Chiang Mai currencies swap selections which had been more or less limited in scope, relied heavily on contractual arrangements rather than a real capital pool, and involved the IMF because of moral hazard and a lack of financial observation capabilities. For example, the CMI/CMIM paradigm was largely criticized for being wholly ineffective and for not contributing to the 2008 financial crisis. It fears that by implementing this structure, the CRA is condemning themselves to a similar fate.

The main complaints with the CMI/CMIM structure seem to have been its large size, its IMF connection, and the lack of an immediate response facility? According to Biziwick et al. (2015), p. 318, it seems challenging to combine the objective of serving as a counterbalance of the IMF with the IMF relationship. Because of this, the BRICS NDB's limited size (which represents the minimum amount of paid-in capital allocated to BRICS' New Development Bank), promissory model of the CRA, and IMF linking (as demonstrated by the Chiang Mai currency swap initiative) are all products of a fundamental lack of trust among BRICS member countries regarding their ability to track and control their own trade and growth.

The dollar-denominated trade and the IMF's conditionality’s, the BRICS countries have inadvertently taken on the precedence of the hegemony, at least in the CRA. "Developing macroeconomic analytical capacity and modalities for a rapid crisis response facility" would be the steps required in order to break off ties with the IMF, and maintaining the status quo is not necessary (Biziwick et al., 2015, p. 320). An internal credit monitoring system must be implemented alongside swap instruments in national currencies as part of a concerted reform of the CRA that aims to restore public confidence in the agency and lay the foundation for total autonomy on the IMF and dollar-denominated transactions. In order to support CRA reform, Karataev et al. identified two main, fundamental barriers that must be eliminated in addition to intra-BRICS currency swaps to the implementation of national currencies to finance trade in the BRICS.

RESEARCH GAPS FOR DE-RISKING TRADE;

Karataev et al. proposed a multi-tier circular structure that would complement and coordinate BRICS trade settlement efforts between national and intra-BRICS financial institutions, thereby creating a dependable system for implementation a new local global currencies. These were the steps that made up the component steps: 1. Developing and utilizing hedging mechanisms in BRICS currency pairs to lower risk management expenses; 2.Extending swap agreements and reducing liquidity risk; 3. Encouraging currency trade while reducing transaction costs; 4. Reinvesting excess trade income in local bond markets; 5. Growing the regional currency bond market in accordance with trade and development objectives; and 6. Expanding bond markets and overseeing BRICS policy concerning the utilization of these instruments to currency internationalization goals (Karataev et al., 2017, p. 111). As said earlier, steps 4-6 initiated the journey; these crucial safety measures, known as the CRA, are meant to satisfy step 3's needs.

To complete stages 1, 2, and 3, though, a few actions need to be taken. Specifically, Karataev et al. proposed three crucial exchange mechanisms that should be developed to reduce transaction costs and mitigate the risk associated with using national currencies in intra-BRICS trade agreements. This will help them overcome the barriers to the major first three phases that are described and mentioned in this regard as cite above. These are the followings:

1. The BRICS banks' foreign exchange market, where businesses should be able to buy or sell a currency fast and without incurring extra fees to settle in appropriate BRICS currency. This presupposes a large number of players in highly developed, liquid foreign currency and interbank markets, as well as markets for transferable financial instruments (Karataev et al., 2017, p. 18).

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2. Methods for hedging currencies to make a major cost reduction, direct trading within the proposed BRICS currencies must be encouraged. Since this might potentially reduce risk management expenses, the establishment and application of hedging techniques in BRICS currency partnerships must be incorporated within this step (BRICS trading pairs). To provide the necessary liquidity, prominent public banks in the BRICS countries may participate in currency pairing markets in the early stages (Karataev et al., 2017, p. 110).
3. The BRICS trading of commodities with each other. The creation of an electronic trading platform, such as a commodity exchange, for the exchange of goods and derivatives of all kinds may be an additional means of enhancing the use of LCY [local currency] in agreements among the BRICS nations. Using local currency denominations to set market prices could serve as a middleman in the raw material transaction. When a significant number of foreign investors trade on the exchange, agreements denominated in local currencies are going to become international (Karataev et al., 2017, p. 112).
4. The IMF-related section of the Capital Agreement (CRA) must be removed in order to de-dollarize intra-BRICS commerce, in addition to all these three exchanges mentioned above. If bilateral swap agreements are present among all BRICS countries, this will enable direct currency exchanges. The existing IMF arrangement has to be replaced by a counter-party de-risking technique developed within the BRICS countries that serves as a distinct source of reliability for confirming the eligibility conditions of trade-necessitated impact currency swaps. As a result, there will be no need for ongoing IMF agreements or the consequent exchange of US dollars.

