#### ECONOMY AND FINANCE

# DE-RISKING THE GLOBAL FINANCIAL SYSTEM

Forging a 'new consensus'

Paola Subacchi August 2023 75 years of globalization have produced a highly integrated global economy, but now globalization is reversing due to geopolitical divisions and their impact on international policy cooperation.

This report explores the risks of fragmentation – where debt restructuring and payments systems lack cohesion and where other rules and standards diverge – in the international financial and monetary systems.

 $\rightarrow$ 

Rules and institutional governance need to be adjusted to reflect the present dynamics of the world economy so that policy cooperation can underpin "strong, balanced, sustainable and inclusive growth".



### DE-RISKING THE GLOBAL FINANCIAL SYSTEM – FORGING A 'NEW CONSENSUS'

#### 75 years of globalization have produced a highly integrated global economy, but now globalization is reversing due to geopolitical divisions and their impact on international policy cooperation.

## $\rightarrow$

This report explores the risks of fragmentation – where debt restructuring and payments systems lack cohesion and where other rules and standards diverge – in the international financial and monetary systems. Rules and institutional governance need to be adjusted to reflect the present dynamics of the world economy so that policy cooperation can underpin "strong, balanced, sustainable and inclusive growth".

For further information on this topic: https://ny.fes.de/topics/inclusive-economy



ECONOMY AND FINANCE

# DE-RISKING THE GLOBAL FINANCIAL SYSTEM

Forging a 'new consensus'

## Contents

INTRO	DUCTION	2
SECTIO	N 1: GLOBALISATION IN REVERSE	3
1.1 1.2 1.3 1.4 1.5 1.6	Defining fragmentation Still a deeply interconnected world economy. Interdependencies. Vulnerabilities Risk mitigation can lead to fragmentation. China as the game-changer.	4 6 7
SECTIO	N 2: SOVEREIGN DEBT: A FRAGMENTED PICTURE	10
2.1 2.2 2.3 2.4 2.5 2.6	The sovereign debt crisis: where we are. A fragmented outlook. China is the largest bilateral creditor Instruments and institutions Creditors, contracts, conditions Fragmentation and the challenge of debt restructuring.	11 13 15 16
SECTIO	N 3: DIGITAL CURRENCIES	20
3.1 3.2 3.3 3.4 3.5 3.6 3.7 3.8	What CBDCs are for. China leaps forward. First movers and laggards. Scale, scope and network effects. Who sets the standards for CBDCs?. Digital currencies in the international monetary system and the risk of fragmentation. An international monetary system set around the e-CNY or a multi-currency international monetary system?	20 21 23 24 25 25

#### CONCLUSION: FORGING A "NEW CONSENSUS"? 28

References	31
Abbreviations	36

## INTRODUCTION

The world economy faces an unprecedented risk of fragmentation that stems directly from the deep integration of the last thirty years. Cross-border trade transactions and capital flows, together with complex supply chains have resulted in interdependent economies; the dollar, as the key international currency, holds the world economy together. Interdependencies allow countries to focus on their competitive advantages while international trade delivers efficiencies and low costs. But there are also vulnerabilities that are associated with these interdependencies, as has been made evident by the pandemic and the war in Ukraine.

How can we mitigate vulnerabilities and create resilience? The response so far has been focused on reducing interdependencies, particularly those with countries that pose economic and political risks. This may include detaching them from global financial and trade networks. But the rush to create resilience and reduce critical interdependencies risks driving a wedge among countries along geopolitical fault lines. Thus, measures to mitigate interdependencies may result in reduced cooperation, especially between the G7 and the large developing countries, notably China.

The International Monetary Fund (IMF) and the World Bank have raised concerns about the risks of fragmentation in international trade that could lead to a new wave of production disruptions throughout supply chains and higher prices for globally-traded goods and commodities (World Bank 2023a: 32). But the risk of fragmentation is not only for international trade. Signs of financial fragmentation are already evident in the international monetary and financial system. If not addressed, fragmentation will hinder policy cooperation, resulting in weaker crisis prevention, higher risks of financial instability, a fragmented international financial safety net, and weaker or ineffective crisis resolution mechanisms.

Fragmentation would not be possible without China. Over the last three decades China has changed the dynamics of the world economy. There are three interrelated aspects of its growth that have impacted the global economic and financial system (Drysdale et al. 2017: 258–9). The first is the size of China's trade in relation to the size of the world economy and global supply chains. China has been the world's largest exporter since 2010; it accounted for about 14 per cent of global exports of goods in 2022 (World Bank, Goods exports, BoP, current US\$). It has also significantly increased its demand for imports (of goods and services), which more than doubled from US\$1.43 trillion in 2010 to US\$3.14 trillion in 2022 (World Bank: Imports of goods and services). The second aspect relates to the size of China's banking and financial sector in relation to the global financial safety net. Since 2008, China's financial system has grown to become systemically important. It is now one of the largest in the world, with financial assets amounting to nearly 470 per cent of gross domestic product (GDP) (IMF, 2017). It has also become more complex and further integrated with the rest of the world through investment flows and direct lending.

The third aspect of China's growth is its large accumulation of savings. China's gross national savings totalled 46 per cent of its GDP in 2022, one of the highest rates globally (World Bank: Gross national savings, percent of GDP). These savings have facilitated China's transition from borrower to lender, particularly in development finance, where there is a large gap between supply and demand (in 2020 the annual financing gap for the Sustainable Development Goals, for example, stood at US\$3.7 trillion). Such lending has enabled China to expand its influence in the recipient countries.

China is now a significant component of the financial architecture, especially in building bilateral monetary relationships, and is too big to be ignored (Subacchi 2022). It is critical to find a way to keep China aligned with the global order so to avoid financial fragmention (Subacchi 2020).

This report explores two aspects of China's interaction with the international financial and monetary architecture that could result in a fragmentation of rules, standards and even institutions. The first aspect is China's large footprint in bilateral sovereign lending that has resulted in an heterogenous group of creditors, contracts and conditions, and has been undermining the options for finding multilateral solutions to the debt crisis that is now affecting many developing countries. The second aspect refers to China's technological advances in digital currencies. The lead that China is enjoying in this area has the potential to create a new cross-border payment system that may not be compatible with the existing one. This would reduce efficiency, increase costs and undermine financial stability.

The report concludes by stressing the risk of 'fragmented integration' where the existing networks and interdependencies are too complex to be dismantled, but the institutional architecture and policy cooperation are seriously undermined.

## Section 1

## **GLOBALISATION IN REVERSE**

#### **1.1 DEFINING FRAGMENTATION**

Like 'globalisation' in the early 2000s, 'fragmentation' is now a conceptual box that includes cross-border issues that have cross-border impact as well as domestic implications, such as the rise of China, the governance of the international order, and international trade. Such issues can lead to a zero-sum game and so be divisive domestically and polarising internationally.

Consider, for instance, some of the challenges brought about by the Covid-19 pandemic and Russia's war against Ukraine. The measures needed to contain Covid-19 resulted in the collapse of economic activities. Many countries imposed export restrictions on medical goods and foodstuffs<sup>1</sup> causing several disputes, such as that between the EU and the UK where both sides accused the other of "vaccine nationalism" (Fleming, Peel and Parker 2021). The war in Ukraine subsequently disrupted flows in many commodities in agriculture (including wheat), agrichemicals (mainly potash), and energy (natural gas and oil) (White et al. 2023: 17). This has pushed up the cost of energy, which has risen more than it had since 1973, and food prices, that has risen faster than at any time since 2008, adversely impacting those on the lowest incomes the most.

The risk of geopolitical divisions and their implications for global prosperity and for international policy cooperation have become more acute. The G20 – which became the "premier forum for international policy cooperation" (G20, 2009) in the aftermath of the 2008 global financial crisis – has, since 2017, seen its impact and effectiveness diminish due to tensions among its members, notably between the US and China.

The term 'fragmentation' seems to capture these challenges, but what exactly is it? A recent report (2023) by the IMF draws a distinction between geopolitical factors and economic fragmentation. Thus, geo-economic fragmentation embodies the potential economic ramifications of a policydriven reversal of global economic integration' (Aiyar et al. 2023: 4); it is the opposite of globalisation. The G20's Financial Stability Board (FSB) describes 'fragmentation' as "markets that fragment either geographically or by type of product or participant." (Financial Stability Board, 2019: 4). Markets can naturally be only partially integrated, or not integrated at all, because of the "limited presence of foreign providers of financial services within a given jurisdiction." (Financial Stability Board 2019: 4). Natural barriers, market forces, and differences in institutional environments may also result in lack of harmonisation and difficulties in making cross-border payments (Claessens 2019: 4).

Fragmentation can occur when cross-border capital flows are curtailed or when financial regulations diverge, with the consequence of "multiple prices for the same or economically similar financial assets across different jurisdictions or markets" (Financial Stability Board 2019: 4). The same happens when existing differences in domestic policies, national regulations and supervisory practices governing financial activities "that are international in nature" (Financial Stability Board 2019: 1) cannot be harmonised through international policy cooperation. As a result, fragmentation "may disincentivise or prevent market participants from undertaking certain cross-border activities" (Financial Stability Board 2019: 1).

Like the FSB, the Organisation for Economic Co-operation and Development (OECD) focuses on policies, rules and standards, and defines fragmentation as "heterogeneous policies, rules, laws and industry practices that create perverse incentives and block business efficiency and productivity growth" (OECD 2016: 17). Geopolitical tensions can hinder policy cooperation and therefore undermine the harmonisation of rules, standards, practices and prices. This can lead to higher barriers to trade and investment, and businesses having to adapt to different regulations and standards, thus to higher costs and slower economic growth.

In this report, I refer to economic fragmentation as the division of the global economy into separate and sometimes conflicting economic blocs and markets, which have developed different sets of rules, regulations and even institutions. As such, economic fragmentation can lead to a fragmented international trade system, where tariff and non-tariff barriers increasingly hinder the cross-border mobility of goods and services, or to a fragmented international financial and monetary system, i.e. one in which infrastructure, such as

<sup>1</sup> Export bans accounted for about 90% of trade restrictions. (Aiyar et al. 2023: 10).

international payments systems, lacks cohesion and where rules and standards diverge. While international trade and the financial and monetary system tend to overlap, and so fragmentation in one area inevitably spills over on to the other, in this report I will focus specifically on the risks of fragmentation in the international financial and monetary system.

Before uncovering where the potential breaking points are, we need to gauge whether there is currently any evidence of fragmentation. As the world economy has remained deeply integrated over the past years – despite shocks and crises – vulnerabilities that arise from deep economic interdependencies have become evident. Recent geopolitical tensions have been tilting countries toward protection rather than openness.

#### 1.2 STILL A DEEPLY INTERCONNECTED WORLD ECONOMY

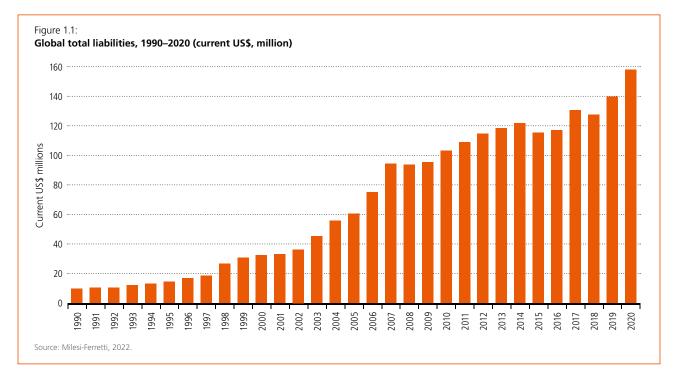
The global economy remains deeply interconnected through flows of goods, services, capital, people and intangibles (Seong et al. 2022). These flows have proven remarkably resilient despite many shocks. About 280 million people - or 3.6 per cent of the world's population – live outside of their country of birth; they were 153 million in 1990, or 2.9 per cent of the world's population (International Organization for Migration, 2021: 23). Global flows of goods and services currently amount to more than US\$40 trillion, up from US\$4 trillion in 1990 (UN, Comtrade database). More than half of these flows (in value-added terms) cross regional boundaries (Seong et al. 2022: 10). At least 10 per cent of global GDP will be dependent on global flows in the long run, and some estimates put this figure as high as 40 per cent (Seong et al. 2022: 2). During the pandemic, when local production bases were disrupted, regional trade supported consumption. For example, China and other Asian countries came to occupy a central position in supply chain developments that bridged the drop in output of Western supply chains in 2020 (Seong et al. 2022: 6).

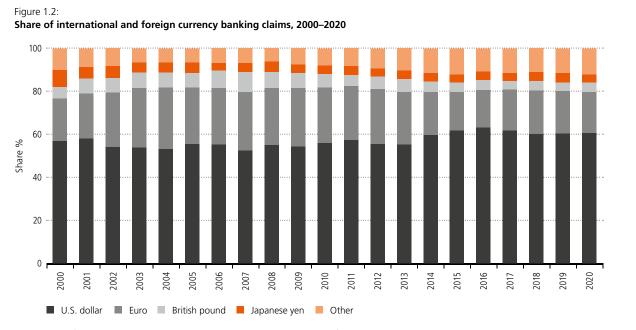
As for capital flows, cross-border financial positions more than tripled as a share of world GDP between the mid-1990s and the global financial crisis in 2008, bringing the global economy to an unprecedented level of financial integration (Figure 1.1). More specifically, assets and liabilities flows almost quadrupled between 1990 and 2000. They were roughly 50 per cent of world GDP in 1990; by 2000 they had grown to 95 per cent. Most of the expansion of cross-border financial flows in the last 30 years reflects new international borrowing and lending (Milesi-Ferretti 2022). Foreign Direct Investment (FDI) also grew strongly from 1990 to 2000.

However, the pace of financial integration, albeit strong in historical terms, was slower between 2010 and 2018 (Figure 1.1). During the years 2019–2021 capital flows grew by more than 50 per cent a year as banks reallocated liquidity around the world and more multinational companies relied on financing (Seong et al. 2022: 6).

The US dollar as the key international currency holds the global economy together. It is the most widely used currency in global trade, finance and international payments, and this network effect puts it at the centre of the world economy. Over the period 1999–2019, the dollar accounted for 96 per cent of trade invoicing in the Americas, 74 per cent in the Asia-Pacific region, and 79 per cent in the rest of the world – the only exception is Europe, where the euro is dominant (Bertaut et al. 2021).

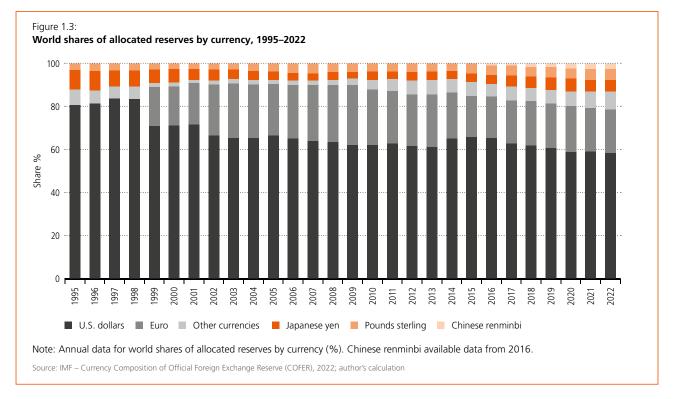
The dollar is also the dominant currency in international banking and is the funding currency for non-US banks. The Fed has swap agreements with the major central banks to provide a liquidity backstop when it is needed to ease strains





Note: Share of banking claims across national borders or denominated in a foreign currency. Excludes intra-euro area international claims. At current exchange rates. Data are annual. 100=total observations of currencies.

