

The BRICS at 20 on a Development Path to the Era of Digitization

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ABSTRACT

The purpose of writing this article is try to work out the principles that can be used to establish a shared mechanism of economic policy for the BRICS. The pandemic of 2020 has proven that with no cooperation and negotiation mechanisms the world is very shaky and powerless to deal with whole-scale crises. Therefore, the paper argues that especially nowadays there is an increasing need for multilateral mechanisms for solving the global problems such as these. The hypothesis is that informal groupings such as the BRICS may become an alternative that can help find solutions to the existential threats and challenges. The research is novel since it makes an attempt to lay the foundation for a shared economic policy mechanism for an informal group of countries with multilateral institutions responsible for specific problems like digital money circulation, provision of loans, debt relief, etc. The theoretical significance of the paper is that the proposed model of the shared economic mechanism of the BRICS may be a starting point for a new period in globalization based on digitization and more cooperation between countries. The practical significance of the research is that its deliverables can be used as policy tools for policymakers to come to agree on certain shared economic, political and social issues. The article concludes with recommendations for the shared economic policy in the BRICS and an outlook for the BRICS after the pandemic.

Keywords: *digital shared transactions currency, shared economic policy tools, the BRICS shared framework of economic policies, optimal criteria to shared economic policies, central monetary authority, gradualist approach to shared monetary policy*

1. INTRODUCTION

After seventy years of international cooperation in all spheres of people's lives humanity has faced one of the deepest and whole-scale crises which contains a number of crises including general economic, banking, financial, political, currency, debt, etc. However, in the past two decades since the start of the 21st century countries have relatively learned how to adapt to them. They got used to crises of all sorts just like they got used to climate change, hurricanes, earthquakes, nuclear explosions and radiation. They came to thin of crises like something you cannot live without and lost all sense of pain. They also came to understand the causes of the crises as hardships brought by others and started blaming each other for that. The last decade was precisely the period of some countries to try to shoulder their problems on others they thought responsible for all the trouble. They thought that the most effective tool for that were international sanctions in trade, banking, finance, technology, manufacturing, etc. The result was isolation. The argument goes that regional integration agreements have become ineffective in dealing with the crises, because the multilateral unions of today have given birth to more violence and intolerance. Countries disconnected from regional integration agreements that make them isolate within the borders of specific unions

would be more willing and eager to pursue open-border policies in the global economy. The year of 2020 has become a test for countries' ideologies aimed at isolation and blame. The pandemic has become a litmus-paper for populist leaders' idea that sanctions are a good mechanism to dealing with all sorts of difficulties. They had really to isolate from each other due to unprecedented pandemic. This has shown that the world is really global in nature, it is very vulnerable, and severing the ties between countries may lead to incredible crises able to destroy any state, no matter how large or strong.

However, with de-globalization, the world still needs a negotiation mechanism which ensures cooperation in dealing with economic, financial and health-care crises. One of the mechanisms to deal with these can be found in the BRICS. The creation and the introduction of a collective (or shared) economic policy for the BRICS pose a very difficult question about what kind of approach the group should take to do this.

Common digital money will, of course, make it easier to travel, buy goods and services from the countries of the grouping without the need to exchange one local currency for another [1].

As for the members of the union themselves, the common or shared money will make it difficult to manage the economy because it will offer no alternatives and

exceptions when something happens only in one country or a few countries of the grouping, and every one of them will have to follow some common gimmick.

What they can share, however, is a consensual economic policy and a digital virtual currency without a monetary union agreement, used as a transactions tender. The creation of an economic policy mechanism and money starts with the name. The basic principle to choose a name for an economic policy toolkit and collective digital currency for a group of countries is that there must be absolutely no indication in it to national origins or references for their history, culture, and specifics of their civilizations.

1.1. Related Work

According to the model's assumptions, we divided the underlying literature work into two blocks of categories.

1.1.1. The concept of consensual and shared economic policy for a group of countries

A policy for a group of countries can be called a common policy, a shared policy, a collective policy, a multilateral policy, etc. The Eurozone is commonly recognized to pursue common economic and monetary policies. In many recent research papers, there is talk about the Eurozone countries sharing one currency, one economic policy, one trade policy etc. A shared something has become a sort of a cliché for everything from cars to economy in general, namely car sharing, property sharing, residential property sharing, office sharing, etc. [2].

However, a shared good may also mean that it belongs to nobody in particular, like property in the Soviet Union where everything belonged to everyone and to no one in particular. A shared good in terms of the general theory of economics can be sold on the market, because to be sold in the marketplace, a good is to be private and exclusive. Economies and markets start where goods have specific owners.