RESEARCH METHODOLOGY

The Secondary data sources have been taken for establishing the de-dollarizing intra-BRICStrade in this research investigation. The International Chamber of Commerce, the IMF, the WTO, the World Bank, BRICS Summits agreements and the Reserve Bank of India are the sources of the secondary data to analysis the results. GDP log (for the BRICS countries) is the dependent variable, and GDP is anticipated to be impacted by the independent variable, trade of oil price log. The U.S. Department of Energy Information Administration, which manages statistical and analytical tasks, supplied the oil prices. The official website of the United Nations Conference on Trade and Development provided the genuine GDP figures. US dollars were used to compute all of the prices. The data set included 28 observations of BRICS Summits every year from 2011 to 2023.

DATA ANALYSIS

The monetary structure of Russia's publicly available to the intra-BRICS trade for transactions settlements can be used as a representative sample to track the progress made toward de-dollarization from the start of serious de-dollarization activities in 2017, as shown in Figure 1 below. As of early 2020, 33.2% of Russian exports to the BRICS countries were valued in US dollars, down from nearly 80% in the first quarter of 2018 (CBR, 2020). As of Q1 2020, only 13% of Russia's exported goods were received in Rubles, indicating that the Euro has clearly replaced the Dollar as the principal export settlement currency, even with the significant de-dollarization of Russian exports to the BRICS.

FINANCIAL AND CAPITAL ACCOUNT

When the pandemic first began, large-scale capital withdrawals amid uncertainty about the COVID-19 virus and its consequences significantly damaged capital markets in the European Monetary Union (EME). But towards the last quarter of 2020, foreign portfolio investment (FPI) had made a comeback to the BRICS economies, sometimes even exceeding pre-pandemic levels, see (Table 1). Large portfolio inflows totaling USD 98.1 billion, or USD 63.2 billion more than in H2 of 2019, were seen in China in 2020. While Russia remained a net lender in global portfolio markets about net outflows of USD 12.78 billion in Q1: 2021, Brazil and India also saw large FPI inflows in Q4: 2020 that significantly exceeded the values of the previous year. These fluctuations in capital flows had concurrent effects on exchange rates, with all of the BRICS currencies decreasing in H1: 2020. The BRICS currencies which witnessed depreciations at the onset of the pandemic recovered well in the second half of the year.

Table 1: Net Foreign Portfolio Investments (in USD billions)

Q1: 2019	Q2: 2019	Q3: 2019	Q4: 2019	Q1: 2020	Q2: 2020	Q3: 2020	Q4: 2020	Q1: 2021

Brazil	6.43	-7.55	-10.25	-7.85	-24.28	-7.06	-2.01	19.85	1.96
Russia	6.71	8.40	-2.93	0.50	-7.03	-15.87	-3.97	1.58	-12.78
India	11.5	5.2	2.0	8.1	-14.7	1.1	7.7	21.7	8.2
China	19.47	3.58	20.00	14.90	-53.20	42.40	43.90	54.20	3.5
South Africa	1.0	1.9	4.7	1.3	-0.7	-0.6	-4.6	-0.8	-3.1

Note: Net portfolio investments in this table reflects liabilities less of assets. Source of data : CRA Research Group.

The South African currency Rand, Chinese Yuan, and Indian Rupee all saw q-o-q currency appreciation in Q1 of 2021; the Russian ruble also saw appreciation in 2021.Portfolio flows that have returned may have played a major role in this recovery. See Table (2), It needs to be seen whether the BRICS currencies would come under fresh pressure in the future due to COVID-19 pandemic-related fears, unequal vaccination rates, and rising bond yields in AEs. In 2020, Brazil's inflation rate was kept below the 5.25 percent upper tolerance zone; nevertheless, between March and July of 2021, it exceeded this limit. Brazil, Russia, and India all had higher rates of core inflation. Because inflation was well under control in 2020 and 2021, China and South Africa did analyze and have to take appropriate actions in government policies regarding it.