Source: Federal Reserve



in global funding markets. For example, in the wake of the pandemic, the Fed's liquidity swaps peaked at roughly US\$450 billion (Board of Governors of the Federal Reserve System 2023).

About 60 per cent of international and foreign currency banking claims (mainly loans) are denominated in US dollars (Figure 1.2). This share has remained relatively stable since 2000 and is well above that for the euro (about 20 per cent). The euro is back to where it was at the launch of Europe's monetary union in 1999, after having increased its share in banking claims in the early 2000s – in 2009 the share was approximately 28 per cent.

Since 2009, the share of currencies other than the dollar, the euro, the pound sterling and the yen in international and foreign currency banking claims has increased (Figure 1.2). In October 2016, China's renminbi was included in the IMF's Special Drawing Right (SDR) and the share of renminbi world allocated reserves increased from 1.1 per cent in 2016 to 2.7 per cent in 2022 (Figure 1.3). In comparison, in 2022, the dollar accounted for 58.4 per cent, followed by the euro

(20.5 per cent), the Japanese yen (5.5 per cent), and the pound sterling (4.9 per cent).

#### **1.3 INTERDEPENDENCIES**

The global economy remains deeply integrated, but with different levels of integration and interdependencies as well as asymmetries between countries. A country's economic interdependencies depend on many different factors, including competitive advantages in trade, availability of natural resources, food security, regional networks and institutional arrangements. For example, imports of at least one natural resource or manufactured good that exceed 25 per cent of total imports can be used as an indicator of interdependence (White et al. 2023: 2). Similarly, cross-border capital flows can signal strong economic interdependencies.

As a result of the increased trade and financial integration of the world economy in the last 30 years, clusters of interdependencies around manufacturing trade, commodities and energy trade, and capital flows, have emerged. A map of these clusters can be summarised as follows (Seong et al. 2022: 10–11):

- Asia-Pacific, including China: it is the leading region for global manufacturing exports; it depends on imports for 25 per cent of its energy and critical intermediate goods;
- Europe: it is a strong manufacturing region; it depends on imports for more than 50 per cent of its energy needs;
- Eastern Europe and Central Asia, Latin America, the Middle East and North Africa, and sub-Saharan Africa: these are the resource-rich regions and net exporters of energy and commodities; they are net importers of manufactured goods and services;
- North America: it is a net importer of both manufactured goods and natural resources.

Deep interdependencies lead to concentration and limited diversification. Approximately 40 per cent of global trade is concentrated with importing economies relying on three or fewer countries (McKinsey Global Institute estimates, White et al. 2023: 2). Brazil, for instance, is the most concentrated economy in photovoltaic cells, with China accounting for more than 95 per cent of this trade while South Korea is the most concentrated economy for li-ion batteries, with China accounting for more than 90 per cent (White et al., 2023: 10).

Smaller economies are on average 50 per cent more concentrated than larger economies due to smaller trade volumes and less domestic infrastructure. For example, Egypt and Turkey have historically sourced more than 80 per cent of their wheat from Ukraine and Russia, and Vietnam sources more than 80 per cent of its crude oil from Kuwait (White et al. 2023: 7–8). Larger economies tend to have concentrated relationships with their regional neighbours. For example, the US imports nearly all its semitrailer trucks and light goods vehicles from Mexico, and Mexico imports nearly all its maize, propane and refined petroleum products from the US. The production of many critical commodities is also highly concentrated. Between 73 per cent and 98 per cent of the global production of 18 critical minerals is controlled by just a few countries for each mineral – China is the biggest producer of 12 out of the 18 minerals, while Australia, Brazil, the Democratic Republic of Congo, Russia, South Africa and Vietnam are leading producers of the remaining six minerals (UK Government 2023). Since the 1980s, China has been increasing its share in critical mineral markets and is now the biggest producer of 12 out of the 18 critical minerals, with Australia, Brazil, the Democratic Republic of Congo, Russia, South Africa and Vietnam being the biggest producers of the remaining six minerals (UK Government 2023). The world's reliance on critical minerals is not new, but has become critical due to technological changes and global climate ambitions - lithium, graphite, cobalt and nickel are critical for electric vehicle batteries and so their demand is projected to increase between six and 13 times by 2040 (UK Government, 2023).

Both trade and cross-border capital flows have become more regionalised. Before the pandemic, between 2013 and 2018, the intraregional share of global goods had risen by 2.7 per cent (McKinsey Global Institute 2021: 2). As for capital flows, Asia is the only region to have experienced an increase in capital flows after the global financial crisis on the back of rising Chinese overseas investments; inflows doubled from around 0.4 per cent of global GDP between 2009 and 2007 to 0.8 per cent of global GDP between 2009 and 2019 (Bank of International Settlements 2021a: 4). Between 2013 and 2017, for instance, FDI from China accounted for 8 per cent of domestic investment in Pakistan, 6 per cent in Malaysia and 5 per cent in Singapore.

#### **1.4 VULNERABILITIES**

Economic interdependencies inevitably carry vulnerabilities. The greater the depth of interdependencies, the higher the risk of adverse vulnerabilities. Trade and capital flows can come to a sudden stop because of shocks that affect, for example, the transport network and logistical systems, or the cross-border payments infrastructure. During the pandemic, transport and cross-border connections between countries were suspended for health and sanitary reasons; the resulting bottlenecks and delays have had a lasting impact on international shipping and transport. Accidents, such as when the Suez Canal was blocked by a large container ship in March 2021, can seriously disrupt international trade - the blockage caused a backlog of more than 400 ships, oil tankers included (Reuters 2021). Prices of key goods can suddenly increase because of problems along the supply chain, or the cost of capital can increase because of monetary policy decisions in the US, affecting many developing countries.

Data show that in recent years global value chains have become more vulnerable to shocks, adverse market dynamics, logistical bottlenecks and geopolitically motivated disruptions such as trade restrictions (Aiyar et al. 2023: 8). The impact of the pandemic on world volume of merchandise trade resulted in a drop of 5.1 per cent in 2020 before it then rebounded by approximately 9.4 per cent in 2021 (WTO 2023b: 10). Trade continued to grow in 2022, but warfare conditions and export restrictions have resulted in restricted trade from Russia and Ukraine while large regional disparities have emerged due to different levels of interdependencies with these two countries. Approximately US\$85 billion of exports are currently under restrictions (WTO 2023a).

Concentration in commodities trade has adversely affected countries that depend on both Russia and Ukraine for imports of food and agricultural commodities, including fertilisers, wheat, barley, sugar, maize, rapeseed, sunflower seed and sunflower oil, as well as energy. Russia is a significant supplier of energy to the world - it is the world's largest exporter of natural gas, the second-largest exporter of crude oil and the third-largest exporter of coal as of 2021 (U.S. Energy Information Administration 2022). Prices have increased as a result. In February 2022, the Food and Agriculture Organization of the United Nations (FAO) Food Price Index was up 20.7 per cent from the previous year, led by global vegetable oils, dairy and cereal prices (FAO 2022). By April 2022, the price of fertilisers was up 30 per cent from the start of 2022, negatively affecting crop yields worldwide (Baffes and Koh 2022).

Geopolitical tensions affect cross-border capital flows as well. In March 2022 seven Russian<sup>2</sup> and three Belarussian banks were disconnected from the SWIFT network (SWIFT 2022). The EU and other countries, such as the US. Canada and the UK have banned all transactions with the Russian central bank and other state-owned or controlled entities including the Russian Regional Development Bank (EU Sanctions Map: Russia; Jones and Wilkes 2022). As of February 2022, Russia's international reserves amounted to US\$643 billion, but it is estimated that more than half of Russian reserves are now frozen.<sup>3</sup> These extraterritorial sanctions are a reminder for the BRICS and other developing countries of their heavy reliance on the dollar and the US-led international payment system, raising the question of whether they should lessen their vulnerabilities to the dollar - and hence their dependence on policy actions taken by the US (World Bank 2023a: 32).

Policymakers have been considering measures to bolster domestic resilience and reduce interdependencies, particularly with countries that pose economic and political risks. Many countries are now looking to adjust their supply chains so that essential components are either domestically produced or diversified through different partners (World Bank 2023a: 32). For instance, the EU imported 60 per cent of the energy it consumed in 2020 (Eurostat 2022). In May 2022, the European Commission presented its REPowerEU plan, seeking to both end the EU's dependence on Russian fossil fuels and accelerate the rollout of renewable energy (European Parliament 2023) – now representing 40 per cent of the energy produced in the EU – and energy reshoring. Similarly, China,

2 VTB Bank, along with Bank Otkritie, Novikombank, Promsvyazbank, Bank Rossiya, Sovcombank and VEB.

the EU, Japan, South Korea, and the US have announced their intention to strengthen domestic value chains of semiconductors. These policies will drive value chains to become more regional and increase their demand responsiveness.

## 1.5 RISK MITIGATION CAN LEAD TO FRAGMENTATION

Economic shocks and geopolitical disruption have exacerbated the vulnerabilities inherent in interdependencies, creating the need for mitigation. A good approach to risk management involves diversifying those areas where interdependencies are concentrated. Over the past decade, resource-dependent countries have diversified their imports to increase resilience. Among the major economies, the US has made the largest effort to reduce dependency on resource inflows; in 2019 it became a net exporter of energy resources.

Building systemic resilience should be a priority and policymakers should design and implement a two-pronged strategy around, first, mitigating the risk of exogenous shocks, such as the pandemic, and, second, reducing vulnerabilities to policy actions by other countries. Recent geopolitical tensions have prompted measures to strengthen domestic resilience - especially with countries where economic and political relations are or can become problematic. In addition, supply and value chains can be shifted to become more regional and less global (Seong et al. 2022: 24). Overall, trade rest rictions worldwide almost doubled between 2016 and 2021. However, efforts to increase resilience in sourcing and responsiveness to demand can result in tighter regional interdependencies. As discussed, economies in Asia are now tightly linked with China through regional supply chains; as of 2022, China is the largest trading partner for Singapore, Japan, South Korea and Indonesia (IMF Direction of Trade Statistics 2022 data).

The US advocates for interdependencies based on shared values and interests. US Treasury Secretary Janet Yellen has even suggested that like-minded countries "that are committed to a set of core values and principles" could form "open" partnerships that the US would be happy to support (Atlantic Council 2022). There is a risk that the rush to reduce critical interdependencies will impair international policy cooperation and may result in reduced cooperation, especially between the G7 and the large developing countries, notably China. The question, therefore, is not how to avoid fragmentation, but how to ensure geopolitical conditions that foster economic integration and policy cooperation while improving resilience.

China holds the key here. The size of its economy, its weight in global trade, its financial outreach and its technological lead in some critical industries mean that it is the only country capable of entrenching fragmentation.

<sup>3</sup> See European Council and Council of the European Union, EU sanctions against Russia explained.

#### **1.6 CHINA AS THE GAME-CHANGER**

China's rapid development has changed the dynamics of the world economy. During the initial phases of China's economic ascent – when growth was driven mostly by exports of low-value goods – it was widely believed that China could ultimately fit in the global order (National Committee on U.S.-China Relations 2005). Over the past decade, China has managed to gain a significant advantage in areas of strategic importance. Backed with this newfound technological advantage, the Chinese leadership has become more assertive and concerned about the role that China plays in the world, while the incentives for it to integrate with the global economy and live within the US-led system have decreased from when, in the early 1990s, it was a poor country – in 1990 GDP per capita in nominal terms was approximately US\$320 (World Bank, GDP per capita, current US\$).

Ever since China began its economic reforms and 'openingup' in 1978, GDP growth has averaged over 9 per cent a year (World Bank 2023b). China is now an upper-middleincome country, with GDP per capita at US\$12,720 (World Bank, GDP per capita, current US\$), and a key player in many regional and global development issues (World Bank 2023b). China's domestic financial footprint is reflected in the combined market capitalisation of the four largest banks – almost US\$2 trillion (Table 1.1). These are among the 10 biggest in the world, with 36 per cent of total market capitalisation compared with 50 per cent represented by US banks. The Industrial and Commercial Bank of China (ICBC) and China Merchants Bank with a market capitalisation of US\$218 billion and US\$178 billion are respectively in third and fourth position after the US banking group JP Morgan Chase (US\$400 billion in January 2023) and Bank of America (US\$270 billion). The Chinese banks, however, are mainly focused on the domestic market due to constrained capital movements, while the US banks run international businesses.

Domestic policies such as the 10-year industrial policy, *Made in China 2025*, have shifted China's manufacturing sector up the value chain, while technology supply chains have become more localised (Manning 2020: 2). Thus, China is no longer just an exporter of cheap labour-intensive garments and electronics, but has become a competitor to the advanced economies in capital-intensive strategic industries such as Artificial Intelligence (AI). This has generated tensions, especially about the support that the Chinese state can offer to state-owned companies through favourable credit conditions and subsidies.

Despite remaining the world's leading economy, the US has been alarmed by China's advance in fields such as high-speed 5G networks, synthetic biology (already owning one-third of all research), electric batteries, and nano manufacturing (Reuters 2023), and has reshaped its policy in strategically-critical industries in response. During the Trump administration, the US Commerce Department placed over 200 Chinese companies, including Huawei and ZTE, on the 'entity list', a blacklist that US companies cannot sell technology to without official approval (Kawakami and Hoyama

2019). The aim was to uphold national security by preventing these companies from having any role in US 5G networks (Kynge et al. 2021). More recently, the Biden administration has sharply restricted US exports of sensitive technologies to China (Freifeld et al. 2023) and has banned the sale of Chinese telecoms and video surveillance products in the US.<sup>4</sup>

Tariffs have been applied on imports from China, starting with a 10 per cent tariff on US\$200 billion worth of goods shipped between the US and China that the Trump administration imposed in 2018 (York 2022). The average US tariff on Chinese imports subsequently rose from 3 per cent to 19 per cent. China retaliated with tariffs on US imports, between 8 per cent and 21 per cent. The US-China tensions spilled out over and above the WTO – for the Trump administration "the WTO rules [were] not sufficient to constrain China's market-distorting behaviour" (United States Trade Representative 2018: 2). The US blockage of the reappointments of judges to the WTO's appellate body contributed to the paralysis of this critical component of the dispute settlement process.<sup>5</sup>

The US and China have held many talks to negotiate their dispute. President Xi and President Trump met bilaterally in person in 2019 at the G20 summit in Osaka. This led to the signing of the Phase-One Agreement in January 2020, which committed China to purchasing an additional US\$200 billion worth of goods and services (compared with 2017 levels) from the US by December 2021 (The Economist 2022). However, China bought only 58 per cent of the US exports it had committed to under the agreement, resulting in import levels being lower than prior to the trade war (Bown 2022). US-China trade flows went on to peak in 2022 at US\$690.6 billion, but both countries have notably reduced the share of their bilateral imports; Chinese goods accounted for 16.6 per cent of total US imports in 2022 compared to 21.6 per cent in 2017, and US goods exported to China accounted for 7.3 per cent of total US exports in 2022 compared to 8.4 per cent in 2017 (Baschuk 2022; Altman and Bastian 2022).

