Anahuac Puebla University – Economics and Business School (Mexico)

National Academy of Sciences of Ukraine - Institute for Economics and Forecasting (Ukraine)

Geoeconomics of the international monetary order: money and power in the 21st century

Collection of scientific papers of the international conference

(7-8 of June 2023)

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The collection contains abstracts of the speeches of the participants of the international conference on the topic "Geoeconomics of the international monetary order: money and power in the 21st century", which took place on June 7-8, 2023, organized by the Institute of Economics and Forecasting of the National Academy of Sciences of Ukraine and Anahuac Puebla University - Economics and Business School (Mexico). In the reports of scientists from Mexico, Italy, New Zealand, the USA, Great Britain, Ukraine and other countries, detailed assessments of the future world currency market are presented, attention is focused on the place of the dollar as the world's leading currency; outlines the place of China, and its new digital currency, the value of bitcoin for national power; the role of China in the new international monetary order is revealed; the geo-economic imperatives and asymmetries of the development of the world economy today, the role of Ukraine and its monetary and credit policy during the war are substantiated. The collection of scientific works will be useful for experts, scientists, teachers and students, as well as all those interested in solving modern problems of social development.

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Content

Валерій ГЕЄЦЬ,
академік НАН України,
директор ДУ «Інститут економіки та прогнозування НАН України»

Шановні колеги!

Мені дуже приємно скористатися нагодою і привітати всіх учасників конференції. Вчені нашого інституту займаються фундаментальними дослідженнями усіх галузей економіки та займаються прогнозуванням їх подальшого розвитку. При цьому ми відштовхуємося від того, що основою ринкової економіки є гроші та грошові відносини.

В Інституті економіки та прогнозування НАН України проблеми грошових відносин вивчають два відділи – грошово-кредитних відносин та міжнародних фінансів. Ми вважаємо важливим дослідження і природи грошей як економічної категорії, і трансформації міжнародних валютних відносин. Ці два процеси пов'язані між собою і зрештою впливають на всі галузі економіки.

Це особливо помітно зараз, адже діджиталізація, пандемія COVID-19 і особливо повномасштабна війна, яку розпочала Росія проти України, змінює світ, глобальну економіку, геополітичну та геоекономічну структуру загалом і, звісно, міжнародну валютну систему. Адже вони визначатимуть нову структуру глобальної економіки, а також нове місце України у світі.

Ми вдячні нашим мексиканським партнерам за організацію цієї конференції і співпрацю з Інститутом економіки та прогнозування та сподіваємося на подальшу співпрацю.

Ще раз вітаю всіх учасників конференції і бажаю плідних успіхів у вашій роботі!

Valeriy HEYETS,
Academician of the National Academy of Sciences of Ukraine,
Director of the SI "Institute for Economics and Forecasting
of the National Academy of Sciences of Ukraine"

Dear colleagues!

It is a great pleasure for me to take this opportunity to welcome all of you on this conference.

Academicians of our Institute are engaged in fundamental research of all branches of the economy and work out forecasts of their further development. At the same time, we proceed from the fact that the basis of the market economy is money and cash nexus.

In our Institute, the problem of studying monetary relations is dealt with by two units: ьonetary and credit relations and international finance researches. We consider it important both to study the nature of money as an economic category and the transformation of international monetary relations. These two processes are interconnected and ultimately affect all sectors of the economy.

This is especially noticeable now, because digitalization, the Covid pandemic and especially the war started by Russia are changing the world, the global Economy, the geopolitical and geo-economics structure in general and, of course, the International Monetary System. After all, they will determine the new structure of the global economy, as well as Ukraine's new place in the world.

We are grateful to our Mexican partners for organizing this Conference and Cooperation with the Institute of economics and forecasting and hope for further joint work.

Once again, I welcome all participants of the Conference and wish fruitful success in your work.

Ana Laura VAZQUEZ-RIVERO,
Research Director
Universidad Anahuac Puebla

WELCOME SPEECH

Ladies and gentlemen, distinguished guest it is one an immense pleasure and honor that I stand before you today as we gather here from this prestigious international conference on behalf of the organized committee, I extend. our welcome to each and everyone of you.

This conference serves as a platform for intellectual exchange, collaboration, and innovation, bringing together experts, researchers, professional of National Academy of Science of Ukraine and Universidad Anahuac Puebla. We have an incredible lineup of speakers who will share their knowledge, insights and experience making this conference an invaluable opportunity for learning and growth.

You know that the world after the pandemic has numerous challenges for the global economy, from generalization to persisting inflation, from the energy crisis to geopolitical tensions. Which is why it's essential for us to adapt, embrace, change and work together to create a better future. However, in the face of adversity, life opportunity, this conference aims to explore these opportunities, identify solutions, and foster collaboration to shape a brighter future for all.

The next two days, we will engage in through provoking discussions, engaging workshop and presentations and exchange ideas that will shape the trajectory of our files of expertise. The knowledge and insight guidance from this conference will contribute to the advance of research, innovation and policy making.

This conference will provide a unique platform for networking and new partnerships. I encourage all of you to take full advantage of this opportunity to connect with the fellow professionals, explore collaborative work, and expand your professional networks. Remember, it's through collaboration and collect effort that we can truly make a difference.

I would like to express my gratitude to all the individuals and organizers, who have worked to make this conference a reality. The organizing committee, sponsors, volunteers, and support staff had put in hours of hard work and dedication to ensure the success of this event. Their efforts deserve our appreciation. In closing, I would like to give our warmest welcome to all the participants. I am confident that this conference will be an inspiring and transformative experience for each and every one of you. Let us embrace change, harness our collective knowledge, and work together to shape a brighter future.

Thank you. And I wish you all a productive conference.

Jose CARRILLO-PINA,
Ph.D. studies on International Relations and Political Science,
Research professor,
Universidad Anahuac Puebla

CHINA´s ROLE IN THE NEW INTERNATIONAL MONETARY ORDER

Introduction

This paper aims to analyze the increasingly important role of China in the international monetary system, highlighting the role it currently has, as well as its possible scope as part of a strategy to challenge the US dollar and strengthen its international position. For this, two central aspects are examined: the increasing use of the yuan in international trade, especially in multilateral alliances such as the BRICS, and the promotion of a financial system parallel to that of the West.

As an economy with the world's second largest GDP, China is a leading state in the field of industrial manufacturing and advanced technologies. As such, it plays a substantial role in international trade, until a couple of years ago its transactions were carried out mainly in US dollars, however, in recent years and as a result of the, COVID-19 pandemic, the Russian invasion of Ukraine and the successive chain of Western sanctions on Russia have prompted China to address more cautiously the implications of using the dollar in its transactions and the possible risks that this may entail [1].

Consequently, the Asian giant has promoted initiatives with its commercial and political partners, for a growing use of the yuan and other currencies, in order to minimize the possible risks of a monetary dependency on the US dollar. The foregoing is generating a reorganization of the international monetary system, very similar to that of the following years after the end of the second world war.

China is currently in one of the best positions it has had throughout its history. It is the third largest country in the world and with the largest number of inhabitants on the planet, understanding that this implies having a large amount of natural resources and workforce, which has boosted its economic and commercial growth. Based on these considerations, the Asian giant is positioning its currency worldwide, through different strategies. This places China as an economic, productive power and in recent years as a military and geopolitical power. Also, a series of strategies can be observed by the Chinese government to challenge the power of the US dollar, a situation that was unthinkable a decade ago [2].

Background

China began its transformation and economic rise in the year 1978, with President Deng Xiaoping; after a series of very serious crises. This leader established a policy called the four modernizations. This policy was focused on agriculture, industry, technology and defense. In this way, the four modernizations have been the central pillars for China's rapid growth, and its increasing participation in international trade. As well as its influence on the global economic landscape [3].

Today, China is a major power that is using all its resources and platforms to strengthen and consolidate its power, especially in monetary matters. That is, China risen in just 45 years.

Since the end of the Word War II, the US dollar began a process of global positioning, with the creation of the International Monetary Fund and the World Bank; It is also relevant to mention that the international monetary regime emanating from Bretton Woods had the gold-backed dollar as its cornerstone, thus defining an international monetary order with the dollar at the head. Later, this system was strengthened in the 1970s, as a result of the oil crisis in 1973 and the establishment of petrodollars as an international exchange system. In short, these circumstances consolidated the United States as one of the leaders of the world monetary system, characterized by a historical predominance of the dollar. However, in recent decades we have witnessed a growing influence of China in the global monetary system.

An example of China's rapid growth is that this country has been able to double its GDP per capita in just 10 years, something that took the United Kingdom 150 years and the United States 50 years when they industrialized respectively. Likewise, China is currently the main trading partner of many countries internationally; which implies an ever larger exchange of capital. In this way, China has the possibility of establishing the patterns of capital flows in the future, taking into account that international trade is one of the most productive economic activities in globalization [4].

International positioning of the renminbi

China has taken important steps to internationalize the yuan, including the opening of settlement centers in different parts of the world and the inclusion of the yuan in the IMF basket of currencies. Thus, in 2015, the RMB joined the four currencies that already made up the SDR basket; along with the US dollar, the euro, the Japanese yen, and the British pound sterling. This is an achievement and a recognition of the progress of the reforms of the monetary, exchange and financial systems of China, and of the advances in the liberalization, integration and improvement of the infrastructure of the financial markets of the country. What has resulted, is that despite the COVID-19 pandemic and the war in Ukraine, the Chinese currency holds the fifth position as a global payment currency [5].

The IMF's decision to make the RMB a freely usable currency manifests the increasing importance of China's role in world trade and the considerable increase in the global use and exchange of the renminbi. In addition, this determination will have some implications, such as the inclusion of the RMB in the SDR basket underpins the process of internationalization of the Chinese currency; likewise, the inclusion of the RMB in the SDR basket makes the RMB more attractive as an international reserve asset. This will encourage the diversification of international reserve assets, triggering a possible loss of hegemony of the US dollar in these matters.

Furthermore, China is expanding its monetary influence by other means such as strategic investments in various countries worldwide, where the countries with the most reception of this type of investment are: the United States, Canada, and Australia. Also, it is possible to observe a very remarkable trend in the Global South, where it is possible to mention large investments in Latin America and Africa. Similarly, foreign direct investment in other countries, that is, acquisitions of foreign companies, has shown interesting movements; where we can highlight the purchase of the Swiss company Syngenta by China National Chemical Corporation for 43,000 million dollars, one of the most expensive acquisitions in recent years. Moreover, Chinese corporations have also bought companies in countries such as Canada, Australia, Hong Kong, Italy, Brazil, and Peru. These developments had had impacts and effects on international financial markets [6].

New international monetary order

The pandemic triggered a process of structural change in terms of production, distribution and administration of production systems and the international monetary system. In other words, the closure of factories in China, the increases in the costs of transportation and production systems, and the rising prices of energy have encouraged Western companies to begin the process of relocating their production plants.

On the other hand, after the invasion of Ukraine by Russia and the implementation of economic sanctions by the West and NATO against Russia, various countries began to see the dollar as an instrument or element of potential coercion for the economies of other countries. This has accelerated a process of de-dollarization and international monetary diversification, where the yuan seems to be gaining traction [7]. This is furthering the international projection of China and also of the Chinese currency.

This context has caused a series of reactions and measures by countries and groups of countries. China and Russia have created a payment system parallel to SWIFT. China and the BRICS are boosting their trade in their respective currencies and/or renminbi. Russia will sell large amounts of gas to China, with the aim of redirecting its exports. Argentina is promoting the use of the yuan in transactions with China, with the aim of better managing its economic crisis. Also, there will be an increase in Russian gold sales to China; Thus, the RMB is gaining more importance in the international monetary system, that is, it is clear that there is a group of countries that is strengthening in this convulsive context, that group are the BRICS with China in the lead [8].

Similarly, Brazil is de-dollarizing its trade relations, with the aim of reducing monetary dependence on the United States. China is developing the e-CNY as a Central Bank Digital Currency (CDBC), a project that could increase the international projection of the RMB, as one more strategy in its monetary consolidation plans. The BRICS are proposing the creation of a common currency.

The intention of countries to abandon the dollar as a reserve currency is a manifestation that the end of US dominance is at stake. In this sense, in June of this year, the foreign ministers of the BRICS group met to discuss two main issues, the first is the expansion of the bloc to 19 countries (with some countries interested in joining the group, such as Saudi Arabia, United Arab Emirates, Egypt, Kazakhstan, Iran, Cuba and Argentina, etc.), and the second topic was the possible creation of a common commercial currency, with the aim of converting it into a reserve currency [9].

Meanwhile, the economic instability of the United States, inflation, large public debt, high-interest rates, and the bankruptcy of companies have weakened the dollar, causing a variety of international actors to seek alternatives to the use of the dollar. In this way, the BRICS countries are an example, since this group together with other countries are showing an association of increasing power as an alternative to the United States. Thus, a common currency to settle payments among the BRICS member states will simplify transactions and provide the basis for creating their own payment system.

More critically, it is important to underline that China is an important trading partner for almost all of the BRICS countries and several of the other countries interested in joining this group. Moreover, it can be mentioned that some of these countries interested in membership in the BRICS bloc are planning to increase their yuan reserves in the next 2 years. These facts suggest that China is making use of individual strategies and group strategies to position the RMB globally.

It is relevant to underline that if Saudi Arabia joins the BRICS, such an event could be a game changer for the petrodollar, further destabilizing the position of the dollar as an international currency. In this vein, Iraq also announced plans to start trading oil in yuan and join the BRICS. Likewise, China is decreasing the use of the US dollar in its cross-border transactions, thus encouraging the use of the yuan with its trading partners; Therefore, it has signed bilateral trade agreements in local currency with countries such as Russia, Brazil, Argentina, Kazakhstan, Bangladesh, Pakistan and Laos [9].

The trends are clear, possibly more economies will gravitate towards trading with the yuan, and if commercially viable alternative payment mechanisms are developed, that may increase the challenge for the dollar, especially if US inflation increases significantly in the near term. Although, it is relevant to underline that the yuan will not displace the dollar immediately, it is possible that this will happen faster than Western specialists suggest.

To support the foregoing, it is important to note that the BRICS members currently represent a little over 42% of the world population, close to a quarter of the World´s Gross Domestic Product, and a little over 18% of trade. The data of the Gross Domestic Product of the year 2022 reveal that, today, the BRICS group of economies are, in terms of purchasing power parity, greater than the G7 economies as a whole, since the participation of the G7 in GDP worldwide is declining [10].

Conclusions

A new international order is being created and the vectors that are defining the hegemony of countries, in addition to the traditional ones, now include commercial and monetary variables.

At this time, there are more and more countries and actors on the international stage that are beginning to gradually disassociate themselves from the United States. Conversely, the BRICS are consolidating as a counterweight to the United States and the US dollar.

Likewise, the BRICS are no longer an alternative body, they are now a well-defined actor or element in the global arena. After the foundation of the BRICS New Development Bank, the proposals for the creation of a common commercial currency seem very feasible. In case this happens, it will be a game-changer for the current monetary structures.

In this way, China is the leading state of the BRICS and in this sense, it will define some strategies of said group to project its currency, both within the group and internationally. Thus, China is challenging the hegemony of the United States and the dollar, but it is not doing it alone; China is playing as a team in the grand scheme of things.

Finally, it is important to point out that the new global order is what is at stake in Ukraine, since this situation has triggered a series of geopolitical, financial, monetary and commercial transformations that are reshuffling the structure of polarity within the international system.

References

1. WTO (2023, May 30). *China Trade Profile*. https://www.wto.org/spanish/thewto_s/countries_s/china_s.htm
2. World Bank (2023, June1). *Trade % of GDP – China and United States*. https://data.worldbank.org/indicator/NE.TRD.GNFS.ZS?end=2022&locations=CN-US&name_desc=false&start=1960&view=chart
3. Botton, Flora (2019). *Historia mínima de China*. El colegio de México. P. 336-344.
4. Peng, Mike (2023). *Global business*. 5th Edition. CENGAGE, p. 5-10.
5. IMF (2016). IMF Adds Chinese renmimbi to special drawing rights basket. *IMF News*. https://www.imf.org/en/News/Articles/2016/09/29/AM16-NA093016IMF-Adds-Chinese-Renminbi-to-Special-Drawing-Rights-Basket
6. Shields, Michael (2017). ChemChina clinches landmark $43 billion take over of Syngenta. *Reuters*. Industry, Material & Utilities. https://www.reuters.com/article/us-syngenta-ag-m-a-chemchina-idUSKBN1810CU
7. Eichengreen, Barry (2023). What it will take to reshape the global monetary order. *The Japan times*. https://www.japantimes.co.jp/opinion/2023/03/26/commentary/world-commentary/chinese-yuan-payments/

8. Swift, (2023). RMB Tracker, Monthly reporting and statistics on renminbi (RMB) progress towards becoming an international currency. *RMB Tracker*.
9. Francoise, Nicolas (2016). China and the Global Economic Order. *China perspectives, Open Edition Journals*. p. 7-14. https://journals.openedition.org/chinaperspectives/6960
10. Ginn, James, (2023). The BRICS are coming, are the dollar´s dominant days numbered? *UCG.org. Beyond Today*. https://www.ucg.org/beyond-today/beyond-today-magazine/the-brics-are-coming-are-the-dollars-dominant-days-numbered

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PROSPECTS FOR MONEY AND CURRENCIES IN THE POST-WAR WORLD

The War of Russia against Ukraine has a big impact on the Geo-Economic system of the World. It is clear that Russian-Ukrainian War already is changing the Power Game in the World. Theoretically there are different scenarios of the End of this War: from Russia's victory to complete collapse of Russia. But the analysis proves that under any scenario some serious changes will happen in Global Geo-Economic System.

The Geo-Economic structure of the Global Economy is more briefly described by a planetary heliocentric model. The US economy is at the Center of the System, as it became the dominant force after the two World Wars. But at the beginning of a new history, part of the United States fell down to 23 % of the World GDP demonstrating the relative "compression" almost doubled during half a century, which gives reason to compare this process with the "cooling" of a Supergiant Star.

And this process creates a danger for the entire "Planetary System", since the unsurpassed dependence of the World Economy on the fading "Center of Power" can lead to a global catastrophic collapse ("The Great Crisis") and the "disappearing" economy of the United States, like a cosmic "Black Hole" will absorb the economies of many other countries.

