FROM THE OLD FINANCIAL TO THE NEW COMMODITY ECONOMY IN THE ERA OF STAGFLATION

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https://doi.org/10.21684/2412-2343-2023-10-3-87-105

In the process of reducing the speculative financial adjustment that artificially stimulates consumer demand in developed countries, the importance of suppliers of physical goods (commodities) from developing countries will increase. I don't believe in a complete dictate of commodities producers because they are dependent on counter deliveries of technologies from developed countries. However, relationships will be built between holders of physical goods, and technologies will change significantly. The pricing function for commodities will be transferred to several exchanges of developing countries which will be controlled by the commodity producers. Food consumers from Asian and African developing countries will be provided with the BRICS assistance in the creation and protection of reserve food warehouses on their territory as well as supporting their key exports through the creation of a network of new commodity exchanges. The article substantiates the need for independent formation of regional prices by the BRICS countries for the primary goods of their exports on their exchanges. I propose various combinations among the founding countries for new commodity exchanges for mineral fertilizers, oil, diamonds, titanium, vanadium, palladium, wheat, and uranium. Trading on all these new commodity exchanges must take place entirely in the currencies of the engaged countries.

Keywords: BRICS; stagflation; structural inflation; recession; food security; commodities exchange; currency union.

Recommended citation: Kirill Molodyko, *From the Old Financial to the New Commodity Economy in the Era of Stagflation*, 10(3) BRICS Law Journal 87–105 (2023).

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Introduction

If Republican Party hardliners wish to restore the real sector of economy and in the process beat the Democratic Party cosmopolitan international bankers, then US reindustrialization objectively leads the simultaneous deindustrialization of Germany. They compete in the same markets. With lower energy prices and lower taxes, the U.S. will definitely beat the EU in this race. In addition, in 2022–2023, the EU voluntarily renounced large volumes of supplies of its goods and services to the Russian market. No new comparable sales markets for significantly more expensive European goods that could replace the Russian market are foreseen. In my opinion, in the future, both the U.S. and the EU will meet a reduction of excessive artificial consumer demand. The new EU economy will have less credit, less manufacturing, and less employed labor.

1. Stagflation

Imagine we believe in the monetary theory of inflation. Even if so, widely used in macroeconomics is the "Fischer equation"

$MV=PQ$, where
M – the amount of money in circulation;
V – the velocity of money circulation;
P – average price level;
Q – volume (quantity) of goods

In recent years, there has been no significant increase in the velocity of circulation of money or the physical mass of commodities; we believe that the latter can be equated to nominal GDP for the purposes of this article. This means that a significant increase in the amount of money in circulation will inevitably, albeit with a time lag, cause hyperinflation. It is not clear to us why European regulators believe that they will not experience hyperinflation also with energy prices more than doubling in

2022. In Germany, producer inflation (PPI) reached about 28% in 2022.[1] In the UK, the deterioration of the food situation for the population was noted as early as May 2022,[2] by the end of the year the situation worsened even more.[3] Food inflation rate in the EU was 15.04% in 2022, and around 14% at the end of June 2022 year-on-year.[4]

Of course, I'm not talking about the physical absence of food, but that people do not have money to buy high-quality food. For the same nominal money, people will buy less quality food.[5] Officially in 2022 the inflation rate in the EU was 9.2%, while in Lithuania, Latvia and Hungary it exceeded 20%.[6] I believe that inflation in the EU will remain significant in the foreseeable future due to the colossal emissions, primarily structural causes of inflation and rising energy prices. True, the massive closure of energy-intensive industries in the EU and their relocation to the U.S. may have a downward effect on inflation in the EU, but this will be associated with such social costs as a significant increase in unemployment and social tension in the EU.

In the U.S., the official inflation rate in 2022 was 6.5%, but food inflation was 10.4 %.[7] It is well known that in any country of the world, for the disadvantaged part of the population, the cost of food and utilities are key in the consumer basket, and due to American specific factors, also for health insurance. The CNBC, laying out the official statistics (Bureau of Labor Statistics' Consumer Price Index) by its components, indicates that in 2022, in particular, in the United States, eggs have risen in price by 59.9%, butter and margarine by 35.3%, white bread by 17.7%, utilities 19.3%, electricity 14.3%, health insurance 7.9%. Prices included in the inflation calculation fell for TVs by 14.4%, for used cars by 8.8%, for women's clothing by 2.3%, for beef, veal and some related products by 3.5%.[8] However, in terms of beef and veal, the

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1 Germany Producer Price Index (PPI) (Jul. 31, 2023), available at https://www.investing.com/economic-calendar/german-ppi-739.

2 Patrick Butler, *More Than 2m Adults in UK Cannot Eat Every Day, Survey Funds*, The Guardian, 9 May 2022 (Jul. 31, 2023), available at https://www.theguardian.com/society/2022/may/09/more-than-2m-adults-in-uk-cannot-afford-to-eat-every-day-survey-finds.

3 Mark Sweney, *Prices of Staples Such as Pasta and Tea Soar in UK, Hitting Poorest Hard*, The Guardian, 25 October 2022 (Jul. 31, 2023), available at https://www.theguardian.com/business/2022/oct/25/prices-staples-surge-cost-of-living-crisis-inflation-ons.

4 Trading Economics (Jul. 31, 2023), available at https://tradingeconomics.com/country-list/food-inflation.

5 Some additional details *see* Food Price Monitoring and Analysis (FPMA) Bulletin #9: November 2022, European Commission (Jul. 31, 2023), available at https://knowledge4policy.ec.europa.eu/publication/food-price-monitoring-analysis-fpma-bulletin-9-november-2022_en.

6 Trading Economics (Jul. 31, 2023), available at https://ru.tradingeconomics.com/country-list/inflation-rate?continent=europe.