For example, a digital economy has not come into being yet, because the problem of a digital economy is that governments, businesses and the public in general cannot decide the question whether data are a private exclusive good or a public good. If data are public, they cannot be sold on the market. Therefore, they will end up being provided by the government. Money today is still provided by governments. Hence money can be shared in a market economy. It can be traded and exchanged for goods and services and other currencies on the forex. This is what makes many researchers believe that a common or shared economic policy is still possible even in times when each country seems to be isolated [3].

The creation of a common or shared economic policy for a group of countries is a very comprehensive challenge and a problem of regional economic integration and globalization, because it erases borders, national identity

and national differences, cultures and the language of finance. A policy, no matter common or shared, for a group of countries always means decentralizing the power of a national economic authority and sovereignty of the state. This problem became especially acute due to the complications after the world financial crisis of 2008–2010 and as a result of transformations that have taken place in the international monetary system and international financial architecture since then [3].

The world economic crisis that has started in 2020 once again has shown that having an independent economic policy mechanism shared with no other countries makes it easier to deal with government debt and budget deficit. If countries share an economic policy mechanism, they will always have to look at the peers and ask a sort of a permission to settle debt and budgetary problems. During widespread and deep crises, emerging economies with no reserve currency status and freely convertible currencies opt for hard currencies to sustain growth and prosperity. A few rapidly developing countries, very rich in natural resources, labour, liquidity, capital and credit which they provide for the rest of the world such as the BRICS have recently started thinking about omitting currencies other than their own in bilateral transactions. They have also diversified their sovereign-wealth funds and foreign-exchange reserves by adding assets denominated in currencies other than the US dollar. They have been quite successful in doing it so far [4].

The economic crisis caused by the coronavirus pandemic may bring some new changes to that trend, too. In the short and mid-term there will be perhaps a setback in the BRICS own bilateral (penta-lateral) currency use and a temporary return to the US dollar. However, in the long run the BRICS is still expected to settle more foreign deals and transactions in the local currencies. The trend to diversify the foreign exchange reserves in the BRICS is likely to continue after the economic activity will have recovered by late 2021.

Still, the local currencies of the BRICS by themselves will hardly challenge the US dollar, even in the super-long run. The BRICS may succeed only if they cooperate more closely in bringing about a common or shared policy mechanism that would establish a new shared multilateral toolkit of cooperation. The shared mechanism of economic policy will help create a sustainable financial stability network and infrastructure based on financial stability facility institutions which have to be set up. The shared mechanism of economic policy will help the BRICS diversify economic and financial risks, because they will be shared as well. The risks will be allocated and shouldered by the countries as a single entity. One of the facilities in the common financial infrastructure of the BRICS may become a collective or shared fund which will be backed by the economic, industrial and financial power of the BRICS. The collective shared mechanism of economic policy of the BRICS, though an informal group of countries, if created, should naturally be torn off of any country's identity. Therefore, its most significant features are going to be digitization and virtualization of economic activities [5].

1.1.2. Comparative analysis of approaches to adopting a shared or consensual economic policy

The adoption of a common or shared economic policy in general and the shared monetary policy in particular in world best-practice cases is usually carried out by means of either “shock therapy” or a gradualist approach, or a mixed version of both.

“Shock therapy” means quick, forced and sometimes reckless introduction of a common or shared policy. If countries diverge too much in economic terms, they cannot integrate. “Shock therapy” policies can be justified only in emergency situations resulting from a need to accumulate integration potential for a formal group of countries due to an existential common outside threat that puts the member states in conditions of urgency, which is determined by the idea of maintaining sovereignty, economic integrity and survival in the period of turbulent transformations which happen objectively and irrespectively of the will and conscience of integrating nations [6].

The gradualist approach to a common or shared economic policy means an iterative, step-by-step harmonization of national differences expressed in major macroeconomic indicators.

The “shock therapy” and the gradual approach may come together in a mechanism for a common or shared economic policy. For example, the European Union is on the one hand a case of a gradualist way of adopting common economic policy, since as it has gone through a series of stages within a long period of time. On the other hand, the process of adopting common monetary policy in the EU only visually was proceeding gradually and step-by-step. The real harmonization of socio-economic indicators in potential member countries of the euro zone did not take place or went only too slow, and eventually, they entered the common euro area with quite varying budget deficits, tax rates, lending rates, reserve requirements, economic growth rates, inflation rates, etc.