According to the China Institute of Contemporary International Relations, lack of mutual trust between China and the US has "led to a more fragmented and broken world market, a poor external circulation, and increased costs of economic recovery." (CICIR Research Group 2022: 5). This mutual mistrust has intensified the risk of geo-economic fragmentation. In the remainder of this paper I explore two facets of China's economy that can leverage China's economic weight and help reshape the current global order – at the cost, however, of fragmenting the global financial system. These two facets are China's bilateral lending to sovereign entities and China's lead in central bank digital currencies (CBDCs). In both of these, China has engaged extensively with developing countries.

<sup>4</sup> The US has banned the sale of products supplied by Huawei, ZTE, Hytera Communications, Hikvision and Dahua. See: Woollacott (2022).

**<sup>5</sup>** The Obama administration had previously blocked the reappointment of judges to the appellate body, but it was still functioning.

#### Table 1.1: The world's largest banks Rank Country Market cap, US\$ bn Bank 396.4 1 JP Morgan Chase USA 2 Bank of America USA 270.7 3 ICBC China 218.6 4 China Merchants Bank China 178.4 5 Wells Fargo USA 168.4 6 China Construction Bank China 165.4 7 USA Morgan Stanley 161.2 8 Agricultural Bank of China China 148.4 HSBC Holdings UK 147.1 9 10 Royal Bank of Canada Canada 139.2 Total market capitalisation 1993.8

Source: Banks Daily (last accessed on 03.05.2023).

In the next section I discuss how China's position as the world's largest bilateral lender fragments multilateral lending and complicates multilateral debt restructuring arrangements. I will then explore how China's advances in CBDCs can shape new bilateral relationships through an international payment system that does not revolve around the dollar. This system can enable China to support countries sanctioned by the US, or overcome sanctions that might be imposed on China – such as being cut off from the SWIFT payments system.

## Section 2

## **SOVEREIGN DEBT: A FRAGMENTED PICTURE**

#### 2.1 THE SOVEREIGN DEBT CRISIS: WHERE WE ARE

The pandemic exacerbated global levels of debt and escalated the debt crisis, as many low-income countries exceeded their already high debt levels to mitigate the economic impact of the crisis on households and firms. Total global debt rose to US\$226 trillion, equivalent to 256 per cent of GDP in 2020, up by 28 percentage points from the previous year - the largest one-year debt surge since the Second World War (Gaspar et al. 2021). Government borrowing accounted for more than half of this increase, resulting in a 20 per cent rise in global public debt. In 2020 the average total debt burden for low- and middle-income countries rose by nine percentage points of GDP, compared with an average annual increase of 1.9 percentage points over the previous decade (World Bank 2022a: 204). Even if for developing countries external debt as a share of GDP is on average one-third lower than it was in the 1980s and 1990s, a higher share is now issued at variable interest rates and in US dollars (IMF 2023: 16), making dealing with it more difficult.

Approximately 56 per cent of low-income countries are now either already in debt distress or are at high risk of it – this figure has doubled since 2015. About 25 per cent of middle-income countries are at high risk (IMF 2023: 16). Some of the countries with unsustainable debt positions have turned to the IMF and the World Bank for support. Some – such as Argentina and Ecuador – have already concluded their debt restructuring while for others – such as Zambia and Sri Lanka – the process has taken longer.

High levels of debt constrain countries' ability to provide for their citizens' welfare and cope with future shocks. Around one in eight countries – including Chad, Gambia, Haiti and South Sudan – are now spending more on servicing external debt than on education, health and social protection combined (UNICEF, 2021). 34 of the world's poorest countries are spending five times more on debt payments every year than on measures to reduce the impact of the climate emergency (UN 2021). Uganda, for example, has turned to exploiting its natural resources to repay its debt. Pakistan's efforts to reduce its reliance on coal-fired power stations have been undermined by the need to service its debt to China (Woolfenden 2021). There have been some initiatives to respond to the debt emergency. In 2020 the G20 unveiled the Debt Service Suspension Initiative (DSSI) to help developing countries cope with the pandemic by temporarily freezing their debt servicing [Box DSSI and Common Framework]. 48 out of 73 eligible countries participated in the initiative and approximately US\$12.9 billion in debt-service payments were suspended (World Bank 2022b). However, the DSSI did not address the underlying debt issue. Later in 2020 the G20 launched the Common Framework for Debt Treatments (CFDT). This brings together the G20 official bilateral creditors with the Paris Club in a coordinated process to support poor countries with unsustainable debt. The idea is that governments in debt distress must coordinate with creditors to restructure debt on a case-by-case basis.

While the debt crisis features prominently on the agenda of the multilateral financial institutions as well as in the private sector, there has been limited progress in the use of CFDT. Patchy and uncoordinated solutions seem to be the preferred option (Georgieva and and Pazarbasioglu 2021). This is partly due to the changing sovereign debt landscape. As new creditors have appeared over the past two decades, coordination and debt cancellation have grown increasingly difficult. Governments in developing countries are borrowing less from multilateral institutions and traditional bilateral creditors (i.e. Paris Club members, which are mostly OECD countries), and more from non-traditional bilateral creditors (including China), private lenders and domestic sources. In 2022, of the US\$288 billion that the countries eligible for DSSI needed to servicing sovereign debt, about US\$12 billion was owed to Paris Club members, US\$20.3 billion to China and US\$12.8 billion to the main multilateral institutions, including the IMF (World Bank, International Debt Statistics: DSSI, series debt service on external debt, 2022). The rest was split among the private sector - approximately US\$78 billion – and bilaterally.

While distribution among several creditors can signal a healthy diversification of financing sources, it can also increase costs and create problems of coordination, putting low-income countries at a disadvantage when crises strike. It also means that another generalised call for debt cancellation will be both unlikely and more difficult to implement.

#### **DSSI and Common Framework**

The Debt Service Suspension Initiative (DSSI) was established in 2020 at the height of the pandemic to suspend debt payments which low-income countries owed bilaterally to richer countries. It was based on the work of the Highly Indebted Poor Countries (HIPC) initiative. Under the DSSI, borrowers committed to use the financial resources that would have otherwise been channelled towards debt servicing to increase social, health or economic spending in response to the crisis. Borrowers further pledged to disclose all public-sector financial commitments and to limit their non-concessional borrowing under IMF arrangements and the World Bank's Sustainable Development Finance Policy. The DSSI was a temporary solution to respond to the emergency; it was originally devised to last until the end of 2020 but was extended by a year until the end of 2021.

The Common Framework for Debt Treatments (CFDT) aimed to create a comprehensive mechanism for debt restructuring for DSSI-eligible countries. In its Memorandum of Understanding (MoU), the CFDT defines a general process for coordinated sovereign debt restructuring in which all bilateral creditors, not just Paris Club members, are invited to participate. The IMF and other international financial institutions (IFIs) are also involved through supporting negotiations and providing assistance for the restructuring (Quirino de Souza Filho 2022).

The CFDT is innovative as it offers scope for cooperation between Paris Club members and non-members, notably China. It also stands out from previous proposals to give more structure to the regulation of sovereign debt as it requires private creditors to participate on comparable terms. A Creditor Committee can be convened in response to a request for debt treatment. An MoU is signed by all participating creditors and the debtor country, and then implemented through individual bilateral agreements. A debtor country that signs an MoU is further required to seek a treatment at least as favourable as the one agreed from all its other official bilateral creditors.

The CFDT does not provide developing countries with a new international sovereign debt framework, which is what they urgently need. Its main shortfall is that it depends on the goodwill of creditor countries – and this, coupled with the expansion of types of creditors, makes debt restructuring even more difficult. The way it is structured lacks coercive power, meaning that there are no fundamental processes to guide its implementation. In addition, the CFDT does not provide a way to balance competing claims.

The CFDT only covers negotiations with the public sector, leaving debtor countries to negotiate with their private-sector creditors on the side. The question of whether the CFDT should be involved in restructuring loans from Chinese state-owned companies and other para-state entities remains unresolved, hindering overall progress. The Institute of International Finance (IIF), the trade group for the global financial services industry, communicated in its 2020 letter to the G20 on DSSI Extension and CFDT the intention to "help convene a public-private sector group of experts and provide a forum for regular consultation" (Institute of International Finance 2020b), and in a 2021 letter it stressed the urgency for the G20 to include private sector creditors early in the process via regular briefings and consultation (Institute of International Finance 2021). However, so far this has not taken place. During the period covered by DSSI only one private creditor participated in the debt service suspension despite encouragement from the World Bank, IMF, and G20; the IIF engaged in discussions with private creditors and agreed on terms of reference for voluntary private-sector participation (Institute of International Finance 2020a; World Bank 2022).

#### 2.2 A FRAGMENTED OUTLOOK

The regulation of sovereign debt is defined by two key features. Firstly, there is no legal method for enforcing sovereign debt contracts due to the principle of sovereign immunity. Even though sovereign immunity has been eroded in recent years, foreign courts are still unable to find enough qualifying assets outside the jurisdiction of the debtor country to attach to debt claims they have endorsed (Gelpern, 2016: 47). Secondly, there is no comprehensive mechanism to deal with state bankruptcy, so there is no way for countries to declare bankruptcy or discharge debts. In addition, there is no central forum for managing creditor claims, meaning that any debt relief or restructuring is subject to numerous interdependent and uncoordinated mechanisms (Pahis 2021: 246).

For many years, the system for regulating sovereign debt worked just well enough for no alternatives to be seriously considered. This good-enough system depended on three characteristics. Firstly, it was modular, meaning that similar creditors had their claims restructured together in more-orless self-contained groups to provide wider debt relief. Groups including the London Club, the Paris Club and committees of bondholders acted under their own distinct regulations and enforced the final deal among their members using a mixture of normative and legal methods. Secondly, cross-conditionality between these groups was used to achieve comprehensive restructurings. This coordinating mechanism, which was enforced through rules such as the IMF's Lending into Arrears policy or the Paris Club's requirement for the debtor to seek comparability of treatment from other creditors, was an inefficient substitute for the coordination provided by a single bankruptcy-style proceeding, but it worked nonetheless. Finally, a relatively small number of repeat players (officials from a handful of high-income countries and IFIs along with a dozen or so financial and law firms) were involved in the proceedings. This led to the development of norms and informal processes that greatly improved the efficacy of the system (Gelpern 2016: 56-7).

However, the complexity of sovereign debt has grown over the years due to the increasing heterogeneity of applicable laws, debt instruments and creditors. The sources of law include the domestic law of the borrower state, the domestic law of the creditor state and bilateral investment treaties in force under the IMF Articles of Agreement. Debt instruments such as bonds and loans are subject to different regulations. The increased heterogeneity of creditors has brought a wide range of motivations, strategies and preferences to the table which all need to be reconciled. In the absence of any formal bankruptcy mechanism, sovereign debt restructurings are therefore a complex coordination problem to be solved by the debtor, all types of creditors, and IFIs including the IMF. This brings the pitfalls associated with these sorts of problems, namely, moral hazard, informational asymmetry and the possibility of hold outs (Quirino de Souza Filho 2022).

Cracks in the system started to show long before the pandemic. Since the early 2000s, two trends have emerged that threaten the integrity of the global sovereign debt restructuring framework. The first is the switch in sovereign lending from direct lending – i.e. loans from states, IFIs or syndicates of commercial banks – to a highly liquid bond market with a diverse creditor base (Park and Samples 2021: 181). The second trend is the rise of new bilateral lenders, especially China, which are not members of the Paris Club. Both these trends have vastly complicated any attempts at sovereign restructuring. Even identifying who is a sovereign creditor has become more difficult. For example, Argentina's 2001 default and restructuring involved almost 500,000 creditors who owned more than 140 bond series, denominated in six currencies and governed by eight different municipal laws (Waibel 2011: 16).

The switch from loans to bonds has made restructurings more difficult because bondholders are simply less responsive to the incentives and constraints that fostered cooperation during the syndicated lending era. Whereas commercial banks generally cooperate with restructurings due to their long-standing commercial relationships with sovereign borrowers, which may include aspects unrelated to debt such as holding deposits for the state in question, individual bondholders generally lack incentives to adhere to the restructuring process (Park and Samples 2021: 181).

The practices of 'vulture' funds indicate that the system has become fragmented, and that asymmetric information sharing, principal-agency problems and arbitrage hinder debt resolution. These funds buy up distressed or defaulted sovereign debt at a fraction of its face value with the intention of litigating and recovering the full amount, regardless of whether doing so will derail the whole restructuring. The clearest example of this is the prolonged battle between the vulture fund NML Capital and Argentina in the wake of its 2001 default and subsequent restructuring. NML Capital obtained a judgement from the New York Southern District Court – a forum commonly used for sovereign debt litigation – which decided that Argentina had acted as a commercial agent in issuing debt in New York City, and hence was not covered by sovereign immunity as defined by the Foreign Sovereign Immunity Act. The court decided that Argentina had breached Pari Passu by only paying creditors that had agreed to restructuring, and therefore ordered it to pay NML Capital for the full, unrestructured face value of the bonds (Day 2014). Eventually, the fund obtained a decision from the Southern District Court which blocked Argentina

from paying interest on its restructured debt until it had paid off NML. This led to a second, partial default in 2014 (Barr 2016). In the end, it was a change of government in Buenos Aires that resulted in a resolution, with the new government paying NML Capital in full in 2015 – a 900 per cent return (Gelpern 2016: 72).

A similar case occurred in 2000 when Elliott Associates obtained a judgement from a Belgian court that prohibited financial institutions across the globe from processing the payment of interest on restructured Peruvian obligations until the un-restructured bonds it held had been paid in full. This decision – which forced Peru to reach an agreement with Elliott, implying a payment in the total amount of US\$58.45 million - was based on the violation of the principle of equal treatment of creditors under the pari passu clause (Olivares-Caminal 2013: 124). These two cases show that there is a fragmented system underlying sovereign debt restructuring. Indeed, Belgium considered the case of Elliott Associates to be such an aberration that its laws were changed soon after to prevent a repetition (Day 2014). However, it has been suggested that to avoid NML-style injunctions in US courts, issuers should seek to keep payments outside of the US (Buchheit and Gulati 2017: 230).

These cases show that the rise in the number of creditors, and especially the participation of commercial and non-

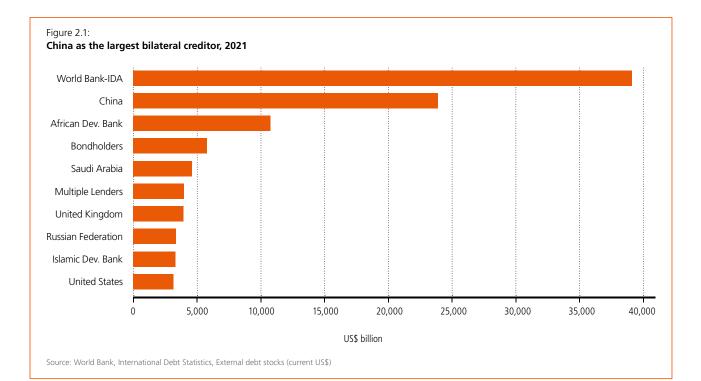
#### **Contractual terms**

Sovereign debt contract terms change relatively rarely compared to payment contract terms (Choi and Gulati 2004; Gulati and Scott 2011). These changes often follow financial shocks or a default by an individual state. For example, a significant shift in enforcement-related contract terms occurred after the Latin American Debt Crisis in the 1980s (Choi, Gulati and Posner 2012: 152).