So, now nobody of serious and influential actors is really interested (really wants) that the USA economy collapsed and the US economic dominance fully disappears. Especially, because the US Economy important and dominance is provided not by great GDP only but -

- by US dollar role as international reserve currency,
- by the US influence in major international economic organizations (which were created by the US's designs),
- by wide-spread US trans-national, global banks and corporations,
- by the US Technology Innovations etc.

Rather some actors are interested to compete with the US and finally to share dominance between the US and themselves. (May be looking for own dominance somewhere in far long times only).

But at presence the US still stays in the center of the Global System as the Sun with a few planets on its orbits.

In previous years one could see process of merger by the US Market two other markets (Canada and Mexico), which impact [*Burfisher at al*, 2001; *San Sebastion*, *Hurtig*, 2004; *Velut*, 2016] lead to establishment of what we can named the Single North-American market or Conglomerate (NAC). In Donald Trump Presidency this process was slow down but I suppose it will continue and such Conglomerate will be established.

The biggest planetary economic system (and closest to the NAC) is the European Union with its own satellites - related economies - first of all but only - the EU Candidate Countries and Associated Partners (not in Europe only - like Norway, Iceland or Switzerland) but in North Africa etc. Actually, Ukraine is on this orbit as well.

As for the UK - it moves by its own orbit between the US and the EU and may be will establish its own small system within the Commonwealth countries. [*Stevens*, 2021]

As one could see during last decades China does well to establish its separate system. In cosmogony terms it is not just planet. It aims to be a second independent center of the Global System. So we can name it "Red Dwarf Star" - it still moves around Global Centre but is enough far situated and already has a lot of satellites.

Japan, as I think, has lost capacity to be independent center of the power in Asia but still makes balance for China as well as India. Both still not ready to be only Chinese satellites and doesn't lose hope to be regional leaders as US Economic Proxy. [*Amorim, Lucena da Silva,* 2014]

Finally, Russia with its project of the Eurasia Union moves to a disintegration on a belt of minor planets and asteroids which would be pulled into orbit of other big actors – most likely, by China or Turkey.

So, to make some conclusion one could say:

• At the End of the Second Decade of the 2000s, the Global Economy was a system with three main "Centers of Power" - the USA, the EU, and the People's Republic of China.

• At the same time, there was a tendency towards the growing role of "Emerging Markets" (including East Asia and, to some extent , Africa), which gave reason to talk about a return over time to the historical "Asian leadership" in the World Economy (primarily China and India) - which existed until the 18th century.

• So, the West faced the need to respond to a new global challenge.

Speaking on the War Scenarios we could use that of them which are mentioned in the presentation by Jose-Miguel Alonso-Trabanco. There are few of them. But under any scenario, the Geo-Economic position of Russia will not just change, but will undergo a devastating collapse. Removed from globalization processes and deprived of access to the latest technologies, it will inevitably turn from a contender for the role of a global actor into a regional satellite of China, or, in general, into a great autarky of the "patriarchal Economy". And this, first of all, will radically change the geo-economic layouts in the post-Soviet space, which will be economically occupied by China and Turkey (perhaps with the consent of the USA and the EU).

However, Asian economic expansion in Western markets, if not stopped, will significantly lose momentum. As a result, the "economic rollback" of the USA will stop,and the international role of the dollar will relatively strengthen.

The question of the struggle for the second place in the global economy between the EU and China remains open: in the post-war era, the outcome of the competition will depend on the scenario of the end of the war, that is, on China's ability to increase its economic potential at the expense of Russia and the ability of European countries to get rid of dependence on the Russian market.

We have to understand that this War isn't only Russian-Ukrainian war. It is better to speak on Ukrainian Front of the Clash of Civilizations. But this is not clash with, for example, fundamental Islamism **-** as one could suppose few years ago.

Now it is understandable that we faced Clash between Democracy and Tyranny. Tyranny which is not restricted or determined by religious or culture. Tyranny as a form of Civilization Order.

One could see that now whole World is divided by this characteristic.

As Winston Churchill told: *'Many forms of Government have been tried, and will be tried in this world of sin and woe. No one pretends that democracy is perfect or all-wise. Indeed it has been said that democracy is the worst form of Government except for all those other forms that have been tried from time to time.…*[*Jasiewicz*, 1999] And this dividing has a Monetary Aspects as well. Let just remind that in the first years of the World War II the successes of "German weapons" inspired the Nazi leaders to plan their future "World Domination" on a large scale, including in the field of Economy. After returning from occupied Paris in the third decade of June

1940, Hitler instructed his Minister of Economy and President of the Reichsbank Walther Funk to prepare a plan for the Post-War Reorganization of Economic life in Europe. Even before the War, Germany had coped relatively well with depression and unemployment, and had a strong Balance of Payments (despite the large import needs of wartime preparations). Now Nazi economic recipes could be offered to all of Europe. And not only Europe.

Walther Funk announced the main principles of the "New Order" (Neuordnung) on July 25, 1940. It was to be based on close cooperation between Germany and Italy and the use of methods that would not allow the "unregulated play of economic forces." In particular, it was assumed that the existing experience of bilateral economic relations would develop into a system of multilateral trade, and balancing settlements would be carried out through Currency Clearing. Such a Monetary System would provide for fixed parities and stable exchange rates. Each government would regulate its Balance of Payments (by administrative methods), and therefore, problems of international imbalance would not arise. The Clearing System had to have a surplus of gold for payment purposes. But it was emphasized that Germany would never agree to a system based on a means of payment whose value it could not determine.

Of course, the world financial center had to move from London to Berlin, where clearing settlements between European countries will be carried out. As for the USA (which at that time had not yet entered the war against Germany), economic relations with them were supposed to be built depending on whether they would stop discriminating against German goods.

The global economy would have to be divided into several blocks and the leading currency of the Great German Economic Bloc (Grosswirtschaftsraum) would be the Reichsmark. It will be linked to the currencies of other bloc countries by a fixed exchange rate, which can be changed only by mutual agreement. However, the ultimate goal was to transform the Reichsmark into a single common currency.

This project, for obvious reasons, was never implemented, and the Post-War International Monetary System was built on completely different foundations (which at that time were just beginning to be developed). But one could also remind that this principle was laid in the basis of Comecon system of settlements in so called ‘transferable rubles.

As for Democracy - it has given another respond - the International Monetary Fund.

• The Post-War economic system was built around using the dollar and US capital to launch and support Economic Recovery.

• In return, the US had to commit to managing the dollar in accordance with its agreed responsibilities under the fixed exchange rate regime, while the rest of the (non-communist) world was to move increasingly towards an open trade and investment regime with full currency convertibility.

This system has given to Democracy an economic weapon against Tyranny, Autocracy and Totalitarity - as these countries were out of the IMF System.

• Sanctions on using the dollar have been leveraged in the past against Cuba, Russia, North Korea and Iran.

• The SWIFT and Dollar Dominance give the U.S. a great deal of leverage over other countries.

• The US weaponizes the global dollar financial system against Russia for aggression in Ukraine. By this reason Russia was cut off from access to US dollars as a consequence of aggression, including major Russian banks and energy companies.

The US and its allies froze near US $300 bln belonging to Russia’s central bank’s foreign currency reserves (equivalent to about 35 percent of Russian GDP) [*Reuters*, 2022], froze assets of a wide range of individuals and Russian banks, and severely limited Russia’s access to the SWIFT payment system.

Such measures selectively were applied to countries such as Afghanistan, Iran and Venezuela in the past, but this sanctions package is unprecedented, not only due to its scope and magnitude but also because it targets a major world power.

So, one could see that "cutting off dollar" - either in form of frozen dollar reserves or a ban to use international settlement system SWIFT - is a really very power weapon.

In such case dollar could be used as Monetary Nuclear Bomb. This should be used as "last argument of the Democracy".

Of course, Tyranny has understand such threat and try to avoid the risk by such methods as

- Renminbi Internationalization (including use of renminbi in the Continuous Links Settlements system or in the SDR basket, as well as creation of alternative Forex Reserves and Settlements systems);
- Countries which failed to do the same with their national currency (as Russia) prefer to establish Gold Stocks
- or to realize something like so called Valdai Project.

In his speech at the 19th Annual Meeting of the Valdai International Discussion Club in Moscow, October 2022 Putin accuses Western elites of playing "dangerous, bloody and dirty game" and even in starting the Ukraine War – as it reacted CNN and other experts. (*CNN*, 2022) However, few people paid attention to the fact that Putin three times (first in a speech and twice more in response to questions that did not directly relate to this problem) addressed the issue of the Russian vision of the future International Monetary System. According to him, "it is one of the key issues of today's development and the future, not only of the financial system, but also of the world order". In particular, he stated that "Russia considers inevitable the process of formation of new international financial platforms, including for the purposes of international settlements. Such platforms should be outside national jurisdictions, be secure, depoliticized, automated and not depend on any single control center". In essence, this means commitment to one of two options - a return to the "independent" and "depoliticized" Gold Standard, which is not managed from a single control center or (since gold was not even mentioned in the speech, despite previous attempts by the Central Bank of the Russian Federation to accumulate significant reserves of "yellow metal") to the idea of a "Single International Currency" (for which, however, it is necessary to create a "World Government", and therefore a "single control center" with a clear and rigid policy - in contrast to "blurred" decisions of the UN).

This misunderstanding of the essence of monetary processes was strengthened by the second thesis - about the need to expand settlements in national currencies. Moreover, for some reason, it was called a "precursor" to the creation of the above-mentioned "depoliticized" system of international settlements, although in practice and in accordance with logic, such a system increases the dependence of the Monetary System on the economic policy of dozens of national currency issuers. By the way, international law (including the IMF Articles of Agreement) does not prohibit such settlements, but the practice boils down to the fact that the counterparties themselves prefer only the most stable and convertible currencies (among which the Russian authorities tried to see their ruble).

This project of Neuordnung-2.0 remind the well-known joke – "It never happened before and now it has happened again". Because in essence, this project means commitment to one of two options:

- return to the "independent" and "depoliticized" gold standard, which is not managed from a single control center, or
- creation a "single international currency"

Which option is more real one?

Let try to look in the future. In the future of money and currencies.

Money – as **an economic category which related with specific monetary functions**

And Currency - **a specific form of money as medium of exchange.**

As we know a Modern Money exists in the two forms: as credit money - created by commercial banks or as fiat money - "printed" by Governments. In result of the War it is predicted some changes.

By ***Pessimistic Scenario*** **-** the World could come back to Gold.

The idea of returning from some form of the Gold Standard is as old as the death of the Gold Standard.

Even W. Churchill recognized the attempt to return to the Gold Standard as his biggest mistake. But these attempts are offered again and again by neophytes of monetary theory. And then, just like that, they recognize it as impossible.

In our opinion, it is possible. But under the condition of complete destruction of the existing socio-economic system. In other words, if Russia starts a nuclear war, then a return to the gold standard will be the most likely option.

By Second Scenarios (***Skeptical*** one) **-** we could see success of so called "Strange Money" (named not only because strange form, but also after Dr.Susan Strange **-** as it was coined by Nigel Dodd, LSE)/

Money is distinguished by its high degree of liquidity and low degree of risk, corresponding to expectations that derive from its status as a "claim upon society"- a form of socialized debt. But as Dr. Sussan Strange argued, these features of money are being undermined by the proliferation of sophisticated instruments of financial risk management **-** "strange money" **-** that, as monetary substitutes, both weaken states' capacity to manage money, and more broadly, contribute to "overbanking". The ultimate danger, according to Dr.Sussan Strange, is the "death of money".

It could happen by Securitization of money **-** the appearance of money features ("money-likeness") in certain instruments of the financial market, which reflects the deepening of credit relations as the basis of the functioning of modern credit money.

Securitization of money takes place due to the spread of performance of certain monetary functions (especially payment and accumulation) by "money-like" securities.

"Derivatives, in fact, are ***"behind the scenes" money***, which ensure that different forms of assets (and money) are co-measured not by government regulation (for example, regarding a fixed exchange rate), but by competing forces".

Scenarios No.3 **-** ***Fantastic and Realistic*** one **-** suggest the appearance of Big Data Money.

Yes, "Money is not just a manifestation of economic power; it is an important source of information.

The blockchain is basically a distributed database. (...) It uses state-of-the-art cryptography, so if we have a global, distributed database that can record the fact that we've done this transaction, what else could it record? Well, it could record any structured information, not just who paid whom but also who married whom or who owns what land or what light bought power from what power source. In the case of the Internet of Things, we're going to need a blockchain-settlement system underneath. Banks won't be able to settle trillions of real-time transactions between things".

So, to resume we approve:

- Coming back to any form of Gold Standard is possible but in case of Global Economy Degradation only;

- Securitization of Money was possible in case of Continuation of Economy Globalization in form of Financial Globalization **-** process which normal development was broken by the War;

- Information Money could be a New form of Money for Global Economy **-** if it (Global Economy) will survive after the War.

Now **-** about Future of Currency. Which form Global Money would exist in.

• First Option **-** ***Hegemonic Currency***. As Robert Mundell once has mentioned: "Optimum number of currencies is like the optimum number of gods **-** an odd number, preferably less than three".

The reason is quite simple: settlements in national currencies is possible, but in practice and in accordance with logic, such a system increases the dependence of the monetary system on the economic policy of dozens of national currency issuers. By the way, international law (including the IMF Articles of Agreement) does not prohibit such settlements, but the practice boils down to the fact that the counterparties themselves prefer only the most stable and convertible currencies.

After analyses of Currency competition in the Modern World we undertake to state the Status of the Dollar in the modern currency system is not just an "exorbitant privilege". Rather, it is a Duty of the Dollar – pleasant and profitable.

But unbearable for other currencies. At least now.

Second Option - ***Single Global Currency***. This is old dream for many economists, who seen different possibilities to create it.

But for such currency it would be, however, necessary to create a "world government", and therefore a "single control center" with a clear and rigid policy, in contrast to the "blurred" decisions of the UN. The UN has to be transformed in Global State. For now it is looked so realistic as Universal State.

Third Option - ***Network Currency***. Or the cryptocurrency as money in the classic sense. As it was noted in Goldman Sachs Report:

• "Bitcoin’s application as a form of real money is likely easier done. While bitcoin could hypothetically thrive as we see the Dollar, or Euro, it would likely face a whole host of fundamental challenges.

• In practice, Bitcoin and other Digital Currencies face significant practical hurdles to wider adoption - including potential government regulation and excessive volatility".

But use of Network Money means fighting between Monetary Sovereignty and CryptoAnarchy.

What is just Monetary Version of General battle - Sovereignty versus Anarchy.

If resume, we could note:

Realistic version for nearest years - and decades: US Dollar will keep privilege place in the Monetary System but - in competition with Euro and/or Renminbi - in dependence form End of the War.

Fantastic Version - appearance of the IMF SDR-style currency unit, which could be created but unlikely to re-place Dollar as major international currency

Probable Version - Network Currency step by step will push out other currencies and finally - even US Dollar. But it will be New Generation of CryptoCurrency not Bitcoin style ones.

References

Amorim, W., Da Silva, Lucena A.H. (2014). Japan and India: soft balancing as a reaction to China’s rise? [Japão e Índia: soft balancing como uma reação à ascensão da China?] *Rev. Bras. Polít. Int.*, *57* (special edition), 73-90. https://www.scielo.br/j/rbpi/a/8JxrmhxsKjHMGsR6jB6pVgy/?format=pdf&lang=en

Burfisher, M.E., Robinson, Sh., Thierfelder, K. (2001). The Impact of NAFTA on the United States. *Journal of Economic Perspectives*, *15*: 1, 125-144.

Jasiewicz, K. (1999, July). The Churchill Hypothesis. *Journal of Democracy*, 10:3, 169-173. Johns Hopkins University Press

Reuters. (2022, March 13). *Sanctions have frozen around $300 bln of Russian reserves, FinMin says*. https://www.reuters.com/article/ukraine-crisis-russia-reserves-idUSL5N2VG0BU

San Sebastián, M., Hurtig, A-K. (2004). Moving on from NAFTA to the FTAA?: the impact of trade agreements on social and health conditions in the Americas. *Rev Panam Salud Publica/Pan Am J Public Health*, *16*(4), 272-278.

Stevens, Ch. (2021). After Brexit: A Guide and Roadmap for the Commonwealth. *The Commonwealth Trade Hot Topics*, *174*. https://production-new-commonwealth-files.s3.eu-west-2.amazonaws.com/migrated/inline/THT%20174%20FINAL.pdf

Velut, J-B. (2016, février 26). NAFTA's Developmental Impact on Mexico: Assessment and prospects. *IdeAs Automne 2011* http://ideas.revues.org/71

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THE LOGIC OF GEOECONOMIC AND MONETARY TRANSFORMATIONS

Modern geo-economic and monetary transformations can be scientifically evaluated only as a result of the entire previous historical development. The economic development of countries, for various reasons, but naturally, is uneven, which leads to a change in the balance of power, the accumulation of contradictions and, ultimately, to reforming the world order in accordance with the new balance of power. Geo-economic and monetary transformations have interrelated, but relatively independent, logical-historical lines of development. These two lines combine in the formation and historical change of hierarchical networks, at the center of which is the country-leader of economic development with its strongest currency, which is widely used in international settlements.

The cell from which the development of human and society, the state and the market, globalization and localization begins is jointly-divided labor. In the process of historical development, jointness through a number of intermediate links reaches its highest result in globalization, and dividedness – in localization. As a result, the internal difference of jointly-divided labor developed into external contradiction of globalization and localization, which have many specific manifestations at all levels of human and social existence. A divided-jointl world was formed, in which there are, on the one hand, countries with their territories, borders, population, economies, business entities, business and culture, and on the other – a global world as a whole, in which all these countries and economies, subjects and cultures are interconnected.

After the era of the great geographical discoveries and the beginning of the formation of the world market, the contradictions of globalization and localization were resolved by reformatting the world order in the process of wars and subsequent peace agreements related to territorial division and regulation of international relations. In this context, it is possible to highlight: The Peace of Westphalia (1648), The Congress of Vienna (September 1814 – June 1815), The Treaty of Versailles (1919), Yalta and Potsdam Conferences (1945). The collapse of the USSR initiated a change in the post-war world order. And the Russian-Ukrainian war became the sharpest local manifestation on the territory of Ukraine of the global contradictions of the world's leading players after the Second World War. The fight is on for a new world order. In this movement, it is important to understand the content of the main transformational process of modernity, which determines all other transformations. Such a process is the transition from the industrial-market to the information-network economy. This transition is extremely contradictory and conflicting, since these systems are built on fundamentally different socio-economic principles.