7 Trading Economics (Jul. 31, 2023), available at https://tradingeconomics.com/united-states/food-inflation.

8 Greg Iacurci, *Here the Inflation Breakdown for December 2022 in One Chart*, CNBC, 13 January 2023 (Jul. 31, 2023), available at https://www.cnbc.com/2023/01/12/heres-the-inflation-breakdown-for-december-2022-in-one-chart.html.

price reduction is a one-time phenomenon, caused by the fact that in the conditions of a severe summer drought, farm owners almost all over the country carried out an emergency mass slaughter of livestock, which caused a situational oversupply in the market.[9]

Inflationary processes in the EU could be mitigated by the development of the real sector in the small peripheral countries of the Union, but this is unrealistic in practice, because then the sales market for German exports will decrease. This sale takes place for euros issued on credit. This general "scheme" of the functioning of the EU was described 10 years ago by the well-known German economist, former member of the board of the Bundesbank Thilo Sarrazin.[10] In this regard, Brexit is useful for the UK in that it can help revive the British national industry, no longer worrying about the artificial support of German industry. France at least has cheap nuclear power. But what does the EU plan to do when Germany will soon be unable to sell its expensive products? Print euros and distribute them on credit against new purchases of German goods? In fact, stagflation in the EU under these conditions is a technical way to overcome the artificial gap between finance and commodity circulation, restore the link between them with the priority of commodity circulation. However, the standard of living of the population will decrease.

In addition, since consumer demand in the U.S. has been artificially stimulated for many years and, as a result, is now much higher than the normal market level, it will be significantly reduced. Since there was an understanding in China that artificial consumer demand in the United States could not be sustained in the long term, a few years ago the ideology of gradually reorienting production, as far as possible, to domestic consumption won in the internal struggle in China.

I do not believe that prices in the EU will skyrocket all the time. Obviously there is a limit to growth. Statistics demonstrate that producer prices in the EU skyrocketed during 2021–2022 and then in the first half of 2023 slightly reduced.[11] Likely a new market equilibrium will be found, but the new level will be about a third higher than it was in 2020. This means a significant impoverishment of the EU population compared to 2020.

While the issuance of the dollar along with the subprime mortgage bubble is often credited as one of the causes of the 2008 global economic crisis, in fact the over-issuance actually started later. In macroeconomics, five monetary aggregates can be analyzed – M0, M1, M2, M3, M4, respectively, but usually experts and regulators

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9 Scott Horseley, *Beef prices are down right now. But that may not last*, NPR, 30 August 2022 (Jul. 31, 2023), available at https://www.npr.org/2022/08/30/1120023642/beef-prices-are-down-right-now-but-that-may-not-last.

10 Thilo Sarrazin, *Europa braucht den Euro nicht: Wie uns politisches Wunschdenken in die Krise geführt hat* (2012).

11 Industrial Producer Price Index Overview, Eurostat (Jul. 31, 2023), available at https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Industrial_producer_price_index_overview.

are limited to two main ones such as M0 (monetary base), i.e. direct government monetary issue M2 this is M0 + additional new money created by the financial sector under fractional reserve conditions through the multiplication mechanism. So, in the U.S. at the end of the corresponding years:

2000 M0 = 0.6 trn USD M2 = 4.9 trn USD
2007 M0 = 0.84 trn USD M2 = 7.5 trn USD
2008 M0 = 1.7 trn USD M2 = 8.2 trn USD
2021 M0 = 6.4 trn USD M2 = 21.5 trn USD
2022 M0 = 5.4 trn USD M2 = 21.3 trn USD[12]

At the same time, the U.S. nominal GDP after the 2008 crisis, that is, for 2009–2022, grew in the by only 66% from 14.48 to 24 USD trn.[13]

The European Central Bank is not that far behind its American colleagues printing money. Several EU members are not part of the eurozone, retaining their national currencies, but subject to the general discipline of the EU in basic economic matters. In the Eurozone, the M2 was approximately EUR 5.5 trn in 2005. At the end of 2022, it was about EUR 15.3 trn.[14]

So in the Eurozone at the end of the relevant year:

2008 M0 = EUR 1.15 trn M2 = EUR 8 trn
2021 M0 = EUR 6.1 trn M2 = EUR 14.7 trn
2022 M0 = EUR 6.3 trn M2 = EUR 15.3 trn[15]

Given the close economic relationship of the EU countries that have not adopted the euro with the eurozone, I'll apply the most conservative estimate, taking into account the GDP of all EU countries. The nominal GDP (Gross Domestic Product) of the EU, including countries that are not members of the eurozone, in U.S. dollars for

[12] M2 in the U.S. *see* Federal Reserve Economic Data, St. Louis Fed (Jul. 31, 2023), available at https://fred.stlouisfed.org/series/M2SL; M2 in the U.S. *see* Trading Economics (Jul. 31, 2023), available at https://tradingeconomics.com/united-states/money-supply-m2; M0 in the U.S. *see* Federal Reserve Economic Data, St. Louis Fed (Jul. 31, 2023), available at https://fred.stlouisfed.org/series/BOGMBASE; M0 in the U.S. *see* Trading Economics (Jul. 31, 2023), available at https://tradingeconomics.com/united-states/money-supply-m0.

[13] *See* Trading Economics (Jul. 31, 2023), available at https://tradingeconomics.com/united-states/gdp.

[14] Edward Yardeni et al., *Money & Credit: Monetary Aggregates in Eurozone* (January 2023), at 3 (Jul. 31, 2023), available at https://www.yardeni.com/pub/eum1m2m3.pdf.

[15] M2 in the EU *see* Trading Economics (Jul. 31, 2023), available at https://tradingeconomics.com/euro-area/money-supply-m2; M0 in the EU *see* European Central Bank, Statistical Data Warehouse (Jul. 31, 2023), available at https://sdw.ecb.europa.eu/quickview.do?SERIES_KEY=123.ILM.M.U2.C.LT00001.Z5.EUR; also *see* Statista (Jul. 31, 2023), available at https://www.statista.com/statistics/254226/development-of-the-money-supply-m1-in-the-euro-area/.

the methodological correctness of comparing it with U.S. GDP, did not grow from 2009 to 2019, but rather fell from USD 16.3 trn to USD 15.7 trn. Through the Covid pandemic of 2020, it fell even more to USD 15.3 trn, but in 2021, despite Brexit and the devaluation of the euro against the dollar for the year from about 1.20 to 1.14 dollars per 1 euro, in a very strange way, it formally soared to USD 17.2 trn. In 2022, the EU GDP, denominated in USD, fell to USD 17.1 trn[16] at a year-end exchange rate of USD 1.07 per EUR 1 euro (although it temporarily fell to USD 0.98 dollars per EUR 1), while the inflation rate in the euro area in 2022 was about 9%.