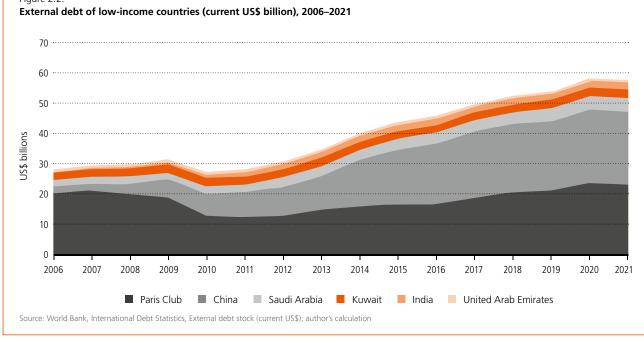
Six new terms began to appear in sovereign debt contracts at the beginning of the 1990s. Waiver of sovereign immunity, consent to enforcement, consent to jurisdiction, governing law and agent for service of process clauses make it easier for creditors to sue the sovereign debtor. Cross-default provisions allow the creditors to threaten the sovereign debtor in case of a default in payments.

In addition, *pari passu* clauses ensure that bonds will be considered of the same rank with the unsecured debts of the sovereign. These clauses have become stronger over the years, ensuring that sovereign debt would enjoy priority over other payments.

Collective Action Clauses (CACs) for payment related terms started to appear in more contracts at the beginning of the 2000s in the wake of the Global Debt Crisis that started in Mexico in 1995 and culminated with the bailout of Argentina in 2001. CACs include non-payment modification, payment modification and aggregation. The rise in popularity of these clauses is due to creditors seeking to implement the "optimal incomplete contract", to ensure that debtors would pay in the good state and permits restructuring of obligations in a bad state (Choi, Gulati, and Posner 2012: 159).



#### Figure 2.2:



traditional creditors, has vastly complicated the governance of sovereign debt. It is especially China's large capacity for lending that since the early 2000s has resulted in more availability of loans,<sup>6</sup> but also in their fragmentation by type of creditors and contracts.

#### 2.3 CHINA IS THE LARGEST BILATERAL CREDITOR

With a total stock of about US\$180 billion, China is the world's largest bilateral creditor and the second largest creditor overall after the World Bank (World Bank International Debt Statistics, External debt stock, 2021). Low-income countries owe approximately US\$24 billion to China, whereas they owe around US\$39 billion to the World Bank (Figure 2.1). Their exposure to China has significantly increased since the early 2000s (Figure 2.2).

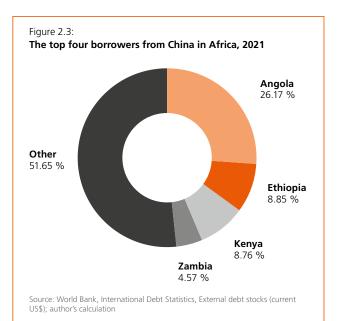
<sup>6</sup> Many developing countries have larger debt because of pressing financing needs related to the pandemic, climate-related natural disasters and the cost-of-living crisis. For an overview of debt burden relative to development spending for developing countries see UCTAD, Debt at glance, https://unctad.org/publication/world-of-debt/dash board

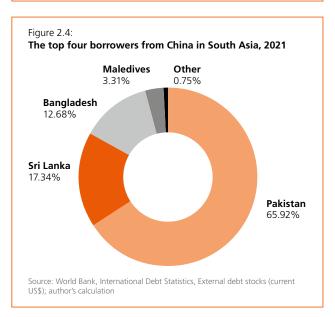
China's 50 most indebted countries have an average of US\$3.5 billion in outstanding debt, or 10 per cent of GDP (as of 2021) – it was one per cent in 2005 (World Bank, International Debt Statistics, External debt stock). 29 out of the 50 countries most indebted to China are DSSI eligible; nine out of 50 are low-income countries and the rest are middle-income countries. Official bilateral loans are now higher than non-official loans. For instance, in 2010, Angola's loans from China were equally composed of official bilateral (50.2 per cent) and non-official loans (49.8 per cent), but by 2019, 77 per cent of its loans were official bilateral.

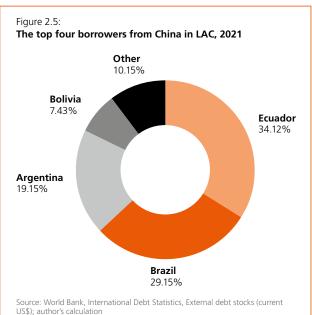
Between 2008 and 2021, China's two main development, or policy banks – China Development Bank (CDB) and China Export-Import Bank (CHEXIM) – provided nearly half a trillion US dollars in development finance to foreign governments. This funded 1,099 projects, the majority of which were in Africa (45 per cent), Asia (35.5 per cent) and Latin America and the Caribbean (LAC) (10.5 per cent), with some projects also in Europe (6 per cent) and Oceania (2.8 per cent) (Boston University CODF Database).

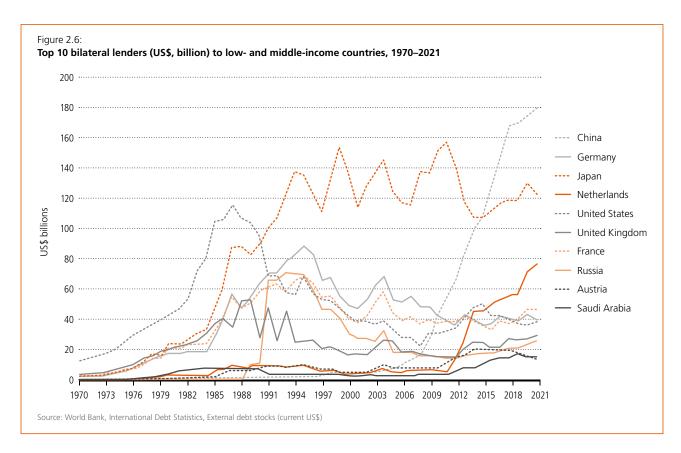
African countries owe US\$84 billion to China, with the top four borrowers being Angola (US\$22 billion), Ethiopia (US\$7.4 billion), Kenya (US\$7.4 billion) and Zambia (US\$3.8 billion) (World Bank, International Debt Statistics, External debt stock, 2021). In 2021, those four countries combined made up around 48 per cent of Africa's borrowing from China (Figure 2.3). Chinese funds have been used for infrastructure projects throughout Africa. The US\$5.3 billion Standard Gauge Railway project linking Nairobi to the coast at Mombasa was largely financed with loans from CHEXIM. Between 2008 and 2021, CDB and CHEXIM provided around US\$113 billion to African governments and state-owned firms, which funded 495 projects in the region (Boston University CODF Database). These projects were mostly in Angola (21.6 per cent), Ethiopia (6.6 per cent), Kenya (6.4 per cent), Zambia (6 per cent) and Cameroon (5.2 per cent), while those countries together received around US\$62 billion. 35.7 per cent of these projects relate to transport, 18 per cent to power, 15 per cent to public administration/discretionary, and the rest to sectors such as telecoms and wastewater.

South Asia owes US\$41.5 billion to China. The top four South Asian borrowers from China are Pakistan (US\$27 billion), Sri Lanka (US\$7 billion), Bangladesh (US\$5 billion) and Maldives (US\$1.4 billion) (Figure 2.4). They represented 66 per cent, 17 per cent, 13 per cent, and 3 per cent respectively of South Asia's borrowing from China in 2021 (World Bank, International Debt Statistics, External debt stock). Asia received almost US\$178 billion from CDB and CHEXIM between 2008 and 2021, and this money funded 391 projects in the region (Boston University CODF Database). Most of these projects were in Cambodia (12 per cent), Sri Lanka (11 per cent) and Uzbekistan (9.7 per cent), together accounting for almost US\$24 billion. 31 per cent of these projects are in the transport sector, 30 per cent in power, 13 per cent in public administration/discretionary, while the rest are in sectors such as wastewater and manufacturing.









Latin American and the Caribbeans (LAC) owes US\$14.4 billion to China in 2021 (excluding debt owed by high-income countries in the region). Ecuador is China's largest LAC borrower by far, with US\$4.9 billion, which makes up around 34 per cent of China's total lending to the region (Figure 2.5). It is followed by Brazil (US\$4.2 billion), Argentina (US\$2.8 billion) and Bolivia (US\$1 billion). These countries together account for around 90 per cent of China's lending to LAC countries. Overall, China represents 37 per cent of LAC's external debt to bilateral creditors. Between 2005 and 2022, CDB and CHEXIM provided more than US\$136 billion in loans to LAC countries and state-owned firms, funding 123 projects (The Dialogue, China-Latin America Finance Database). Most of these projects are in Ecuador (19.5 per cent), Venezuela (13 per cent), Brazil (11.3 per cent) and Argentina (10.5 per cent), accounting for US\$126 billion in total. The main sectors are energy (32 per cent), transport (27 per cent) and public administration (13 per cent).

China's role as a global creditor has dramatically increased in the last two decades (Figure 2.6). As of 2021, China accounted for a significant share in the total external debt of countries already in default, such as Zambia (33 per cent) and Sri Lanka (20 per cent). Similarly, China is the main creditor for countries at risk of default, such as Angola (49 per cent), Pakistan (32 per cent), Ethiopia (30 per cent) and Kenya (21 per cent). 96 per cent of Angola's loans from China and 94 per cent of Pakistan's were official bilateral in 2021 (World Bank, International Debt Statistics, External debt stock).

#### 2.4 INSTRUMENTS AND INSTITUTIONS

China lends internationally through two main channels: direct investment and development finance. Since the launch of the Belt and Road Initiative (BRI) in 2013, the latter has focused on providing finance to developing countries for infrastructure projects. These loans have been made through different instruments and different institutions and are part of China's economic diplomacy.

China uses a variety of different lending instruments including foreign aid loans, non-foreign aid official loans and commercial loans. There are two types of foreign aid loans: zero-interest loans (ZILs) and concessional loans (CL). CLs have interest rates between 2 and 3 per cent. Both types of foreign aid loans are usually denominated in renminbi. ZILs also have longer maturity (20 years) and grace periods (10 years) compared to CLs (15-year maturity, and 5-year grace period) (Rudyak and Chen 2021: 13). As for nonforeign-aid official loans, they are typically denominated in US dollars or euros. Export Buyer's Credits (EBCs) and Preferential Export Buyer's Credits (PEBCs) have varying loan terms, with PEBCs having a slightly subsidised interest rate and a maturity of around 15 years (Rudyak and Chen 2021: 13). Additionally, there are medium- and long-term project loans which have a floating rate set to LIBOR at a typical rate of 4.5–6 per cent, and varying maturity and grace periods. Also, Chinese commercial loans tend to be medium- and long-term project loans with the same conditions.

China's approach to lending differs from that of other countries in several ways. Lending to developing countries is mostly through non-subsidised loans, where the same countries usually receive concessional lending or aid from the G7 and other advanced economies. While OECD countries tend to separate commercial and charitable activities, the Chinese model of lending integrates aid with trade and investment, providing blended financial packages that mix market rate loans with concessional loans and grant foreign aid (Rudyak 2020: 2). Most of China's overseas development finance does not offer concessional interest rates.

The main providers of Chinese lending are the policy banks, particularly CDB and CHEXIM, but also ICBC, China Construction Bank and the Agricultural Bank of China. In China, policy banks are ministry-level agencies that are not under the direct order of the Ministry of Finance, Ministry of Foreign Affairs or China International Development Cooperation Agency (CIDCA). In contrast, in other donor countries, policy banks are subordinate to a ministry or government agency. In the UK, for example, British International Investment (formerly the Commonwealth Development Corporation) provides project and development finance to countries in Africa, Asia and the Caribbean, and is fully owned by the UK government with the Foreign, Commonwealth and Development Office being the only shareholder. In Japan, the Japan Bank for International Cooperation (JBIC) is owned by the Japanese government and managed by the Japanese Ministry of Finance.

Compared to commercial banks, policy banks are better positioned to issue large-volume and long-term loans. For example, in January 2022 Banco do Brasil agreed a US\$500 million term facility with CDB – the first financing between the two organisations (Cherman and Belcheva 2022). However, the interest rates that they offer are commercial rather than concessional because funds are raised mainly through bond issuance – more costly than raising funds from savings, the typical capital source of commercial banks.

China's policy banks – like their equivalent institutions in the advanced economies – are instrumental to the implementation of the government's policy objectives (Chen 2020). All top executives are directly appointed by the Chinese Communist Party.<sup>7</sup> However, how China's policy banks fit into China's institutional and political system differs from the relative position of policy banks in other countries. Indeed, the ownership and governance of China's policy banks is formally independent from the government and as such, the Chinese authorities classify all policy banks as belonging to the private sector. This has created a fundamental problem in the application of the CFDR and in establishing a uniform procedure to deal with such institutions.

## 2.5 CREDITORS, CONTRACTS, CONDITIONS

China's lending activities have resulted in a wider distribution of loans by type of creditors and contracts, with an increase in unconventional loans such as lending against future oil sales, ad-hoc restructurings and the use of confidentiality clauses. Using available information about China's lending with African countries – China tends to keep the terms of its bilateral lending contracts strictly confidential – four features make these contracts distinct: 1. unusual confidentiality clauses; 2. collateral agreements; 3. 'no Paris Club' clauses; 4. cancellation, acceleration and stabilisation clauses (Gelpern et al. 2022: 1).

Unusual confidentiality clauses, which have become more frequent since 2014, prevent debtors from disclosing any of the contract terms or related information, including the extent of their debt – and sometimes even the existence of it.<sup>8</sup> China has been intensely criticised for the inclusion of such clauses which are an obstacle when borrowing countries seek debt relief. Excessive non-disclosure tends to undermine transparency and good governance of debt, often with unexpected outcomes. For example, in 2022 the Kenyan government<sup>9</sup> released documents related to its 2018 loan from CHEXIM for the Standard Gauge Railway Project. These documents proved false the claim that the Kenyan government had agreed to Kenya Port Authority assets (including the Mombasa Port) being held as collateral in case of default (Reuters Staff 2022).

Chinese lenders utilise collateral agreements and 'no Paris Club' clauses to gain leverage on other parties that might also be seeking the repayment of their loans. Collateralised financing is an established practice in Chinese sovereign debt contracts that reduces China's risk by putting Chinese debt first in line when it comes to reimbursement (Gelpern et al. 2022: 25). Collateral agreements in loan contracts mean that the borrower is obliged to sell a particular asset or group of assets and use the proceeds toward the loan balance if the amount due cannot be paid. Collateral agreements allow the borrower to obtain financing more easily and cost-effectively.

Collateralised financing can be harmful to borrowers. Specifically, problems arise if a transaction does not produce an asset or revenue stream that can be used for repayment, or where the volume of the transaction raises broader concerns. In addition, if the transaction does not involve adequate transparency and disclosure, borrowers could end up losing on the deal (IMF-World Bank, 2020). Take, for instance, Chinese lending to Angola, which is Africa's second largest oil producer and the fifth largest oil exporter to China (OPEC: Angola facts and figures). Between 2008 and 2021, Angola

<sup>8</sup> In Gelpern et. al. (2022) all the examined contracts made after 2014 with Chinese state-owned entities contained extensive confidentiality clauses.