Table 2: BRICS Nations Average Inflation Rates

Countries	July 2019-March 2020 (Average)	April 2020-June 2020(Average)	July 2020-June 2021 (Average)
Brazil	3.5	2.1	5.0
Russia	3.4	3.1	4.9
India	5.3	6.6	5.9
China	4.0	2.7	0.9
South Africa	4.1	2.4	3.5

Source of Data : CEIC and CRA Research Group

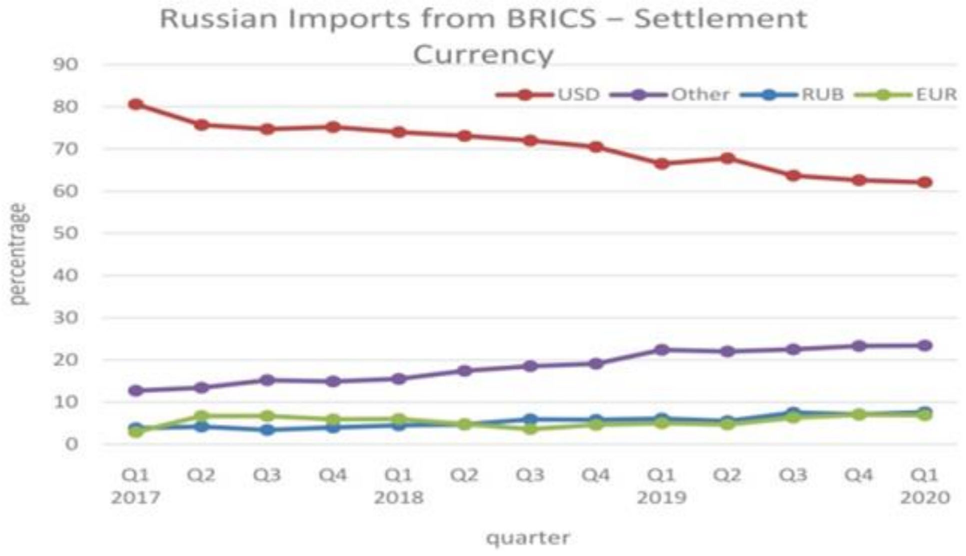

Figure 1; Percentage of settlement currency for Russian Imports to BRICS

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Source of data: authors calculations

This trend can be explained by the fact that, whereas previously preferring to do business in dollars, Russian energy exporters now prefer to conduct it in euros (Yagova, 2019). This is due to the fact that if there is any kind of a devaluation, they will receive more rubles. On the other hand, even with a gradual de-dollarization trend, as of Q1 2020, the bulk of Russian imports from the BRICS countries are still settled in dollars. The Yuan Renminbi is probably the largest denomination of the "other" currency which is gradually growing in import settlements, since China and Russia have recently increased the use of the Yuan and Ruble in bilateral trade (Simes, 2020). Nevertheless, it is important to note that the majority of Russia's inter-BRICS commerce is settled in dollars and euros rather than rubles or any other BRICS currency. .