Even to count in euros, according to the European Commission, GDP growth in the EU as a whole and in the eurozone was 3.5% in 2022, and in 2021 it was 5.3% in the eurozone and 5.4% in the EU as a whole.[17] In July 2023, the Eurostat reported that for the first quarter of 2023 the growth rate for GDP was 0 for the euro area and 0.2 % for the EU respectively.[18] This is called stagflation. In the U.S., at least some people aged 60+ understand what stagflation is because they lived under Jimmy Carter, whom I sincerely wish to live to be 100 years old. Although he was a very good professional, he was simply unlucky, as he had to pay the price for the economic mistakes of his predecessors. For many Europeans, however, stagflation is an abstract theory that turns into practical reality before their very eyes, to their surprise. Adjusted for inflation, real GDP in the EU, denominated in US dollars, is now lower than in 2009, meaning there is no long-term economic growth in the EU. In fact, the EU is an economically unprofitable project.

Since the beginning of 2022, the U.S. Fed, trying to urgently deal with the threat of hyperinflation, frantically withdrew part of the dollars from circulation. The monetary base M0 in the U.S. was reduced in 2022 from about USD 6.4 trn to USD 5.4 trn.[19] However, money cannot be withdrawn to the extent that it was printed, even if we forget about structural inflation and recognize the monetary factor as the main cause of inflation. No one will withdraw from circulation, for example, a third or a half of dollars or euros, this is completely unrealistic. One of the technical forms of reducing monetary aggregates is the bankruptcy of financial companies through the partial liquidation of the relevant assets of these organizations and their clients.

The bankruptcies of Signature Bank and Silicon Valley Bank in March 2023 were partly caused by a drop in the value of corporate bonds on their balance sheets,

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16 Trading Economics (Jul. 31, 2023), available at https://tradingeconomics.com/european-union/gdp.

17 Eurostat, GDP stable and employment up by 0.3% in the euro area, 29/023, 8 March 2023 (Jul. 31, 2023), available at https://ec.europa.eu/eurostat/documents/2995521/16249744/2-08032023-AP-EN.pdf/30b3811c-f085-b7aa-c533-4733b1457ab9#:~:text=For%20the%20year%202022%20as,%2B5.4%25%20respectively%20in%202021.

18 Quarterly national accounts – GDP and employment, Eurostat (Jul. 31, 2023), available at https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Quarterly_national_accounts_-_GDP_and_employment.

19 Federal Reserve Economic Data, St. Louis Fed (Jul. 31, 2023), available at https://fred.stlouisfed.org/series/BOGMBASE.

associated with the growing attractiveness of U.S. treasuries, which became more profitable due to an increase in the key rate. Now, with a high degree of probability, the Fed will turn on the printing press again, or maybe at the same time start raising the key rate. The problem of the both the Fed and its European colleagues is the misunderstanding that inflation is caused not by monetary, but by structural reasons, which no one is going to really fight. The monetary authorities of the U.S. and the EU, mistakenly considering inflation as a monetary phenomenon, are frantically turning the steering wheel left and right. In particular, in 2022, after pumping the economy with money, the Fed reduced the amount of money in circulation and raised the key rate, while the ECB raised the rate, continuing to issue money.[20] However, this will not help, because it is pointless to fight structural inflation by changing the key rate, withdrawing money from circulation and changing reserve ratios.

Even if one believes in the monetary theory of inflation, then in accordance with this theory, in addition to changing the amount of money in circulation and the key rate, a change in reserve requirements and ratios is also applied. But in the U.S., UK, Canada, Australia, these reserve requirements for banks are now zero. Accordingly, regulators cannot lower reserve requirements, even assuming that this will activate lending to the real sector of the economy. In addition, the law of diminishing returns is true not only at the micro level, but also at the macro level. This means that even if we believe in monetary policy, it, like any external factor of influence, over time has less and less influence on the real sector of the economy, that is, industry and agriculture. Another reason for inflation is the reluctance of many countries around the world to continue to use dollars and euros as a reserve currency.

In 2023, the European Central Bank decided to turn the steering wheel sharply in the other direction, reduced M0 from 6.3 to 5.7 trillion euros in the first 5 months of the year. In July 2023, it raised the rate to a range of the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will be increased to 4.25%, 4.50% and 3.75% respectively.[21] Historically it was planned to increase the rate to 4.75–5.25% by December 2023, and then until September 2024 to reduce it to 1.75–2.25%.[22] I cannot understand how it is planned to achieve economic growth in the Eurozone with such a policy. I believe there is no plausible and realistic industrial policy in the EU, and the ECB monetary policy is completely meaningless.

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20 Monetary Policy Decision, European Central Bank, 15 December 2022 (Jul. 31, 2023), available at https://www.ecb.europa.eu/press/pr/date/2022/html/ecb.mp221215~f3461d7b6e.en.html.

21 Monetary Policy Decision, European Central Bank, 27 July 2023 (Jul. 31, 2023), available at https://www.ecb.europa.eu/press/pr/date/2023/html/ecb.mp230727~da80cfcf24.en.html#:~:text=Key%20ECB%20interest%20rates,-The%20Governing%20Council&text=Accordingly%2C%20the%20interest%20rate%20on,effect%20from%202%20August%202023.

22 ECB Interest Rated Forecast 2023, 2024, 2025, 30 Rates – The Economic Forecast Agency, 21 July 2023 (Jul. 31, 2023), available at https://30rates.com/ecb-rate.