Information about the leadership of the two policy banks can be found in their annual reports.

<sup>9</sup> The publication of these documents was in line with the campaign promise of Kenya's new President, William Ruto, to bring more transparency to dealings between Kenya and China.

borrowed a total of US\$32.9 billion from Chinese policy banks (around US\$25.1 billion from CDB and 7.8 billion from CHEXIM), and most of this debt was collateralised on Angola's oil revenues (OPEC: Angola facts and figures.). When oil prices dropped,<sup>10</sup> the value of the Angolan kwanza also dropped, making repayments on foreign-currency denominated debt more expensive. In 2020, Angola signed up to the DSSI. Some of Angola's debt to China was renegotiated under the DSSI, but the details were kept confidential; it is not clear whether this covered only a minority of the debt owed to CHEXIM, with that owed to CDB and ICBC being left to bilateral negotiations (Nyabiage 2021).

'No Paris Club' clauses are also included in Chinese loan contracts which commit the borrower to excluding their debt owed to Chinese lenders from any debt treatment agreed by the official bilateral creditors of the Paris Club. For instance, three CHEXIM documents that the Kenyan government released in 2022 (Reuters Staff 2022) revealed the inclusion of a 'No Paris Club' clause mandating that any arbitration would take place in Beijing, and that Kenya would be prohibited from seeking any kind of comparable terms based on agreements with other creditors.

Cancellation, acceleration and stabilisation clauses are included to enhance the lenders' influence over the borrowers' domestic and foreign policies in cases of default. Cancellation clauses grant one of the parties in the transaction the right to terminate the contract and demand immediate repayment under certain previously agreed circumstances. In the case of Chinese sovereign debt contracts, if the lender or debtor country goes through 'significant' policy changes, then China alone holds the right to cancellation of the contract.

As for stabilisation clauses, Chinese lenders generally utilise freezing clauses which aim to shield the lender from political risk. These clauses specifically aim to prevent adverse legislative or regulatory change in the host state. For instance, the sovereign debtor assumes all costs of change in its environmental and labour policies (Schreuer et al. 2009: 588; Crawford, 2019: 606).

The most concessional-looking of all the contractual tools used by Chinese lenders is the acceleration (cross-default) clauses. These are commonly used in commercial debt contracts where the lender has the right to terminate a contract and require immediate repayment in case the borrower defaults on other loans. However, Chinese contracts include these clauses in an almost unique way, to enhance China's influence on the borrowing countries' domestic and foreign policies. For instance, borrowers that default on their debt obligations toward Chinese entities can have their diplomatic relations terminated as the default is deemed to adversely affect the interests of an entity linked to the Chinese state.

Finally, Chinese contracts typically include a waiver of sovereign immunity, and almost exclusively use Chinese law as governing law and have China as the seat of arbitration (Gelpern et al. 2022: 7). These contracts often include a requirement for the sovereign borrower to maintain specific bank accounts to serve as security in case of default. Such accounts are funded with revenues from projects financed by the lender and from unrelated government revenues.

All these contractual provisions serve the main purposes of guaranteeing either the repayment of China's debt or for China to benefit as much as possible in situations when the borrowing country defaults. While Chinese creditors favour loan extensions, they seem to strictly oppose write-downs or 'haircuts'— in the case of Zambia, China demanded that multilateral creditors were part of the restructuring process despite their lending at concessional terms (Hancock 2023). Chinese creditors also prefer contractual *pari passu* provisions when they negotiate loan contracts to ensure that the repayment of their debt will be prioritised over the debtor states' other obligations.

## 2.6 FRAGMENTATION AND THE CHALLENGE OF DEBT RESTRUCTURING

Against this background of heterogenous contracts, conditions, instruments and institutions, what are the options for highly indebted countries? Finding a solution for the debt crisis matters not only for the countries at risk of debt distress, but for the world economy too - debt crises can negatively affect third-party countries<sup>11</sup>. And the governance of sovereign debt - and of debt prevention (Olivares-Caminal and Subacchi 2021: 16) - matters to the international financial system. Effective restructuring requires symmetry of information so as to allow the prompt and comprehensive recognition of debt, coordination with and among creditors, agreement on debt re-profiling - i.e. the replacement of existing debt with new debt with a different currency or maturity profile – and even commitment to a medium-term plan of reforms needed to achieve debt sustainability (World Bank 2022b).

The coordination of creditors and the conditions for achieving convergence on debt resolution have always been difficult. In 2001 Anne Kruger, the then First Managing Director of the IMF, stressed the need for a new multilateral approach to sovereign debt restructuring that she defined as a "gaping hole" in governance (Krueger 2001). Nothing has been done since while the outlook has become more fragmented, making convergence on resolution even more difficult.

When bilateral lenders are hesitant to restructure debt or disclose the loan terms, then the process comes to a halt

<sup>10</sup> The price of a barrel of oil was relatively stable from February 2011 (US\$100), but crashed from June 2014 down to under US\$50 in early 2015 and US\$27 in January 2016. It was US\$75 by mid-2018, then it crashed during the pandemic (below US\$20 in April 2020). It sharply increased to US\$97 on 22 February 2022 just before Russia's invasion of Ukraine, and to \$127 on 8 March 2022, after the invasion (Bolton, 2022).

<sup>11</sup> This can come about in two ways: political pressure to bail out the country at risk of default and financial contagion (Choi, S., Gulati, M. and Posner, E. 2012).

Туре	Lending instrument	Lending institution	Renegotiation process	Likely outcomes
Foreign aid loans	Zero-interest loans (ZILs) RMB-de- nominated, typically 0% interest rate, 20-year maturity and 10-year grace period	CIDCA/MOFCOM	Collective decision be- tween MOFA, MOFCOM and CIDCA	Loan forgiveness/ writeoff
	Concessional Loans (CL) RMB- denominated, typical interest rate of 23%, 15–20-year maturity and 5-year grace period	Eximbank	Government-to-govern- ment agreement	Rescheduling, maturity extension
Non-foreign aid officials loans	Export Buyer's Credits (EBCs); Prefer- ential Export Buyer's Credits (PEBC) USD-denominated, loan terms vary. PEBCS have a slightly subsidised in- terest rate. maturity typically 15 years	Eximbank	Government-to-govern- ment agreement	Rescheduling, maturity extension, haircuts to interest rate in rare cases
	Middle-and long-term project loans USD or EUR-denominated, floating rate set to LIBOR at typical rate of 4.5–6%, varying maturity and grace periods	CDB	Internal to CDB, may be subject to political pressure	Rescheduling, rare cases of maturity ex- tension
Commercial loans	Middle- and long-term project loans USD or EUR-denominated, floating rate set to LIBOR at typical rate of 4.5–6%, varying maturity and grace periods	ICBC, Bank of China, China Construction Bank, Agricultural Bank of China	Internal to bank	Rare cases of resched- uling (ICBC in Angola)

Source: Rudyak and Chen (2021)

#### Table 2.2:

#### How China deals with debt

	Debt cancellation (total US\$ mil)	Debt rescheduling (total US\$ mil)	Others (total US\$ mil)	Total (US\$ mil)
1953–1999	240	1,416	10	1,666
2000–2009	2,672	160	0	2,832
2010–2019	13,663	27,724	0	41,387

Source: Horn et al. (2021); author's calculation

(Buchheit and Gulati, 2022). Take the case of Zambia – a test case for China's willingness to take the lead in restructuring the debt obligations of defaulting states. Its outstanding debt is just over US\$8 billion owed to Chinese lenders, private bondholders and other creditors. China is the largest bilateral lender, but the group of Chinese lenders is heterogenous with interests often not aligned - it includes CIDCA, CDB and CHEXIM – and the loans are made under different terms. Requests for debt relief were made under the CFDR, but it took long time for a solution to emerge – at the end of June, Zambia reached a tentative agreement with China and other bilateral creditors (Cotterill et al., 2023). Sri Lanka, on the other hand, has been offered by CHEXIM a two-year moratorium on its US\$2.83 billion debt. Sri Lanka's outstanding debt to Chinese lenders was approximately US\$7.4 billion, or nearly a fifth of public external debt, by end-2022 (Ghoshal and Jayasinghe 2023).

Table 2.1 shows how China's heterogeneous lending instruments, institutions and conditions affect the debt renegotiation process and its outcomes. China tackles debt relief on a loan-by-loan basis and by type of creditors. Negotiations are done bilaterally, and reliefs are tailored to

specific cases – unlike Paris Club lenders, who usually include the whole debt stock in restructurings. For example, CHEXIM's loan restructuring of concessional loans requires a government-to-government agreement, while this is not a requirement for CDB's debt restructuring. These differences complicate the already tangled process of agreeing on debt relief and on debt restructuring.

Debt rescheduling is the most likely outcome in most of the cases where Chinese bilateral lenders are involved (Table 2.2) – for both commercial loans and loans granted by the policy banks. Only government departments can cancel outstanding debt and offer write-offs. This is consistent with the finding of Horn, Reinhart and Trebesch (2021). In the period 2010–2019 about US\$27.7 billion of debt was rescheduled while about US\$13.6 billion was cancelled.<sup>12</sup> This includes cases such as the cancellation of US\$6.8 billion worth of Iraqi debt in 2010 and of US\$6 billion worth of Cuba's debt in 2011. The cancellation of the Iraqi debt

<sup>12</sup> These figures are based on available evidence; there are however cases where no figures around debt events were disclosed.

equates to an 80 per cent drop in the net present value and is comparable to the haircuts suffered by the Paris Club creditors (Bon and Cheng 2020: 8). Sometime, as in the case of Togo in 2015, partial debt cancellation goes together with negotiations on rescheduling existing loan terms. Or, as in Mozambique in 2017 over a debt of US\$34 million, interest payments were cancelled. In some cases, the amount is tiny as, for instance, the US\$2.6 million debt owed by Vanuatu for the construction of the Melanesian Spearhead Group Secretariat that was written off in 2018.

Compared to the previous period, in 2010–2019 it is noticeable the shift from debt cancellation to debt rescheduling – usually in the form of four to 10 years maturity extension. Indeed in 2000–2009 more debt was cancelled – about US\$2.6 billion – than rescheduled – US\$160 million (Table 2.2).

# Section 3 DIGITAL CURRENCIES

#### 3.1 WHAT CBDCS ARE FOR

Central Bank Digital Currencies (CBDCs) are digital forms of money issued by central banks. Like physical money they are denominated in the national unit of account and serve as a means of exchange and a store of value. The main difference is how CBDCs utilise technology to make transactions safer – albeit less private, as they are easily traceable – and allow for the use of a digital wallet in place of a physical one. Unlike other cashless payment methods such as credit transfers, direct debits, card payments and e-money, CBDCs represent a direct claim on a central bank rather than the liability of a private financial institution.

CBDCs can be divided into retail and wholesale, with the former being for general public use and the latter for financial institutions to use to settle large interbank payments or to provide central bank money for transactions involving digital tokenised financial assets (Bech and Hancock 2020: 22). The infrastructure can be based on a centrally-controlled database or on distributed ledger technology (DLT), and the main difference between the two is on how transactions are verified and secured (Atlantic Council CBDC Tracker).

Many central banks have begun to develop CBDCs, leading to the advances in technical capacity, skills and investment that are necessary to develop viable digital currencies. Currently there is no single model for CBDCs, but rather many different approaches and design choices that reflect different countries' initiatives (McKinsey Global Institute 2023). One example is the account-based model, where consumers hold deposit accounts directly with the central bank, as seen in the Eastern Caribbean's CBDC implementation. Another model relies on private-sector banks to distribute and maintain CBDC accounts for their customers, as demonstrated in China's CBDC pilot. A third model, which the ECB has been considering, is based on granting licences to financial institutions to operate a node of the blockchain network as a conduit for distribution of a digital euro (McKinsey Global Institute 2023).13

13 There is also a fourth token-based model that has not yet been fully tested by central banks in which fiat currency would be issued as anonymous fungible tokens (true digital cash) to protect the privacy of the user. CBDCs are part of the broader process of digitalisation across economies and societies. Fintech, i.e. the digitalisation of finance, has been mainly led by the private sector, with cryptocurrencies such as Bitcoin being the most well-known example<sup>14</sup>. However, fintech has also brought about significant changes in the commercial banking sector, including the ability to lend and borrow against crypto-assets. CBDCs should not be confused with cryptocurrencies which are issued – or 'mined' – by private entities (Praswad 2021) and operate using distributed-ledger technology, meaning that transactions are verified by multiple devices instead of one central hub.

CBDCs can support financial inclusion by making payments systems easier, faster and cheaper, both for domestic and cross-border transactions, thus enabling many individuals without banking facilities – often the poorest – to transfer money digitally and overcome the limitations and risks related to cash. For example, CBDCs would help migrants to send their remittances without paying excessive charges. Overall, cross-border payments are slower, less transparent and more expensive than domestic payments, especially as they use US-dollar-based systems that are costly to access for non-US residents. Globally, remittances cost an average of 6.3 per cent of the amount sent; while these costs have been reduced over the years, they are still above the G20 target of 5 per cent (World Bank, 2023: 6).

#### **3.2 CHINA LEAPS FORWARD**

Over the past decade, private-sector digital innovations have rapidly transformed the payments system. In China, for example – where in 2020 roughly 555 million people used mobile payments, and about 901 million used digital commerce for general purposes (Klein and Baker 2023: 8) – privately-owned companies, Alibaba and Tencent, developed digital payment systems for smartphones through a QR code digital wallet scan-based system. This shifted China from being a cash-based economy to digital-driven payments econ-

<sup>14</sup> Bitcoin has been around since 2009 and there are approximately 20 million Bitcoins currently in circulation. The price of Bitcoin fluctuates massively: as of August 2023 a Bitcoin is worth roughly US\$29,089, less than half of its peak value of US\$67,554 in November 2021, but almost double its value of US\$15,460 seen six months previously in November 2022. See Coinbase: Bitcoin BTC (last accessed on 16 August 2023).

omy, skipping the magnetic debit cards that had become the standard in advanced economies. By 2010 Alibaba's Alipay had 500 million users transacting 2 billion renminbi a day; it had become the largest online-payment company in the world – larger than US-based PayPal (Chorzempa 2022). In 2013, two years after its launch, Tencent's chat app WeChat had 270 million users. Thorough their super-apps – i.e. apps that offer multiple services such as messaging, shopping and payments – Alibaba and Tencent were able to offer short-term investments and credit on extremely convenient conditions, competing directly with state-controlled banks. They had built a system within a system that posed a potential threat for financial stability.

Central banks are now busy trying to close the gap with the private sector. China has been leading the way. Motivated by the need to reassert control over big data in the financial system and rein in the growing power of large fintech companies such as Ant Financial (Alibaba's financial spin-off), in 2014 the People's Bank of China (PBoC) – China's central bank – began researching CBDCs (He 2021) and established a task force to explore the technology and policy environment for a digital currency abroad as well as domestically. The decision to push research and development of CBDCs put China ahead of the game, piggybacking on the same infrastructure as the Alipay and WeChat pay systems - digital wallets, QR codes and scanners. Two years later, the PBoC created the Digital Currency Research Institute and moved into a pilot phase, launching the first tests of the Digital Currency Electronic Payment (DCEP) system which was subsequently renamed e-CNY (Duffie and Economy 2022: 2). Around the same time, the authorities imposed cryptocurrency restrictions to fight financial crime and prevent economic instability (Shin 2022). In October 2020, with a new draft law, the e-CNY became legal tender (Tang 2020), while WeChat Pay and Alipay became just platforms for the new CBDC. In September 2021, the PBoC banned financial institutions and payment ecosystems from handling cryptocurrency exchanges (Shin 2022).

