Financial and Economic Review, Vol. 23 Issue 2, June 2024, 131–155.

The Challenges of Fragmentation of the International Financial System – Towards a Brave New World Order?*

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The emerging new world order will be subject to a number of strong and unexpected effects, transforming and fragmenting the international financial system. The multilateral world economy has come under the influence of a multipolar power structure, triggering geopolitical tensions, which has led to the creation of economic and financial blocs, and the struggle to strengthen power positions. Financial fragmentation poses risks to international financial and monetary stability. Reducing negative impacts requires international cooperation, but the regulatory activities of international financial institutions are constrained by power blocs. This paper seeks to answer the question of how the fragmented world order affects the international monetary system, flows of capital, monetary policies and financial stability.

Journal of Economic Literature (JEL) codes: E3, E5, G1, F02, F12, F65

Keywords: world order, fragmentation, deglobalisation, integration, central bank digital currency, financial stability

1. Introduction: Concept and definition of financial fragmentation

The development of the world and of humanity has reached a stage where the process of the emergence of a new world order has become the subject of scientific analysis, professional and everyday public discourse, and even of literature (*Huxley 1958; Kerényi – Müller 2019*): the old order is coming to an end or being substantially transformed, and international political, economic and financial relations are changing and reorganising. This historic change has implications for the global financial system and financial relations. A change of this magnitude can be triggered when a number of separate, interacting, reinforcing phenomena occur in the world in a historically short period of time.

* The papers in this issue contain the views of the authors which are not necessarily the same as the official views of the Magyar Nemzeti Bank.

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The first version of the Hungarian manuscript was received on 21 July 2023.

DOI: https://doi.org/10.33893/FER.23.2.131

In the international economic and financial system, when fragmentation is used as an umbrella term for the emergence of change, profound transformations are taking place in the background, in space and in time. This may be a situation that has ended after a process of transformation, or it may be a dynamic process that builds on and fundamentally changes the previous situation. In this analysis, we briefly review the main stages of the international monetary system that have led to the transformation of the world order and the associated change in the international monetary system.

There is no generally accepted definition of fragmentation in the literature. International financial organisations agree that the term itself refers to fragmented financial markets, but then summarise the causes, potential effects and risks of fragmentation in different ways.

In our analysis, we follow the BIS methodology, which summarises the characteristics of a fragmented system in a comprehensive framework, according to which fragmentation has several dimensions (*Claessens 2019*). This may differ depending on whether you analyse it from a national or global perspective. Fragmentation may also differ depending on the financial market, e.g. in securities markets, banking markets or payment and credit services. Fragmentation can arise for a number of reasons other than financial regulation, including natural barriers, market forces and differences in the institutional environment. Its analysis should include its impact on the efficiency of financial services, including market liquidity, its impact on transparency, consumer and investor protection; and finally its relationship with overall (global) financial stability (*Claessens 2019:4–5*).

According to the Basel Committee on Banking Supervision (BCBS), fragmentation in financial markets can lead to distortions of competition caused by the absence of global minimum banking standards or by the incomplete and inconsistent implementation of these standards. But market fragmentation goes beyond financial regulation. According to the Financial Stability Board (FSB), fragmentation refers to markets that are fragmented geographically, by product type or by participant. The fragmentation of international banking activity may suggest that capital and liquidity pools are segregated in local markets and cannot move freely across jurisdictions (*FSB 2019:27–28*).

According to the Institute of International Finance (IIF), the risk of fragmentation is reflected in differences in regulatory regimes and frameworks that can hinder the development of financial services and the spread of beneficial innovations, and limit the ability to stabilise the financial situation effectively (*IIF 2019*). From a substantive point of view, fragmentation can be seen and understood both in the global space and within the framework of national and local jurisdictions. In our analysis, we look at it primarily in an international context, but also consider the role of central banks when fragmentation poses a risk to a country's financial stability (*IMF 2023:81*). One of the key reasons behind the emergence of the above elements in the international monetary system is that the process of deglobalisation has caught up to the process of operational globalisation, which had been steadily gaining ground in recent times. To be able to understand deglobalisation, we should summarise the concept of globalisation, as its elements change in opposite directions during deglobalisation. According to *Jagdish N. Bhagwati* (*2007*), globalisation is the integration of national economies into the international economy through trade, FDI, short-term flows of capital, international movement of people in general and the flow of technologies. "*Globalisation is an all-encompassing process. It involves the integration of national and regional economies, and societies and cultures through the global network of trade, finance, communication, migration and transportation. [...] Geographical and political constraints have less and less bearing on the allocation process"* (*Halmai 2023:6*).

It should suffice to just list recent developments that have triggered deglobalisation. In the era of the Fourth Industrial Revolution, the new digital world came into being as an integral part of it, with the rise of artificial intelligence and robotics, the outbreak of the coronavirus pandemic, geopolitical tensions intensified, the energy crisis, global inflationary pressures, trade wars emerged, supply chains were disrupted and the Russian-Ukrainian war broke out. These processes in themselves brought changes in international economic and political relations, but several effects were interlinked and mutually reinforcing, fundamentally altering the relatively calm post-Cold War environment free of geopolitical tensions. This has set in motion a global process with as yet unforeseen outcomes. The combined impact of geopolitical, economic and technological forces can be described as the ongoing fragmentation of global economic relations and the international monetary system.[1]

The fragmentation of the existing world order has three mutually reinforcing and, in specific cases, weakening factors: (i) global political and geopolitical power relations; (ii) changes in economic and trade relations; and (iii) changes in the operating conditions of the international monetary system, and restrictions on the free flow of capital. Our analysis focuses on the third element of this three-dimensional process, i.e. we are looking for the answer to the question how the fragmented world order affects the international monetary system, flows of capital, monetary policies and financial stability.