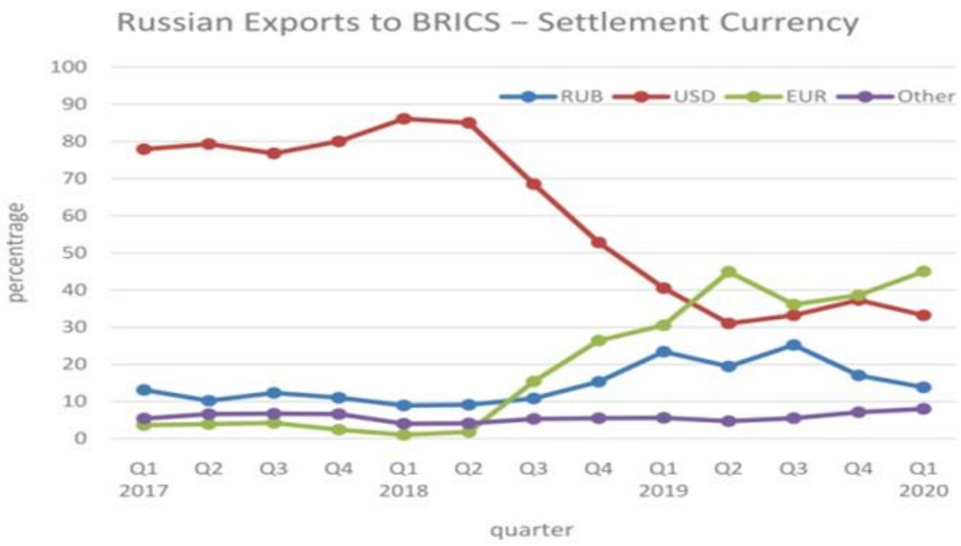

Figure -2; Percentage of settlement currency for Russian exports to BRICS
Source of data: authors calculations

This suggests a discrepancy between Russian traders' settlement currency preference and BRICS' de-dollarization objectives. The Euro has replaced the Dollar as Russia's selected export settlement currency within the BRICS, but because it continued to be a non-BRICS third-party currency and because EU sanctions against Russia could be extended soon in light of political developments in 2020 (e.g., disagreements between the EU and Russia regarding the protests. However, it's crucial to remember that dollars and euros, not rubles or any other BRICS currency, are used to settle the majority of Russian inter-BRICS trade. This implies a mismatch between the de-dollarization goals of BRICS and the settlement currency preferences of Russian traders.

Even though the Euro has surpassed the Dollar as Russia's selected export settlement currency within the group of BRICS Nations, the Euro still carries a similar but smaller risk of being subject to sanctions due to leaders meetings events of 2020 (such as EU-Russia Belarus, the Navalny incident, etc). BRICS is currently pursuing the following measures to overcome the remaining barriers to the use of national currencies: creating an internal trade finance settlement system based on the Russian SPFS alternative to SWIFT (Yahoo Finance, 2019); creating a New International Payment System (NIPS) by integrating domestic payment systems (Surve, 2018); and looking into the prerequisites for creating a single BRICS cryptocurrency (CoinTelegraph, 2019a).

Additionally, the president of the NDB (Hancock, 2019) said that while the company has made progress in adding more local currencies and diversifying its loan denominations, the complete internationalization of BRICS currencies will require the establishment of mature bond markets in each one of the BRICS countries in order to effectively compete with Western bond markets. This is in spite of the NDB's stated objective of financing 50% of projects in the upcoming years. The Xiamen Summit statement and the creation within the BRICS Local Currencies Bond Fund marked the beginning of this in 2017.

With regard to intra-BRICS financial transfers, the previously mentioned initiatives seek to improve self-governance. The fundamental problem that restricts the currency's wider use is that they don't address how to eliminate risks associated with using national currencies in BRICS settlements. This view was reiterated in 2019 by Russia's Central Bank Governor Elvira Nabiullina, who claimed that developing national currency international settlements was more important than studying cryptocurrency secured by gold (CoinTelegraph, 2019b). Therefore, in order to expand national currency settlement and overcome the aforementioned market constraints, with the creation of mutually dependable, de-risked intra-BRICS trade contracts has been a critical intermediate and subsequent stage in the de-dollarization of inter-BRICS trade finance.

This is taking place in tandem with the establishment of BRICS local bonds, the expansion of BRICS direct currency exchange lines, the conceptualization and launch of an intra-BRICS crypto currency, and the integration of BRICS settlement and payment systems.

DE-RISKING TRADE FOR SMART CONTRACTS;

In the mostly dollarized economy, smart contracts are beginning to gain traction in western organizations regarding trade finance, commodities trading, and currency trading due to its autonomous execution capabilities and capacity to remove middlemen from third-party legal and contractual bodies. With the use of smart contracts, trade finance solutions may now reduce costs by up to 35%, do away with the need for one- to two-week settlement processing timeframes, and eliminate the possibility of human error in the process (Blockdata, 2019).