#### **3.3 FIRST MOVERS AND LAGGARDS**

To date 130 countries, representing over 98 per cent of global GDP, are exploring CBDCs (Atlantic Council CBDC Tracker). However, CBDCs are still very much a work in progress, with different steps such as research (working groups to explore the use cases, impact and feasibility), development (initial technical build and early testing in controlled environments), pilot (initiated small-scale testing in the real world with a limited number of participants) or launch (issued for wide-spread retail and/or wholesale use) (Atlantic Council CBDC Tracker). As of January 2023, out of the 130 countries exploring CBDCs, 46 countries were in the research phase, 32 in development, 21 in pilot, and 11 had launched (Atlantic Council CBDC Tracker).

Among the CBDCs that have been so far launched there are:

- the Sand dollar that the Bahamas launched in October 2020; it was the first CBDC in the world to be launched for retail use; it became available for use by all Bahamian citizens upon release, while integration with the commercial banking system has been on a gradual rollout.
- the eNaira that is Africa's first digital currency, launched by Nigeria for retail use in October 2021. A phased approach was adopted for the rollout; currently, the eNaira is in the second phase of development, which includes expansion to the unbanked, with unstructured supplementary service data and offline payments to be released in the medium term.
- the Jamaican Digital Exchange or JAM-DEX that in May 2022 the Jamaican central bank launched as a phased rollout for retail use. The rollout will see a continuation of onboarding existing customers and new customers, allowing two additional wallet providers to distribute CBDCs to their customers.
- the DCash that Anguilla launched in June 2022 for retail use, making Anguilla the last member of the Eastern Caribbean Currency Union (ECCU) to adopt it – the DCash was launched by the Eastern Caribbean Central Bank (ECCB) in March 2021 in four of its eight member states.

All G7 countries have now progressed into the development stage of a CBDC (Atlantic Council CBDC Tracker). In November 2022 the US shifted from research into development with the New York Federal Reserve's wholesale CBDC experiment, Project Cedar. Another example is the UK, which published a Consultation Paper in February 2023, seeking feedback on the conceptual model and six technology design considerations; consultations closed on 7 June (Herbert Smith Freehills 2023). In October 2021 the G7 published a set of Public Policy Principles for Retail CBDCs alongside a G7 Finance Ministers and Central Bank Governors' Statement on CBDCs and digital payments (HM Treasury, 2021b). All the G20 countries are now in various stages of CBDC development, and nine are already running a pilot scheme (Atlantic Council CBDC Tracker). In 2023, work on CBDCs has gained further momentum with more than 20 countries indicating that they will take significant steps towards piloting a CBDC. For example, Australia, Thailand, and Russia are in pilot testing (Table 3.1) and intend to continue with it (Atlantic Council CBDC Tracker). The ECB, which started its work on a digital euro in 2021, is aiming to wrap up its investigation phase by October 2023. Then it will be decided whether the ECB will move to the next phase, which would entail a three-year process of developing integrated services, testing, and possibly live experimentation of a digital euro (European Central Bank: FAQs on the digital euro).

Among the countries that have explored CBDCs, China is a first mover, having built on the existing fintech developments in the private sector, as discussed in the previous section.<sup>15</sup>

<sup>15</sup> Over the same period there was a strong growth of the cryptoassets and stablecoin market (Financial Stability Board 2022).

Country	Year	Use case (Retail/ Wholesale)	Crossborder Projects	Infrastructure (Conventional/Distrib- uted Ledger Technology)
Australia (eAUD)	2023	Both	Project Dunbar	Undecided
China (e-CNY)	2020	Both	mCBDC Bridge	Both
Ghana (E-cedi)	2022	Retail	Undecided	Undecided
Hong Kong (e-HKD, e-CNY)	2023	Both	mCBDC Bridge, Project Sela, Project Aurum, e-CNY	Undecided
India (Digital Rupee)	2022	Both	Undecided	Both
Iran (Crypto Rial)	2022	Retail	Undecided	Undecided
Israel (Digital shekel)	2021	Retail	Undecided	Both
Japan (Digital yen)	2023	Both	Project Stella	Undecided
Kazakhstan (Digital Tenge)	2021	Retail	Undecided	Both
Malaysia	2021	Wholesale	Project Dunbar	Undecided
Russia (Digital Ruble)	2022	Both	Undecided	Both
Saudi Arabia	2019	Wholesale	Project Aber	DLT
Singapore	2022	Retail	Project Orchid	Undecided
South Africa	2022	Wholesale	Project Dunbar	Undecided
South Korea	2021	Retail	Undecided	DLT
Sweden (E-krona)	2022	Retail	Project Icebreaker	DLT
Thailand	2022	Both	mCBDC Bridge	Both
Tunisia	2021	Wholesale	Undecided	Undecided
Turkey (Digital Turkish lira)	2022	Retail	Aselsan, Havelsan, Tubitak Bilgem	Both
Ukraine (E-hryvnia)	2023	Undecided	Undecided	Undecided
United Arab Emirates (Digital dirham)	2023	Both	Project Aber; mCBDC Bridge	DLT

#### Table 3.1. **CBDCs Pilot Schemes**

Since May 2020, the PBoC has been experimenting with a digital version of the renminbi, called e-CNY. Residents of 26 cities and 5.6 million merchants can now download 'e-wallets' on to their phones, with a total accumulated transaction value of US\$12.2 billion (Cao and Qu, 2023)<sup>16</sup>; these wallets are provided by their banks or payment platforms like Alipay. Since the PBoC controls the e-CNY, all transactions can be monitored within the digital system...

China is ahead of the advanced economies – the US included - in the development of CBDCs and digital payments systems (Duffie and Economy 2022). (The US, on the other hand, is ahead in the development and adoption of cryptocurrencies, in both cases led by the private sector.) China's e-CNY has been tested across cross-border financial networks - in January 2023, the e-CNY was 0.13 per cent of cash and reserves held by the PBoC. In May 2021, former Vice Chair of the Federal Reserve Board of Governors, Lael Brainard, stressed that given "the potential for CBDCs to gain prominence in cross-border payments and the reserve currency role of the dollar, it is vital for the United States to be at the table in the development of cross-border standards" (Brainard 2021). However, the US has yet to present its own vision for the integration of digital currencies into global payment systems. For instance, plans are in place to introduce a fast-payment system, FedNow, but instant payments will

only be available by 2024. In the meantime, fast payments will continue to be feasible in the US only through a system provided by a consortium of large banks.

China's first-mover advantage and technological backing set the e-CNY to be the world's first major CBDC. In a statement at the seventh meeting of the Central Financial and Economic Affairs Commission in April 2020, President Xi Jinping asserted that China should "take advantage of this favourable momentum, accelerate the construction of the digital economy, digital society and digital government, promote digitalisation-based optimisation and upgrading in all fields, actively participate in the formulation of international rules for digital currency, digital taxation" (Xi 2020a). At the G20 Leaders' summit, in November 2020, he called on the world's leading economies to begin discussing "standards and principles for central bank digital currencies with an open and accommodating attitude, and properly handle all types of risks and challenges while pushing collectively for the development of the international monetary system" (Xi 2020b). At the time, China was the only G20 nation to have begun testing the e-CNY in pilot projects throughout the country.

To some extent, China's fintech developments tie in with Made in in China 2025, the policy plan to make China a leading country in the technology sector. It is also consistent with the financial outreach through bilateral lending and initiatives such as BRI. Ultimately, it responds to the Chinese

Rank	Currency	Currency code	Share
1	US Dollar	USD	42.02%
2	Euro	EUR	31.25%
3	British Pound	GBP	6.88%
4	Japanese Yen	JPY	3.36%
5	Chinese Yuan Renminbi	CNY	2.77%
6	Canadian Dollar	CAD	2.24%
7	Hong Kong Dollar	НКД	1.56%
8	Australian Dollar	AUD	1.47%
9	Thai Baht	ТНВ	0.98%
10	Swiss Franc	CHF	0.97%

Table 3.2: RMB's share as a global payments currency, July 2023

government's objective of reducing the vulnerabilities that come from using the dollar in trade and non-trade finance. Indeed, for China, the chance to shape the new field of digital currencies and crypto-based payment systems, establishing new and favourable structures and setting new standards, is very attractive. The foreign adoption of e-CNY technology and an e-CNY-based cross-border payment infrastructure can give China significant leverage in the international monetary system where, for reasons that I will discuss later, it has trailed behind the main advanced economies.

## 3.4 SCALE, SCOPE AND NETWORK EFFECTS

The first-mover advantage in CBDCs lies in the technology and infrastructure supporting the digital currency, which ensure user-friendly and cost-effective adoption. This usability and low-cost nature drive the adoption and use of digital currencies, expanding the user's network and generating strong network effects. These are critical for the development of international currencies. Therefore, the development of CBDCs depends not only on the ability to innovate and to develop the most effective technology, but also on achieving scale and scope. Central banks and countries that establish their technology and standards in CBDCs and attract a significant user base will lead the way – with others following suit – and ultimately will set international standards.

For example, Nigeria – Africa's largest economy with a population of over 200 million people – has leveraged the size of its domestic market to successfully embark on the development of the eNaira. Between October 2021, when the eNaira was launched, and October 2022, 700,000 transactions had taken place while the Nigerian central bank had minted US\$3 billion worth eNaira with US\$2.1 billion issued to financial institutions. During this period, the eNaira infrastructure integrated 33 commercial banks. The number of users is expected to increase to 8 million when eNaira will enter phase two of its development.

Given the size of China's domestic market – with 1.425 billion people, China is the second most populous country in the world<sup>17</sup> – the e-CNY has an intrinsic advantage over other CBDCs, especially those developed by small developing countries such as the members of the ECCU. China's first-mover advantage also means that the development of the e-CNY is proceeding significantly faster than other economies of comparable scale, specifically the US and the EU, as discussed in the previous section. However, the dominance of the dollar within the international monetary system is unlikely to be fundamentally challenged by digital currencies, and so the e-CNY is unlikely to be determinant for the Chinese renminbi to overcome the dollar's dominance. This explains why the US monetary authorities do not seem to be too concerned about first-mover considerations - the chair of the Federal Reserve recently stated, "[i]t's more important for the United States to get it right than to be the first" (Segal and Risberg 2020: 4).

Undoubtedly the position of the dollar remains strong as Table 3.2 shows. The risk, however, is that the first mover will determine the standards and infrastructure in digital cross-border payments. The e-CNY could offer an alternative channel for cross-border payments and shift flows away from the dollar, especially in Asia. As digital currencies offer the possibility of dealing with multiple currencies when settling cross-border trade transactions, then the e-CNY can be used in most cross-border trade transactions in Asia – a role that the renminbi has been playing since 2010, but with the limitations linked to constrained convertibility as I will discuss later. In addition, developing countries that are tied to China as part of the BRI may find easier and more convenient to embrace the e-CNY (Klein and Baker 2023: 7).

At this stage it is critical to build an international network for CBDCs as existing cross-border networks are not broad enough. The project mBridge goes in this direction as it expands the Inthanon-LionRock collaboration between the Hong Kong Monetary Authority and the Bank of Thailand

<sup>17</sup> Historically China has been the world's most populous country, but has recently been overtaken by India, United Nations Population Fund: World Population Dashboard: Total population in millions, 2023.

to explore cross-border wholesale CBDCs and create a cross-border wholesale CBDC corridor. It now includes China and the United Arab Emirates in collaboration with the Bank for International Settlements Innovation Hub (BISIH, see section 3.5, below). A platform based on a new blockchain - the mBridge Ledger - has been built to support real-time, peer-to-peer cross-border payments and foreign exchange transactions using CBDCs, as well as to ensure compliance with jurisdiction-specific policy and legal requirements, regulations, and governance needs. In 2021, the PBoC launched a Multiple Central Bank Digital Currency (m-CBDC) that should lay the ground for a digital currency network to be used in cross-border transactions. Indeed, mBridge is a prototype of a wholesale m-CBDC and uses the custom-designed mBridge Ledger. BIS has released the full details of its mBridge pilot project, showing that in six weeks the pilot scheme issued over US\$12 million, and validated over 160 transactions totalling more than US\$22 million in value (Bank of International Settlements 2022:4). The BIS reports that the early phases have demonstrated the potential for a substantial improvement in cross-border transfer speed and costs compared with the correspondent banking model (Bank of International Settlements 2022: 9). In 2022, the Hong Kong Monetary Authority and PBoC began testing for cross-border use of the e-CNY. The ECB is also testing cross-border payments using DLT and since 2016 it has been involved in cross-border research with the Bank of Japan on Project Stella.

## 3.5 WHO SETS THE STANDARDS FOR CBDCS?

Work on digital currencies is still in progress, and standards are not yet defined. The rapid development of CBDCs, however, suggests that we are at a critical point for promoting robust policy cooperation on standards, such as coding rules, data format and report structure. This cooperation is especially critical for central banks that plan to allow their CBDCs to be held offshore, extending their functionality beyond facilitating domestic payments. In 2019 - coincidentally around the time that Facebook launched its cryptocurrency Libra<sup>18</sup> – the Bank for International Settlements (BIS) created BISIH to develop new multilateral platforms for cross-border payments and ensure that international considerations guide the design of CBDCs. As Cecilia Skingsley, who leads the BISIH puts it, "it is bad to be surprised" (Bank of International Settlements, Speech at the BIS Innovation Summit 2023). Thus, central banks worldwide have started exploring CBDCs and other fintech innovations on the understanding that this area of work is increasingly critical to their objective of ensuring a safe and sound global financial and monetary system.

The BISIH has created five centres, a dedicated team of over 60 people, 20 ongoing projects and six different focus areas – CBDC, suptech and regtech, next-generation financial market infrastructures, open finance, cyber security and green finance. The BIS's ambitious approach to CBDCs is driven by the need to avoid a "spaghetti bowl" of technologies, models, and standards (Skingsley 2023). This would be the outcome if central banks were to design their digital currencies without taking the international dimension into account. Promoting international digital systems with consistent standards and coordination of CBDC designs should overcome many problems inherent in today's legacy technologies and processes (Bank of International Settlements 2021b: 2). Without policy coordination among central banks, the interoperability of different digital currencies could become a challenge.

At the BIS Innovation Summit in March 2021, Mu Changchun, the director-general of the PBoC's Digital Currency Research Institute, called for increasing coordination and interoperability between foreign CBDCs: "Interoperability should be enabled between CBDC systems of different jurisdictions [...] Information flow and fund flows should be synchronised so as to facilitate regulators to monitor the transactions for compliance," he said, adding that "digital currency supplied by one central bank should not impede another central bank's ability to carry out its mandate for monetary and financial stability" (Mu 2023).

Mu's remark came at the time when the interoperability of the e-CNY could be challenged if China were not part of the standard-setting processes among OECD member countries. A few months earlier, the Bank of Canada, the Bank of England, the Bank of Japan, the ECB, the Sveriges Riksbank, the Swiss National Bank and the BIS created a group to share experiences in assessing potential cases for CBDCs (Bank of International Settlements 2020b). The group collaborated with the Board of Governors of the Federal Reserve System on a report setting out common foundational principles and core features of CBDCs (Bank of International Settlements 2020a). The PBoC was not part of this group. However, it did participate at the BIS Innovation Summit where it proposed the application of global standards for sovereign digital currencies (China Briefing 2021) and interoperability between CBDC systems and a "fair supply of digital currencies" (Wilson and Jones 2021).