Previously, a number of states, especially China, increased their reserves in dollars and euros in various forms, including in securities denominated in these currencies. Public opinion often assumes that the main holder of U.S. debt (Treasury bills) is now China. It was true five years ago, but over the past 5 years, China got rid of about 30% of the U.S. debt it owned, reducing the package of treasury obligations (treasuries) from USD 1.123 trn to USD 867 bn. Japan has now come out on top in holding U.S. debt with a stake of about USD 1.1 trn. The Chinese package is now even less than the total package of the UK (USD 655 billion) + Belgium (USD 354 billion) + Luxembourg (USD 329 billion), so in sum USD 1.338 trn dollars. China now holds only about 12% of all U.S. treasuries in circulation, amounting to about $7.3 trn.[23] It is possible that there are some other treasuries that China owns indirectly through third countries, but China's policy of dumping American treasuries gradually, in order to avoid a collapse in the price of treasuries, is obvious.

In addition, it should be taken into account that a huge overhang of "shadow" exaggerated financial assets denominated primarily in US dollars hangs over the commodity market and money circulation. This was announced in December 2022 by the Bank for International Settlements (BIS).[24] It is likely that Signature Bank and Silicon Valley Bank were part of this bubble, but there is no doubt that other large banks are also involved, since this bubble cannot be inflated without the participation of the world's leading financial institutions.

Statistics formally still show economic growth in developed countries, but these figures are doubtful. First, they take into account gigantic exaggerated financial transactions. Secondly, the statistics include the turnover of objects of intellectual property rights, which from a legal point of view is a legal monopoly. The inevitable imminent sequestration of intellectual property rights, without which the developing world will never catch up with the Western one, will also reduce the corresponding GDP indicators of developed countries. Thirdly, the statistics include huge international payments for the circulation of entertainment via the Internet, payments for which it is technically easy for the authorities to limit if necessary.

2. Reserve Currencies. Why Would the Saudis Board Chinese Yuan?

The share of the U.S. dollar in international reserves has historically been volatile. It decreased in 1978–1990, then grew until 2002, after which a gradual decline is observed.[25] According to the IMF, as of March 31, 2023, allocated reserves in foreign

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[23] Dorothy Neufeld, *Foreign Holders of U.S. Debt*, Visual Capitalist, 24 March 2023 (Jul. 31, 2023), available at https://www.visualcapitalist.com/which-countries-hold-the-most-us-debt/

[24] Bank for International Settlements, *Quarterly Review*, 5 December 2022, at 67–73 (Jul. 31, 2023), available at https://www.bis.org/publ/qtrpdf/r_qt2212.pdf.

[25] International Monetary Fund, *Reserve Currencies in an Evolving International Monetary System*, No. 20/02, prepared by an IMF staff team led by Alina Iancu (2020), at 5 (Jul. 31, 2023), available at https://www.imf.org/-/media/Files/Publications/DP/2020/English/RCEIMSEA.ashx.

currencies, denominated in U.S. dollars, amounted to USD 11.15 trn, of which 6.58 trn in U.S. dollars, 2.20 trn in euros, 609 bln in Japanese yens, 541 bln in pounds sterling respectively. For comparison, two years earlier on 31 March 2021, allocated reserves amounted to 11.73 trn U.S. dollars, of which 7.0 trn in U.S. dollars, 2.40 trn in euros, 672 billion in Japanese yens, 554 billion in pounds sterling respectively.[26] It's important that despite the some exchange rate fluctuations inside this period of time, the yen and the euro have devalued to the USD assessing the full period of time. So the decrease of reserves denominated in euros and yens is even larger compared to their nominal decrease denominated in U.S. dollars. Since the IMF does not disclose in detail the structure of allocated reserves by their holders, I can assume that their decline is accompanied by an increase of concentration in developed countries hands. But more important is the physical lack of goods and services on which to spend this money.

One of the main purposes of creating "reserve currencies" is usually to export inflation from the country that prints and exports its reserve currency. The country issuing the reserve currency brings down its internal inflation by transferring it to other countries that accept and store its currency.[27] Therefore, the refusal to use U.S. dollars or euros as reserve currencies by other states increases the level of inflation in the U.S., or the eurozone, respectively. In addition, this feature of reserve currencies implies the inexpediency of excessive accumulation of any foreign currencies as reserve currencies, including the Chinese yuan, since it makes no sense to import inflation from China in the same way as to import it from the U.S. and the Eurozone. In this context, I believe that the arrest of part of the Russian state reserves was partly due to anti-inflationary considerations. Technically, it is possible to carry out new money emissions "for sequestered assets," which increases inflation less than compared to the situation than if this money could be simultaneously used by their owner.

Currently, the main direction of de-dollarization within the BRICS, which is publicly recognized, is the transition to mutual trade in the national currencies of the BRICS countries. However, trade in national currencies is always complicated by the fact that there are imbalances in the mutual trade of the two countries, and it is almost never possible to balance the mutual trade flows. The surplus of the partner's currency, formed in the course of mutual trade in national currencies, is unclear how it is to be used. You can, of course, try to invest this money in the economy of a specified partner or sell it to some third country, but this is far from always possible in practice on favorable conditions. A technically tougher option which is offset trading is also associated with pricing difficulties. In addition, as we mentioned

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[26] Currency Composition of Official Foreign Exchange Reserves (COFER), International Monetary Fund (Jul. 31, 2023), available at https://data.imf.org/?sk=e6a5f467-c14b-4aa8-9f6d-5a09ec4e62a4.

[27] Murray N. Rothbard, *A History of Money and Banking in the United States: The Colonial Era to World War II* (2022).

above, the accumulation of foreign currency, in fact, is an import of inflation from the country that issued it.