The logic of the development of the monetary form of exchange, which is relatively independent of the logic of geo-economic changes, can be represented by the following logical-historical scheme:

1. Monetary-commodity form:
   1) money-metal form (gold and silver);
   2) money-bullion form (gold and silver bullions);
   3) monetary-coin form (gold and silver coins).
2. Monetary-sign form:
   1) coin-sign form (coins made of inexpensive metals);
   2) credit-sign form (banknotes backed by real money);
   3) settlement-sign form (payment cards).
3. The ideal form:
   1) non-cash form (non-cash money);
   2) electronic form (electronic money);
   3) network form (cryptocurrencies, digital currencies).

In this logical-historical scheme, each previous form does not disappear without a trace, but is removed, remaining in the next one: money metal is present in bullions, the latter turn into coins, which, losing their gold content, turn into signs. The latter change their form to a paper form backed by real money, and then turns into settlement signs. Along this path, money reaches its ideal form, both in the sense of the most perfect and in the sense of an immaterial form. This happens first through cashless accounts, then through electronic money, which is a more advanced form of cashless money, and finally, electronic money takes on a networked nature through cryptocurrencies.

Cryptocurrencies initially arise without any connection to the real value created for exchange. But, starting with the exchange for fiat money of central banks, they get such a connection, creating difficulties and risks for central banks regarding the regulation of money circulation. Gradually, this connection is strengthened due to the emergence of stablecoins, which are tied to fiat currencies or exchange goods. The pinnacle of this process is the emergence of digital currencies of central banks.

In the historical development of cryptocurrencies the logic of the development of real money is repeated in a different form, which was originally claimed by various goods, and the victory was won by gold, as the product most adequate to the essence of money and the implementation of its functions. The formation of an information-network economy, in which information becomes the main product and resource, and the movement of value acquires a network character, corresponds to the transition to network money as representatives of spatially localized quanta of value.

At the intersection of geo-economic and monetary logic, a geo-monetary logic arises, in which geo-economic changes are combined with changes in dominant currencies. The world order is formed along with the development of international trade and capitalist relations. Technological leadership provided advantages in areas that were crucial in international relations. Countries that were the first to master new technologies became leaders in world development ensured the strength of their currencies as a means of international payments:

- shipbuilding and seafaring during the period of intensive development of trade and trading capital made Holland the leader (second half of the sixteenth – first half of the seventeenth century) with its guilder, which was widely used in international trade;
- the industrial revolution in England ushered in the era of industrial capital, brought the country into the limelight (the second half of the seventeenth century – the beginning of the twentieth century), turning the pound sterling into the most reliable currency;

- the transition to the domination of financial capital turned the USA into a world leader (the first half of the twentieth century to the present), and the US dollar became the world's money;
- the formation of the information network economy leads to the dominance of information-network capital (led by companies such as Meta (Facebook), Alphabet (Google), Amazon, Apple and Microsoft), as well as varieties of network money, cryptocurrencies and digital currencies of central banks. The struggle for leadership is mainly between the USA and China, and the dollar and the yuan are competing for the development of the network monetary space and digital money.

Globalization through the movement of money is gradually moving into the virtual space, significantly changing its relationship with the localization of material and labor resources. The production of information as the main product and resource of the information-network economy is localized in scientific and technical centers, and money and technology are easily delivered to places of spatial localization of material and labor resources. Currently, the fiercest competition for the mastery of artificial intelligence technologies is unfolding.

Based on the clarification of the logic of geo-economic and monetary transformations, it is possible to draw conclusions about the trends that have already started and will intensify:

- the strengthening of contradictions and uncertainty of geo-economic and monetary development, due primarily to the transition from the industrial-market to the information-network economy, which is based on fundamentally different institutions and patterns of functioning;
- reformatting of the world economic and monetary order based on, on the one hand, increasing the share and role of the countries of the East in the world economy and the economic strengthening of China, on the other hand, reducing the influence of the countries of the West, the EU and reducing the share of the USA in world production;

- the reduction of the role of the US dollar in the global financial system and the gradual formation of several currency zones (US dollars, euros, yuan, rubles) with the parallel expansion of the use of cryptocurrencies, stablecoins and digital currencies of central banks in international settlements;
- the formation of a new polarity and configuration of the main world centers, the growth of the role of financial and technological power in the world space and the redistribution of real power between national governments and international corporations in favour of the latter;
- the growth of the role of digital technologies in all areas of society's life and changes on this basis in the structure of spatial localization of production, material and financial resources, and social differentiation of the population.

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GEOECONOMIC IMPERATIVES AND ASYMMETRIES FOR THE DEVELOPMENT OF THE WORLD ECONOMY TODAY

There is a fine line between the concepts of geopolitics and geoeconomics.

The essence of the term "geo-economic space" is revealed in the concept of geo-economics, which became widespread at the turn of the millennium as a separate area of related sciences - economic theory, international economics, international relations, global studies, etc. The basic concepts of geoeconomics as a direction of economic theory are characterized by ambiguous interpretations by supporters of a certain "scientific school" (American, Western European, domestic). Among the main imperatives are:

- the geographical imperative, determined by the organic connection of the economy and space, taking into account the climatic and natural features of development, the resource potential for the forms and patterns of economic activity;

- a shift in expansive actions from the military-political sphere to the economic sphere, the emergence of a special type of conflict - geo-economic wars;

- development of a policy and strategy for increasing the competitiveness of the state in the context of the globalization of the economy;

- merging politics and economics in the field of international relations, the formation of a system of strategic interactions and the foundations of global governance.

- the formation of a new world economic order: the desire for the effective use of spatial localization of economic (including geographical, demographic, transport, resource, monetary and financial) and political activities based on the formation of a new level of strategic interaction between national economies.

There are several approaches to the analysis of the development of economic systems. There are formalized and civilizational approaches to understanding civilizations. The civilizational approach to the analysis of the development of economic systems is more inherent in the comparison of societies in space. According to the adherents of this approach, society develops cyclically: it goes through the stages of origin, growth, breakdown and decay. Society is in constant motion, which leads it to civilization.

The mechanisms of development of geoeconomics and its institutional design are determined by the following factors.

- modification of commodity production through the globalization of production and investment cooperation;

- formation within the framework of the world economy of internationalized reproductive nuclei (cycles), acquiring a wandering character. The economic boundaries of these cycles (cores) do not coincide with the state-administrative ones, since the reproduction of vital goods takes place on a new global scale.

- formation of a moving cross-border financial system - geofinance. The financial sphere continues to be an economic environment that mediates the functioning of mobile, internationalized reproduction cycles (cores). At the same time, cross-border financial flows have shown themselves in a new function as a self-sufficient system that develops according to its own laws. There was a separation of the financial system from reproduction processes and a layer of virtual finance was born;

- the evolution of national economies and their business entities within the reproduction chain. In the formation of the national geo-economic model, it is foreign trade that influences the involvement of national economies (or individual economic entities) in internationalized reproduction chains;

- the formation of world income within the internationalized reproduction centers;

- the struggle for the redistribution of world income as a strategic benchmark. The need for an active offensive strategy and techniques (high geo-economic technologies) for operating in geo-economic space. A non-passive, foreign trade, opportunistic position on the world stage has a strategic effect, and active production and investment activity ensures that national economies reach high geo-competitive positions;

- a clear definition of international and economic borders, a certainty of national interests, the contours of strategic alliances, a system of integration movements, economic groupings in the space where the national economy realizes its strategic goals, that is, on the geo-economic map of the world;

- the ability to avoid serious losses due to the use of a geo-economic approach. After all, remaining within the framework of the trade and intermediary doctrine, the national economy is experiencing prolonged economic exhaustion. Spending through trade national wealth (energy, raw materials, intellectual, financial resources) and not being an active link in the global reproduction process in which unique goods are produced and sold to ensure the formation of world income, the national economy does not participate in its redistribution. The scale of the economy also influences geo-economic changes.

Geoeconomics is considered as modern geopolitics that determines the world economic integration of states and the creation of competitive regional economic conditions under the influence of global factors.

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ISSUES OF RISKS OF FRAGMENTATION OF THE WORLD ECONOMY

Globalization processes continue to exist in the world, but in conditions of regional and provincial restrictions. The active use of the sanction's regime defines individual countries as unfavorable not only for economic activity, but also those that are actually excluded from the process of globalization in general. There are real changes in the centers of economic power. We can also note the poorly controlled growth of indicators that the world has successfully struggled with over the past 30-40 years - from inflation to the number of citizens who are below the poverty line.

On the eve of the 2020s, world economic thought debated the prospects for development in the context of the so-called “slowbalization” - the same globalization, but one that occurs at an extremely slow pace, in fact at the level of maintaining the definition of the category itself [1].

Now we are increasingly talking about theoretical and practical fragmentation. In fact, there are processes of increasing economic fragmentation in the world, which acts as a counterweight to traditional globalization processes.

Fragmentation is one of the significant consequences of Russia's armed aggression against Ukraine and has prospects of dividing the world into geopolitical blocs with their own technical standards, reserve currencies and payment systems.

The fragmentation of the global economy is intensifying due to Russia's large-scale aggression against Ukraine. In this case: a) military aggression distracts efforts from solving issues of the world economy; b) the consequences of war for the world economy in the short and medium term are more than negative. The combination of these two factors increases the destructive impact of fragmentation and makes it extremely problematic to return the world economy to the level of globalization development of the previous decade. In addition, the factor of large-scale aggression against Ukraine leaves open a number of additional issues related to the end of military operations, the post-war restoration of the national economy, the alignment of political and economic forces in the world after that, and so on.

By fragmentation of the world economy, we mean the process of its disintegration and de-unification and the formation of geo-economic blocks with their own economic standards, systems for regulating export-import operations, defining new reserve currencies and payment systems.

Fragmentation does not lead to a chaotic state of the world economy – but instead of a global economy, the world becomes divided into geo-economic blocks with changes in the centers of economic power, spheres of influence of certain currencies, and so on.

In turn, the International Monetary Fund warns countries around the world against economic fragmentation, because the abolition of decades of integration will make the world poorer [2].

From our point of view, the fragmentation of the world economy leads to the development and new filling of the main risks of the world economy at the global level, which cover both climate issues and risks derived from them [3; 32]:

1. risks of unpredictable global shocks;
2. global warming risks;
3. food and water security risks;
4. risks of social conflicts.

Fragmentation of the world economy involves, on the one hand, taking into account the shocks of the world economy of the widest range, and, on the other hand, a fairly balanced approach to the choice of countries and international organizations as donors to the process of post-war reconstruction of the Ukrainian economy. This is due to a decrease in the volume of global financial resources that can be used for reconstruction, and an increase in the isolation of the world's countries on their own problems.

The international community is taking appropriate steps to coordinate and synchronize actions aimed at neutralizing various negative trends that undermine the stability of the global economy and world trade. The challenges that arise today are to set up a global balanced system, combined with maintaining the complex and contradictory dynamics of relations within its regional segments.

The economic development of Ukraine, as well as the development of comparable countries, is explained by a combination of three factors. These countries, first of all, were negatively affected by economic crises, which was reflected in the reduction of access to external sources of financing for the banking and corporate sectors, with all the corresponding consequences. Secondly, global crisis processes as a result of the coronavirus pandemic have led to a reduction in demand from developed countries for goods and services traditionally exported by these countries. Third, and most importantly for Ukraine, is the large - scale Russian armed aggression that has been taking place since February 2022.

The study of the risk aspect of fragmentation of the world economy allows us to draw the following conclusions.

1. The fragmentation is a process that is developing in the world and significantly replaces the traditional parameters of globalization. In fact, economic fragmentation is a counterweight to globalization processes. Fragmentation is one of the consequences of Russia's armed aggression against Ukraine and has prospects of dividing the world into geopolitical blocs with their own technical standards, reserve currencies and payment systems.

2. The post-war reconstruction of Ukraine will take place in the context of fragmentation of the world economy. Ukraine will continue to depend on external sources of financing and material assistance. It is extremely important to maintain the country's external development priorities, first of all, to gain full membership in the European Union. It is important to understand the significant role of the state in economic life in the conditions of war and post-war reconstruction.

The fragmentation of the world economy implies, on the one hand, taking into account the shocks of the widest range, and, on the other, a fairly balanced approach to the choice of countries and international organizations as donors to the process of post – war reconstruction of the Ukrainian economy. This is due to a decrease in the volume of global financial resources that can be used for reconstruction, and an increase in the isolation of the world's countries on their own problems.

3. The fragmentation negatively affects the risks of the global economy, which cover both climate issues and their derived risks. The main direction of the impact of fragmentation on the risks of the world economy is that the reversal of globalization processes itself distracts attention from solving global processes of humanity. If we add to this the sources of fragmentation itself (the coronavirus pandemic and the war in Ukraine), then the further fragmentation develops, the further the main risks of the global economy will be beyond an adequate response. This fully addresses the risks

of global warming, food and water security, natural disasters, and the risks of social conflict.

References

1. Slowbalisation: The future of global commerce. *The Economist.* January 24, 2019. www.economist.com/weeklyedition/2019-01-26

2. Martin E. IMF Warns Against Economic Fragmentation from War in Ukraine. *Bloomberg Markets Economics*. 2022. May 23. www.bloomberg.com/news/articles/2022-05-23/imf-warns-against-global-economic-fragmentation-from-ukraine-war

3. Plotnikov, O. (2023). The General Situation with Climate Change in the World and Risk Assessment for the Global Economy. In: T.C. Devezas et al. (eds.). *Global Challenges of Climate Change (*Vol. 2. *Risk Assessment, Political and Social Dimension of the Green Energy Transition*, p. 31-47). Cham: Springer Nature Switzerland AG. https://link.springer.com/chapter/10.1007/978-3-031-16477-4_3

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CONFUCIAN VALUES IN THE CONTEMPORARY GEOECONOMIC CONTEXT

In the last decade, we have seen an increasingly fierce, multifaceted, and multi-level struggle for reshaping the global financial, political, and socio-economic order. A key role in this struggle is played by socio-cultural values that determine the worldview position, ethos, strategizing, line of conduct, motivation for decisions and actions of subjects of the contemporary global confrontation. The nature of social and individual values largely determines the quality of such important factors of production as labor, entrepreneurial activity, industrial and social infrastructure, significantly affects the economic efficiency of information networks and innovation.

Confucianism is essentially not a religion or a comprehensive philosophical teaching in the ontological sense but rather the all-pervading system of social ethics, which has taken deep centuries-old roots in the countries of the East Asian region, the world center of contemporary socio-economic dynamics. E.g., in South Korea, there are less than 1% religious Confucians performing sacred rituals and worshiping

Confucius as a god. However, a vast majority of South Koreans, irrespective of their religious confessions or denominations, share fundamental Confucian principles and revere Confucius as a sage and ethical mentor.

The main ethical principles of Confucianism are loyalty to the state (emperor, national leader), respect for elders and hierarchy at all levels (family, community, nation, education, social statuses), and the primacy of public interests over individualism.

Western individuals unite into a community only by virtue of rational public coordination of their interests, i.e., the social contract in the well-known Jean-Jacques Rousseau's understanding. Meanwhile, in Confucianism, collectivism, for all the hierarchical structuredness of its manifestations, is considered as an intrinsic and complementary value of a harmonious society. At the polity level, this necessarily implies a socially responsible "strong state" that tirelessly cares about the well-being of its country and people. The state, economy, and society of the Confucian tradition are based on the mass conviction at all levels of public and individual consciousness that the best people (i.e., meritocracy), accordingly, govern the state, economy, and society.

For all its secularism and rationalism, so surprisingly underestimated by M. Weber, Confucianism, however, through the idea of the Mandate of Heaven, "placed the origin of the political authority of the ruler in the transcendental realm". [1]. Thus, the moral foundations of political, social, and economic behavior in Confucianism are substantiated by rational imperatives of harmonious development but, nevertheless, are not reduced to them.

The Confucian systems' phenomenal capacity for homeostasis is amazing. That is, the ability to reproduce themselves, to restore and maintain dynamic equilibrium in conditions of competitive openness, readiness to flexibly borrow successful institutions and technologies from other social systems, provide thereby horizons for further systemic development [2].

How does it work?

During the Edo period (1603-1867), Confucianism became the dominant ideology in Japan, which, in contrast to the traditional, mystical teachings of Buddhism and Shintoism, is based on rationalism, secularism and relies on civil bureaucracy. This stipulated the amazing speed of assimilation/implementation of Western technologies and education systems after the Meiji Revolution (1868).

At the end of the era of Japanese militarism (1931-1945), millions of Japanese soldiers, who for years existed between life and death, did not find monotonous work in civilian firms engaged in post-war reconstruction to be unbearable. In fact, in postwar Japan loyalty to firms replaced loyalty to the state during the war. In this way, the communitarian and solidarist character of Confucian capitalism was strengthened.

However, defeat in the war led to serious changes in social ethics. The main factor in this was the democratization of the economy promoted by the Allied Occupation Administration headed by General D. MacArthur in the areas of agrarian reform (liquidation of semi-feudal latifundia, transfer of land to the ownership of former tenants, mass introduction of farming), the organization of corporate management and labor relations (through reforming *zaibatsu* financial and industrial conglomerates, managed by owners-heads of family clans, into *keiretsu*, in which management is transferred to managers and workers' rights are protected by trade unions).

Thus, a massive, albeit painful, but extremely fast and effective transfer of the Confucian model of relations from the military sphere to reorganized civilian industries, which became the main drivers of post-war reconstruction and modernization of the economy, was ensured. In 1980 (the conditional milestone of the end of the period of the Japanese "economic miracle"), compared to the first post-war year of 1946, Japan's real GNP increased by 15.1 times [3].

The nature of East Asian market economy is essentially different from that of the West because it arose from a specific historical experience, based on

Confucianism. In the Confucian-tradition system profit and wages are important, however not the principal motivator of the economic subjects' behavior. So far, the East Asian Confucian-tradition economies retain a strong overall basis towards a greater utilization of human (primarily domestic) than of non-human resources [4]. In fact, prior to the Great Divergence between East and West at the turn of the 18^{th} and 19^{th} centuries, the East Asian developmental path, and that of China in particular, was as market-based as the European one, but was not the bearer of a capitalist dynamic [5]. From the long-durée world-system methodological viewpoint, we see that China has its own robust market economy tradition. It echoes with Grzegorz Kołodko's insights about China's "Third Way" [6].