[1] In the following, we use the term 'fragmentation', which has become accepted in literature, to describe the process. Fragmentation means to break up, to fall to pieces. (From the Latin *fragmentum*: a portion, a piece of something.)

We are witnessing a sudden geopolitical shift, along the fault lines of which the world with its cross-border payment and trade systems and reserve currencies is breaking up into separate economic blocks. The main causes of this are primarily to be found in different ideologies, different political systems and heterogeneous technological standards (*Gourinchas 2022*).

We will analyse the impacts of the fragmentation process on the international financial system and monetary policy, which is often directly triggered by the power and political issues shaping the new world order, and by geopolitical tensions. Political conflicts of power are not the subject of our analysis, but where they are present as a trigger or as a factor reinforcing the disintegration of the system, we naturally refer to them. In this context, geopolitical tensions are one of the decisive factors in this process, encompassing several elements of disruption, friction and power struggles in international relations. Behind them, there are measures to rebalance power relations, discriminatory regulations restricting trade and financial relations, actions to prevent the free movement of capital, goods, services and technologies, and the imposition of sanctions of various kinds between countries seeking to change the power relations. Almost immediately, these measures lead to fragmentation of trade and financial relations between countries and groups of countries, and their ultimate impact is in any case negative.

2. The historical roots of the changing global order

It is worth looking back at the milestones of the last eight decades to see the roots of the emerging new world order.

World War II totally changed the international power structure. In the new world order that was emerging, fragmented trade relations had to be reorganised and the international monetary system had to be put on a new footing. After the war, the Western bloc wanted to consolidate international economic and trade relations and make them work for itself, forming a new basis for the international monetary system.

In 1944, the Bretton Woods Agreement was concluded in the USA, which made it possible to lay the foundations for a new world economic system. The International Bank for Reconstruction and Development (1944), the World Bank (1945) and the International Monetary Fund (1944) were created. This meant the establishment of a regulated framework for the international monetary system, and at the same time the United States became the dominant, hegemonic power in the international economic system. The US dollar became the dominant currency of international trade, with the exchange rate of all currencies fixed in dollars and the value of the dollar pegged to gold at a fixed rate. The global position of the US and the dollar was strengthened by SWIFT (Society for Worldwide Interbank Telecommunications), the world's largest cross-border clearing house, which settles transactions in dollars, with at least one of the participants in a transaction being a US financial institution. A new system for financial and trade relations was established (London still retained its role as a financial centre, and the pound sterling played an important role in the trade of the countries of the British Empire and later the Commonwealth).

Subsequently, the North Atlantic Treaty Organisation (NATO), a military alliance led by the US, was founded in Washington in 1949, with twelve countries at the time of its signing, now thirty-one. As a result of this process, the United States has become a hegemonic world power. The other pole of world power was the Soviet Union and the Soviet bloc with the Eastern European countries it occupied. The confrontation between these two blocs became more and more acute in all areas, as the creation of the Iron Curtain illustrates. The Cold War era began, and the bipolar world power system was established. This was facilitated by the General Agreement on Tariffs and Trade (GATT), which followed the World Bank and the International Monetary Fund in 1947, then the World Trade Organisation (WTO) and, in 1961, the Organisation for Economic Co-operation and Development (OECD).

The Helsinki Final Act, adopted by the Conference on Security and Cooperation in Europe (CSCE) and signed by thirty-five countries in 1975, paved the way for the close of the Cold War. However, this required an agreement between the two superpowers, the USA and the Soviet Union, and mutual security guarantees, which finally came about in 1990–1991, when the two Germanies were united and Soviet troops withdrew from the Warsaw Pact countries.

The period following the end of the Cold War created favourable geopolitical conditions for the emergence of global economic and trade relations and value chains. The international monetary system was stable, supported by a system of rules and regulations of international financial institutions, and backed by the monetary policies of independent central banks. This did not mean, however, that even in this peaceful period there was not a determined effort to change the international balance of power and influence in the international trade and financial system.

So, within a historically short period of time after the end of World War II, the conditions for a new world order to function in political, military, economic, commercial and financial terms were established. At the same time, this bipolar system of world power, marked by the USA and the Soviet Union, was determined primarily by the military balance of power, and directly by their economic and financial systems, and there were several developments and efforts to change it.

In the background of this process, three factors became dominant over time, revealing the fault lines of the bipolar world order. This led to the emergence of a multilayered international monetary system, the foundations of which are changing and being transformed in the new tripartite world order. For a long time, the global hegemonic power of the US was backed by the Bretton Woods system,[2] the International Monetary Fund (IMF) and the dollar-based SDR system. There is strong economic and financial competition between the three dominant players in the world order, the US, China and the European Union, with the growing trend towards a reduction in the dollar's hegemonic role. This reduced the operational scope of the Bretton Woods system and the IMF's regulatory scope. According to analysts, the Bretton Woods system has not been a system for some time. According to *De Larosière* (*2012*), for example, since the early 1970s, the financial system has been characterised by the term ”non-system” rather than ”system”.

The presence and accumulation of external imbalances persisted, financial markets developed faster than the real economy, and liquidity surpluses became part of the system, at least until the crisis of 2008–2009. In this confused and complex situation, the IMF's previously established intellectual tenets were unsuccessful, and thus several attempts were made to reform the system (*Kruger 2012*; *IMF 2015*). However, due to the unleashing of financial markets and the lack of international support for change, reforms were not implemented (*Báger 2017*).