However, by developing an extensive internal distributed ledger trading and smart contract system that integrates the principles of trade finance, currency trading, and commodity trading, the BRICS nations can choose to carve out their own autonomous route free from potential financial weaponization. Instead of overloading Western (primarily American and European) trade channels with more jurisdictional and authority barriers influenced by the United States, such as SWIFT, this system can be linked to the new intra-BRICS development and payment mechanisms that are currently being developed. This is especially relevant in light of the increasing impact of U.S. regulatory agencies towards the digital currency and alternative payment industries.

Complete BRICS interbank loans for trade finance will be made possible under such a system by a special commodity exchange that is only available to the BRICS and has its own contract for futures for commodities options for intra-BRICS buying, in addition to a number of conditional factors like forex options and futures contracts. The BRICS traders eliminate the chance of participating in risky commodity and currency trading by acting as counter-parties to all legally binding transactions this builds confidence.

DISCUSSION AND RESULTS

Real-time feed-in of market pricing information before and during contract setup integration with data on cargo delivery to adjust the timing of order execution; call/put and contract amount caps that are specified by the BRICS NDB. Smooth integration and communication with intra-BRICS settlement systems, Central Bank, Commercial Bank, and New Development Bank swap lines. Scalability to boost the volume of transactions Verification of contract execution by a decentralized oracle method utilizing market data low latency and high volume contract support. putting money in designated accounts for short term storage via a distributed ledger. Prevent unauthorized access. not limited in the manner that SWIFT.

The systematic activities that might get involved are as follows:

- Effective trade contracts are set up for execution after a specified time period associated with the delivery of items (e.g., on the next business day after the projected delivery date) via the highly specialized BRICS trade finance distribution software.
- For each configuration of BRICS currency pairings provided by the BRICS NDB Bank, traders concurrently using the relevant dapps, set up commodities futures contracts and preferred for the currency hedging options in accordance with the cost-of-carry laws and predetermined call/bid margins. They use real-time market data to help them do this. They have a maturity date that correlates with the trade delivery and are configured as smart contracts.
- Contracts that surpass the credit swap limitations may be bilaterally canceled and settled in a currency other than the original one. Daily checks are made to the NDB CRA influence pair currency swap connections to ensure that the swap amounts are adequate for upcoming contacts maturing over the next thirty days.

- To build confidence and lower risk, no margin trades would be allowed at first. Before settlement, full payment must be collected. Consequently, the intelligent contract will produce the "worst-case scenario" completion amount three days prior to the contract completion date, and funds will be sent to designated accounts maintained in the BRICS centralized ledgers via the new intergovernmental agreement system. This condition can be lifted to allow traditional trade financing if confidence has been established through a fruitful year-long trial project.
- As soon as the transit of goods is confirmed, the decentralized oracle networks will be updated with market data, including current direct exchange rates, commodity prices, along with additional real-time rate data. This will enable the trade settlement's execution amount to be calculated, together with the linked currency option and associated commodity future, when the contract matures.
- The oracle network will handle contracts and issue the seller's last payment for exporting currency (or, in the case of imports, for importing money). If the buyer requests one, they will be refunded the difference between the maximum price in the worst-case situation and the real completion amount. Going forward, small- to medium-sized e-commerce businesses will have comparable access to the BRICS market since clients have the option to redeem their monies using integrated P2P payment systems globally or the BRICS coin in the BRICS Nations

CONCLUSION

The Integration Financing system of de-dollarizing intra-BRICStrade found to be the primary barriers to intra-BRICS commerce becoming less dollarized: 1) Lack of an independent CRA credit monitoring system, which forced the IMF to dollar-intermediate CRA currency swaps for this reason; 2) currency volatility, leading to it difficult for traders to convert currencies while exporters utilize the advantages of contracts denominated in euros and dollars in the case of devaluation; and 3) the absence of a non-Western commodities exchange, which would enable the establishment of a market for trading energy futures and national currency pricing.

Therefore, a methodical strategies based on the smart contracts were developed in order to remove these obstacles in BRICS currencies and lower trade risk.Therefore, some of the volatility brought on by fluctuations in exchange rates will be lessened over time as the exchanges promote currency liquidity among the BRICS nations. Mutual intra-BRICS investment and NDB loans for infrastructure and sustainable development are two examples of non-trade BRICS financial flows that can be automated with smart contracts.

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