The Japanese, S.Korean, Mainland China and Taiwanese Economic Miracles were achieved by effective use of the positive features of the national value system, especially Confucianism (including in the sphere of social responsibility and solidarity) combined with deep integration of the respective national economy into the world economic and financial system on the basis of comparative competitive advantages with a strong role of the state and robust protectionism of the national industries prospectively competitive in the global market.

The Confucian principle of the Golden Mean, that is, a reasonable balance of interests and a "community of common destiny", is successfully and effectively used in the Asian Infrastructure Investment Bank (AIIB), created on the initiative of the PRC and headquartered in Beijing: none of the three main forces, represented among the members of the Bank (China, developed economies and developing economies), has a controlling stake in the authorized capital and in the share of votes in the Board of Directors, but all three forces have a blocking stake (26-30% of votes), which ensures the search for a rational compromise and consensus in making important management decisions regarding the Bank's projects (unlike other multilateral development banks, which are dominated by either economically developed donor countries (IBRD, EBRD, ADB, etc.), or developing countries (The African

Development Bank - AfDB, Inter-American Development Bank (IADB), etc.), or countries with hegemonic ambitions (as Russia in Eurasian Development Bank (the EDB) since 2006 up to 2023). For comparison, AfDB has more than 2,000 employees, ADB has about 4,700 employees, while AIIB has only about 500 employees. Moreover, the AIIB's staff includes experts from non-member countries, for example, 6 Japanese experts. Despite geopolitical competition, the Bank actively cooperates with the USA and Japan as well as with the Asian Development Bank (ADB) controlled by them.

AIIB began operations in 2016 with 57 founding members (37 regional and 20 nonregional). By June 2023, AIIB has grown to 106 approved members representing 81% of the global population and approximately 2/3 of global GDP. AIIB is capitalized at USD100 billion and Triple-A-rated by the major international credit rating agencies [7]. In fact, ABII currently represents a new global paradigm of international financial cooperation.

Conclusions

China is likely to try to reassert its central, Sino-centric role in the world of the Confucian tradition (Taiwan, South Korea, Singapore, and even Japan) in the foreseeable future by spreading, in the context of the *Pax Americana* and the American dollar-based global financial system crisis), the values of Confucian civilization (through such projects and institutions of global leadership as the SCO, BRICS, AIIB, Confucius Institutes, etc.) all over the world. But it will most likely be rather an expansion of economic, financial, soft power than military or direct political power. Thus, we have been eye-witnessing some kind of reopening the question of diversification in global security, geopolitics, geoeconomics, modernization, even in developing new technologies and innovations.

Sustainable and harmonious development of the human capital and soft infrastructure of the national economy should be one of Ukraine's strategic goals in the postwar future. This implies an appeal to the wealth of the Confucian-tradition modernization experience that has been brightly demonstrated by several now highly competitive economies and societies in East Asia.

References

1. Kim, U. (2006). *Confucianism, Democracy, and the Individual in Korean Modernization. In Transformations in Twentieth Century Korea.* London and New York: Routledge, p. 226.

2. Kistersky L., Marmazov V., & Piliaiev, I. (2021). *Prospects for the East-West Civilizational Convergence: Confucian-Tradition Democracy in the Republic of Korea.* Prague: Coretex CZ SE, p. 28.

3. Uchino, T. (1983). *Japan's Postwar Economy: An Insider's View of Its History and Its Future*. Tokyo, New York, and San Francisco: Kodansha International Ltd., p. 230.

4. Sugihara, K. (2003). The East Asian Path of Economic Development: A Long-Term Perspective. *In:* G. Arrighi, T. Hamashita, and M. Seldon (Eds.). *The Resurgence of East Asia: 500, 150 and 50 Years Perspectives*. London and New York: Routledge, 2003. Pp. 78-123.

5. Arrighi G. (2008). *Adam Smith in Beijing. Lineages of the Twenty-first Century*. London, New York: Verso, p. 93.

6. Kołodko, G. W. (2018). Sotsializm chy kapitalizm? Tertium datur [Socialism or capitalism? Tertium datur]. *Ekonomika i prohnozuvannya [Economy and forecasting]*, (1), 7-36.

7. AIIB (2023, June 3a). *About the AIIB*. https://www.aiib.org/en/about-aiib/index.html

8. AIIB (2023, June 3b). *Members and Prospective Members of the Bank*. https://www.aiib.org/en/about-aiib/governance/members-of-bank/index.html

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THE SIGNIFICANCE OF BITCOIN FOR NATIONAL POWER

The conference paper is based on key contents from a doctoral research project about the geopolitical dimension of representative digital currencies. In a context shaped by complex interdependence as a major strategic game changer, the traditional concept of national power is being reinterpreted. Under the current *Zeitgeist*, national power is no longer confined to the integrative management of resources, assets, capabilities or deposits of instrumental elements that are useful to pursue national interests. Actually, the praxis of contemporary statecraft also seeks to harness the asymmetric advantages conferred by access to and control of platforms, systems, vectors and networks which undergird the dynamic flows of transnational interconnectedness.

Therefore, considering its growing levels of international projection, it is pertinent to clarify the implications of Bitcoin (BTC) for national power, in order to determine the overall direction of its influence and to identify both why and how it could either strengthen it or weaken it. The counterintuitive hypothetical assumption that – despite being a nonstate cybercurrency – BTC could increase national power is supported by the enduring historical symbiosis between money and power and the ability of states to leverage the benefits of ground-breaking inventions. Moreover, the relevance of this endeavour is highlighted by the current weight of monetary and financial issues for the domain of high politics, grand strategy and national security. In addition, BTC's unconventional architecture, ecosystem and characteristics represent a *terra incognita* which might offer a myriad of substantial opportunities for statesmanship.

Concerning its methodological underpinnings, this assessment relies on both the examination of both strategic forecasts and the forensic scrutiny of documented empirical realities whose behaviour provides enlightening examples. The nature of the subject matter requires a multidisciplinary understanding. As such, it integrates analytical insights and information from open sources - both primary and secondary - from three fields: security, geopolitics and international political economy. Furthermore, the formulation of the corresponding explanations reflects an interpretative worldview (*Weltanschauung*) which mirrors the logic of models such as political realism, geopolitical thinking and the nationalist school of political economy. The hybrid amalgamation of the three is needed to calibrate an analytical prism that is sharp, deep and holistic enough to approach a complex and disruptive phenomenon whose appropriate appraisal requires the transgression of narrow perspectives.

Background

As a nonstate, decentralised and unofficial cryptocurrency, BTC is a revolutionary and disruptive monetary invention. Its technological engine is the automatic and collective recordkeeping system known as blockchain, a digital innovation which belongs to the so-called "Fourth Industrial Revolution". BTC's unconventional governance structure is horizontal, as it is not controlled by hierarchical nerve centres of authority. Instead, it relies on systemic algorithmic programmes which do not demand institutional trust or legitimacy. In turn, the BTC ecosystem is a dispersed, heterogenous and borderless network that integrates various communities of users. Another remarkable feature of BTC is its secrecy: the identity of the masterminds who created it remains unknown and it also offers the ability to carry out pseudonymous transactions which flow through unsupervised channels. This cybercurrency was created in a changing environment shaped by the 2008 global financial crisis and the proliferation of debates about the actual worth of fiat money, the dollar's hegemonic position as the dominant reserve currency, the accumulation of unsustainable debts, the implementation of unsound monetary policies and the unprecedented power of banking clans in high finance and beyond. In fact, BTC is heavily inspired by the anti-state ideological creed of libertarianism. As the first of its kind, it embodies a quest for the renewal of monetary and financial paradigms. However, there are unsettled debates about its ultimate hardness and validity as an alternative form of money. Moreover, despite being a virtual currency, its existence is not confined to the universe of digital code. As a matter of fact, BTC is anchored to material reality because its operational performance needs a supporting infrastructure that includes state-of-the-art computational hardware, advanced microchips, electricity, power grids, telecom systems that provide internet connectivity, FinTech platforms and electronic devices. Although BTC started as a marginal phenomenon, its rising traction has grown to such extent that it has reached mainstream proportions. Nowadays, the BTC landscape involves the active presence of governmental entities, conventional market agents, all sorts of private firms and an increasingly plural and transnational userbase.

Assessment of Hypothetical Possibilities

Scanning the horizon through the lens of strategic foresight reveals various potential applications to leverage BTC as a pragmatic instrument of *raison d'État* which could serve national interests. Although these possibilities are speculative, their feasibility strongly suggests that those which have not occurred yet could take place in the near future. These include:

- *BTC as a potential facilitator of covert tasks*: special operations forces and intelligence services can rely on BTC to undertake clandestine payments, buy weaponry, participate in black markets, wage psychological warfare through social media, reward assets, fund "active measures" and intervene in foreign political processes by supporting either ruling elites or militias which incite agitation.
- *BTC as a catalyst to enhance financial intelligence (FININT)*: a better knowledge of BTC's architecture can bolster the ability of governmental agencies to gather actionable FININT, monitor transactions and disrupt enemy financial networks.
- *BTC as an alternative asset for the diversification of ForEx reserves*: as a denationalised neutral asset that cannot be easily frozen, BTC is politically attractive for states which want to assume a nonaligned strategic orientation, mitigate the potential threat of economic sanctions and reduce reliance on international financial circuits unilaterally controlled by powerful states.
- *BTC mining as a profitable industry*: if a state has access to the resources that are needed to foster economies of scale, this activity can be beneficial for the generation of wealth, the proliferation of economic dynamism, and the promotion of technological development.
- *BTC as an element that can harm national power*: in theory, a stateless monetary unit like BTC can diminish the ability to implement monetary policy and

challenge the Westphalian monopolistic control over the issuance of money as a quintessential expression of territorial national sovereignty. Its high degree of financial volatility is potentially problematic for the preservation of macroeconomic stability. In addition, as a nascent innovation, it can bring unknown risks that have not been identified yet.

Forensic Scrutiny of Empirical Phenomena

Recent and ongoing developments demonstrate the usefulness of BTC as an element which can influence the national power of states with varying geopolitical profiles. The most representative of these documented events include the following.

- *The adoption of BTC as legal tender by El Salvador*: The first experimental policy attempt to merge a national economy with the BTC ecosystem is an ambitious pursuit. It seeks the modernisation of the economy, the generation of wealth, the upgrade of infrastructure, preparedness for a coming age of monetary pluralism and the projection of "soft power". Considering the country's experience with proxy wars, it makes sense for Salvadorean statecraft to embrace an asset that enhances strategic autonomy in the context of the growing rivalry between the US and China.

- *Russian efforts to encourage industrial-scale BTC mining*: Russia is leveraging the availability of comparative advantages in Eastern Siberia to fuel the proliferation of BTC mining farms. These operations intend to harvest the full-spectrum financial, economic, technological and strategic benefits of such industry. The expectation is to bolster Russia's geopolitical position towards the West, China and the rest of the post-Soviet space, especially considering the overall fallout of the Ukraine War.

- *Engagement of the US intelligence community in the BTC ecosystem*: Both the CIA and the NSA heavily involved in the BTC ecosystem and even running projects focused on cryptocurrencies. Such presence is motivated by an interest in tracking transactions and users and in assessing their ramifications for national security.

- *China's perception of BTC as detrimental for national power*: The "Middle Kingdom" has followed a trajectory of increasingly draconian measures to get rid of BTC. Beijing believes BTC is harmful for national power because it could potentially instigate financial and economic disruptions, facilitate illicit transactions, compromise monetary sovereignty, marginalise the rollout of the e-CNY as a new form of legal tender, enable capital flight and promote ideological subversion.

Conclusions

Both empirical examples and hypothetical predictions confirm the multipurpose instrumental usefulness of BTC in the practice of statecraft. However, the implications of this cybercurrency for national power are not uniform for all states. As a matter of fact, it represents a double-edged sword that can either strengthen or weaken it. Although expectations and perceptions vary, the direction of BTC's influence on national power is determined by contextual circumstances. Accordingly, the pertinence and feasibility of relying on BTC as a force multiplier is shaped by such conditions. There is a partial correspondence between strategic forecasts and documented events. The former suggest that even more applications of BTC as an asset for national power will likely be implemented sooner or later. They also show that states with contrasting geopolitical profiles (including great powers and smaller nations) are engaging the BTC ecosystem in various ways in order to pursue their national interests. In turn, the latter indicate that BTC might eventually be involved in geopolitical phenomena related to rivalries, conflict and perhaps even the evolution of hegemony within the international system. Together, these lessons are instructive for scholars, but also for both analysts and practitioners involved in national security, foreign policy, economic statecraft, grand strategy and even business intelligence for private companies.

These findings can - to a certain extent - be extrapolated for other unofficial cryptocurrencies which share similar characteristics with BTC (e.g. Monero). Yet, it would be premature to generalise them for *all* virtual currencies. Further research is needed to decipher the long-range significance of corporate supranational "stablecoins" and state-backed central bank digital currencies (CBDCs) for modern *Realpolitik.*

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CHINA: GLOBAL ECONOMIC AND MONETARY DISPARITY

Dramatic changes in the global economic landscape are rightly driving discussions about the transformation of the international monetary architecture. Since China has become the new global industrial "workshop", the expectations of its new role in the monetary system, as well as in the global monetary hierarchy, are obvious. Such thoughts look all the more realistic, the more economic power the Chinese economy demonstrates. The fact that the yuan (RMB) received from IMF reserve currency status in 2016 could only heighten the general expectation that it will continue to rapidly develop in such a privileged position. However, these expectations may be exaggerated, at least for now, given the stark gap between China's economic and financial power in global production and its currency's modest place in the monetary world.

In 2010-2021, China's GDP nearly tripled from $6.1 trillion to $17.7 trillion. At the same time, the US economy grew 1.6 times from 15.0 to 23.3 trillion, and the EU GDP grew by 18% from 14.6 to 17.2 trillion. As a result, the Chinese economy has overtaken the EU economy to become the world's second largest economy (in current US dollars).

According to the World Bank, the Chinese economy is already the largest by PPP ($24.9 trillion, 2021), with US GDP of $21.1 trillion versus $19.7 trillion of EU GDP.

In 2021, China's export proceeds ($3.6 trillion) exceeded that of the United States ($2.6 trillion). While EU export proceeds ($8.7 trillion) surpassed China's, the former included trade within the EU, making the data not directly comparable. Finally, China is the absolute leader of this trio in high technology exports. So, in 2021, the latter amounted to $0.9 trillion in China against $0.2 trillion in the US and $0.7 trillion in the EU [1].

"The Belt and Road Initiative" to create a global infrastructure for China to enter international raw material markets, as well as to supply Chinese goods around the world, is an example of over-ambitious plans to build a new economic empire challenging the Pax Americana. The Asian Infrastructure Investment Bank, under China's control veto, is an international financial vehicle to smooth the implementation of this strategy [2].

Against this backdrop, it is not surprising that the share of IMF members using the US dollar as an anchor for their national currencies has declined from 33% in 2008 to 19.25% in 2021. What is less expected this is an almost stable share of IMF members, pegging their currencies to the euro (14.4% and 13.5%). Meanwhile, the absence of the countries pegging their currencies to the yuan is really amazing. This is particularly striking as 41.5% of IMF members continue to peg their currencies to other currencies (or baskets thereof), including such as the Australian dollar, the South African rand, the Indian rupee, SDR, the New Zealand dollar and the Japanese yen [3, 4].

According to the IMF, Chinese law obliges the People's Bank of China to maintain the stability of the value of the currency and thereby promote economic growth. However, this practice is more complex, since monetary policy in China de-facto takes into account variables such as inflation, economic growth, employment, balance of payments data, let alone the needs of financial stability, and financial reforms.

In this regard, the exchange rate regime in China appears more tied to the economic and financial needs of the country than floating, reflecting the state of the domestic market. The Chinese authorities themselves define their foreign exchange regime as managed floating, while the IMF considers it to be crawl-like agreement. There are several strong reasons for this discrepancy, as the RMB is de-facto pegged to a basket of 24 currencies with an official band of 2% [4].

All reserve currencies in the IMF SDR basket are free floating, except for the yuan. This, along with strict capital control, seriously limits the ability of the RMB to play the role of a leading international currency. Moreover, there is a general impression that the Chinese authorities do not have such a goal even in their strategic plans, at least in the foreseeable future.

Rather, they are concerned about stable economic growth, high employment, the overall competitiveness of Chinese goods, free access to raw materials, the availability and protection of infrastructure for export-import operations, the ability to import and/or copy new industrial technologies, and their scaling in local production facilities. In this picture, new investment and production continue to be paramount, while exchange rate and monetary policy are very important, but only tools for solution of the former.

Roughly speaking, the Chinese economy is large and developed enough to replace many Western goods in the world market, but has not yet demonstrated the ability to create technological breakthroughs on an international scale to change this market itself on a new industrial basis. In this context, China prefers to compete for a top position in the international market of goods rather than in the currency market. Because of this, the yuan has the potential to become an international currency, but hardly a leading one. However, even the first of these two options today looks very remote.

It is difficult imagine any reserve currency, for instance, the US dollar or the euro, anchored to the Thai baht or the Turkish lira. However, this is the case of the

RMB. As of April 2021, its daily exchange rate fluctuation was limited by a band of 2% against the US dollar, 3% - against the Australian dollar, the Canadian dollar, the euro, the Hong Kong dollar, the Japanese yen, the New Zealand dollar, the pound sterling and the Singapore dollar, 5% - against the Malaysian ringgit, the Russian ruble, the Swiss franc, the Korean won, the UAE dirham, the Saudi Arabian riyal, the Hungarian forint, the Polish zloty, the Danish krone, the Swedish krona, the Norwegian krone, the Turkish lira and the Mexican peso, 10% - against the South African rand and the Thai baht [4].

Despite China's top position in world production and exports, its national currency can hardly be considered as a prominent currency of the world's international reserves. From 2012 to 2022, the latter rose from SDR 8.5 trillion to SDR 11.4 trillion, with a gold share of 12.9%. The rest of the international reserves consisted of various currencies (foreign exchange reserves) and their baskets [5].

As of 2023 Q1, a global structure of allocated foreign exchange reserves was as follows: the US dollar – 59.02%, the euro - 19.77%, the Japanese yen - 5.47%, the pound sterling - 4.85%, the RMB - 2.58%, the Canadian dollar - 2.43%, the Australian dollar - 1.98%, the Swiss franc - 0.25%, other currencies - 3.65%. Given the different weights of the Canadian and Chinese economies in world output, it would be very difficult to expect their currencies to have nearly equal shares in global foreign exchange reserves [6].