The second and most significant event is the creation and development of the European Union. Over the past two decades, the EU has become an economic powerhouse; the development of the Economic and Monetary Union was successful, the creation of the eurozone made it possible to establish the Banking Union, and the Capital Markets Union has developed substantially. From an economic and financial point of view, the European Union became a global geopolitical player, the second pole of the world order.

In 2019, the new President of the European Commission announced the need to strengthen the EU's role in world politics, and described her own presidency as a "geopolitical commission". To coordinate the EU's role internally and externally – in world politics – each EU Commissioner's cabinet set up an "External Coordination Body". The background to this change was the recognition that the multilateral world is moving towards a multipolar direction, where the EU's geopolitical position must be secured (*CEPS 2020*). The international financial crisis of 2008–2009 was a landmark event, one of the consequences of which was the collapse of US global geopolitical hegemony.

[2] The 80th anniversary of its creation will be in July 2024.

The next element of this process was that China became a global political and economic player alongside the US and the EU. A tripolar world order was established, which led to a new type of bloc formation, backed by major financial and trade agreements. A new force in the future will be the competition between central bank digital currencies (digital dollar, yuan and euro), which will be crucial for international monetary policy and financial cooperation. In this situation, the question may arise as to whether it will be possible to transform the SDR system into a digital system in the interests of international monetary policy and financial stability. This is not ruled out in principle, but there is little chance of a transformation of the current system to replace the current SDR with a digital version. The great challenge for the international monetary system is when, how and to what extent the digital dollar and the digital euro will be able to compete with the digital yuan, and how their competition will develop.

In this competition, the IMF is striving to maintain its leading role, as symbolised by its efforts to create a Global Financial Safety Net (GFSN) and its initiative to develop a Universal Monetary Unit (UMU) as an international central bank digital currency.

In response to this, and with a defensive purpose, the process to create the Transatlantic Trade and Investment Partnership (TTIP) between the US and the EU was launched in 2010 with an intention to link the two largest economies in the world. By the end of Obama's presidency, the treaty was ready for signature on the basis of the principle of mutual benefit, but the Trump administration refused to ratify it, citing US interests.

The failure of the treaty was due to the fact that the US made substantial changes to its economic and trade policies in order to maintain its position of power. It provided substantial subsidies to domestic producers to maintain their competitive advantage, and introduced export and discriminatory import restrictions violating previous free trade rules. Instead of the principle of mutual benefit in international economic relations, the growing share of investment was confined within the global power framework, blocking the flow of high-tech products to China and restricting imports from China. These developments led to the global power structure becoming tripolar by the end of the last decade, with the US, the EU and China dominating (*Economist 2023*).

In 2022, this tripolar order was hit by an unexpected new impact, the outbreak of the Russian-Ukrainian war. In terms of international financial cooperation and the expected development of fragmentation, this military conflict will have a longer-term negative impact – which cannot be assessed today. Traditional trade flows in a number of products have disappeared or fallen sharply over the period (energy, agricultural and high-tech products), particularly within Europe, with a knock-on effect on financial relations. Some of the severe sanctions imposed due to the war, including on the financial sector, are effective, but others also affect those who have imposed them. As a result, part of Russia's export and import flows have been redirected, for example towards China and the Arab region, and a system of reciprocal preferences and new forms of financing have been developed to maintain these. This affected the power blocs and brought about a transformation of their financial relations.

The sanctions against Russia, Turkey and Venezuela may have undermined the confidence of countries that are geopolitically out of sync[3] with the United States in the security of dollar reserves and payments (*McDowell 2021*).

3. Fragmentation in the new world order

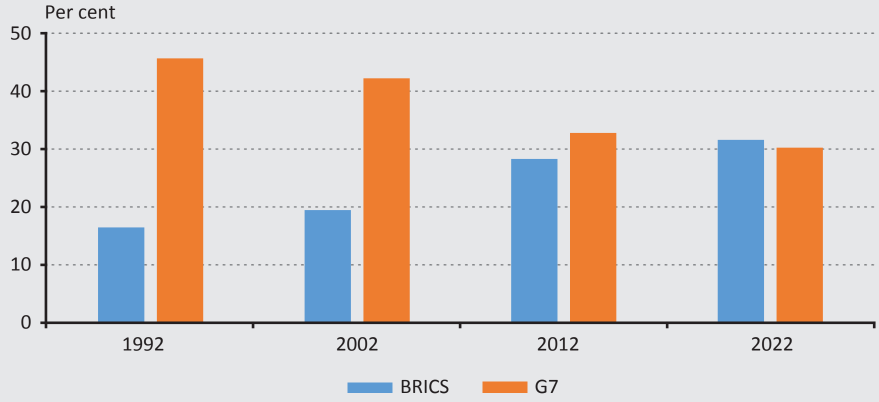
In the post-Cold War period, in the emerging tripartite world order, China has become a global power with the second largest GDP in the world. The central objective of Chinese economic policy was to ensure sustainable economic growth. One important element of the strategy developed was that the considerable industrial surplus capacity and capital reserves accumulated over several decades as a result of intensive capital inflows should be used abroad. In this spirit, the Chinese government announced a strong opening to external markets. At the same time, the strengthening and dynamic expansion of international financial and economic relations began. This included opening up business relations, increasing overseas direct investment, and reassessing global economic relations. China has taken significant steps to strengthen the international financial influence of its currency, the renminbi (RMB).

The basis of the "relationship" between the actors in the new power structure is competition, to ensure the financial autonomy and stability of their own bloc. A complete separation of international financial relations between the actors in the new tripartite power structure is not possible. The competition between the blocs they have created is intensifying, and the drive for independence is growing, while the US wants to maintain the leading role of the dollar. All of this leads to the so-called financial strategic divergence between competing blocs and the fragmentation of financial relationships.