2. METHODOLOGY

The underlying research is concerned with the shared economic policy of the BRICS. The consensual or shared economic policy of the BRICS should be aimed at creating the shared market and the shared money market of the BRICS, setting up the shared rate of refinancing, the shared reserve requirements, shared repo rates in the open market, establishing a shared monetary authority to issue the shared transactions currency, consensual or agreed-upon money supply and limits of making loans [7].

3. RESULTS

3.1. The model of the shared or consensual economic mechanism for the BRICS

Coming closer to the subject matter of the research, it is worthwhile to state that if hypothetically the BRICS had taken advantage of the liberal principles and the “shock therapy”-way of doing things, which can be called, say, 365 days plan similar to the 500 day plan adopted in Russia in the early 1990s in order to make the transition from the command economy to the market economy, then the sudden monetary expansion and multiplying money supply would have been very harmful for Brazil, Russia, India and South Africa, since they are weaker member states of the grouping in terms of economic, industrial, production and financial potential compared to China, because the former have higher inflation rates, higher lending rates and higher rates of refinancing as well as less elastic supply and demand of money.

China would practically not feel any significant changes due to common or shared economic and monetary policies, since it has the lowest interest rate in the BRICS, hence opportunities for lending in this country are more flexible and elastic [8].

In turn, the integration of the BRICS, with a common economic area and common monetary system kept in mind, would require lifting barriers to make free float of financial capital. And since financial capital, especially speculative one, moves to countries with relatively higher interest rates, then Brazil, Russia, India and South Africa, would be targets of aggressive investment on part of the Chinese market traders, which might shake the economies of the former and precipitate a financial crisis [9].

To prove this statement the research attempted to calculate an optimal amount of extra money in circulation that would not accelerate inflation and that would not cause overheat and credit boom as a major criterion or a principle of making a hypothetical shared currency agreement of the BRICS. These calculations are first of all based on the economic growth rates by which each of the BRICS GDPs might actually increase in terms of their finding themselves on the production possibilities frontier and in the conditions of full employment and total manufacturing capacity utilization [10].

Table 1 shows an economic effect for the BRICS from adopting a common or shared monetary policy within one year, e.g. 2020 as a year of a possible start of monetary integration within the countries in question, although, perhaps this is not a very good year to do this. However, since a crisis is also an opportunity as well as a threat, beginning a shared economic policy this year may lay the foundation to a quicker recovery and sustainable economic growth in the following decade.

The relevance of the gradualist approach is proven in the paper by means of a model in which the BRICS’s GDP is measured in terms of the amount of money base and money in circulation under the condition that these values

would remain constant during the whole period when the countries adopt the shared monetary policy. This ratio enables to calculate the potential values of GDP and money in circulation as a result of the accomplished integration [11].

For example, to determine the value of GDP which can result from the increase in the digital money supply that would expand due to decreasing internal rates of refinancing of the BRICS down to a shared rate, it is necessary to put the values taken as constant into the following formulas:

$$I_{to} = \frac{MC}{GDP} \times 100\%, \quad (1)$$

$$MC = I_{to} \times GDP \times 100\%, \quad (2)$$

$$GDP = \frac{MC \times 100\%}{I_{to}}, \quad (3)$$

where I_{to} shows how much GDP is covered by the money in circulation which is understood in as a constant here, i.e. the ratio at the beginning of the integration process is equal to the corresponding ratio by the end of the given period; MC stands for money in circulation which can potentially be received as a result of setting a shared rate of refinancing.

If the BRICS had been too quick to adopt a shared transactions currency, shared monetary policy and the rate of refinancing, then their economies would have to absorb all the money loaned out within a year. This money would

be added to their initial money supply based on the free market fundamentalist principle and the principle of free market enterprise and self-determination.

Thus, if you are to consider the resulting GDP and the amount of additional loans as is shown in Table 1, then the Brazilian economy would have to grow by 67.3% in one year's time, the economy of Russia – by 66.5%, India – 101.2% and South Africa – 63.3%, i.e. the GDP of these countries will have to be increased on average by more than twice their original size, which is according to common sense impossible to realize without any financial shock and negative consequences for society, nations, industry, manufacturing, production, price stability and other macroeconomic indicators.

This helps to explain the reason why Greece in 2009 was hit hard by a serious debt crisis, namely, beginning in 2002 with the introduction of the common currency euro, the country suddenly faced a strong, uncontrolled influx of free-moving affordable loans which immediately led to consumer loan boom and debt accumulation. Without adequate increase in taxes, government and corporate private debt of Greece soared, and when mostly foreign commercial banks asked for their loans back, the government of the former de facto declared a technical default.