However, this fact is easy to understand in the light of the different degree of financial openness of the economies of the two countries, the scale and features of their state regulation, de-facto convertibility of the Canadian dollar and the yuan, political specifics and corresponding risks, etc.

According to the latest IMF research, at the end of 2021, the share of the yuan in Swift cross-border transactions was 2.5%, compared to about 40% of the US dollar, followed by the euro. Meanwhile, currencies such as the pound sterling, the

Japanese yen, the Australian dollar, the Hong Kong dollar and the Canadian dollar each had a share of over 1% [7].

In order to take a stronger position in the global monetary hierarchy, China seems to need to improve its capabilities as the technological center of global industrial innovation, become a member of the privileged club of advanced economies, and free up its state control over the economy, its finance system, and to be ready to fulfill all the uneasy obligations of the state of the leading currency.

References

1. World Bank DataBank. *World Development Indicators*. https://databank.worldbank.org/databases
2. Gui Qing, Koh, Blanchard, Ben. (2015, June 29). China to hold some veto powers in new Asian bank. Reuters. https://www.reuters.com/article/us-asia-aiib-idUSKCN0P90B520150629
3. International Monetary Fund. (2014, October). *Annual Report on Exchange Arrangements and Exchange Restrictions*. Washington.
4. International Monetary Fund. (2022). *Annual Report on Exchange Arrangements and Exchange Restrictions 2021*. Washington, DC: IMF.
5. International Monetary Fund. (2022). *Appendix I. International Reserves*. URL: https://www.imf.org/external/pubs/ft/ar/2022/downloads/appendix.pdf
6. World Currency Composition of Official Foreign Exchange Reserves. https://data.imf.org/regular.aspx?key=41175
7. Perez-Saiz, Hector, Zhang, Longmei, and Roshan, Iyer. (2023). Currency Usage for Cross Border Payments. *IMF Working Paper*, WP/23/72.

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CHINA'S DIGITAL CURRENCY MAY SPEED ARRIVAL OF A MORE EQUITABLE BALANCE OF POWER

Writing in 1987 about Great Power competition, Paul Kennedy proposed that in economic terms, a multi-polar world had already arrived. Instead came dissolution of the Soviet Union and the emergence of a 'unipolar world' [1]. However, today's world economy is now clearly multi-polar. In 2025, China's PPP will be US$ 37.4trn or 19.4% of the world's. The USA's will be 14.9%, India's 7.9% and the UK's 2.1% [2]. By 2040, the 'E7' will have double the PPP of the G7 [3; 4].

Rising economic powers pursue other types of power. Chin-Lung Chang reviews various models estimating Comprehensive National Power with different composite indicators [5; 6]. Nearly universal are GDP, military might and financial power.

Kennedy's thesis was that military and economic power go hand in hand. The Hapsburg monarchs overextended militarily as their economies weakened, just as the Netherlands and Spain lost their military edge to Britain in the late 1700s when they too became secondary economic powers. Britian's world-leading financial system, offering complex banking and credit services, then underpinned its military rise.

The USA's 4.4% of world population continues to dominate the globe militarily. Official US military expenditure was $944 bn in 2022, higher than publicized but not the total. Costs of major wars are not included, nor are veteran's affairs or part of expenditure on nuclear weapons, military research and home defence [7; 8]. The real total exceeds $1.2 trillion per year or 5% of GDP, even without a war, and its NATO allies spend another $300bn annually[1] [9]. Military expenditure accounts for the majority of the US federal government's discretionary spending (spending not required by US law), or nearly all of its federal deficit of $1.4 trillion in 2022.

China's military expenditure today is second largest or $487bn in PPP in 2022. It has remained in the 1.6-1.7% of GDP range for several years. China too makes additional expenditures beyond this and is increasing its budget by about 7% per year, nominally. However, China is not on course to match the USA anytime soon, nor will other rising powers be able to attain relative military power proportional to their size as long as the US military budget and accumulated investment are so large.

[1] These figures are exceedingly complex and this figure of 1200 billion is an estimate, likely low. For instance, funds to replace munitions sent to Ukraine in 2022 were handled by $35.7 billion in "supplemental funds" not included in the defence budget.

Financial power of countries, beyond their GDP and trade, is mainly in a) international financial institutions or b) international currency/payment systems. Looking at a): The *World Bank* is located in Washington where the USA nominates its head and enjoys a sole veto. China has just over 5% of voting rights at the Bank's main lending arm compared to the USA's 16%. At the IMF, always headed by a European, China has 6% of votes, less than Japan, while the USA has 17%. Again, the USA has the sole veto. Combined, the G7 combined have 43% of votes [10].

In the *World Trade Organization* (WTO), USA influence is also greatest, recently blocking appointment of any new judges, thus halting all appeals against it. Developing countries have reduced voting rights [11, 12].

The *Bank for International Settlements* (BIS), based in Basel, Switzerland, reserves permanent seats for the US, UK, Germany, France, Italy and Belgium. Western countries hold the lion's share of votes despite 68% of its currency deposits in 2022 being from the Asia-Pacific region [13, 14].

In response, China has led creation of the Asian Infrastructure Investment Bank (where it has a veto), and the New Development Bank (where it does not). It has invested over $1 trillion dollars 2013-2023 in its Belt and Road Initiative (BRI), now with 147 signatory countries [15], and increasingly invests directly in yuan. However, such efforts are still not enough to deliver fairer global financial governance.

US and Western dominance, both militarily and in international governance, has provoked resentment among developing countries [16]. BRICS has drawn either formal requests to join, or interest in joining, from 20 countries and has put trade de-dollarization using new digital trading currencies high on their agenda[2] [17].

Thanks mainly to the Euro, the dollar's share of total foreign reserves worldwide has declined from 71% in 1991 to 59% in 2022[3]. However, the dollar

[2] In addition to publicly declared applications to join, at least six other countries are known to have had their Finance Ministers present at the BRICS Expansion dialogue meeting held in May 2023 (Kazakhstan, Nicaragua, Nigeria, Senegal, Thailand and the United Arab Emirates).

[3] IMF, COFER.

remains the main reserve currency for international exchange, with related inter-bank messaging and settlement systems, allowing the USA to continue to borrow heavily as it has for half a century, without its currency devaluing as it otherwise would.

However, the dollar is increasingly risky. US sanctions and criminal law extend ‘long arm jurisdiction’ to any bank worldwide using US dollars, or any act involving one. Eight countries have been barred from using the dollar and its payment systems and some, most recently Russia, have had their dollar foreign reserves frozen (and possibly seized). US Federal Reserve interest rates also just rose 5% in only 14 months and there are regular ‘debt ceiling’ crises that threaten a US debt default.

In 2015, China’s central bank launched its own cross-border interbank payments system in *renminbi* (CNY), and has signed currency swap agreements with over 40 countries plus the EU [18]. Eight countries (Russia, Saudi Arabia, Argentina, Brazil, Bangladesh, Pakistan, Iraq and Thailand), have already made major shifts in favour of using the yuan for trade with China, and in some cases with each other [19].

Electronic transfers already account for most retail transactions in China, usually by mobile phone and either Alipay or WeChat Pay, reaching 97% of transactions in China’s food and beverage sector and over 99% online [20, 21].

China is now completing domestic piloting of its token-based e-CNY and begun its *de-facto* roll-out [22]. Over 260 million people have have an e-CNY ‘wallet’ [23]. Civil servants are beginning to receive their pay in e-CNY in certain cities and it is expected that all civil servants will soon be paid this way [24].

We should not underestimate the potential for rapid change. China’s adoption of near-universal mobile payment was breathtakingly fast, going from nearly all cash to nearly all mobile payment in less than a decade and largely skipping credit cards. A white paper published in 2021 by the People's Bank of China stated that one of the e-CNY’s three goals is to respond to initiatives of the international community on improving cross-border payments, including people from "all walks of life" [25].

Digitalization of any sector is fast and disruptive, and the e-CNY and CBDCs in general bring many possible advantages. It could allow internationalization of the yuan while still maintaining China's capital controls. The e-CNY could offer margin-free international currency exchange (same rate to buy or sell). China could also offer timebound 'sales' of e-CNY, for instance for a particular country or commodity [26].

The majority of Central Banks worldwide are now researching or developing their own Digital Currencies (CBDCs). Nineteen of the G20 countries are in the advanced stage of CBDC development, with nine already in pilot and almost all having invested new resources in these projects in the first half of 2023 [23]. Zhou Xiaochuan, former governor of China's central bank, speaking at the 2023 Boao Economic Forum for Asia, (where he was Vice Chairman and Chief Representative of the Chinese side), predicted *"unforeseeable change"* over the next few years [27].

It took a little over three years for the e-CNY to go from initial domestic piloting to large-scale domestic promotion. International use of the e-CNY began piloting in late 2022, when mainland China, Hong Kong, Thailand and the United Arab Emirates first tested the "Multiple Central Bank Digital Currency Bridge." Emerging economies have realized that the area with the most possibilities for expanding national power is in international payment systems. China is in the lead in central bank digital currencies, having started *de-facto* national roll-out and with the advantage of near-universal, world-leading, electronic payment systems.

International "bridges" among new CBDCs, led by the e-CNY, have the potential to crystallize into an entirely new international payment system within just a few years. While the current dollar-anchored systems for cross-border inter-bank payments and messaging will no doubt remain in place for decades to come, they are likely to steadily become "legacy" systems, as they are slower and more expensive and carry legal risks. The dollar's share of international trade, domination of payment systems and foreign reserves would then steadily diminish. In time, this will erode the value of the dollar and the USA's ability to borrow cheaply, thus even reducing its ability to continuing fund its over-sized military. The coming new international payment system may thus prove to be the leading edge of the re-distribution of national power to emerging economies in today's new multi-polar era.

References

1. Kennedy, P. (1989). The Rise and Fall of the Great Powers: Economic Change and Military Conflict from 1500 to 2000. *Intro. & Ch.2-4*. New York: Vintage Books.

2. IMF (2023, April). *World Economic Outlook database*. Accessed 3 May 2023.

3. Price Waterhouse Coopers (2017). The seven biggest emerging economies: China, India, Indonesia, Brazil, Mexico, Turkey and Nigeria. The World in 2050. *The Long View – How will the global economic order change by 2050?*

4. The Long Game: Fiscal Outlooks to 2060 Underline Need for Structural Reform (2021, October). *OECD Economic Policy Paper*, 29.

5. Chang, C. L. (n.d.). *A Measure of National Power*. Taipei: Fu-Guang University. Paper presented at a conference in Malaysia, retrieved 2023, 13 May from Wayback Machine internet archive/

6. Ashley, J. T., Bially, J., Layne, C. & McPherson, M. (2000). *Measuring National Power in the Post-Industrial Age*. Arroyo Center, RAND.

7. US Defense Department. News Release, accessed 3 May 2023. https://www.defense.gov/News/Releases/Release/Article/2638711/the-department-of-defense-releases-the-presidents-fiscal-year-2022-defense-budg/

8. Watson Institute, Brown University. (2023). *Costs of War Project*. https://www.brookings.edu/the-hidden-costs-of-our-nuclear-arsenal-overview-of-project-findings/ accessed 26 June.

9. NATO. (2023). *Secretary General's Annual Report 2022, Annex*. Defense Expenditure.

10. World Bank. https://www.worldbank.org/en/about/leadership/votingpowers; IMF. https://www.imf.org/en/About/executive-board/eds-voting-power.

11. Kwa, A. (1988). *WTO and Developing Countries*. Washington, Institute for Policy Studies. https://ips-dc.org/wto_and_developing_countries/

12. Weinhardt, C., & Schöffer, T. (2022). Differential treatment for developing countries in the WTO: the unmaking of the North–South distinction in a multipolar world. *Third World Quarterly*, 43:1, 74-93.

13. International Bank for Settlements. https://www.bis.org/about.

14. Schenk, C.R. (2020, April 10). *The Governance of the Bank for International Settlements, 1973-2020*. Cambridge University Press.

15. Nedopil-Wang, C. (2022). *China Belt and Road Initiative (BRI) Investment Report*. Shanghai, FISF Fudan University, Green Finance & Development Center.

16. See for instance, Lula calls for end to dollar dominance ahead of meeting with Xi Jinping. https://thechinaproject.com/2023/04/13/lula-called-for-end-to-dollar-dominance-in-shanghai-meets-xi-in-beijing-tomorrow/, accessed 14 May 2023.

17. Liu, Z. Z., & Papa, M. (2022, February 24). *Can BRICS De-dollarize the Global Financial System?* Cambridge U. Press.

18. Best list. https://en.wikipedia.org/wiki/Internationalization_of_the_renminbi.

19. Mullen, A. (2023, May 10). Which 8 countries are using China's yuan more, and what does it mean for the US dollar? *South China Morning Post*. Hong Kong.

20. Zhu, J., Liu, Y., Fang, Y. (2023, May). A blessing in disguise – The effect of China's Covid-19 health code system on older people's mobile payment usage. *Finance Research Letters*, (53).

21. Zhao, Y. & Young-Hwan, P. (2023, April 20). A Study of the Impact of Cultural Characteristics on Consumers' Behavioural Intention for Mobile Payments: A Comparison between China and Korea, article in Sustainability, *15*(8), 6956.

22. China Silk Road iValley Research Institute (丝路智谷研究院) (2023) 数字人民币推广不断加速 或改变支付生态, 9 May 2023.

23. For up-to-date tracking see. https://www.atlanticcouncil.org/cbdctracker/

24. 天德信联，中国 Web3国际策略 posted in Jiangsu Province. https://mp.weixin.qq.com/s/L7vABg7Ec0R2qKEsoB6CIQ

25. People's Bank of China (2021, July). 中国人民银行数字人民币研发工作组, 中国数字人民币的研发进展 白 皮 书, p. 7.

26. Turrin, R. (2021). *Cashless - China's Digital Currency Revolution: Gold River*. USA, Authority Publishing.

27. Pengpai News (澎湃新闻) (2023, 31 March),. 周小川：数字货币别急着想"赢者通吃"，每隔三五年局面就会有大变."

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MONETARY POLICY DURING THE WAR: NBU (CENTRAL BANK OF UKRAINE) EXPERIENCE

Russian military aggression against Ukraine actually started in 2014, when Russia annexed Crimea and started the war in the two eastern regions of Ukraine. After significant shocks of 2014-2015 (when cumulative GDP contraction was more than 15% and inflation increased to more than 60% in annual terms Ukraine showed relatively stable macro indicators in 2018-2021:

- GDP grew at a level close to potential output for Ukraine (3-4%);
- Inflation was within the target range in 2019-2020 which defined as 5% +- 1 pp;
- The exchange rate was flexible and relatively stable;
- The fiscal policy, with the exception of COVID 2020, remained moderate.

The National bank of Ukraine adopted inflation targeting as a new monetary framework in 2016 [1, p.5]. It successfully helped to slow down inflation (from 61% y/y in April 2015) and anchored inflationary expectations. Fiscal austerity contributed to public debt declining to less than 50% of GDP and international reserves was around $30 bn or 80-90% from IMF composite measure, which supported financial stability and corresponded to IMF preconditions for the new future program.

Situation changed drastically after 24th of February 2022 full invasion. Defense needs and uninterrupted operation of the banking and payment systems became a policy paramountcy. Reliable and uninterrupted operation of the banking and payment systems were especially important during the first days of the war. NBU did not refuse control of inflation as a target but temporary switched from float to fixed exchange rate regime.

With the start of full-scale hostilities, the National Bank announced it remained committed to inflation targeting going forward. At the same time, in a situation of high uncertainty and extraordinary economic and financial conditions, the NBU forcibly introduced administrative restrictions, particularly on the foreign exchange market. With the economy collapsing and uncertainty and financial risks growing, market monetary instruments, particularly the discount rate, could not play a significant role in the functioning of money and foreign currency markets. Therefore, fixing the exchange rate by the National Bank made it possible to avoid uncertainty for the population and businesses and keep devaluation and inflationary expectations under the control [2]. The exchange rate became a price stabilizer or "nominal anchor" for the entire economy, preventing excessive inflation that could have further destabilized the macroeconomic situation. As a result, FX interventions, rather than the discount rate, became the main policy tool. Monetary financing of the budget deficit was temporarily allowed to secure defense needs and budget execution (it played a crucial role during the first months of the war, when the inflow of external financing support was unstable). Such a switch was an effective measure. The obvious advantages of a fixed exchange rate are reducing imported inflationary pressure and anchoring expectations [3]. Combined with utility bills frozen by the government it did not allow inflation to get out of control. Actually, inflation decreased from almost 27% (at the end of 2022) to 15% as of the end of May 2023.

On the other hand, the policy of a fixed exchange rate is costly for the economy: net interventions from the sale of FX currency reached $25 bn in 2022 and amounted to $10 bn in Jan-May 2023. Further fixation of the exchange rate leads to distortion of incentives and gradual accumulation of macroeconomic imbalances. The real effective exchange rate of the hryvnia will continue to strengthen on the horizon of monetary policy due to higher inflation in Ukraine than in the trading partner countries. The multiplicity of exchange rates in the economy leads to distortions and the creation of conditions for arbitrage. It also creates threats to macroeconomic stability in the event of delays in external financial assistance to Ukraine.

Any exchange rate fixation will not be successful in absence of capital control measures, and NBU imposed them immediately after invasion beginning. The National Bank had a contingency plan and impended it swiftly, at the day of invasion. Since the beginning of the military aggression, the NBU fixed the hryvnia exchange rate and introduced a set of measures to limit capital outflow. Later in July, the new exchange rate was fixed at UAH 36.6 to the US dollar. Such efforts made it possible to stabilize the market exchange rate, stop the outflow of deposits from the banking system, and reduce the demand for foreign currency [4]. Exchange rate for an individual’s transaction abroad was tied to the official exchange rate. Despite some opportunities for arbitrage it allowed to provide financial help for the millions of Ukrainian refugees abroad.