[3] As a trigger for the drive to de-dollarisation, international research shows that negative foreign policy decisions and sanctions (e.g. Russia, Turkey, Venezuela) can undermine confidence in the dollar, which also affects countries that are geopolitically out of step with the US in terms of the security of dollar reserves and payments.

The Regional Comprehensive Economic Partnership (RCEP), a free trade agreement signed in 2020, is an example of this strategy, the drive for independence from the dollar and a new element of fragmentation, with fifteen countries, including China, Australia, Japan, Indonesia and South Korea.[4] This group accounted for 30 per cent of global GDP at its establishment, making it the world's largest trading bloc and reinforcing the third pole of the emerging world order (*Figure 1*). The precursor to the RCEP agreement was the China–Australia Free Trade Agreement (ChAFTA), signed in 2015.

Figure 1
Shifting global balance of power the contribution of BRICS and G7 to GDP (1992–2022)



Note: BRICS group members: Brazil, Russia, India, China and South Africa; G7 group members: Canada, France, Germany, Italy, United Kingdom, Japan and the United States of America

Source: Calculated using Atlantic Council Geoeconomic Center data

We could enumerate a long list of bilateral or multilateral economic, trade and financial agreements (see e.g. *Dadush – Prost 2023*) which have been concluded in the last decade and in some way, individually and together, reinforce the process of the emergence of the new world order. These agreements are having a major impact on global financial markets, increasing the risk of volatility and signalling that member countries that have signed up to these agreements want to reduce their dependence on the existing global financial system, especially the dollar. At the same time, the economic potential and geopolitical position of the group of countries they represent can be an advantage if they can slow down the spread of contagion and develop their own rules of defence in the event of an international financial crisis.

[4] The full list of member countries is Australia, Brunei, Cambodia, China, Indonesia, Japan, Laos, Malaysia, Myanmar, New Zealand, Philippines, Singapore, South Korea, Thailand and Vietnam.

In addition to political and military arrangements, the development of financial dependency has become a major factor in influencing the balance of power over the past decade. Its primary instrument is (long-term) lending to partner countries' economies and infrastructure investments, while also determining the currency of such financing and loan contracts. As a result, the five most dominant currencies in the IMF's SDR basket in 2022 were the US dollar at 43.2 per cent, the euro at 29.3 per cent, the Chinese yuan at 12.3 per cent, the Japanese yen at 7.5 per cent and the pound sterling at 7.4 per cent.

These regional and bilateral agreements have not strengthened the previous multilateral system. By the end of the last decade, the world had split into a tripolar bloc, known as the "strategic divide". On one side is the USA, on the other the European Union, and on the third side, China and the South-East Asian region. The direct consequence of this divide is the transformation, the "disintegration" of the former financial system.

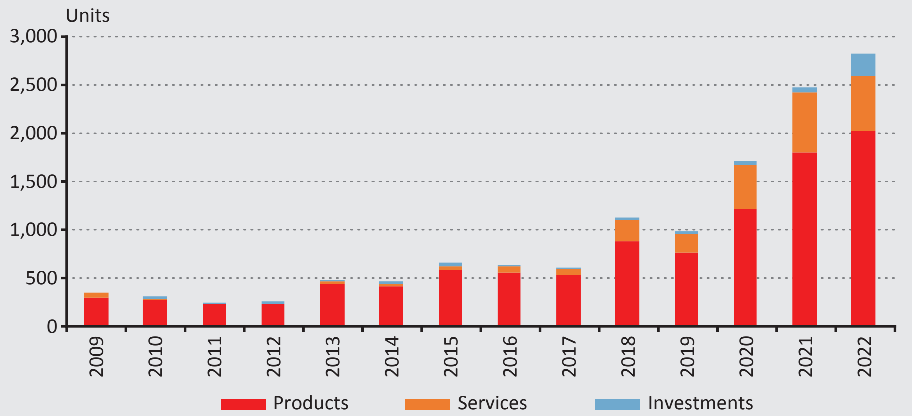
Christine Lagarde, President of the European Central Bank (ECB), described the process as follows: "*We are witnessing a fragmentation of the global economy into competing blocs, with each bloc trying to pull as much of the rest of the world closer to its respective strategic interests and shared values. And this fragmentation may well coalesce around two blocs led respectively by the two largest economies in the world. [...] In this sense, insofar as geopolitics leads to a fragmentation of the global economy into competing blocs, this calls for greater policy cohesion.*" (*Lagarde 2023:1*).

Political will would be necessary to allow international financial regulators to work together in a multipolar space to reduce risks to monetary stability. It is hoped that this expectation can be met more successfully within the European Union than in a fragmented global financial policy space where cooperation between multilateral financial institutions is becoming less effective.

The aim of the competing blocs is to maintain and strengthen their positions of power and influence, using a variety of means. Strategies to support this include both attack and defence. As a means of defence, the competing hegemonic blocs seek to establish regional commercial and financial international groups alongside and around themselves. Ongoing global power and geopolitical changes have a direct, reciprocal impact on the fragmentation of the international monetary system (*IMF 2023*). There is a strong effort to weaken the still strong international position of the dollar, or otherwise to become independent of the dollar, with implications for the dollar-based SDR system and indirectly for the international role of the IMF.

Geopolitical tensions trigger the fragmentation of the international monetary system directly and indirectly through multiple channels, which in turn amplifies the risks to the system. Geopolitical tensions lead primarily to the imposition of financial restrictions and sanctions, thereby increasing financial market uncertainty. At the same time, trade restrictions (on exports and imports) appear, disrupting traditional supply chains. Financial fragmentation disrupts the redistribution of cross-border foreign lending and investment and the order of flow of capitals, which in the long run may lead to a more limited diversification of international capital and liabilities (*Figure 2*).