The recent news that Saudi Arabia will sell oil to China for Chinese yuan caused wide resonance. In fact, this is a departure from the famous 1974 deal between U.S. Secretary of State Henry Kissinger and President Richard Nixon, the King Faisal bin Abdulaziz Al Saud and the Prince Fahd bin Abdul Aziz and, which included the sale of Saudi oil for US dollars. But it is completely unclear how the parties to the China-Saudi new deal are going to balance mutual settlements, especially in an environment where the yuan is not even a freely convertible currency? Its conversion occurs to a limited extent in manual mode through the Hong Kong dollar.

Under these conditions, there is no doubt that Saudi Arabia will soon accumulate very large amounts of Chinese yuan, but then what to do with it? A similar problem, by the way, will arise in before any country that China or India will very soon demand for expanding access to their huge settlement markets, mainly in yuan and rupees, respectively. The population of Saudi Arabia is not very large, is about 37 million people and wealthy, it can freely acquire all the necessary Chinese goods without yuan, which is what happens in practice. Even if to exchange the yuan on the free market for the currencies of other developing countries, then similarly what to do with them then? Therefore, we believe that the Saudis are planning to start massive lending to other Islamic countries in the Chinese yuan they are accumulating in order to increase their influence in the Islamic world in competition with other centers of influence. In fact, this is just a way to promote Chinese merchandise exports in the Islamic world, from which the Saudis will also receive part of the profits in formats that Sharia allows. Perhaps in these schemes there will be no Sharia-prohibited interest Riba, so such loans will be nominally cheaper than loans from conventional Western banks with interest, but there will be other forms of income.

There is no doubt that India seeks to buy as much oil and all other goods as possible from Russia for its rupees. However, this leads to a significant imbalance in Russian-Indian trade. Russia has already accumulated very large amounts of rupees, which are not a freely convertible currency and Russia does not need such an amount[28]. Russia managed to insist on the transfer of part of the settlements with India for oil into Chinese yuan,[29] but it is not clear whether Russia will face now an excess of yuan. If yes, what will be the next Russian step?

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28 Arab Ahmed & Swati Bhat, *India, Russia Suspend Negotiations to Settle Trade in Rupees*, Reuters, 4 May 2023 (Jul. 31, 2023), available at https://www.reuters.com/markets/currencies/india-russia-suspend-negotiations-settle-trade-rupees-sources-2023-05-04/; Sylvia Westall, *Russia's Rupee Trap is Adding to $147 Billion Hoard Abroad*, Bloomberg, 1 June 2023 (Jul. 31, 2023), available at https://www.bloomberg.com/news/articles/2023-06-01/russia-s-rupee-trap-is-adding-to-147-billion-hoard-stuck-abroad.

29 Nidhi Verma, *India, Refiners Start Yuan Payments for Russian oil Imports*, Reuters, 3 July 2023 (Jul. 31, 2023), available at https://www.reuters.com/business/energy/india-refiners-start-yuan-payments-russian-oil-imports-sources-2023-07-03/.

Another critical area is intellectual property, without which it is impossible to produce physical goods. I believe that patents will not disappear, but in developing countries there will be a mass compulsory licenses issue. The patent holders will have to prove every time that they really use these patents with a profit, and compensation for a compulsory license will be calculated on the basis of such proven profit. Accordingly, patent trolls will not receive anything. There is no doubt that people who profit in good faith from the use of their patents have the right to earn on them, but within reasonable limits. The needs of the new commodity economy objectively require that patent holders be prevented from restricting the use of inventions by others, that is, limiting the dissemination of knowledge in society.

3. Exacerbation of the Global Food Problem

Since it is physically impossible to describe each commodity market within the framework of a short article, I will focus on the most, perhaps, the most sensitive, critical and politicized entity now which is the food market. I do not see the need to provide evidence that the global food problem is escalating, since this topic appears almost daily in the world media.

At the end of 2020, the U.N. World Food Program (WFP) was awarded the Nobel Prize for its efforts in fighting hunger. I do not underestimate the efforts of the program and the sincerity of its leader David Beasley in the desire to overcome hunger. This person does a lot of useful things and deserves deep respect. Nevertheless, the activities of the program are largely based on the principle of "collecting money from governments and, if possible, other donors, for this money to promptly purchase and distribute food." They simply do not have the opportunity to work differently. This is momentary help in the moment for those who are starving here and now. At the same time, these actions are simply extinguishing individual fires by administrative methods, that is, treating symptoms, but not treating the disease, and certainly not preventing it. The WFP, like the Food and Agriculture Organization of the United Nations (FAO), has neither a practical plan for solving the global food problem, nor the resources to make serious progress in solving it.

Speaking of the International Grain Council (IGC) the developing grain-producing countries have no motivation to actively participate in the work of this organization, in which they were de facto removed from management. The IGC uses two voting systems depending on which issue is being voted on. Under the first system, out of a total of 2000 votes, the U.S., European Union, The United Kingdom, Australia, Canada, and Japan have a total of 1295 votes. Under the second system, out of a total of 2000 votes, the United States, EU, the UK, Australia, Canada, and Japan have a total of 1127 votes.[30] Brazil and China are not part of the IGC at all.

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30 International Grains Council, *Report for Fiscal Year 2021/2022* (January 2023), at 20 (Jul. 31, 2023), available at http://www.igc.int/downloads/publications/rfy/rfy2122.pdf.

I am convinced that the mechanism for solving the global food problem is primarily national governments, and not international organizations. Firstly, international organizations are characterized by lengthy debates on any petty issue, and secondly, because national governments control physical food.