Due to growing inflation, the real interest rate became more and more negative, and uncertainty grew to provoke an outflow of deposits, putting pressure on the exchange rate and generally increasing the risk of financial destabilization. On June 2, the NBU sharply increased the discount rate to 25% from 10%, expanding the interest rate corridor from +/- 1% to +/-2%. The purpose of such a sharp rate increase was an attempt to stop the outflow of deposits from the banking system and reduce the demand for foreign currency. On the other hand, this led to an increase in the price of loans for economic entities and the cost of servicing the debt, including for the Government. The decision was strategically correct: the risk of financial destabilization seemed much more threatening to the economy than a reduction in lending. Interest rates started to grow after a sharp and significant increase of key rate in the middle of 2022. The increase in the liquidity surplus of the banking system inhibited the monetary transmission.

International reserves increased thanks to sustainable and regular inflows from international partners. International reserves are now covering 4.9 months of future imports. But the situation remains stable as long as Ukraine has enough external financial support (this is the foundation of Ukraine in the war of attrition).

Despite the war inflation in Ukraine is comparable with other countries of the region. Inflation in Poland amounted to 15.3%, in Czech Republic almost 17%, Estonia 17.5%, Lietuva 20%, Latvia 20.7%, and Hungary 25% in 2022 [5]. In the wartime, so called "common result" was achieved by extraordinary measures. The current trend of declining inflation has been outlined due to the exchange rate fixation, freezing of administrative tariffs and elimination of some taxes by the Government, but risk for price stability remains high: core inflation remains high and dispersed and administrative price correction is required.

Such challenges for monetary policy remain relevant:

- The weakness of monetary transmission and high uncertainty;
- The banking system’s significant structural liquidity surplus;

- Insufficient coordination of the NBU's monetary policy and fiscal policy [6];
- Maintaining a fixed exchange rate alongside high inflation reduced the price competitiveness of the Ukrainian economy.

Conclusions

Having a contingency plan allowed NBU to react swiftly and effectively at the very beginning of the war. NBU contained risks for the financial system primarily by: fixing exchange rate and imposing capital outflow restrictions; supporting bank liquidity; introducing temporary regulatory easing. The stable hryvnia's exchange rate against the dollar was a nominal anchor affecting the outflow of deposits, containing inflationary expectations, and keeping inflation within forecast limits.

Banks did not suspend their work even during the first shock of the war; liquidity was not an issue (deposit run was insignificant and temporary); banks remained well capitalized and liquid but credit risk may lead to loses of 25%-30% of loan portfolio.

Economic agents' adaptation to functioning in war conditions led to increase of demand on FX currency and growing spread between official and cash market rates (peg became unsustainable) → controlled 25% exchange rate depreciation; interest rate hike (+15 p.p.)

Foreign exchange reserves were kept at a reasonably safe level. NBU employed unconventional tools (e.g., hedging instruments for households and benchmark bonds for banks) In addition to traditional ones (ER peg and capital controls). Level of uncertainty remains extremely high: Growth forecasts are from -2% to +5% in 2023in accordance with baseline and downside scenarios in the IMF program; The main factor "the course of the war" is beyond the control of the policymakers.

As circumstances allow, NBU is going to get back to the traditional inflation targeting regime, with flexible exchange rate and interest rate as the main monetary tool.

References

1. Monetary Policy Guidelines for 2017 and Medium Term. (2016). https://bank.gov.ua/admin_uploads/article/MPG_2017_mt_eng.pdf?v=4

2. Petryk, O. Assessing the NBU's monetary policy in 2022. (2023, March 23). *Vox Ukraine. Analytics Economics*. https://voxukraine.org/en/assessing-the-nbus-monetary-policy-in-2022

3. Petryk, O. (2022). Policy of the National bank of Ukraine during the war. *Socio-economic relations in the digital society, 4* (46), 15-23. https://www.ser.net.ua/index.php/SER/article/view/474/469

4. Vavra, D., Topf, B., & Ray, N. (2022, Dec. 19). To peg or not to peg: A suitable exchange rate regime for the Ukrainian hryvnia in times of war. *Vox Ukraine*. https://voxukraine.org/en/to-peg-or-not-to-peg-a-suitable-exchange-rate-regime-for-the-ukrainian-hryvnia-in-times-of-war/

5. IMF. (2023, April). *A rocky recovery. World Economic Outlook*. https://www.imf.org/en/Publications/WEO/Issues/2023/04/11/world-economic-outlook-april-2023

6. Petryk, O., Chopa, O. (2022, June 24). The economic front of the war: is there a conflict between the actions of the NBU and the government? *Vox Ukraine*. https://voxukraine.org/ekonomichnyj-front-vijny-chy-ye-konflikt-mizh-diyamy-nbu-ta-uryadu

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HOW MUCH AND FROM WHOM?

Abstract

Among the many calls for a new Marshall Plan for Ukraine we should not lose sight that today's reconstruction needs demand a different approach from the 1940s European Reconstruction Program (the Marshall Plan).

Financial estimates for the reconstruction of Ukraine and region, including short term emergency needs, are expected to exceed $700 billion. This is massive, although not un-imaginable, nor un-financeable through joint international efforts.

The Ukrainian leadership has made it clear that the reconstruction of Ukraine is NOT about rebuilding the past!

Building on this and taking many lessons learnt, a 21st century reconstruction plan requires:

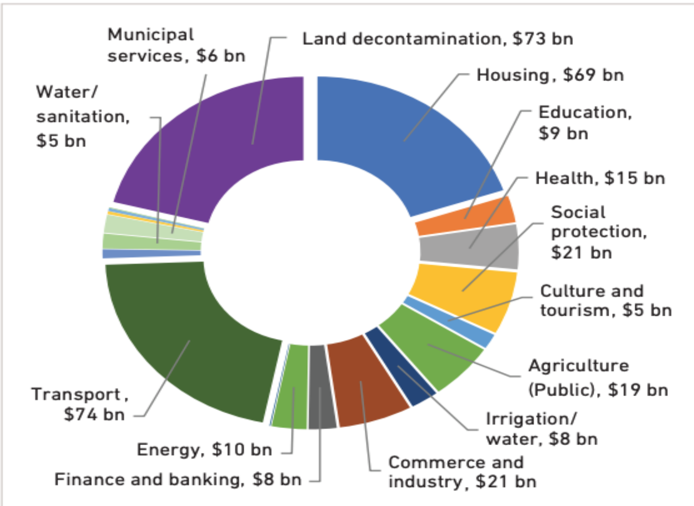
- *Mission clarity: UN SDGs driven investments for equitable growth.*
- *Broadest possible donor community (no new 'Iron Curtains').*

- Concentrated recipient focus: Ukraine but also neighbouring regions
- Special window for post-war Russia.
- Joint implementation, strong local input
- No preferential donor trade access: encourage local businesses
- Beyond loans: all financial instruments and "blend" them.

And one last thing: it is time to launch another initiative: an Access to International Financial Markets Initiative. It is a longer-term project but essential for sustainable reconstruction financing.

In a joint effort the Government of Ukraine, the World Bank Group and the European Commission have presented an initial analysis in a Rapid Damage and Needs Assessment (RDNA) for Ukraine (see *Worldbank, Government of Ukraine, and European Commission: Ukraine rapid damage and needs assessment August 2022*). The first set of numbers were presented in June 2022 and were estimated at about US$349 billion including around $150 billion emergency funding (Fig. 1).

Figure 1. Total needs as of June 1, 2022: US$349 billion



Source: Assessment team.

Integrated into these needs are critical steps for the country to becoming a modern, low-carbon, disaster-resilient and climate-resilient, and inclusive country which would be closely aligned with European neighbouring countries (see pie chart from the joint study below).

The joint assessment dates from August 2022. Today these numbers would be significantly higher, particularly following the continuing aggression by Russian forces and the bombardments of the Ukraine's infrastructure during the 2022/23 winter period.

Any current estimate (December 2022) may therefore exceed $500 billion with a higher relative share of emergency support.

This is a massive amount. However, to put it in perspective: the US financial support to European countries following World War II including the 1947 Marshall Plan, would in today's US dollar value by itself already exceed $350 billion. Under the Marshall Plan each country was expected to match the US contribution (the so called *"counterpart funds").*

As a result, the total reconstruction post WW II reconstruction financing mounted was more than $700 billion in today's money which is huge, but historically not unprecedented!!

Already s***o many Ukraine support initiatives.***

Over the last year we have seen a flurry of international initiatives of support for Ukraine. The list of nations around the world providing assistance for Ukraine is overwhelming: ranging from the well-known donors such as the US, the European nations/institutions and all G7 countries, to countries like South Korea, India, China and Taiwan.

The renown *Kiel Institute for the World Economy* invested a lot of academic analytical capital in the study of the Ukraine war. As part of this it has developed a very useful data tool in its *Ukraine support tracker* (ukrainetracker@ifw-kiel.de) which provides a regularly update of who is helping Ukraine, and by which means differentiating between humanitarian, financial, and military support. By the Summer of 2022 already some €100 billion was committed by almost 50 countries around the world. The largest donor is the US, importantly driven by military supplies. The

European Union shows up as second largest donor providing emergency supplies and help for Ukrainian refugees mainly through financial support measures.

In addition to the reported government-to-government support programmes, there is a significant number of private and charitable initiatives aimed at supporting Ukraine and its people. Many of these support programmes have their own specificities and conditions.

This could create a particular coordination problem for the Ukrainian government and local charitable organisations.

How to develop an effective Ukraine reconstruction programme.

Not rebuilding the past

The message of Ukraine’s leadership is clear: reconstructing Ukraine is NOT about reconstructing a pre-war Ukraine nor copying the 1947 Marshall Plan. It is about building an independent, democratic, and open new Ukraine, fitting the requirements of today and tomorrow.The reconstruction plan needs to integrate answers to today’s complex (global) issues of tackling climate change, responding to post-pandemic health issues, and addressing rising and unfair inequalities. The UN Sustainable Development Goals (SDGs) provide a set of clear mission targets for the reconstruction programme.

From "One Donor-Many Recipients" to "Multiple Donors-One Recipient"

The context of the 1947 Marshall Plan is incomparable with the situation of today. The world economy in the 1940/50s looked very different from today’s interconnected global economics. After World War II the US economy counted for almost half of the world’s GDP. Today the US is still the world biggest economy, but the US share in global GDP dropped to one-sixth of that in 2023. And thanks to the generous Marshall Plan, the joint economic power of the European Union countries has become substantial, making up the top 3 of the global economic powers with the US and China.

Lessons-learnt shape key programme features.

Building on some of the key principles of the Marshal Plan and taking the lessons learnt into account, I see the following key elements emerging:

- ***MISSION CLARITY***

The Ukraine reconstruction programme is not about rebuilding the past but aimed at UN SDG driven investments for equitable growth in a free society. The programme needs to be comprehensive covering social, environmental, and economic objectives. It also needs to acknowledge the interwoven nature of these objectives acknowledging globally accepted principles of the rule of law, basic human rights, and integrating all United Nations Sustainable Development Goals (SDGs).

- ***BROADEST POSSIBLE DONOR COMMUNITY***

The programme's mission and objectives should allow to muster as much international support as possible from all continents of the world. The current support initiatives already count more than 40 countries across the world.The joining motivation needs to be found in the respect of the rule of law and the broad UN based SDGs. Any rigid interpretation of political conditionality needs to be avoided to build the broadest possible coalition (*no Marshall Plan repeat in the form of a new Cold War* or *Iron/Bamboo Curtain*).

- ***CONCENTRATED RECIPIENT BASE***

The main recipient country is Ukraine.

We should however not overlook that some neighbouring countries have suffered social and economic hardships by the influx of war refugees and well as Russian threats and aggression. Both for the sustained generosity in their refugee policies and their stance on the political front, countries such as Poland and Moldova have earned their place in a supportive international assistance programme.

In the spirit of Lincoln, Truman, and Churchill, and of Mandela and Tutu, the programme needs to be inclusive and aimed at reconciliation and not revenge. Any international support also needs to include a special window for erstwhile aggressor Russia whose people have suffered through loss of (soldier's) life, economic hardship from international sanctions and denial of democratic freedom. The longer-term benefits will by far outweigh any short-term "revenge-satisfaction" (if any). Support for Russian people and businesses will help building a new post-war Russia and avoids creating "martyrs" and new geo-political tensions (including from an enhanced Russia-China alliance).

- ***NO PREFERENTIAL TRADE ACCESS FOR DONOR COUNTRIES' BUSINESSES***

Like the Marshall Plan the new programme needs to be built as a *joint effort* of donor- and recipient-countries with a strong bottom-up spirit. At the donor community level, the main strategics and operating principles are set to include sound financing principles and a trade and procurement framework. The implementation should be driven by international, competitive tendering processes. No preferential treatment from donor countries is to be allowed.

The recipient countries propose financing of projects where possible undertaken by to local businesses. However, this requires a framework for fair trade and good governance. Corrupt and fraudulent practices need to be weeded out and open and fair competition needs to be strengthened. In this area there is work to do as recent data from the EBRD's Transition Report 2022 illustrate (see below).

EBRD Sustainable Market Economy Comparator Data *(scores between 0-10)*

	Competitive	*Well-Governed*	*Green*	*Inclusive*	*Resilient*	*Integrated*
Czech R.	*7.07*	*7.13*	*6.95*	*7.17*	*7.86*	*8.08*
Romania	*6.72*	*6.83*	*6.79*	*6.92*	*7.98*	*6.95*
Ukraine	*4.87*	*4.42*	*5.36*	*6.16*	*5.68*	*5.11*

The Ukrainian Leadership is committed to turning Ukraine into an open, democratic, transparent, free trade nation as recent action by President Zelenskyy illustrated.

However, the necessary structural and cultural transition is not purely top-down. It requires special attention for rebuilding local communities and their municipal infrastructure including health and education facilities. Stronger local communities help building a better nation.

- ***GO BEYOND LOANS***

The traditional financing method of lending is not adapted to the wide range of financing needs for the post-war reconstruction. After the devastation of Russian bombardments much of the physical infrastructure in Ukraine needs rebuilding.

The reconstruction finance clearly needs more than loans. It needs to combine multiple financial instruments (grants, equity, loans, guarantees, etc) from public, institutional, and private sources with different risk, repayment, and maturity profiles, to optimise its effectiveness in achieving development goals.

Such 'blended finance' approach has become a recognised financing method in the development finance sector.

Oh, and one more thing: *Launch an International Financial Markets Access initiative.*

Although not a quick win, but mobilising all possible financing instruments and possibilities in international financial markets is essential for a sustainable reconstruction effort.

For Ukraine to gain unfettered access there is a lot to do (see some data from the EBRD's latest).

***EBRD Index of Conditions for Financial Market Development and Market Depth** (scores between 0-100)*

	Financial Conditions	*Market Depth*	*Macro Economy*	*Legal Frameworks*	*Market Infrastructure*	*Investor Base*
Czech R.	76.7	43.8	99.7	94.3	83.0	58.7
Romania	67.9	28.7	91.4	90.4	58.0	31.7
Ukraine	43.6	20.3	65.2	34.5	48.0	26.7

My plea is therefore not to delay the start of an *Access to International Debt Markets initiative*. Without any doubt, the Ministry of Finance and the National Bank of Ukraine would be able to mobilise much Ukrainian finance talent in key financial centres and universities across the world.

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NBU DILEMMA: HOW TO MANAGE A DELICATE BALANCE BETWEEN NECESSARY WAR FINANCING AND LONG-TERM FISCAL SUSTAINABILITY

The World Bank's June Global Economic Prospects report indicates a revision in the forecasted growth rate for Ukraine's GDP in 2023. The initial outlook of 3.3% in January has been downgraded to 2%, largely attributed to the uncertainty surrounding the country's current conflict.

This downgrade is primarily due to the economic disruptions caused by the destruction of energy infrastructure during Q4 2022. Despite these challenges, Ukraine's public finances continue to experience pressure, even with external assistance such as the recently approved $15.6 billion from the International Monetary Fund (IMF) under the Extended Fund Facility (EFF).

The cost of restoration and reconstruction is approximated to be 2.6 times higher than the GDP level of 2022, as reported by the World Bank. In light of this, both the World Bank and IMF have abstained from forecasting Ukraine's economy for the forthcoming years due to the unpredictability of the ongoing conflict.

Multiple factors will continue to hinder a significant recovery:

- Active fighting continues to affect a substantial portion of territory (about 12% of pre-war GDP).
- The continued displacement of people is expected to negatively impact both supply and demand.

- Infrastructure damage and the destruction of supply chains across the country are creating significant supply-side constraints, leading to both direct and indirect negative effects on output and consumption.

We can highlight several key assumptions that also serve as potential risks to Ukraine's macroeconomic forecast:

1. The war might extend well beyond mid-2023, owing to the capacity of both sides to further mobilize human and military resources. This is, however, subject to the outcome of Ukraine's military victories and potential changes in the war's dynamics.

2. There is an expectation that Russia's missile attacks on energy and civil infrastructure will somewhat slow by mid-2023. This might be due to Russia's possible shortage of high-precision missiles and Ukraine securing more efficient air defence systems. Significant infrastructure rehabilitation efforts are expected in Ukraine, though their level depends to a large extent on external factors.

3. The continuation of the Black Sea grain initiative is anticipated, despite Russia's challenges in exiting the pact without harming its relations with the Global South. An expansion of this deal to include additional ports could positively impact our outlook.

4. Although Western financial support is crucial for maintaining macro-financial stability, it is unlikely to cover 94% of Ukraine's 2023 financing needs as predicted in the country's budget. The National Bank of Ukraine (NBU) will likely need to provide some financing, but this will be controlled to prevent runaway inflation.

Continuing the discussion on Ukraine's fiscal challenges during wartime, it's worth noting the dramatic rise in defence spending, now eight times higher than last year and constituting 50% of government expenditure. Revenue shortfall has led to a ballooning fiscal deficit, projected to exceed 20% of GDP in 2022. Even when factoring in foreign grants, the deficit is expected to persist at this level into the following year.

The dual task of financing the war and providing essential public services poses a serious policy challenge. The National Bank of Ukraine (NBU) has had to fill a significant part of the fiscal gap, generating an equivalent of $10.7bn or roughly 7% of pre-war GDP in 2022. The budget for 2023 anticipates a deficit of UAH 1280bn (US$30bn, or 20% of GDP), and total financing needs, when debt repayment is considered, will rise to $36bn.

The government's strategy to finance 94% of these needs externally may face hurdles. For instance, their hope for a $15bn loan from the IMF may not materialize as IMF programs typically require a path to long-term fiscal sustainability. While the EU and US have agreed to provide €18bn and $18bn respectively in 2023, these funds face their own challenges. The EU's support has been delayed and fallen short of commitments, while US aid could potentially be delayed due to opposition in the Republican-dominated House of Representatives.