Figure 2
Increase in exposure to trade restrictions (2009–2022)



Source: Compiled based on data from Bolhuis et al. (2023)

Geopolitical tensions intensified in the post-Cold War period, and the bipolar world order began to unravel. The conditions of international conventions aimed at closing the Cold War, which made it possible, were ignored and violated. Against this background, in order to preserve or increase economic and financial spheres of influence, there were numerous local military interventions, and an arms race was relaunched. Another aspect of this process is that China became an international geopolitical player by using efficiency, productivity, economic growth and financial dependence as instruments. Finally, the development of the European Union, the creation of the eurozone and the demonstration of its economic and financial resilience after the 2008–2009 crisis have made it an international geopolitical power. On the one hand, these processes have weakened the former hegemonic leadership of the US and, on the other, forced it into a defensive position, the early instruments of which were trade restrictions, mainly on imports, against competitors, which were replaced by a policy of increasingly severe sanctions, and restrictions on the use of the instruments of the international monetary system (e.g. SWIFT).

The geopolitical situation deteriorated further with Russia's attack on Ukraine. The EU and the US have imposed a number of sanctions on Russia, such as *"the freezing of nearly half of the Russian central bank's foreign exchange reserves and the exclusion of a number of Russian banks from SWIFT, the dominant financial messaging system used to facilitate cross-border payments. Several observers noted that these sanctions may have far-reaching consequences for the role of the currencies of the sanctioning countries – including the US dollar and the euro – in the international monetary and financial system.*" (*Den Besten et al. 2023:1 and Abely 2023*).

Real economic changes (trade restrictions, sanctions) triggered by geopolitical tensions disrupt commodity market linkages, supply chains, trigger inflation, reduce economic growth and increase economic and financial fragmentation (*Catalán et al. 2023*). Another consequence of this process is the emergence of liquidity and solvency stress in banks and non-financial corporations. Ultimately, this will lead to higher volatility in foreign funding and return on equity risk.

The new world order is experiencing a number of powerful, sometimes unexpected, impacts. The analyses of the problems are consistent in identifying the risks, but the proposals for solutions are contradictory and vary in emphasis. There is a need for international cooperation and international coordination to reduce negative impacts, while the active regulatory activity of international financial organisations is limited by the power blocs, creating a regulatory and cooperation trap.

Geopolitical tensions may lead to the introduction of measures restricting the flow of capital and cash, creating unpredictability and uncertainty for investors in international financial relations. Such effects include recent financial sanctions, regulations restricting capital investment and international asset freezes. This increases financial fragmentation, which negatively affects the profitability, liquidity and lending capacity of banks. The vulnerability of negatively affected countries to financial shocks increases. A direct effect of fragmentation is that the system of global financial relations is changing (*Tran 2023*).

As a sign of financial fragmentation and a reduction in the dollar's influence, in June 2022 the BRICS countries announced that they would develop a new global reserve currency similar to the IMF's SDR system. The aim is to counterbalance the hegemony of the United States over international financial institutions. This could allow the world's leading emerging economies to cluster together strongly, building their own sphere of influence with its own currency unit. This ambition is reinforced by the fact that the new currency will also be available to countries outside the

BRICS group. A new development occurred at the same time. In 2022, "*the People's Bank of China (PBOC) declared its plan to create a yuan reserve pool with the Bank for International Settlements and with regulators of Indonesia, Malaysia, Hong Kong Special Administrative Region, Singapore and Chile to guarantee the necessary liquidity to participating economies during times of market volatility."* (*Giovannini 2022*).

As mentioned above, geopolitical tensions trigger competition between global factors and defence at almost the same time. The above example shows a new element of power competition; the aim of the defensive effort in this case is to reduce and break the hegemonic international role of the dollar. An essential element of this process of deglobalisation is the drive to de-dollarise the world economy, which is challenging the international monetary order. *"The dollar-based monetary order is already being challenged in multiple ways, but two in particular stand out: the spread of de-dollarisation efforts and central bank digital currencies (CBDCs). [...] But recently, the pace of de-dollarisation appears to have picked up. Over the past year, China and India have been paying for Russian commodities in renminbi, rupees and UAE dirhams. India has launched a rupee settlement mechanism for its international transaction. [...] With the expansion of BRICS to beyond Brazil, Russia, India and China, the de-dollarisation of trade flows may proliferate. CBDCs could accelerate this transition."* (*Pozsár 2023*).

The BRICS group has always been a strong member of the financial and trade blocs. Six countries announced their intention to join in August 2023: Argentina (which eventually did not join), Egypt, Ethiopia, Iran, the United Arab Emirates and Saudi Arabia. The acceding countries became full members from January 2024. This will significantly strengthen China's influence in the Arab region and Africa.

The above developments illustrate the emergence of fragmentation in the emerging new world order, with clear risks and dangers.

4. The dangers and risks of global economic and financial fragmentation

The negative effects of the increasing geopolitical tensions of recent years have triggered a process of economic and financial fragmentation, and an unwelcome fragmentation of global financial markets to an extent that could threaten international financial stability. Uncertainty caused by geopolitical tensions hampers the conditions for the cross-border flow of capital. The negative impact on capital flows adversely affects foreign investment, creating tensions between investor and host countries. International payment systems may be hampered. As stability is shaken, banks' funding costs rise, their profitability falls and they reduce their lending. Fragmentation risks can lead to significant economic costs, price increases due to disrupted supply chains, import restrictions or sanctions. Another negative effect is that *"geopolitical tensions are transmitted to banks through the real economy. [...] The stress is likely to diminish the risk-taking capacity of banks, prompting them to cut lending, further weighing on economic growth."* (*Catalán et al. 2023:1*).