Table 1 The economic effect for the BRICS from adopting a shared monetary policy

Indicator, billion dollars, unless specified	Brazil	Russia	India	China	SAR
The current rate of refinancing, %	2.25	4.50	4.00	4.35	3.75
GDP, trillion dollars	1.79	1.26	2.26	11.20	0.29
Money base	184.03	164.70	211.43	4,650.17	16.32
Money in circulation	66.49	125.93	116.72	1,127.02	10.14
GDP coverage by the money base non-accelerating inflation ratio, %	10.25	13.09	9.36	41.52	5.55
GDP coverage by the money in circulation non-accelerating inflation ratio, %	3.70	10.01	5.17	10.06	3.45
The shared interest rate of the BRICS, %	2.00	2.00	2.00	2.00	2.00
Additional money supply at the shared interest rate	44.67	83.73	118.14	1,024.64	6.43
The new money base	307.66	274.19	425.44	8,877.91	26.65
The new money in circulation	111.16	209.66	234.86	2,151.65	16.57
GDP coverage by the new money base, %	17.14	21.79	18.83	79.27	9.06
GDP coverage by the new money in circulation, %	6.19	16.66	10.39	19.21	5.63
GDP which can be produced at the expense of new money in circulation, trillion dollars	3.00	2.10	4.55	21.38	0.48
GDP growth which can be produced at the expense of the new money in circulation, trillion dollars	1.21	0.84	2.29	10.18	0.19
Economic growth GDP to adequately respond to money in circulation growth, %	67.18	66.48	101.22	90.92	63.35

Source: author's calculations based on the International Monetary Fund's Principal Global Indicators.

<http://www.principalglobalindicators.org/regular.aspx?key=60942003>

4. DISCUSSION

To avoid the negative scenario in the BRICS, this paper proposes a gradualist model of adopting a shared transactions currency and shared monetary policy.

This model aims at determining the amount of money loaned by which it is sensible and relevant to increase money base and money in circulation in the economy to adequately account for GDP growth.

This amount is called optimal, since it is the very sum which is relevant for an increase in the money supply to create additional purchasing power of population to buy goods and services produced in quantity that is expanded at an average economic growth rate in the country's GDP.

The result of it all is the timetable (Table 2) which says that the harmonization of money supply and interest rates in the BRICS may be achieved by the year 2030 at 2% under the condition that its GDP would grow at an annual pace forecast within the timeframe shown in Table 3, and the optimal increase in money in circulation up until 2030 should be bounded within the ranges indicated in table 4.

Tables 2–3 show timetables of gradual adoption of common currency in the BRICS with initial and final stages. As can be seen in these tables, the indicators for Brazil, Russia, India and South Africa fluctuate almost within the same channels, at the same level, and only the corresponding figures for China significantly outperform the rest.

Table 2 Timetable of harmonizing interest rates in the BRICS by 2030

Stages of harmonization	Brazil	Russia	India	China	SAR
Starting stage, 2020	2.2	4.5	4.0	4.3	3.7
Stage 2, 2021	4.6	5.9	5.0	4.6	5.6
Stage 3, 2022	5.6	6.2	5.7	4.5	5.1
Stage 4, 2023	6.6	6.5	4.9	3.4	4.7
Stage 5, 2024	7.6	5.8	4.0	2.4	4.3
Stage 6, 2025	6.6	5.3	3.7	2.3	4.0
Stage 7, 2026	5.7	4.6	3.4	2.2	3.6
Stage 8, 2027	4.7	3.9	3.0	2.2	3.2
Stage 9, 2028	3.8	3.3	2.7	2.1	2.8
Stage 10, 2029	2.9	2.7	2.3	2.0	2.4
Stage 11, 2030	2.0	2.0	2.0	2.0	2.0

Source: compiled by the author.

Table 3 Timetable of the optimal increase in money in circulation in the BRICS without causing inflation by 2030

Harmonization stages	Brazil	Russia	India	China	SAR
Stage 1, 2020	3,082.8	4,487.1	8,401.3	7,5266.5	539.4
Stage 2, 2021	3,854.0	6,725.9	8,556.4	7,7035.3	543.9
Stage 3, 2022	3,883.9	7,803.4	8,710.0	7,8205.9	547.6
Stage 4, 2023	3,840.2	7,613.6	8,848.5	7,8538.5	549.1
Stage 5, 2024	3,788.8	7,457.0	8,953.7	7,7867.7	547.1
Stage 6, 2025	3,723.6	5,327.3	5,556.5	7,6388.0	407.0
Stage 7, 2026	3,624.9	7,210.2	8,848.9	7,4763.0	523.8
Stage 8, 2027	3,540.4	7,683.8	8,802.8	7,2462.3	517.1
Stage 9, 2028	3,480.0	6,438.2	8,640.7	6,9315.8	504.7
Stage 10, 2029	3,408.9	6,315.3	8,412.3	6,6019.6	498.8
Stage 11, 2030	3,288.8	7,183.5	8,085.8	6,3272.1	478.6

Source: compiled by the author.