With these complexities in mind, the NBU may continue to face pressure to monetize the deficit, posing a risk to macro-financial stability. Excessive financing could further weaken the Ukrainian Hryvnia (UAH), which is already about 10% lower in value on the parallel market, compared to the official exchange rate of UAH 36.6/$ 1.00.

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IMPACT OF UKRAINE ON THE FORMATION OF A NEW GLOBAL ECONOMIC ORDER

The presented work argues that Ukraine's war against russia had, has and will have a significant impact on the geopolitical and geo-economic map of the world, has already transformed the understanding of the role and place of globalization and regional institutions and entities, modernized approaches to security and partnership relations between countries, formed new ideological, economic and humanitarian paradigms for human development.

The war in Ukraine essentially defined **two historical epochs** "before" and "after". For Ukraine, the war basically ended the country’s existence in the post-Soviet "family of friendly nations" and gave a chance for a civilized future, although the path to it will be extremely difficult.

For developed countries (particularly European) russian aggression turned out to be a “perfect storm” that explained the communities the need for updates the world security systems, global energy supplies and value chains for a peaceful future of humanity.

Thus the events in Ukraine have essentially accelerated the strategic approval of two civilizational groupings – democratic and autocratic, as well as the ways of coexistence of these two worlds, including the choice of a strategic partner, the values that this partner offers to the world, the acceptable level of compromise between the proclaimed values and economic benefits.

Also, the war in Ukraine warned states that aggression by an autocratic regime against a democratic country (and possibly the democratic system as a whole) cannot be ruled out even in the modern world.

Thus the events in Ukraine have essentially **accelerated** the strategic approval of two **civilizational groupings -** democratic and autocratic, as well as the ways of coexistence of these two worlds.

It is crucial for Ukraine if the global democratic community realises that military and civilian assistance to Ukraine will have a greater impact when seen by the governments and civil institutions in partner countries not only as a matter of international humanitarian solidarity, but also as a matter of national security.

There are a lot of evidences that proved that the bipolar economic, political, financial, and security model of global development is coming back. Bipolarity, sure means the USA and China.

At the "basic" level, the two largest countries **- the USA and China -** from year to year not only maintain global leadership and demonstrate remarkable economic, scientific and technical achievements, but also form a circle of partner countries around them.

Thus, it is not surprising that these countries are the "centres of gravity". The centres of gravity for all other countries.

Important, from the first days of the russian aggression, Ukraine received considerable political, economic, financial, military and humanitarian support from democratic countries.

The current foreign trade disputes suggest that no accelerated recovery in trade and investment flows can be expected in the coming years. The practices of onshoring, friend-shoring, fragmentegration are becoming increasingly widespread.

Global economic signs of 2022 particularly by the war in Ukraine, deserve mention:

- very high inflation in the developed countries due to russian actions in the energy markets,
- a decrease in economic activity in the leading countries of the world puts a downward pressure on emerging economies (including China), which discourages global business activity/

It's reasonable to remember that wide-range sanctions have been introduced by developed countries, particularly:

- dollar payments by the *rcb* and other major banks have been prohibited;
- assets of the *rcb* and other major banks have been frozen;
- major russian banks have been excluded from the SWIFT;
- high-tech exports to russia have been prohibited.

Unfortunately, sanction regime can hardly be recognized as successful:

- mid-sized russian banks and Western banks operated in russia have been excluded from financial sanction;

- though western export to russia has declined, export from some emerging countries (China, India, Turkey) including re-export has increased sharply;
- general evidence **-** russian GDP in 2022 declined only for 2%, while -10% was predicted just after aggression started.

Thus, Collective Western needs to renew strategy to increase the effectiveness of sanctions mechanisms.

The aggression against Ukraine **caused much greater transformations** of the European economy than any previous crisis periods.

It is not yet known in which direction Europe will be built further, however today there are already reasons to assert that:

- Europe has become **stronger** for its defence (including the expansion of NATO),
- less dependent on energy, primarily from authoritarian *russia*,
- more balanced in the choice of strategic economic partners,
- more united in the understanding of democratic and human values and their protection,
- more "discerning" in the choice of political and moral leaders.

Global economic processes are increasingly manifested through the politicisation of financial and currency relations, particular through **de-dollarization**.

This has resulted in a new wave of attempts to de-dollarise the global economy, which can cause significant imbalances and risks into financial markets, thus hindering global sustainable development.

Returning to BRICS, its characteristic feature is that members of the association, as well as potential new members of BRICS+, are supporters of displacing the dollar from the current system of international settlements, i.e. accelerating **de-dollarisation processes**.

Since the leader of BRICS expansion is China, to which a number of emerging countries gravitate and which is practically ready to intensify de-dollarisation and is trying to increase its own presence on international economic and financial markets, those mean that **de-dollarisation will be accompanied by yuanisation**. (r**enminbisation**).

Taking into account the strengthening of cooperation between China and the countries of the Persian Gulf, it actually means the **formation of the concept** of **oil-yuan -** the creation of financial and settlement instruments, which will be based not on the dollar, but on the Chinese currency - the yuan.

However, today the dollar, in addition to being an understandable equivalent of value for almost all exchange commodities, performs an understandable function of a "quiet harbour" in which many investments and capitals are saved in days of financial shocks.

As a reminder, the danger for the world financial system and the world economy is that a **weakened dollar can undermine the confidence of international investors**, which will slow down global economic dynamics.

It is crucial for Ukraine to prevent rash experiments in the financial sphere. Therefore, the country should not succumb to the ghost of de-dollarisation.

As conclusion, despite uncertainty there are reasons to believe that the development of mankind will be largely determined by **peaceful cooperation** between the two most powerful states — the United States and China.

And for Ukrainians there are reasons to expect that peaceful restoration of the country will be successful, including thanks to partner countries.

This is what we all hope for.

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NEW ASPECTS OF MONETARY REGULATION: ADJUSTMENT THE CENTRAL BANK AND GOVERNMENT INTERESTS

Over the past 15 years, there have been gradual changes in the approaches to conducting monetary policy in the countries of the economic core and their spread to the periphery. A review of approaches to stimulating economic activity by fiscal and monetary means was initiated almost immediately after the Global Financial Crisis. Under the influence of the COVID-19 pandemic, this process has undergone a noticeable acceleration, and it is likely that in the next decade, a certain design of the conceptual foundations for a new monetary consensus will take place. The changes have already affected the revision of the goals of monetary policies, views on established relationships of monetary indicators and instruments with economic activity. The fundamental driving factors of such a transformation were:

- deepening of the profitability of the capital of the financial sector in comparison with the real one;

- increased concentration of capital in the centers of its accumulation; - the fall in rates of return on capital and savings;

- accelerated accumulation of sovereign and private debts;

- approach to changing the technological system.

These factors not only led to the limited ineffectiveness of previous monetary solutions for managing economic dynamics, but also reflect the need for deeper reforms of the existing economic model of capitalism, which has entered another cyclical systemic crisis inherent in it.

The key consequence of the analyzed trends is the conclusion about the need for regulation on the financial market in order to:

- support of economic activity in general and the level of inflation in particular
- limitation of exchange rate volatility,
- decrease in the cost of public debt. At the moment, three important elements of the dominant approach of the pre-crisis period have already been revised.

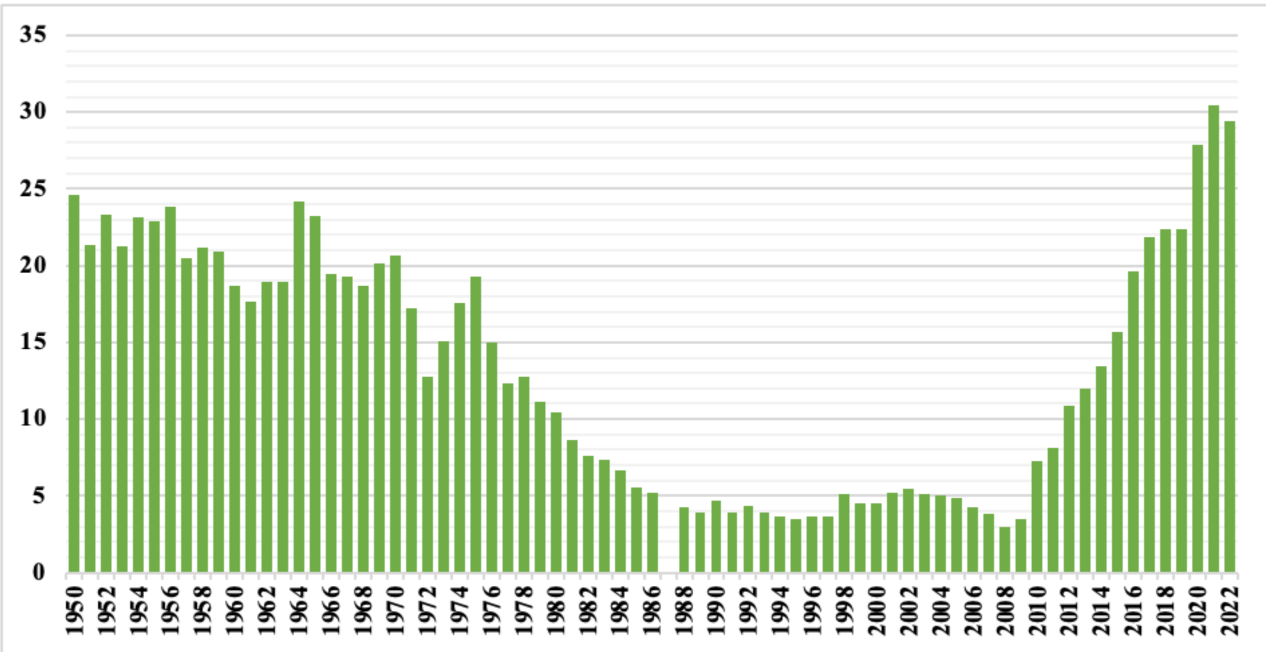
The first concerned the policy of financial liberalization. More and more studies show that exchange rate management increases the probability of achieving the inflation target [1]. The second element that underwent consistent transformation during 2008-2022 was the issue of the possibilities of monetary stimulation and their relationship with inflationary processes.

The third element of changes had an even more fundamental nature and related to the fundamental issue of state regulation of economic processes. The fact is that in the pre-crisis period, the idea of minimizing state influence on economic processes became widespread, which was aimed at trying to ensure the realization of economic freedoms and the release of market mechanisms of self-regulation. Instead, it was state initiatives and an increase in budget expenditures that became effective tools for overcoming crisis phenomena.

The implementation of the policy of quantitative easing after 2008 spread to most developed countries and had an unprecedented amount of about 10 trillion US dollars at that time [2]. The total amount of financial rescue programs during the pandemic exceeded this record by almost three times [3]. The lack of regular inflation as a result of such an issue shook the dominant inflation targeting and raised questions about the adequacy of the goals of monetary policy and the limits of monetary stimulation.

In addition to weakening the dominance of inflation targeting, there is a noticeable transformation of approaches to the need to control capital flows and limit exchange rate volatility. The revision of these provisions has already found its embodiment in official documents or publications of leading international financial organizations. As a result of the described processes, the issue of interaction and coordination of interests of central banks and governments within the goals of financial stability and economic stimulation became more acute. One of the ways to solve these issues was a significant increase in the role of central banks in financing public expenditures, which can be seen on Sch.1

After the global financial crisis, most central banks provided monetary support for public debt. That is, directly or explicitly, they were ready to increase the demand in the public debt market in order to lower the cost of public borrowing. In general, the existing process can be characterized as a phase of transition from the era of pure monetarism to the era of new Keynesianism with the synthesis of acquired experience. An important point will be the critical consideration of the positive experience of the financial liberalization period of 1980-2008 [4].



Scheme 1. Average share of sovereign debt held by national central banks in advanced economies, *%*

Source: IMF, Debt monitor statistics

A characteristic sign of departure from the dominant paradigm of monetary regulation at the pre-crisis stage is the example of a significant adjustment of the fundamentals of the Fed's monetary policy. In 2019-2020, the Fed formally reviewed its monetary policy strategy, tools, and communications policy. After that, in August 2020, the Fed presented updated monetary policy guidelines. Key changes related to the defining goals of the policy - targeting inflation and unemployment.

According to the published new policy document, the Fed will not oppose a moderate overshoot of the inflation target (in the US, the target is 2%) in the medium term. This is explained by the fact that for a long time before that, the actual level of inflation was well below the target. Under such conditions, the established inflationary expectations of consumers fell below the target and it did not fulfill its function of encouraging consumption. Such an approach was defined by specialists as "flexible targeting of medium-term inflation" [5].

At the same time, the obvious weakness of this regime lies in the fact that in cases of a threat of recession with a growing rate of inflation, an increase in interest rates is impossible, because it can provoke inflation or even a banking crisis. That is why, despite the fact that in 2021-2022 the inflation rate in the USA increased significantly (it was 6.5% in 2022), the introduction of the necessary restrictive measures against the background of the expected recession was postponed for a long time.

The Fed and the Committee on Open Markets were even forced to formally lower the status of the inflation target in the medium term. In addition to this, UNCTAD in the Report on Trade and Development for 2022 [6] called on the leading countries to refrain from raising rates, because in the current conditions, their increase could turn the existing stagnation into a recession. Under the existing circumstances, such a recession will have much more complex consequences than the Global financial crisis.

As an alternative to raising interest rates, the UN suggests resorting to administrative control over price increases. This further emphasizes the functional inefficiency of the existing IT-based approach to the conduct of monetary policy. Moreover, a number of studies show that it is the attempts to influence the economy within the framework of IT ideology and functionality that play the role of a driver of crisis phenomena. Thus, in the USA, a close connection has been established between the attempts to tighten the monetary policy of the Fed and the recessions of 1970, 1981 and 2008 [7]. This was confirmed by the bankruptcy in March 2023 of the large Silicon Valley Bank with more than 100 billion dollars US assets on the balance sheet.

Thus, by analogy with the reinterpretation of the "trilemma of financial impossibility" in the direction of the expediency of balancing approaches to financial liberalization - control over the movement of the international capital flows and the exchange rate, it is equally expedient to agree and balance the goals of the central bank and the government within the framework of current tasks of economic development. State bodies trying to balance the interests of economic growth, financial and fiscal stability. Finding trade-offs is not simply choosing one goal over others, but rather finding a balance between the three in the long run.

References

1. Buffie, E. F., Airaudo, M., & Zanna, F. (2018). Inflation targeting and exchange rate management in less developed countries. *Journal of International Money and Finance*, *81*, 159-184.
2. Amadeo K., Boyle M. (2021, May 21). Explaining Quantitative Easing. *The Balance*. URL: https://www.thebalance.com/what-is-quantitative-easing-definition-and-explanation-3305881
3. Cornish, L. (2021, June 1). Interactive: Who's funding the COVID-19 response and what are the priorities? *Devex*. https://www.devex.com/news/interactive-who-s-funding-the-covid-19-response-and-what-are-the-priorities-96833
4. Dalio, R. (2021). Why and how capitalism needs to be reformed. *Economic Principles*.
5. Bullard, J. B. (2021). The Fed’s New Monetary Policy Framework One Year Later. *The Regional Economist*. https://www.stlouisfed.org/publications/regional-economist/third-quarter-2021/fed-monetary-policy-framework
6. UNCTAD. (2022, October). Trade and Development Report 2022. https://unctad.org/publication/trade-and-development-report-2022
7. Kurov, A. (2023, March 20). The Fed has to choose between generational inflation or the first banking crisis since 2008, finance professor says. *Fortune*.

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THE PROSPECTS OF DEVELOPMENT OF THE BANKING SECTOR IN THE CONTEXT OF DIGITAL TRANSFORMATION

One of the urgent problems of the development of banking systems and financial markets, in general, is the determination of their role, functions, and place in the new system of financial intermediation, which is being formed in the process of digital transformation of the money market and monetary relations. The transition to digital economy requires new forms of money, new methods of regulating money circulation, mechanisms of financial mediation, formation and movement of capital, and therefore, new institutions or significant changes in the role, functions, and structure of existing ones.

Among the main drivers of changes related to the digital transformation of the banking system, which can contribute to fundamental shifts in money markets, in the world financial and economic systems in general, in our opinion, it is worth highlighting the following.

1.The emergence of various types and forms of private digital currencies and central bank digital currencies (CBDC) marks the beginning of the transition to decentralized management models and creates new opportunities for the formation and operation of so-called "decentralized financial markets" (DeFi). And although there are still many controversial issues regarding the issuance, usage, and regulation of private digital currencies and CBDC, the process of forming decentralized financial markets has already begun and is irreversible.

This is confirmed by the objective logic of the processes of globalization and digitalization of the economy and society, which are connected with the transition to the third model (platform) of the Internet - Web 3.0, which is decentralized in nature and provides for the presence of decentralized financial markets that function based on smart contracts and distributed ledgers, and settlements in these markets are made using private digital currencies and CBDC. The expansion of the functioning of decentralized financial markets will also inevitably lead to the activation of the process of disintermediation, which consists of weakening the role of traditional financial intermediaries, whose functions will gradually be taken over by decentralized autonomous organizations (DAOs). Therefore, the role and functions of financial market regulators must undergo fundamental changes.

2. The introduction and widespread use of central bank digital currencies will lead to a change in the structure and functions of financial institutions, particularly central banks. Due to the reduction in the role of traditional monetary instruments in favor of non-traditional monetary policy instruments such as quantitative easing (QE), credit easing (CE), zero interest rate policy (ZIRP), and negative interest rate policy (NIRP) [1], there are fundamental differences in approaches to the implementation of monetary and fiscal policy [2, p. 45; 3, p. 214]. Moreover, the inability to effectively implement macroprudential regulation and anti-inflationary policy has created several contradictions that cannot be resolved under the dominance of the monetarism concept [4, p. 156]. According to J. Gabilondo, modern central banks are gradually losing their role and main functions as the monetary regulator of the economy, turning into financial market administrators with broad and uncertain powers. This raises questions about the effectiveness of the monetary and macroprudential policies they implement [5, p. 154].