However, it is legitimate to ask when fragmentation reaches the point where it poses a real threat to financial stability, or when fragmentation may have benefits up to a certain point. The answer is not simple, because global economic, power, dependency trade relations and their changes have to be considered simultaneously with the financial systems, financial exposure and financial stability that depend on them. Moreover, behind these processes are the global aspirations for power, i.e. to maintain or strengthen positions of power. And the international monetary system is also an instrument, or sometimes a sufferer, of this process, and thus of the development of the new world order (*Pozsár 2023*; *Buckley – Trzecinski 2023*).

The historical experience of different economic cycles is that, following a crisis or a tension, a double effect prevails. On the one hand, monetary and fiscal policy is gradually loosening, and the flow of capital movements and leverage is expanding. On the other hand, the lessons of the crisis will be used as a basis for more stringent financial regulation that will trigger international cooperation. At the same time, monetary policy had to be made capable of handling and adapted to the post-crisis situation. The events of the international financial crisis of 2008–2009 bear this out. It has led to tighter international financial regulation and increased regulatory cooperation, but a decade later the system is no longer able to manage the risks posed by global financial fragmentation.

Fragmentation can have a negative impact on the stability of the international monetary system, which is important for global economic stability and sustainable growth. To achieve this, the IMF considers it necessary to enhance international surveillance, promote international risk-taking and flows of capital; strengthen global resilience to financial shocks, and to prepare for crisis prevention by establishing a Global Financial Safety Net (GFSN) to maintain liquidity (*IMF 2023a*).

In addition to de-dollarisation, the emergence of central banks digital currencies (CBDCs) poses a particular challenge for the transformation of the international monetary system, as will be discussed in more detail later. Within a short time, it became clear that the applicability of CBDCs beyond national borders could become a tool for increasing international trade and financial influence, and thus global power struggles. Regulatory cooperation between international, and in some cases global, financial powers is also needed for CBDCs, but fragmentation is an obstacle.

One future challenge of central bank digital currency will be which of the currently competing CBDCs will gain more space and influence in the international financial market, i.e. which will be the tangible manifestation of the power and security aspects of the future international monetary system.

All three major geopolitical players in the global economy are now actively preparing to launch their own digital currencies: the digital dollar, the digital euro and the digital yuan. China is a pioneer in this field, with the digital yuan already being tested in practice and rules for its domestic use being developed. A programme has also been developed to introduce the other two, which will be discussed later. It is clear that competition is an essential aspect of introduction and cross-border applicability, and the challenge as to which of the competing CBDCs will gain more space and influence in the international financial market, which will be an important element of power and security in the future international monetary system.

CBDCs are becoming part of this race, redrawing geopolitical positions by influencing the flow of international trade and financial exposure. Trade exposure takes into account the combined impact of export and import, supply and consumption processes in international value chains on international and global processes.

Financial exposure takes into account the total investment portfolio and all liabilities linked to the US, the euro area or China. An earlier analysis illustrates the expected emergence of competition, potential integrability and digital currency substitution risk for digital currencies by showing the trade and financial exposure and dependence on the euro area, the US and China. In terms of trade exposure, the euro area and the US have almost the same share, with China in third place. However, it is worth noting that China dominates the Far East region, as well as the whole of Africa and Australia. In terms of financial exposure, however, the US is in first place, the euro area in second and China again in third place (*Müller – Kerényi 2022*).

In order to reduce exposure to geopolitical tensions and the negative effects of financial fragmentation, the EU considers it necessary to strengthen European financial integration, in addition to preparing for the introduction of the digital euro. This was boosted by financial turbulence in the US and Switzerland in first half of 2023. The EU's competent bodies have decided to strengthen the eurozone's crisis management system, in particular by completing the building of the banking union and the capital markets union and by creating the European Deposit Insurance Fund. The EU sees the need to strengthen the resilience and defences of the financial institutional system as essential to ensure economic growth and resilience in the euro area. This is the framework for ensuring that capital markets allow for the efficient allocation of capital. This is an important requirement because the role of non-bank financial institutions in financing the euro area economy has grown significantly over the past decade, with increased risks for the financial system. "*Interconnectedness between the banking and the non-bank financial sector* *remains high, increasing the scope for contagion.*" (*Guindos 2023a:1*). New, stricter regulation is needed to protect the stability of the financial system.

In a world fraught with geopolitical tensions, the European Union's decision-making bodies have set out what needs to be done to ensure monetary stability, sustainable economic development and the preservation of international positions. This was helped by the experience of the 2008 financial crisis, as it became clear that the conditions for the functioning of the Economic and Monetary Union, the Banking Union and the Capital Markets Union needed to be strengthened. Once these are achieved, the next task is fiscal union and the development of a common fiscal policy. At this point, however, there are obstacles that are difficult to circumvent, which are briefly summarised below.

Following the founding of the European Union, which currently has 27 Member States, fundamental changes were brought about by the introduction of the euro in 1999 and the creation of the Economic and Monetary Union. This is when the EU split into the eurozone (now with 20 members) and the group of countries that remain outside or will join later (Bulgaria, Denmark, Czechia, Hungary, Poland, Romania and Sweden). By the time the eurozone was strengthened and it became clear that it was viable, the global financial crisis of 2008 had set in. It then proved that the EU was capable of overcoming the crisis, but it also forced the political realisation that the Union, and the eurozone in particular, needed to be strengthened. The key questions are in what way the financial system can develop, how monetary stability can be ensured in a two-speed Europe in the event of an international shock, and how the eurozone can be expanded and made complete, without which the Monetary Union cannot be complete. Bulgaria and Romania have already announced their intention to join. In a document published in 2017, the European Commission identified the euro, the single currency of the EU, as an essential condition for progress.