According to the model, China's GDP is to grow up to 21.4 trillion dollars by 2030, and its money base will amount to 2.1 trillion dollars to adequately respond to the national economy's need and the need of the rest of the BRICS in loans by that time.

The relevance of the achieved results depends on the condition that the elasticity of supply and demand on the domestic money markets will remain unchanged within the period in question. It means that during the whole period of harmonization until 2030 the BRICS will have to follow a consensual or shared monetary policy.

According to the prognosis developed for the purposes of constructing a shared monetary system, by 2025, economic growth rates in the BRICS are expected to drop a second time in the decade, which will perhaps coincide with the period of another recession (Figure 1).

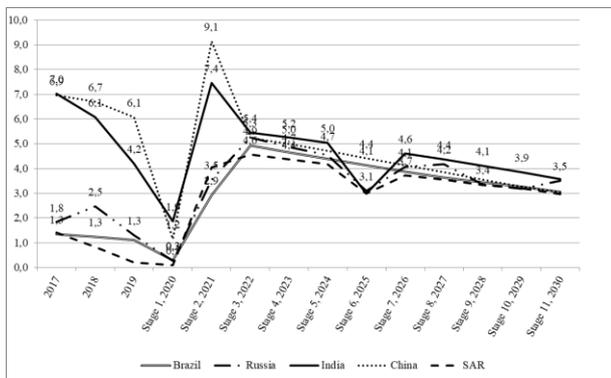


Figure 1 The dynamics of GDP growth rates in the BRICS by 2030 (actual data plus forecast)

In this respect, the central banks and the respective government authorities of the BRICS will have to continually monitor basic macroeconomic indicators, and if they deviate from the parameters stated in the model and the generally accepted plan-schedule of harmonization, they will have to take the respective relevant measures, i.e. to prevent economic growth rates from further and deeper drop in 2026, it is necessary to pursue stimulating budgetary and fiscal policies, namely, they should decrease taxes and increase government expenditure and subsidies. An alternative way would be to await automatic restoration of the stated growth patterns.

5. CONCLUSION

Based on the research that has been carried to write this paper, we may draw the following conclusions:

1. The circulation of a currency is a nationwide problem, whereas the circulation of a regional and world currency is a much broader problem which impacts billions of people's lives, price stability, economic growth and development and market equilibrium that are dependent on the quality of the money and circulation.

2. Money evolves and becomes more virtual, which means it can get beyond the power of a single government and become a subject of a shared economy encompassing a group of countries such as the BRICS, despite the impossibility of making it a regional integration union like the EU.

3. It is probable that the international economic integration in the later part of the 21st century is to evolve on the basis of the virtual monetary environment constituted of shared currencies the likes of which were proposed in this article.

4. If, say, Russia accepts the shared transactions currency of the BRICS, the parity of the initial consumer baskets in dollar terms is going to change by a certain amount. The basket measured in the dollar terms will thus become more or less expensive, and Russian exports may lose or gain price competitive edge. Since Russia is one of the leading exporters of materials and minerals to the world market, such price changes will cause a negative reaction on part of the countries importing its goods. In turn, there is a possibility of increasing currency risk on the international foreign exchange market and increasing volatility of the national currencies. Russia will also have to deal with the problem of re-estimating the assets expressed in rubles. However, since the overwhelming majority of assets in the world are expressed in US dollars, the introduction of the shared transactions currency of the BRICS will hardly influence the world equity market.

5. The research has identified the significance of the most important macroeconomic factors which characterize the potential shared market of the BRICS, namely, a shared interest rate and the quantity of money in circulation needed.

9. Due to the covid-19 the BRICS' central banks had to cut the interest rates really dramatically to stimulate economic growth. So, by 2021 we expect a bounce-back in economic activity in the BRICS because of the stimulus. However, starting with 2021, the BRICS' central banks will probably have to increase their interest rates to prevent inflation. This measure will certainly lead to moderating growth rates, unemployment and price stability.

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