In this context, the question arises regarding the change in the role and functions of central banks depending on the chosen model of CBDC issuance and design. The same applies to the banking system and financial intermediation in general. The use of CBDC and private digital currencies can significantly transform the institutional mechanisms for implementing monetary, fiscal, and macroprudential policies. It can also change approaches to ensuring financial stability and the functioning of monetary transmission channels. Furthermore, it may necessitate a reform of the state financial monitoring system on a fundamentally new basis, require banks to introduce new business models, and lead to the reorganization of the banking supervision system [6, p. 56; 7, p. 43-44].

3. The consequence of the introduction of private digital currencies and CBDC, based on the widespread digitization of the banking industry, may lead to the localization of monetary systems and financial markets. As a result, new national, regional and corporate contradictions and conflicts may arise in the mechanisms of functioning of monetary markets and financial systems. For instance, the functions traditionally performed by banks may not only transition to virtual banks but also to digital platforms that are already attempting to issue their own digital currencies and provide a wide range of financial services. These platforms can effectively carry out financial and digital intermediation.

In light of this, the task of establishing a new model for the functioning of the banking system has become increasingly urgent. This involves creating digital banking platforms that can effectively interact with other digital platforms (related to production, trade, products, media, social networks, etc.) within large interconnected ecosystems. Such a model, characterized by an open architecture, in our opinion, will best meet the requirements of digital transformations in the economy and society. It is essential for the concept of a metaverse, which cannot function without decentralized financial markets and digital money. These changes will contribute to fundamental structural and functional transformations in the banking system.

References

1. Siklos, P. (2023, May 6). *Central Bank Forays Into Unconventional Monetary Policies: Explanation, Assessment, and Implications*. Fraser Institute. Canada. https://policycommons.net/artifacts/3753750/central-bank-forays-into-unconventional-monetary-policies/4559057/

2. Mishchenko, S., Naumenkova, S., Mishchenko, V., Ivanov, V., Lysenko, R. (2019). Growing discoordination between monetary and fiscal policies in Ukraine. *Banks and Bank Systems*, 14: 2, 40-49. https://doi.org/10.21511/bbs.14(2).2019.04

3. Daly, H., Ibrahim, T. (2023). Stability and performance of monetary and fiscal policies in the euro area. *International Journal of Applied Economics, Finance and Accounting*, 16: 2, 208-221. https://doi.org/10.33094/ijaefa.v16i2.952

4. Mishchenko, V., Naumenkova, S., Mishchenko, S., Ivanov, V. (2018). Inflation and economic growth: The search for a compromise for the Central Bank's monetary policy. *Banks and Bank Systems*, 13: 2, 153-163. http://dx.doi.org/10.21511/bbs.13(2).2018.13

5. Gabilondo, J. (2023). *Institutional Credit Markets: Structure, Funding, and Regulation*. Edward Elgar Publishing. https://doi.org/10.4337/9781788118378

6. Mishchenko, V., Naumenkova, S., Mishchenko, S. (2021). Assessing the efficiency of the monetary transmission mechanism channels in Ukraine. *Banks and Bank System*, 16: 3, 48-62. http://dx.doi.org/10.21511/bbs.16(3).2021.05

7. Міщенко, В.І., Науменкова, С.В., Міщенко, С.В. (2021). Цифрові гроші центральних банків: майбутнє інституційних змін у банківському секторі [Central bank digital currency: the future of institutional changes in the banking sector]. *Фінанси України – Finance of Ukraine*, (2), 26-48. http://dx.doi.org/10.33763/finukr2021.02.026

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REMITTANCES FROM UNITED STATES TO MEXICO IN TIMES OF THE COVID-19 PANDEMIC, A DIRECTED ACYCLIC GRAPH MODEL

Introduction

In recent years we have observed that the remittances sent by Mexican migrants in the United States to their communities of origin have shown an increasing behavior, as has occurred in the period analyzed in this work, which goes from the first quarter of 1995 to the first quarter of 1995. of 2022, particularly in the period of the Covid-19 pandemic that began in the first quarter of 2020. In real figures, remittances received in Mexico during 2020 were 58 times higher than in 1995, 13 times higher than in 2000, 178% higher than in 2010, and 15% higher than in 2019.

For the years 1995, 2000, 2010, 2019, 2020 and 2021 they amounted to 716, 2,992, 15,229, 36,847 and 42,483 million dollars of 2018, respectively (*Banxico*, 2022a).

The theoretical and empirical literature that explains the sending of remittances from the receiving countries to the countries of origin of the migrants points to two groups of determinants: the Endogenous Migration approach, which considers the sending of remittances as an endogenous variable within the process of migratory decision, together with the length of stay, savings and others, in addition to evaluating family relationships and aspects such as the socioeconomic situation of migrants, and considers altruism as a central source of sending remittances; the second is grouped within the Portfolio Optimization approach, which considers that only the self-interest of migrants motivates sending money, in addition to the fact that this decision is independent of their decision to migrate and the conditions of their family (*Elbadawi and Rocha*, 1992; *Islas-Camargo and Moreno-Santoyo*, 2011).

Elbadawi and Rocha (1992) also suggest a synthesis of both approaches to the decision to remit, the former being treated as determining a "required" level of remittances, which tends to be substantially dominated by income and demographic variables, while Under the second approach, portfolio factors and the macroeconomic environment in the migrant's host and origin countries influence the level of remittances, for example, the excess of "desired" remittances over "required" remittances. And because current remittances reflect both "required" and "desired" components, any empirical model that strives to have meaningful policy implications must include the determinants of both concepts.

The proposed hypothesis is that among the factors that determine the sending of remittances sent by Mexican migrants to their communities of origin are economic variables such as the Gross Domestic Product (GDP) of the United States and the GDP of Mexico, and financial variables. such as the United States interest rate, the Mexico interest rate, the United States inflation rate, the Mexico inflation rate, and the United States-Mexico real exchange rate.

This analysis is important because international remittances constitute an important source of income and higher levels of consumption for millions of Mexican families (*El-Sakka and McNabb*, 1999), as well as an important provider of foreign currency for our country (Swamy, 1981), a situation that has become more relevant at the time of the Covid-19 pandemic, starting in 2020.

The contribution of the article is the evidence of causality of the performance of the United States economy through the GDP of that country on the level of remittances sent by Mexican migrants to their communities of origin.

Discussion and conclusions

From the Acyclic Directed Graph model, we obtain a positive causal relationship of the GDP of the United States on remittances, in coincidence with the results of works such as that of Vargas-Silva and Huang (2005), which indicates that remittances respond to changes in the GDP of the destination country of migrants; that of Elbadawi and Rocha (1992), who finds that remittances are significantly affected by income cycles in host countries; that of Suamy (1981), who finds that the number of migrant workers abroad and their wages jointly explain more than 90 percent of the variation in the inflow of remittances; that of Castillo (2001), which establishes a long-term relationship between remittances and a group of exogenous variables, which include the GDP of the United States; and that of Salas-Alfaro and Pérez-Morales (2006), who found that the GDP of the United States directly affects remittances.

On the contrary, our results do not agree with the causality of financial variables on remittances, found in studies such as that of Vargas-Silva and Huang (2006), which indicates the predominance of the impact of macroeconomic conditions in the country of destination of migrants (interest rate, exchange rate, money supply); El-Sakka and McNabb (1999), who find that exchange rate and interest rate differentials are important in attracting remittance flows through official channels; that of Higgins, et al. (2004), who find that uncertainty in the exchange rate (a measure of risk) is an important determinant of remittances; that of Faini (1994) who finds for a sample of five Mediterranean countries that the depreciation of the real exchange rate has a positive effect on remittances; and that of (*Islas and Moreno*, 2011), who finds that remittances are the consequence of an investment decision rather than altruism.

Regarding the impact of the Covid19 pandemic on remittances, our results regarding the increase in remittances from the United States to Mexico during the period of the Covid19 pandemic coincide with the results obtained in studies such as those by Mandelan and Vilán (2020), Ramírez and Lozano (2021), Banxico (2020), the 2021 Migration and Remittances Yearbook (*BBVA-SGConapo*, 2021), regarding the presence of different factors that favored job retention and even the receipt of additional income from Mexican migrants during the pandemic, through the support granted by the United States government.

In this work, evidence of causality of the performance of the United States economy has been found through its Gross Domestic Product, on the level of remittances sent by Mexican migrants who are in that country to their communities of origin, which indicates the importance of our northern neighbor's economy continuing to grow so that remittances to our country remain large.

The combination of a causal flow of GDP from the United States in remittances sent to Mexico, together with a structural change in this last variable, partly explains how, even with a decrease in economic activity in the United States, the flow of remittances is increased due to the pandemic, this provides the bases to continue investigating economic, financial and social variables in terms of sending remittances.

We believe that the contribution of our article is that it allows us to confirm facts that had already been pointed out in previous works, but that had not been demonstrated, as we have done, with advanced econometric techniques that estimate causality between variables. Some of these facts are the impact that the economic performance of the United States has on the remittances received by our country and the significant increase that remittances to our country have registered in the period of the pandemic. To the best of our knowledge, this is the first research paper that uses econometric techniques where causality is estimated in any paper referring to remittances in Mexico.

References

Banxico (2022a). *Sistema de Información Económica. Ingresos por remesas*. https://www.banxico.org.mx/SieInternet/consultarDirectorioInternetAction.do?accion=consultarCuadro&idCuadro=CE81&locale=esVisitado el 25112022.

Banxico (2022b). *Tipos de cambio y resultados históricos de las subastas. Fecha de consulta*. 25/11/2022. https://www.banxico.org.mx/SieInternet/consultarDirectorioInternetAction.do?sector=6&accion=consultarCuadro&idCuadro=CF373&locale=es

Banxico (2022c). *Cetes 28 días, Tasa de rendimiento promedio mensual, en por ciento anual*. https://www.banxico.org.mx/SieInternet/consultarDirectorioInternetAction.do?accion=consultarCuadro&idCuadro=CF114 Consulta 22112022

Banxico (2022d). *Tasas de interés en los mercados internacionales*. https://www.banxico.org.mx/SieInternet/consultarDirectorioInternetAction.do?accion=consultarCuadro&idCuadro=CI34&sector=18&locale=esVisitado el 25112022

Banxico (2020). Remesas en las Entidades Federativas de México en el contexto de la pandemia de Covid-19. Extracto del reporte sobre las economías regionales. Abril-Junio 2020, Recuadro 2, pp. 20-26.

BBVA Bancomer-SGConapo (2021). *Anuario de Migración y Remesas México 2021*. Fundación BBVA Bancomer, A.C. y Secretaría General del Consejo Nacional de Población, de la Secretaría de Gobernación del Gobierno de México.

Bessler, David. A., & Derya G. Akleman (1998). Farm Prices, Retail Prices, and Directed Graphs: Results for Pork and Beef. *American Journal of Agricultural Economics*, *80*(5), 1144-1149.

Bessler, David A., & Seongpyo Lee, S. (2002). Money and prices: U.S. Data 1869–1914 (A study with directed graphs). *Empirical Economics*, *27*(3), 427-446.

Bureau of Economic Analysis, BEA (2022). *Current-Dollar and "Real" Gross Domestic Product*. https://www.bea.gov/data/gdp/gross-domestic-product. Visitado el 25112022

Bureau of Labour Statistics BLS (2022). Consumer Price Index Historical Tables for U.S. City Average. Poner liga. https://www.bls.gov/regions/mid-atlantic/data/consumerpriceindexhistorical_us_table.htm. Visitado el 25112022.

Castillo, Ramón (2001). Remesas: un análisis de cointegración para el caso de Méxicoю *Frontera Norte*, *13* (26), 31-50.

Djajic, Slobodan (1989). Migrants in a guest-worker system: A utility maximizing approach. *Journal of Development Economics*, *25* (3), 327-339.

Djajic, Slobodan, & Milbourne, Ross (1998). A general equilibrium model of guest-worker migration: The source-country perspective. *Journal of International Economics*, *25*(3), 335-351.

Dutta, Kumar D. & Saha, Malika (2021). Nexus of governance, macroprudential policy and financial risk: cross-country evidence. *Economic Change & Restructuring*, 54(4), 1253–1298.

Elbadawi, Ibrahim y Robert de Rezende Rocha (1992). Determinants of Expatriate Workers' Remittances in North Africa and Europe. *Policy Research Working Papers*. Country Economics Department. The World Bank.

El-Sakka, M.I.T. & McNabb, Robert (1999). The Macroeconomic Determinants of Emigrant Remittances. *World Development*, 27: 8, 1493-1502.

Faini, Riccardo (1993). Workers remittances and the real exchange rate. A quantitative framework. *Population Economics*, *7*, 235-245.

Glystos, Nicholas (1997). emitting Behaviour of "Temporary" and "Permanent" Migrants: The Case of Greeks in Germany and Australia. *Labour*, *11*(3) 409-435.

Gujarati, Damodar N. y Dawn C. Porter (2010) *Econometría*. Mc Graw Hill, quinta edición. México.

Higgins, Matthew, Alketa Hysenbegasi y Susan Pozo (2004). Exchange-rate uncertainty and workers' remittances. *Applied Financial Economics*, *14*, 403-411.

Huang, Huilian, & Tao Xiong (2020). Price bubbles and market integration in global sugar futures markets. *Journal of Applied Economics*, *23*(1), 1-20.

INEGI (2022a). *PIB y Cuentas Nacionales. Estimación Oportuna*. https://www.inegi.org.mx/temas/pibo/# Visitado el 25/11/2022

INEGI (2022b). *Índice Nacional de Precios al Consumidor*. https://www.inegi.org.mx/temas/inpc/ Visitado el 25/11/2022

Islas-Camargo, Alejandro, & Moreno-Santoyo, Samuel (2011). Determinantes del flujo de remesas en México, un análisis empírico. *Econoquantum*, 7: 2, 9-36.

Katseli, Loutka, & Glytsos, Nicholas (1986). Theoretical and Empirical Determinants of International Labour Mobility: A Greek-German Perspective. *CEPR Discussion Papers* 148.

Mandelan, Federico, & Vilán, Diego (2020). Remittances and COVID-19: A Tale of Two Countries. *FED Notes*. Washington Board of Governors of the Federal Reserve System.

Meghana, Ayyagari, Demirgüç-Kunt Asli, & Maksimovic, Vojislav (2008). How Important Are Financing Constraints? The Role of Finance in the Business Environment. *World Bank Economic Review*, *22*(3), 483-516.

Melo-Becerra, Ligia Alba, Enrique Ramos-Forero, Jorge, & Zárate-Solano, Héctor (2015). Sovereign bond markets and financial stability in an emerging economy: an application of directed acyclic graphs and SVAR models. *Macroeconomics & Finance in Emerging Market Economies*, *8*(3), 306-319.

Moon, Hanphil, & Seok, Ho (2021). Price relationship among domestic and imported beef products in South Korea" *Empirical Economics*, *61*(6), 3541-3555.

Park, Haesun, Mjelde, James W., & Bessler, David A. (2006). Price dynamics among U.S. electricity spot markets. *Energy Economics*, *28*(1), 81-101. https://doi.org/10.1016/j.eneco.2005.09.009

Pearl, Judea (1995). Causal Diagrams for Empirical Research. *Biometrica*, *82*, 669-710.

Salas-Alfaro, Renato, & Pérez-Morales Mario (2006). Determinantes macroeconómicos de las remesas y su efecto en la distribución del ingreso en México. *Economía y Sociedad*, XI: 18.

Spiegler, Ran (2016). Bayesian Networks and Boundedly Rational Expectations. *Quarterly Journal of Economics*, *131*(3), 1243–1290.

Spiegler, Ran (2017). Data Monkeys: A Procedural Model of Extrapolation from Partial Statistics. *Review of Economic Studies*, *84*(4), 1818-1841.

Spirtes, Peter, Glymour, Clark, & Scheines, Richard (1993, 2000). *Causation, prediction, and search.* 1st edition, Springer-Verlag, New York; 2nd edition, MIT Press, Cambridge.

Straubhaar, Thomas (1986). Determinants of Workers' Remittances: The Case of Turkey. *Weltwirtschafliches Archiv*, *122* (4), 53-69.

Swamy, Gurushri (1981). International Migrant Workers' Remittances: Issues and Prospects. *World Bank, Staff Working Paper* No. 481.

Telésforo, Ramírez-García, & Lozano-Ascencio, Fernando (2021). Vulnerabilidad de la población migrante de México frente a la pandemia del Covid-19. *Revista Latinoamericana de Población, 15:* 28, 102-134.

Vargas-Silva, Carlos, & Peng, Huang (2006). Macroeconomic Determinants of Workers' Remittances: Host vs. Home Country's Economic Conditions. *Journal of International Trade and Economic Development*, *15* (1), 2-27.

Vera, Fernando (2021). Social or economic variables? Which one reduces poverty? A causality approach. *London Journal of Research in Humanities and Social Sciences,* 21:2, compilation, 11-22.

Wang, Xiaokang, Wang, Huiwen, Wang, Zhichao, Shan, Lu, S., & Fan, Ying (2021). Risk spillover network structure learning for correlated financial assets: A directed acyclic graph approach. *Information Sciences, 580*, 152-173.

Werlinger, Fabiola, & Cáceres, Dante (2018). Aplicación de grafos acíclicos dirigidos en la evaluación de un set mínimo de ajuste de confusores: un complemento al modelamiento estadístico en estudios epidemiológicos observacionales. *Rev Med Chile; 146*, 907-913.

Woolridge, Jeffrey M. (2009). *Introducción a la Econometría*. Editorial Cengage Learning, 4ª. Edición. México.

У збірнику зібрано тези виступів учасників міжнародної конференції «Геоекономіка міжнародного валютного порядку: гроші та влада у XXI столітті», що була організована Інститутом економіки та прогнозування НАН України та Школи економіки та бізнесу Університету Анауак Пуебла (Мексика) та відбулася 7–8 червня 2023 р. У доповідях вчених з Мексики, Італії, Нової Зеландії, США, Великої Британії, України та інших країн представлено розгорнуті оцінки майбутнього світового валютного ринку, акцентовано увагу на місці долара як провідної валюти світу; окреслено місце Китаю та його нової цифрової валюти, значення біткойна для національної влади; виявлено роль Китаю в новому міжнародному валютному порядку; обгрунтовано геоекономічні імперативи та асиметрії розвитку світової економіки сьогодні, роль України та її грошово-кредитна політику під час війни.

Збірник наукових праць буде корисним для експертів, науковців, викладачів та студентів, а також усіх зацікавлених у вирішенні сучасних проблем суспільного розвитку.

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