Ongoing tensions between the US and China, and growing concerns in Europe about China's lead in digital technology, make policy cooperation difficult. The US's and the advanced economies' concern about the potential threat posed by the e-CNY are crystallised in the G7 communiqué of June 2021. Here the G7 pledge to work together on CBDCs "wider public policy implications" and commit to "transparency and rule of law" (HM Treasury 2021a). Two years later, at the Hiroshima Summit, the G7 stressed the governance of the digital economy "in line with our shared democratic values". (The commitment to keep pace with the evolution of digital technologies was also reiterated, as was effective monitoring

<sup>18</sup> Libra (later rebranded as Diem) was Facebook's project to create a blockchain-based payment system, supported by more than two dozen companies, such as Visa, Mastercard, and Spotify. In 2021, US regulators blocked the project; in 2022 Facebook sold Diem to Silvergate, a Californian bank that failed in March 2023 (Murphy 2019; Murphy and Stacey 2022; Diem 2022).

of "potential risks to the stability, resilience and integrity of the monetary and financial system" (G7, 2023: 4).)

Cooperation on areas of common interest with the common objective of harmonising standards and rules for digital currencies and addressing common concerns about, for example, financial vulnerability and the illicit use of digital currencies, is certainly on both the advanced economies' and China's agenda. In many occasions the Chinese monetary authorities have reiterated their willingness to cooperate with foreign central banks and monetary authorities to set up exchange arrangements and regulatory cooperation mechanisms (People's Bank of China 2021: 5). As mentioned previously, President Xi has made clear China's intention to actively participate in setting international standards for CBDCs. To this end, Chinese officials have already put forth a set of general political principles around which they would like the international community to cohere.

China should be welcomed to contribute to shaping global CBDC standards and governance through the global standard-setting bodies where it is already a major participant. This includes those dealing with digital currencies at the G20, the FSB, the Financial Action Task Force (the global anti-money-laundering standard-setting body) and the Committee for Payments and Market Infrastructure. China has been a member of the International Organization for Standardization (ISO) since 2004, and the PBoC began releasing the China Financial Standardisation Report in 2009 (Amstad et al. 2019: 173).

#### 3.6 DIGITAL CURRENCIES IN THE INTER-NATIONAL MONETARY SYSTEM AND THE RISK OF FRAGMENTATION

The potential impact of CBDCs on the dominance of the dollar is a crucial consideration. The dollar plays a central role in the international monetary system (See section 2.2). The global usage of currencies other than the dollar and the euro for cross-border payments remains limited. As of July 2023 the dollar was used to settle 42 per cent of cross-border payments, followed by the euro (31.2 per cent), sterling (6.9 per cent) and the Japanese yen (3.4 per cent). The Chinese renminbi accounted for only 2.8 per cent of total cross-border payments (Table 3.2). The widespread use of the dollar in trade invoicing and in global banking and finance are mutually reinforcing. As trade is predominantly invoiced and paid for in US dollars, individuals and firms around the world hold dollar-denominated assets - firms with dollar-denominated liabilities invoice in dollars to mitigate the currency mismatch between their revenues and liabilities. The increasing demand for dollars makes borrowing in dollars more affordable, so that more firms borrow in dollars.

As CBDCs can offer significant advantages in terms of lower switching costs and ease of use, they could facilitate foreign exchange payments and the use of currencies other than the main international ones. Thus the choice of currencies for settling international trade can become wider – invoicing may be less flexible given the use of the dollar in the energy and commodities trade. In addition, CBDCs could be designed to spur demand – for example through programmability, so to make them easier to use in global trade and finance (Bank of International Settlements, 2021b: 17).

However, even assuming strong adoption based on current developments, CBDCs are unlikely to fundamentally change the configuration of the main international currencies within the international monetary system in the short to medium term. The recent experience of China with the internationalisation of the renminbi shows that the widespread use of a currency is a necessary but not sufficient condition for its internationalisation (Subacchi 2017: 134; BIS 2021b: 17).

This does not mean that CBDCs will have no significant impact on the international monetary system, but that the impact is likely to be uneven and affect some components of the global financial system, such as market structures and payment services, more than others. For example, the use of the e-CNY to settle regional trade in Asia - where trade connections are tighter, and political pressures stronger could prop up a payments system that would use neither the dollar nor SWIFT and could conceivably bypass commercial-banking institutions altogether. This could fragment international payment networks into separate blocs. While this would limit the ability of the US to leverage SWIFT and weaponise the dollar for geopolitical reasons, it would also curtail internationally-coordinated action on tracking money laundering, terrorist financing and imposing sanctions. It would also increase China's influence on and control of the e-CNY-led payments system. A fragmented payments system will further result in constrained competitiveness and sub-optimal resource allocation.

In such a fragmented system the benefits from digital money could be reduced by higher costs if the scope for lowering transaction costs would be limited. Moreover, in a fragmented system, the risks associated with financial instability will become concealed, unpredictable and systemic. Without appropriate safeguards, the cross-border use of CBDCs, by offering direct access to central bank money, could hamper central banks' ability to maintain monetary and financial stability. Differences across jurisdictions could weaken the legal basis of cross-border CBDCs and ultimately alter the homogeneous quality of CBDC services to final users (World Bank 2021: 26).

## 3.7 AN INTERNATIONAL MONETARY SYSTEM SET AROUND THE E-CNY...

China's lead on CBDCs has been welcomed in some countries as the opportunity to break dollar dominance. Brazil's president Luiz Inacio Lula da Silva invited the BRICS to consider alternative currencies, notably the renminbi (Iglesias 2023). Similarly, in a meeting with Xi Jinping, Russian president Vladimir Putin endorsed the broader international use of the renminbi, especially in payments between Russia and the countries of Asia, Africa and Latin America (Stognei 2023). Both leaders voiced concerns about their countries' vulnerability to financial sanctions and the risk of being cut off from using the SWIFT network. In September 2022 the Shanghai Cooperation Organisation, of which China and Russia are members, agreed to increase the use of national currencies in bilateral trade among member states (Reuters 2022).

China shares these concerns. For over a decade the Chinese monetary authorities have been actively working on establishing the renminbi as an international currency that reflects China's role in the world economy and so reduce its dependence on the dollar (Subacchi 2017). Since the launch of renminbi internationalisation in 2010, progress has been steady. The authorities have made the exchange rate more flexible, gradually opened the capital account and encouraged two-way cross-border financial flows. These efforts were recognised in 2016 when the renminbi was added to the group of currencies that comprise the SDR basket – the dollar, the euro, the Japanese yen and the pound sterling.

Nowadays the renminbi is used to settle around 30 per cent of China's trade and is the fifth most used currency in international trade payments (Table 3.2). However, despite significant progress – PBoC Governor Yi Gang recently argued that the renminbi is more convertible now than has previously been the case<sup>19</sup> – China is not financially open and lacks independent institutions, including the central bank. This limits the renminbi's international liquidity and holds back its international use, preventing it from becoming a fully-fledged international currency (Subacchi 2017; Lai 2021).

The e-CNY can contribute to China's long-term policies of renminbi internationalisation without, however, changing the fundamentals. By making direct exchange easier, faster, and cheaper, the e-CNY can offer an alternative channel to China's neighbouring countries and trade partners that are eager to reduce their financial and monetary interdependencies with the US. It could also be used for cross-border retail payments related to tourism. Furthermore, China can share its technology with other countries – mainly developing countries – that do not have the resources to build their own CBDCs and so develop a network of digital currencies that are interoperable with the e-CNY. This would allow the incorporation of e-CNY into contracts made by the Chinese government with countries participating in the BRI, and in bilateral trade and financial aid.

All these will be positive developments for China. But expanding the use of e-CNY will not remove the issue of managing cross-border capital flows as well as challenges such as monetary sovereignty and regulatory requirements. Ultimately the international use of a currency depends on non-residents' willingness to hold it, and issues around data protection and traceability may make the e-CNY even less attractive than the physical one (Gao 2022). The Chinese government is keen to drive new standards around digital currencies and cross-border payments to enhance the international use of the renminbi and strengthen its currency sovereignty (Van der Lugt and Hough 2021). However, progress is deemed to be gradual through testing of cross-border use based on domestic practices and international demand in line with the principles of compliance, interoperability and no disruption (Gao 2022). The monetary authorities have been clear that the e-CNY, at the current stage, is planned to be used for domestic retail transactions - not to rival the dollar. Former PBoC governor Zhou Xiaochuan - one of the most outspoken advocates of the reform of the international monetary system back in 2009<sup>20</sup> – clarified that the e-CNY is not intended to replace the US dollar as the main reserve and international payment currency, adding that it would not significantly advance the internationalisation of the renminbi (Zhou 2021). Zhou also said that the e-CNY was not targeting large-scale cross-border transactions (Zhou 2020). As such, while it may be a contributing factor<sup>21</sup>, the e-CNY alone will not drive the internationalisation of the renminbi.

#### 3.8 ... OR A MULTI-CURRENCY INTERNATIONAL MONETARY SYSTEM?

Speaking at the 2021 Boao Forum for Asia Annual Conference in Hainan Li Bo – a former PBoC deputy governor and now IMF deputy managing director – clarified the expected role of the renminbi in the international monetary system and reiterated that replacing the dollar was not the Chinese leadership's objective. "Our goal is not to replace the US dollar or other currencies, but to let the market make choices to further facilitate international trade and investment." (Wang 2021). The idea of moving towards a multi-currency international monetary system, rather than replacing the dollar, has always been at the core of the internationalisation of the renminbi (Subacchi 2017). The problem for the Chinese leadership is the US's dominant position in monetary and financial affairs that comes from issuing the dollar (Wang 2020); the shift to a multi-currency system would allow a rebalancing of the international monetary system.

The e-CNY would make this objective easier to achieve. In fact, the e-CNY would be more easily distributed than the physical renminbi, offering a stable and accessible alternative – other than the dollar – to individuals and firms in countries with weak and highly volatile currencies. In addition, the e-CNY would make it easier for developing countries to access alternative cross-border payments systems and reduce their dependency on the dollar (Wan 2020: 6).

Policy cooperation among central banks, monetary authorities and multilateral financial institutions is critical for setting standards and establishing a regulatory framework. China's ambitions to develop its own international currency

<sup>19</sup> Macro Week 2023 held at Peterson Institute of International Economics, 15 April 2023. Governor Yi emphasised the fact that China is not already capital account convertible, and that there is no precise date for China's full currency convertibility. However, he stressed that for 99 per cent of people transactions on the capital account are now unconstrained Gang (2023).

<sup>20</sup> For more details see Zhou (2009).

**<sup>21</sup>** Statement by former PBoC Governor Zhou at the 2021 Boao Forum for Asia Annual Conference in Hainan (Wang: 2021).

should not be undermined but harnessed towards building a multi-currency system based on healthy competition among currencies.

#### China's Cross-Border Interbank Payment System (CIPS)

The Cross-Border Interbank Payment System (CIPS) was launched by the PBoC in 2015. CIPS is designed to clear and settle domestic and cross-border renminbi transactions between banks and financial institutions, and eventually to reduce Chinese residents' and firms' reliance on the existing international payment systems, which are largely dominated by the US dollar. CIPS is part of China's efforts to internationalise the renminbi and increase its use in cross-border trade and investment and promote its use as an international currency.

Currently the use of CIPS for cross-border transactions is limited by the size of its network. There are 1,427 participating banks in over 100 countries – about two-fifths of which are in China. This is significantly less than SWIFT, which has a membership of more than 11,000 institutions in over 200 countries and territories. Moreover, the two differ in their functionality. SWIFT is a global secured messaging system that allows financial institutions to communicate with one another and move funds, while CIPS is a clearing and settlement mechanism for onshore and offshore renminbi transactions, moving renminbi-denominated funds.

CIPS can facilitate renminbi transactions between institutions in Mainland China and Hong Kong, as well as with offshore renminbi centres. However, for all other cross-border transactions for which it needs to communicate with international financial institutions, it needs to be connected to SWIFT. It is currently more similar to the US's Clearing House Interbank Payments System (CHIPS), which clears and settles US dollar transactions, than to SWIFT.

## CONCLUSION: FORGING A "NEW CONSENSUS"?

In a speech in April 2023 the US National Security Advisor Jake Sullivan invited like-minded countries to "forge a new consensus" and create "a secure and sustainable economy in the face of the economic and geopolitical realities" (Sullivan 2023). This "new consensus" would bring together the main advanced economies to tackle many challenges, notably the vulnerabilities that come with deep trade and financial interdependencies. The US main concern is about the "overdependencies" in the global value chains, especially in critical industries such as energy, telecommunications and semiconductors, where large exporters of manufacturing goods and commodities like China and Russia, enjoy considerable competitive advantages.

In this report I have argued that interdependencies create efficiencies but also vulnerabilities, thus it is necessary to de-risk the global economy (Von der Leyen 2023) to reduce excessive dependency and diversify the supply of energy and critical raw materials. But this needs to be done without creating divisions and rivalries, especially in relation to China that is no longer just a partner – i.e. an exporter of low-value goods – but has become a competitor and a rival in strategic industries, as the European Commission put it. China can fragment the world economy. Thus, the US and the other G7 countries should stay engaged with China to ensure a level playing field and a rules-based international system.

We cannot address the competition with China, as Sullivan's speech does, without acknowledging the overdependencies in the world financial and monetary system, where the dollar remains the key international currency. The financial and monetary vulnerabilities of the dollar system affect China as well as many other countries, cementing the view that "the costs of such a system to the world may have exceeded its benefits", as the former PBoC governor Zhou Xiaochuan put it.<sup>22</sup> The fact that the US can weaponise the dollar and use it for foreign policy purposes is another reason for concern.

As I have discussed in this report, China is the only non-G7 country that has the capacity to create an alternative infrastructure for lending and cross-border payments that can help many developing countries mitigate their vulnerability to the dollar. CBDCs, for instance, where China has the lead, could eventually support cross-border bilateral payments in currencies others than the dollar, offering a payment infrastructure of great attraction for countries that are dependent on the dollar in trade and non-trade finance.

The other area where China has built a significant footprint is development finance. It has created new institutions such as the Asian Infrastructure Investment Bank (AIIB) and the New Development Bank (NDB) (Subacchi 2022) and has used its large accumulation of savings to lend bilaterally to many low-income countries in Asia, Africa and Latin America. By setting its own rules, China - i.e. all organisations and entities that are part of the China network – has disregarded the 'Washington consensus' and lent often with no strings attached. The result is a heterogeneous group of creditors, lending instruments, and conditions that have added more complexity to the debt renegotiation process. China's involvement in the negotiations is critical to both debt resolution and the design of a new multilateral framework for debt governance that includes debt management as well as debt relief and debt restructuring (Olivares-Caminal and Subacchi 2021).