Table 1: **Trends in the performance of the world's major wheat exporting countries since 2000 (million tonnes)**[31]

YEARS	EU	USA	Argentina	Australia	France	Canada	Russia	Ukraine	Kazakhstan	Total top8	Total world exports
2000/01	16	28	11	17	19	17	1	0	4	97	102
2001/02	13	26	12	16	12	17	4	5	4	96	108
2002/03	18	23	6	11	17	9	13	7	6	92	107
2003/04	10	32	7	15	14	16	3	0	4	91	104
2004/05	15	28	14	16	17	15	8	4	3	105	114
2005/06	16	27	8	15	17	16	11	6	4	104	114
2006/07	14	25	12	11	15	19	11	3	8	104	116
2007/08	12	34	10	7	12	17	12	1	8	101	116
2008/09	25	27	9	13	16	19	18	13	6	121	143
2009/10	22	24	5	14	17	19	19	9	8	115	134
2010/11	23	36	8	18	20	17	4	4	5	112	133
2011/12	17	28	12	23	16	18	22	5	11	135	153
2012/13	22	27	7	21	17	19	11	7	7	116	147
2013/14	32	32	2	18	19	22	19	10	8	130	162
2014/15	36	23	5	17	19	24	22	11	6	127	153
2015/16	35	21	10	16	20	22	26	17	7	139	166
2016/17	28	29	14	23	11	20	28	18	7	150	178
2017/18	24	25	13	14	17	22	41	18	8	158	176
2018/19	24	26	13	9	17	24	36	16	9	150	168
2019/20	39	26	14	9	20	26	34	21	7	157	185
2020/21	30	27	11	24	14	26	38	17	8	165	190
2021/22	33	21	15	26	18	15	33	19	8	155	190
Totals 2000-2022	504	595	218	353	364	419	414	211	146	2720	3159
Totals 2017-2022	150	125	66	82	86	113	182	91	40	785	909

31 Sébastien Abis, *The Geopolitics of European Wheat*, Robert Schuman Foundation, European Issue No. 66, 15 May 2023 (Jul. 31, 2023), available at https://www.robert-schuman.eu/en/european-issues/0669-the-geopolitics-of-european-wheat.

It should be noted that Turkey, one of the key centers of influence in the Islamic world that competes with the Saudis, is largely dependent on both food imports and exports. Before the Covid pandemic, huge processing facilities were built in Turkey, focused on processing wheat into flour. Of course, it is much more profitable to export flour as a product of a more advanced stage of the value chain than grain. Therefore, before the pandemic, there was a tendency with the Russian authorities to demand from Turkish business a partial transfer of flour milling production to Russia.

Turkey is now striving for a monopoly on processing Russian grain into flour, using Russia's logistical dependence on its straits.[32] In addition, Turkey is beginning to raise the issue of organizing a regional grain exchange on its territory, that is, it wants to be the center of pricing for grain crops in the Eastern Hemisphere.[33] Since Russian food exports depend on access to the Turkish straits, it is likely that the Russian government will make serious efforts to diversify the logistics routes for exports to Asia and Africa, primarily along the North-South transport corridor through Iran.

I believe that the geopolitical aggravation will become a driver for developing countries to concentrate as much as possible on physical food and other goods that are critical for them within their territory. The literature points to the failure of attempts to create even small international reserves of rice even within small pools of Asian countries.[34] It was also proposed to create a global food reserve for rice, wheat and corn managed by the WFP through voluntary contributions.[35] But it is not clear who in real life will agree to make contributions to the reserve in the required volumes. Another project described the formation, under the management of the WFP, of a small Reserve Grain Fund in independent warehouses and a large "virtual" fund for intervention during a period of price surge.[36]

There were also some subsequent proposals to focus on regional cooperation. Food reserves could be organized more efficiently on a regional level. Poor harvests, local factors and, more generally, all cyclical factors affecting food security are often

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32 Timur Batyrov, *Erdogan announced Turkey's readiness to process grain from Russia and supply it to Africa*, Forbes, 5 January 2023 (Jul. 31, 2023), available at https://www.forbes.ru/society/483462-erdogan-zaavil-o-gotovnosti-turcii-pererabatyvat-zerno-iz-rossii-i-postavlat-afrike.

33 The largest grain exchange can be created in Istanbul, APK inform, 26 July 2022 (Jul. 31, 2023), available at https://www.apk-inform.com/ru/news/1528345.

34 For example, in framework of Agreement on the ASEAN Food Security Reserve, New York, 4 October 1979 (Jul. 31, 2023), available at https://asean.org/wp-content/uploads/images/2012/Economic/AMAF/Agreements/Agreement%20On%20The%20ASEAN%20Food%20Security%20Reserve.pdf.

35 Corazon Aragon, *The United Nations Must Manage a Global Food Reserve*, UN.org (2008) (Jul. 31, 2023), available at https://www.un.org/en/chronicle/article/united-nations-must-manage-global-food-reserve.

36 Joachim Von Braun & Maximo Torero, *Implementing Physical and Virtual Food Reserves to Protect the Poor and Prevent Market Failure*, IFPRI Policy Brief, 10 February 2009 (Jul. 31, 2023), available at https://www.semanticscholar.org/paper/Implementing-physical-and-virtual-food-reserves-to-Braun-Torero/519135153121da543fa4e1da1a87a4e560e493bf.

limited to one country or a part of it. Regionally integrated national stockpiles can in such cases mitigate famines, as do the regional food reserves of the World Food Programme (WFP). Such a "virtual" joint operation of food reserves, through sales or loans, would probably reduce price volatility and speculative market behavior. The biggest problem here, for obvious reasons, is in the conditions under which stock releases would be automatically triggered: a "regional right to food" in sufficient quantities is not available today. There is only one such scheme in operation, the ASEAN Plus Three Emergency Rice Reserve Agreement (APTERR) signed on 7 October 2011. It is one of several policy instruments to manage food security risks within the context of effective regional cooperation. It provides for international food stock releases to respond to local emergencies. In practice, however, its functioning has been limited to its voluntary food aid window.[37]

In my opinion, the authors of these projects did not take into account that many poor countries could not even tolerate the average annual prices for grain. Therefore, the fight against short-term spikes in prices is not a solution to the problem. It is impossible to imagine coordinated behavior, especially during periods of aggravation of the international situation, behavior between a large number of exporting countries, sometimes with opposing interests and conflicts among themselves. In addition, many governments of poor countries may rightly believe that only stocks that are in physical form in warehouses on their territory under their own control can be considered reliable food reserves. In the real physical world, when it is not about future "virtual obligations," but about real physical goods in reserve warehouses, the situation with them is disappointing. In mid-2018, ASEAN rice demand was approximately 500.000 metric tons per day, so APTERR's stock of 787.000 metric tons was only enough for a day and a half of consumption.[38] There is no convincing evidence that this situation has improved in 5 years. China has prudently created a very serious reserve of wheat and rice. The relatively low stocks of wheat and rice in the EU and India are worrisome, while their stocks of wheat are declining dynamically.[39] But what about those states that do not have Chinese capabilities?