For the purposes of our analysis, the above shows that within the European Union there is a geo-economic division between the so-called core countries and the peripheral countries, with the result that the financial system is split between euro area members and non-euro area countries. The impact of this situation on the EU needs to be nuanced. On the one hand, it is undeniable that the EU is one of the influential factors in the current trilateral world order, the role of the euro in the international payments system is significant, the introduction of the digital euro and its usability beyond the euro area is expected to stabilise its position of power, but the future of the EU would be much more positive if a complete and unified Monetary Union were to be established (*Guindos 2023b*).

The impact of Brexit was questionable in terms of the stability of the European Union's financial system and its future international role. The period since then has shown that this change has not weakened the international position of the EU, and the euro area in particular, but has strengthened it. It has promoted the development of the Banking Union, the Capital Markets Union and regulation to strengthen financial stability. At the same time, London's role as an international financial centre has weakened, with the euro taking over the second place from the pound sterling to follow the dollar in the IMF's SDR basket. In response to the post-Brexit situation, in October 2020, the same year as the UK's exit, representatives of the financial organisations of nineteen EU member states and the EU Commission agreed that the EU's financial centres would be coordinated by Frankfurt and Luxembourg (The EU Roundtable of Financial Centres). The EU's international financial position was indirectly strengthened by the creation in 2018 of the World Alliance of International Financial Centers (WAIFC), based in Brussels, which represents the world's largest financial centres and is tasked with promoting international financial cooperation. It is certainly no coincidence that London, as a financial centre, is not a member of either of these two organisations. The European Commission decided in November 2019 to move the European Banking Authority (EBA) to Paris.

This accelerating and diversifying process has geopolitical and international financial risks. There are several ideas and proposals in the literature to reduce and prevent these. The IIF has made targeted proposals to the G20 to address market fragmentation, develop global regulatory standards and strengthen international cooperation among regulators. They argue in their analysis that there is a need to monitor the implementation of internationally agreed regulatory standards, improve the comparability of regulatory regimes, make the extent and impact of national discretion known, and help promote impact assessments and stakeholder involvement. It must be ensured that regulatory reforms remain fit for purpose in changing circumstances and the FSB should ensure a holistic assessment of reforms. These proposals can be effective if they are accompanied by increased international cooperation between regulators. This should include setting concrete objectives for closer cooperation between regulators and policymakers, strengthening trust between supervisors, and making information and data sharing between regulators more effective (*IIF 2019:2*).

Consequently, fragmentation can undermine broader common economic policy objectives, and supervisors, regulators and financial institutions need to be aware of the risks to financial stability arising from the rise in geopolitical tensions and commit to identifying, quantifying, managing and mitigating these risks.

The International Monetary Fund, as the guardian of international monetary stability, remains a key player, but it is also part of the financial bloc, and it is difficult to foresee how and in what way its role will be affected or constrained by the changing world order.

In light of the above, several international financial institutions have argued that in the emerging multipolar world order, power players are seeking to give priority to their national and regional interests, while global cooperation would be needed more than ever. Due to increasing geopolitical tensions, the adequacy of the global financial safety net needs to be ensured, which requires high levels of international reserves for countries, the development of bilateral and regional financial agreements and the provision of precautionary credit lines by international financial institutions.

5. Fragmentation and central bank digital currency

In a multipolar world order, the functioning of the international monetary system, which can also be used as a tool for competition between power blocs, is significantly affected by central bank digital currency. As mentioned above, China has been at the forefront of the early implementation and piloting of central bank digital currency. As it has become a dominant player in the world economy and world trade in recent decades, it has sought to use its currency, the renminbi, to gain influence in the international financial market and in the financing of international trade. China's international economic relations in Asia, the Arab countries and Africa have been greatly strengthened, and the objective of financing these relations not in dollars but in renminbi has been brought to the fore, the international use of which also paves the way for the rise of the digital yuan.

It is now clear that the introduction and the preparation for the use of the digital dollar is inevitable, and that its implementation will have a significant impact not only on the US financial system and monetary policy, but also on global financial processes.

Preparations are underway for the introduction of the digital euro. in April 2020, the EU Commission launched two major consultations, the Digital Finance Strategy and the Retail Payments Strategy. The document published by the EU Council in June 2020 launched the process of digital transformation of the EU, including the introduction of the digital euro. The competent EU institutions have set the target of introducing the digital euro by 2025 at the latest (*Müller – Kerényi 2022*).

The emergence and preparation for the introduction of the digital currencies of central banks is not a consequence of fragmentation, but can have a significant impact on strengthening it or mitigating risks. Soon after CBDCs were introduced, groups of central banks agreeing to use CBDCs across borders appeared as the first signs of financial blocs. Two new forms of these are presented below.

One is the announcement by the International Monetary Fund and the Digital Currency Monetary Authority (DCMA) of the launch of a central bank digital currency, the Universal Monetary Unit (UMU), in 2023. In line with the objective, the UMU, which will be convertible into any legal tender, should comply with the crypto asset regulatory recommendations previously developed by the IMF and strengthen the monetary sovereignty of the participating central banks and the financial integrity of the international banking system.[5] This decision allows for two conclusions. On the one hand, the role of the IMF as the guardian of international monetary stability so far is diminishing, and on the other, it is part of the creation of a financial bloc whose geopolitical power it is strengthening.