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37 Christian Häberli, *After Bali: WTO rules applying to public food reserves*, Food and Agriculture Organization of the United Nations, Rome (2014), at 11–12 (Jul. 31, 2023), available at https://www.fao.org/3/i3820e/i3820e.pdf.

38 Kunmin Kim & Paula Plaza, *Building Food Security in Asia through International Agreements on Rice Reserves*, Asian Development Bank Institute, Policy Brief No. 2018-1 (August 2018), at 8 (Jul. 31, 2023), available at https://www.adb.org/publications/building-food-security-asia-through-international-agreements-rice-reserves.

39 Grains: World Markets and Trade, U.S. Department of Agriculture, Foreign Agricultural Service, 12 July 2023, at 22–23, 25–26 (Jul. 31, 2023), available at https://www.fas.usda.gov/data/grain-world-markets-and-trade; also *see* Food and Agriculture Organization of the United Nations (FAO), *Crop Prospects and Food Situation*, Quarterly Global Report, No. 2 (July 2023), at 39 (Jul. 31, 2023), available at https://www.fao.org/3/cc6806en/cc6806en.pdf.

As for the World Trade Organization (WTO), the cornerstone principle of its work which is the Most Favored Nation (MFN) principle is now in ruins. No one pays any attention to the fact that companies from "allied" WTO member countries are not discriminated against in comparison with companies from "non-allied" countries. In addition, within the framework of the WTO there are no mechanisms for protection against many types of economic sanctions; moreover, WTO treaties directly allow them. I do not think that the WTO will be formally liquidated or that anyone will formally withdraw from the WTO, but I believe that the current WTO rules will no longer de facto regulate most world trade. Not only because of the collapse of the MFN principle, but also because these norms are fundamentally monetary in nature. The WTO rules are ideologically aimed primarily at ensuring a reduction in the price level in conditions when it is fundamentally possible to buy any non-military goods with "Western money." Even if it is not possible to bring down the prices of some goods and services, this is also not a problem, because money for their purchase does not need to be earned by counter deliveries of goods, since it can simply be printed. The rules and regulations of the WTO would lose their significance, because they are not designed for application in a non-monetary economy, when a number of goods cannot be bought at all with "Western money" from non-Western countries. For these goods, "Eastern money" or specific technologies would be demanded by barter or shares of certain companies with seats on their boards of directors.

Of course, there will be no complete dictatorship of commodities producers, because there is their mutual dependence on technologies. Without them, the production of goods will not disappear, of course, but will significantly decrease. But technology owners also need to sell them to someone. In addition, the system of rapid automatic issuance of compulsory licenses already described above will become a powerful factor that will encourage technology owners to be compliant. Therefore, relations between developing and developed countries of the world could become more equal and balanced.

If we are to talk about the de facto replacement of the WTO in the food sector, then the scenario of the parallel operation of several competing international grain unions is highly probable.

4. Regional Currencies and Currency Unions

Since it is impossible to quickly integrate all five currencies of the BRICS countries, the idea under consideration is put forward at first to try to integrate at least the Russian ruble, Chinese yuan and Indian rupee. However, the success of even such a trilateral currency project is debatable, since there will be endless disputes about the current exchange rate of the supranational currency in relation to the national currencies of each country, the volume of emission and quantity, the location of emission centers, etc.

According to Fuji, the world is currently gradually intensifying the movement to create a new settlement currency and a new payment system to replace SWIFT. So far, such possible alternatives have significant drawbacks, namely, they have a slow processing speed of financial messages, high cost and propensity for errors. If Beijing is now leading in the total volume of trade with Africa, then Moscow is far ahead of it in terms of arms and food supplies to the African continent. Until now, the dollar and the euro have a monopoly place as settlement currencies in Africa. But since China and Russia have begun to create alternative international settlement systems, there is a possibility that the "world map of currencies," at least across Eurasia landmass, may change significantly in the future.[40]

As Friedrich von Hayek interpreted the very old but deeply correct Gresham-Copernicus monetary law in the new realities of the 20th century, in contrast to the case of fixed exchange rates established by law; with floating exchange rates, money of inferior quality will be valued lower and people will try to get rid of the money as soon as possible, especially if there is a threat of a further decline in their value.[41]

In this regard, money can be defined in the form of physical goods, and bonds for their delivery, but only if the reliability of their physical delivery is beyond doubt. Mainstream economic literature sometimes ridicules the past use of physical goods in various societies being money,[42] but there is nothing funny here. As a short historical digression, I note that, for example, the world-famous legislator King Hammurabi successfully led Ancient Babylon for 42 years until his death, because he perfectly understood the importance of national food security and how to ensure it in practice. He introduced a complex highly developed system of field irrigation with very strict compliance control. Hammurabi paid the salaries to soldiers mainly in food and land, although there was also money circulation based on silver. Officials and army officers, depending on their hierarchical level, received various complex combinations for salaries, consisting of silver, food, housing and high-quality clothing. In today's realities, there is no need to transfer physical goods from place to place every time, but it is critical that the opportunity to receive a physical product is provided for everyone who wants to do this.

According to Papa to achieve a global currency status, BRICS would need a strong track record of joint currency management to convince others that the new currency is reliable. De-dollarization efforts have been struggling both at the multilateral and bilateral level. In 2023, the New Development Bank remains heavily dependent on the dollar for its survival. Local currency financing represents around 22% of the bank's portfolio, although its new president hopes to increase that to 30% by 2026.

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40 Kazuhiko Fuji, *Is the Era of Dollar Hegemony Coming to an End? Settlement Currencies Begin to Diversify?*, JBpress, 7 September 2022 (Jul. 31, 2023), available at https://jbpress.ismedia.jp/articles/-/71637.

41 Friedrich von Hayek, *The Denationalisation of Money* (1976).

42 Jason Goodwin, *Greenback: The Almighty Dollar and the Invention of America* (2003).

Despite the barriers to de-dollarization, the BRICS group's determination to act should not be dismissed – the group has been known for defying expectations in the pat. No doubt, talk of a new BRICS currency in itself an important indicator of the desire of many nations to diversify assay from the dollar. But focusing on the BRICS currency risks missing the forest for the trees. A new global economic order will not emerge out of a new BRICS currency or de-dollarization happening overnight. But it can potentially emerge out of BRICS' commitment to coordinating their policies and innovating – something this currency initiative represents.[43]

Miller, the CEO of the Russian state gas company Gazprom, argues that two systems are breaking apart, on the one hand, the system of commodity markets, which is a resource-based system, and on the other hand, the nominal system, which is the system of central banks. Central banks regulate the nominal value of money through interest rates and exchange rates, they control the demand, but not the supply of raw materials and their volume. The classical scheme "money–goods–money," i.e. Bretton Woods paradigm, is being replaced by "commodity–money–commodity." The demand for raw materials is increasingly replacing foreign exchange reserves. This is a serious tectonic shift, it gives us a window of opportunity in terms of restructuring the global system of production and distribution of fuel and energy resources for a more efficient and fair energy provision.[44] Earlier, in 2009 Feigin, adviser to the CEO of the Russian state oil company Rosneft, substantiated the fallacy of the ideology that a sharp excess of non-commodity transactions over commodity transactions is sign of a developed market, since it allegedly provides "liquidity" and contributes to the formation of an "objective price" for this product. He referred to it as the capture of commodity flows by monetary methods.[45]

Conclusion

There is no doubt that the creation of a new financial infrastructure for the BRICS has stalled. In my opinion, any financial infrastructure is always derived from the pricing rules for basic physical goods, since banks serve the commodity turnover. If there is political will, significant financial speculation is easily blocked by regulatory

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[43] Mihaela Papa, *How long will the dollar last as the world's default currency? The BRICS nations are gathering in South Africa this August with it on the agenda*, Fortune, 25 June 2023 (Jul. 31, 2023), available at https://fortune.com/2023/06/25/dollar-reserve-currency-brics-brazil-russia-india-china-south-africa/.

[44] *Миллер А.* Сырьевые рынки переживают тектонические изменения, для России и Газпрома это окно возможностей // Neftegaz.ru. 16 июня 2022 г. [Alexey Miller, *Commodity Markets Are Undergoing Tectonic Changes, for Russia and Gazprom – This Is a Window of Opportunity*, Neftegaz.ru, 16 June 2022] (Jul. 31, 2023), available at https://neftegaz.ru/news/transport-and-storage/741023-a-miller-na-pmef-2022-syrevye-rynki-perezhivayut-tektonicheskie-izmeneniya-dlya-rossii-i-gazproma-et/.

[45] *Фейгин В.* Конец эры «бумажной нефти» // Россия в глобальной политике. 2009. № 1 [Vladimir Feigin, *The End of the "Paper Oil" Era*, 1 Russia in Global Affairs (2009)] (Jul. 31, 2023), available at https://globalaffairs.ru/articles/konecz-ery-bumazhnoj-nefti/.

methods so the fantastic financial speculations always testify solely to the lack of political will of the authorities to suppress them. I believe that a developed BRICS financial infrastructure will not be created until an agreement is reached between at least some of the BRICS members on new exchange pricing rules for the main goods they export. Since the BRICS New Development Bank is part of the dollar Bretton Woods system and cut its activity in Russia in 2022, it is inevitable that it would be excluded from the commodity-based financial system under the new pricing rules.

When experts talk about international payments in physical goods, they most often mean a return to the gold standard in one form or another. However, gold is not a basic necessity of life. In terms of pricing, the prices of delivery contracts of the Chicago Exchange for wheat objectively reflect the balance of supply and demand for this commodity within the United States. However, the BRICS countries are growing irritated that they are used as a price target in the Eastern Hemisphere as well, by adding mechanically to the domestic price of transport, logistics and customs costs for delivery from the United States to the corresponding countries of the Eastern Hemisphere. The balances of supply and demand in the Eastern Hemisphere are different, as are the balances of interests of producing and consuming countries in the context of different types of commodities. The same applies to metal trading in London.

Likely developing countries could introduce a new concept of exchange trading commodities, namely, trading on an exchange, not with individual goods, but with combined combinations of goods. The key way to reduce price volatility for individual commodities will be "packages," or "bundles" consisting of 4-5 heterogeneous commodities. It is always possible to "shake" the market of one product, and there are many historical examples of this in the literature.[46] However, it is unrealistic to swing the exchange markets of several unrelated goods at the same time. Of course, the sphere of exchange trading and individual commodities will remain. Trading on the exchange will be carried out at first in the currencies of developing countries. At the second stage, bonds for the supply of food and other critical goods will become the new international currency, provided that the reliability of their physical delivery is beyond doubt.

There may be such joint international commodity exchanges as the following:

– Chinese-Indian-Russian-Belarusian mineral fertilizers exchange,
– South Africa- Russian-Indian diamonds exchange,
– Chinese-Russian-Saudi-Kazakh titanium exchange,
– Saudi-Russian-Chinese oil exchange,
– Chinese-Russian-Brazilian-South African vanadium exchange,
– South African-Russian platinum and palladium exchange,

46 Torsten Dennin, *From Tulips to Bitcoins: A History of Fortunes Made and Lost in Commodity Markets* (2019).

– Russian-Kazakh-Turkish-Argentine wheat exchange,
– Russian-Kazakh-Iranian-Argentine wheat exchange,
– Russian-Kazakh uranium exchange.

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