Another development is the so-called Mariana project, initiated by the Eurosystem (which brings together the ECB and the central banks of the countries that have adopted the euro) and the BIS Innovation Centre, among others. The Mariana project represents the launch of a new financial grouping that is a response to the Universal Monetary Unit CBDC described above, which is intended to be introduced with the participation of the International Monetary Fund, i.e. to strengthen the emergence and competition of international financial blocs (*BIS 2023a*).

We should mention the BIS Project Polaris initiative, which does not aim to create a new financial bloc, but merely to enable the international secure, offline and online use of CBDCs. *"The option to pay offline means that you can use CBDC without an internet connection, either temporarily or due to coverage limitations. Central banks considering the possible introduction of offline CBDCs need to consider a complex matrix of issues, including security, privacy"* (*BIS 2023b:1*).

These developments confirm that the fragmented international financial environment, the digital era and the emergence of competing blocks are challenging central banks, requiring them to review their monetary stability, reform their payment systems and issue their digital currencies, and that risk mitigation requires stronger international regulatory cohesion.

[5] *Leleplezte tervét az IMF: saját digitális fizetőeszközt bocsát ki* (*IMF unveils plans to issue its own digital currency*). Portfolio.hu, 16 April 2023. https://www.portfolio.hu/bank/20230416/leleplezte-tervet-az-imf-sajat-digitalis-fizetoeszkozt-bocsat-ki-609398. Downloaded: 5 July 2023.

The cross-border, international emergence of CBDCs will certainly have an impact on the global financial system and power relations. The geopolitical competition between the US and China may be influenced by CBDCs in several directions (*Buckley – Trzecinski 2023*). The first version is that the dollar could retain its dominance, as it will be cheaper and more accessible than its competitors. Alternatively, the United States may lose its global financial dominance as its competitors use their central bank digital currency in blocs organised around themselves, fragmenting the international monetary system. Many countries are under pressure to join the US or China-led bloc, which threatens security, economic growth and financial stability. With geopolitical tensions already present, the possibility of this happening is minimal. "*Each of these possibilities will pose opportunities and risks for states and the global financial system as a whole. However, the second outcome, a global economy fragmented into two or more competing blocs, likely led by the US and China, poses an existential threat to the currently truly global financial system.*" (*Buckley – Trzecinski 2022*).

6. Summary and conclusions

One of the major questions of our day and age is how the new world order in transition will affect the international monetary system, and how it will reinforce its fragmentation. This is primarily driven by efforts to change the global balance of power, creating strong geopolitical tensions. These efforts focus on changing the political and power relations established after World War II and those adopted after the close of the Cold War, and the international monetary system developed within them. In this multifactor process, the preservation or enhancement of power positions or the global expansion of new actors can only be achieved by disrupting the existing order, often with serious conflicts of interest.

In order to achieve power goals, economic and trade relations that previously operated at a global level are changing, and fragmentation is occurring, not triggered by, but as an inevitable consequence of the fragmentation of the international monetary system. Among the means of changing the geopolitical situation and the balance of power, there are military-political, local armed conflicts, which are not the subject of our analysis, but we must be aware that they are important factors in international financial fragmentation.

The factors triggering geopolitical tensions have launched a process of deglobalisation, whereby earlier multilateral relations are shifting towards a multipolar order, and within a historically short period of time, the global economic, trade and financial relations of the past are fragmenting.

Transformation involves defending and strengthening existing power relations, and in the case of new actors, building their own positions and spheres of influence. The protection of sovereignty, of their own geopolitical space and of monetary stability also aims to avoid a power vacuum.

The three main players in the new multipolar order are the US, China with the South-East Asian region, and the European Union. The first two want not only to defend their positions of power, but also to strengthen their economic, financial and military influence. The primary objective of the European Union is to safeguard the economic and monetary stability of the Union and, within it, the euro area, and to strengthen its geopolitical role.

A new instrument of financial fragmentation is the use of financial blocs and financial dependency, with geopolitical tensions between competing blocs triggering fragmentation of the international monetary system, which increases the risks of the system. Global economic and trade relations have changed in an unfavourable direction, supply chains important for economic development have been disrupted, import restrictions between competing blocs have been introduced, leading to financial restrictions and sanctions, and increasing financial market uncertainty. The rapidly changing and unpredictable international situation has a negative impact on cross-border flows of capital, capital allocation and foreign investment. All of this will undermine the profitability and liquidity of banks, increase financial market volatility, accelerate the contagion of negative effects and threaten monetary stability.

Central banks and international financial institutions are looking for ways to reduce risks, but these steps are often controversial. In the geopolitical contest for power, a significant number of measures taken to preserve monetary stability and sovereignty reinforce fragmentation, while the representatives of the power blocs are pushing for more effective international regulation and the functioning of the international financial institutions that represent them. In the emerging multipolar world order, power factors are pushing national and regional interests to the fore, while reducing the negative effects of fragmentation would require stronger political cohesion, global cooperation and the development of a financial safety net. There is a need for international cooperation and international collaboration to reduce the negative impacts, while the active regulatory activity of international financial organisations is limited by the power blocs, creating a regulatory and cooperation trap.

Digital development and artificial intelligence are contributing to this shift. The most important is the emergence of digital currencies, so-called central bank digital currency, and the preparation for their introduction. China is leading the way in adoption and deployment, but plans are also underway to introduce the digital dollar and the digital euro. CBDCs are designed to perform several functions and to protect sovereignty, and their international use can increase the international influence of their adopter, create cross-country financial dependence and promote economic and financial blocs.

The outcome of the changing world order, and the fragmentation it entails, is unpredictable. Competing blocs would have an interest in preserving the stability of the international monetary system and reducing the expected risks to the international payment system, but this is hampered by geopolitical tensions and the power ambitions of the competing blocs.

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