Would China's significant progress in making its mark on the international financial architecture eventually lead to a fragmented system at odds with the one that has been in place since the end of World War II? Not yet. The report in fact argues that at the current juncture China's main objective is diversifying the risk that arises from its own deep interdependencies with the dollar system. This is part of the 'dual circulation' strategy<sup>23</sup> that, by focusing on domestic economic policies and selective economic engagement with the rest of the world, is the Chinese leadership's response to the vulnerabilities that arise from economic interdependencies. The key point here is that China is not deliberately trying to disrupt the existing order; it is still committed to being part of a reformed, stable, and inclusive financial architecture. Stability rather than disorder remains the preferred option, the one that would allow China to pursue its own development and manage its own financial transition - de-risking, in fact, from the dollar – in an orderly fashion, and to close the gap with the G7.

<sup>22</sup> Speech delivered in March 2009 (Zhou, 2009).

**<sup>23</sup>** Firstly mentioned in May 2020 at the Political Bureau of the Central Committee of the Communist Party of China.

But the gap is narrowing, and so is the scope for fruitful engagement within the framework provided by the IFIs. Initiatives like the Global Security Initiative and the Chinese Global Development Initiative highlight the Chinese leader-ship's intention to reshape the global order in policy areas where China is in a position to deliver global public goods – i.e. regional security and development finance (The Federal Government, 2023). When it comes to the global financial system, China is in a weaker position, so its leverage to reshape the system remains limited.

Against this background, the rivalry between the US and China is becoming entrenched and risks undermining policy cooperation and turning de-risking into fragmentation. This rivalry is a consequence of, and reflects the changing dynamics of, the global economic order. The US leadership has been diminishing over the years while China is seemingly more responsive to the needs and aspirations of many developing countries. This somehow explains the US's insistence on building a "new consensus" with like-minded countries. China, on the other hand, can only provide limited leadership because of its own constraints – as the Chinese leaders are keen to remind the world, China is not yet at the same level of development as the advanced economies and on many counts still is a developing country.

Where does this rivalry leave the global economic order? Before exploring what needs to be done to avoid the risk of 'fragmented integration' where the existing interdependencies are too complex to be dismantled, hence the system that remains deeply integrated, but lack of policy cooperation seriously undermines the institutional architecture, we need to remember how the system is supposed to work. For this we go back to the Bretton Woods conference that in 1944 set up the economic order for the post-war years. For the international economic system to work well and ensure "strong, balanced, sustainable and inclusive growth" (G20 2023: 8) the following elements are necessary. First, we need a satisfactory level of global aggregate demand, so that, worldwide, there is neither inflationary pressure nor a tendency towards underemployment of resources. Second, the system needs to be balanced, so there needs to be a workable process of international adjustment of current-account balances. Third, an institutional architecture that provides shorter-term adjustment finance to mitigate and resolve financial crises, and long-term development finance should be in place. Finally, we need an open international trading system. This is exactly the list which was put forward by John Maynard Keynes in the run-up to Bretton Woods, a list in which he set out what he thought was necessary for a world economic order to work well (Subacchi and Vines 2023: 165). Cooperation is critical to underpin this system, and even more so to respond to current cross-border challenges such as climate, global health, and the global demographic transition.

The question, therefore, is not how to avoid fragmentation, but how to ensure geopolitical conditions that foster economic integration and policy cooperation while improving resilience. Building systemic resilience should be a priority and policymakers should design and implement a twopronged strategy around, first, mitigating the risk of exogenous shocks, such as the pandemic, and, second, reducing vulnerabilities to policy actions by other countries.

The above discussion and the findings of this report lead to the following recommendations for the G7.

- 1. Correctly define fragmentation as the risk of breaking the world economy into separate and sometimes conflicting economic blocs and markets and recognise the risk of developing different sets of rules and regulations as countries seek to reduce their vulnerabilities and their exposure to unfriendly countries; a fragmented monetary system with incompatible cross-border payments channels and heterogenous standards for CBDCs would be intrinsically less efficient and more unstable.
- Ensure that international policy coordination remains robust, so to deal with spillovers and externalities that come from the world economy remaining deeply interconnected with complex supply chains and deep trade and financial interdependencies that are difficult to dismantle and replace.
- 3. De-escalate the language and explain in non-hostile words the need for economic de-risking as necessary to mitigate vulnerabilities and increase resilience; ensure that de-risking is inclusive and not polarising.
- 4. Be aware that vulnerabilities arise from deep economic interdependencies, while hostile geopolitics increases the risk of fragmentation and so encourage continuous multilateral dialogue; acknowledge the vulnerabilities that affect many countries because of their exposure to the dollar, especially in trade finance, and their aspiration to use their own currencies in bilateral trade.
- 5. Recognise that "a new consensus" that doesn't involve China is a futile attempt to set the clock back to the Cold War years; unlike the USSR, China is deeply integrated in the world economy.
- 6. Work closely with the G20 as the most suitable forum to bring together advanced economies and developing countries; identify areas where there are common problems, respect countries' preferences where these are aligned, and offer incentives when preferences are not aligned; where cooperation is not possible, countries tend to resort to unilateral action.
- Build a 'positive case' focus on sovereign debt as a policy convergence area with China to find case-by-case solutions that are credible and sustainable; explore scope for greater cooperation between China and the Paris Club.
- 8. Encourage the IMF and the BIS to coordinate efforts to develop a truly multi-currency international monetary system that can offer a choice of currencies in both trade and non-trade finance while keeping a shared regulatory framework and governance; encourage the dialogue

around technological sovereignty, shared standards, and safeguard against regulatory loopholes that could breed illicit transactions and money laundering.

 Recognise the 'power of the dollar' and the risk of unilateral sanctions, and lead a coordinated effort to devise a multilateral framework that defines the governance of monetary and financial sanctions and regulates their use.

Ultimately, the whole discussion boils down to how accommodate China, which is neither a market economy nor a liberal democracy, within the international financial architecture. Where should lines be drawn? China and the large developing countries can be "responsible stakeholders" and play along with the G7. For this to happen it is necessary to find a new engagement around shared rules and common interests. Rules and institutional governance need to be adjusted to reflect the new dynamics of the world economy, and the value of policy cooperation needs to be underpinned by "strong, balanced, sustainable and inclusive growth". Only if the system is perceived to be mutually beneficial can trust and the commitment to multilateral institutions, rules and policy cooperation be reinforced. As a diplomat from a large developing country puts it, "we are now in a situation where the world is ahead of the Bretton Woods system." A stable transition to a multipolar system where market economies function alongside state capitalism is the key challenge for the governance of the global financial system for years to come.

#### REFERENCES

Aiyar, S., Chen, J., Ebeke, C. H., Garcia-Saltos, R., Gudmundsson, T., Ilyina, A., Kangur, A., Kunaratskul, T., Rodriguez, S. L., Ruta, M., Schulze, T., Soderberg, G. and Trevino, J. P. (2023): Geoeconomic Fragmentation and the Future of Multilateralism, *15.01.2023*; https:// www.elibrary.imf.org/view/journals/006/2023/001/article-A001-en.xml.

Altman, S. A. and Bastian, C. R. (2022): DHL Global Connectedness Index 2022: An in-depth report on the state of globalization. In: *DHL;* https://www.dhl.com/content/dam/dhl/global/delivered/documents/pdf/ dhl-global-connectedness-index-2022-complete-report.pdf.

**Amstad, M. et al.** (2019): Central Bank Digital Currency and Fintech in Asia. In: *Asian Development Bank Institute*; https://www.adb.org/sites/ default/files/publication/539801/adbi-central-bank-digital-currency-and-fintech-asia.pdf.

Atlantic Council (2022): Transcript: US Treasury Secretary Janet Yellen on the next steps for Russia sanctions and 'friend-shoring' supply chains. *News*, *13.04.2022*; https://www.atlanticcouncil.org/news/transcripts/ transcript-us-treasury-secretary-janet-yellen-on-the-next-steps-for-russia-sanctions-and-friend-shoring-supply-chains/.

Atlantic Council: Central Bank Digital Currency Tracker, last accessed on 16.08.2023; https://www.atlanticcouncil.org/cbdctracker/.

Baffes, J. and Koh, W.C. (2022): Fertilizer prices expected to remain higher for longer. In: *World Bank Blogs, 11.05.2022;* https://blogs.world bank.org/opendata/fertilizer-prices-expected-remain-higher-longer#:~: text=Fertilizer%20prices%20have%20risen%20nearly%2030%25%20 since%20the,sanctions%20%28Belarus%20and%20Russia%29%2C% 20and%20export%20restrictions%20%28China%29.

Banks Daily: The World's largest banks and banking groups by market value (accessed 03.05.2023); https://banksdaily.com/topbanks/ World/market-cap-2023.html

Bank of International Payments (2020a): Central bank group to assess potential cases for central bank digital currencies. *Press Release*, 21.01.2020; https://www.bis.org/press/p200121.htm

Bank of International Payments (2020b): Central bank digital currencies: foundational principles and core features, *09.10.2020*; https://www.bis.org/publ/othp33.htm.

Bank of International Settlements (2021a): Changing patterns of capital flows. In: *BIS, Committee on the Global Financial System Papers,* No 66, May 2021; https://www.bis.org/publ/cgfs66.pdf.

**Bank of International Settlements** (2021b): Central bank digital currencies for cross-border payments: Report to the G20, *July 2021;* https://www.bis.org/publ/othp38.pdf.

Bank of International Settlements (2022): Project mBridge: Connecting economies through CBDC, October 2022; https://www.bis.org/publ/ othp59.pdf.

Bank of International Settlements (2023): BIS Innovation Summit 2023: Technological innovation in an age of uncertainty, 21–22 March 2023. https://www.bis.org/events/bis\_innovation\_summit\_2023/ overview.htm.

**Barr, M.** (2016): The Litigation Tango of La Casa Rosada and the Vultures: The Political Realities of Sovereign Debt, Vulture Funds, and the Foreign Sovereign Immunities Act. In: *Santa Clara Journal of International Law, Vol. 14, No. 2, May 2016, pp. 567–595;* https://digitalcommons.law.scu.edu/cgi/viewcontent.cgi?article=1213&context=scujil

Baschuk, B. (2023): DHL Digs Into Trade Data to Track US-China Decoupling. In: *Bloomberg, 15.03.2023;* https://www.bloomberg.com/news/newsletters/2023-03-15/supply-chain-latest-signs-of-us-china-decoupling.

Bech, M. L., and Hancock, J. (2020). Innovations in Payments. In: *BIS Quarterly Review, March 2020;* https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=3561180.

Bertaut, C., Von Beschwitz, B. and Curcuru, S. (2021): The International Role of the U.S. Dollar. In: *Board of Governors of the Federal Reserve System, FEDS Notes, 06.10.2021*; https://www.federalreserve.gov/econres/ notes/feds-notes/the-international-role-of-the-u-s-dollar-20211006.html.

Bloomberg News (2021): China is open to Talks on Industrial Subsidies, Xi says. In: *Bloomberg*, *04.11.2021*; https://www.bloomberg.com/news/ articles/2021-11-04/xi-says-china-open-to-talks-on-industrial-subsidiesstate-firms#xj4y7vzkg.

Board of Governors of the Federal Reserve System (2023): Assets: Central Bank Liquidity Swaps: Central Bank Liquidity Swaps: Wednesday Level [SWPT]. In: FRED, Federal Reserve Bank of St. Louis, Economic Research, 23.05.2023; https://fred.stlouisfed.org/series/SWPT.

Bolton, P. (2022): Oil prices. In: House of Commons Library, Research Briefing, 07.11.2022; https://commonslibrary.parliament.uk/researchbriefings/sn02106/

Bon, G. and Cheng, G. (2020): China's overseas Sovereign debt relief actions: What insights do recent cases provide? In: *Economix, Working Paper 2020–22*; https://economix.fr/pdf/dt/2020/WP\_EcoX\_2020-22.pdf.

Boston University Global Development Policy Center: China's Overseas Development Finance Database (CODF); https://www.bu.edu/ gdp/chinas-overseas-development-finance/

**Bown, C. P.** (2022): China bought none of the extra \$200 billion of US exports in Trump's trade deal. In: *PIIE, 19.07.2022;* https://www.piie.com/blogs/realtime-economics/china-bought-none-extra-200-billion-us-exports-trumps-trade-deal#\_ftn1.

**Brainard, L.** (2021): Former Governor Lael Brainard Speech at the Consensus by CoinDesk 2021 Conference – Private Money and Central Bank Money as Payments Go Digital: an Update on CBDCs. In: *Board of Governors of the Federal Reserve System, 24.05.2021;* https://www.federalreserve.gov/newsevents/speech/brainard20210524a.htm.

Buchheit L. C. and Gulati, G. M. (2017): Restructuring sovereign debt after NML v Argentina. In: *Capital Markets Law Journal, Vol. 12, No. 2, pp. 224–238*; https://scholarship.law.duke.edu/cgi/viewcontent.cgi?article=6342&context=faculty\_scholarship

Buchheit, L. C. and Gulati, G. M. (2022): Enforcing Comparable Treatment in Sovereign Debt Workouts. In: *University of Virginia School of Law, Public Law and Legal Theory Research Paper Series 2022–67;* 

**Cao A., and Qu, T.** (2023): China's ambitious e-CNY plan faces a giant hurdle: winning over 1 billion consumers at home. In: South China Morning Post, 04.03.2023; https://www.scmp.com/tech/policy/article/3212245/ chinas-ambitious-e-cny-plan-faces-one-giant-hurdle-winning-over-1-billion-consumers-home

**Chen, M.** (2020): Beyond Donation: China's Policy Banks and the Reshaping of Development Finance. In: *Studies in Comparative International Development Vol. 55, pp. 436–459, August 2020;* https://link.springer.com/article/10.1007/s12116-020-09310-9.

Cherman, R. B. and Belcheva, B. (2022): Banco do Brasil raises \$500 million in term Ioan facility with China Development Bank. In: Shearman & Sterling, 31.01.2022; https://www.shearman.com/news-andevents/news/2022/01/banco-do-brasil-raises-500m-in-term-Ioan-facilitywith-china-development-bank.

**China Briefing** (2021): China Proposes Global Rules for Managing Sovereign Digital Currencies. In: *China Briefing*, 04.04.2021; https://www. china-briefing.com/news/china-proposes-global-rules-for-managingsovereign-digital-currencies

Choi, S. J. and Gulati, M. (2004): A Tournament of Judges? In: University of California at Berkeley, Public Law and Legal Theory Research Paper Series, Research Paper No. 121, January 2004; https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=394700

Choi, S., Gulati, M. and Posner, E. (2012): The Evolution of Contractual Terms in Sovereign Bonds. In: *Journal of Legal Analysis, Volume 4, No. 1, pp. 131–179, Spring 2012;* https://academic.oup.com/jla/article/4/1/131/838388.

Chorzempa, M. (2022), The Cashless Revolution: China's Reinvention of Money and the End of America's Domination of Finance and Technology. PublicAffairs.

CICIR Research Group (2022): CICIR Report: Top 10 Global Trends in 2022. In: CICIR, March 2022; http://www.cicir.ac.cn/UpFiles/file/20230112/6380912862731486388687777.pdf.

CIPS (2023): CIPS Participants Announcement No. 84; https://www.cips. com.cn/en/participants/participants\_announcement/59488/index.html

Claessens, S. (2019): Fragmentation in global financial markets: good or bad for financial stability? In: *BIS Monetary and Economic Department, Working Papers, No 815, October 2019;* https://www.bis.org/publ/ work815.pdf

Coinbase: Bitcoin BTC; https://www.coinbase.com/price/bitcoin

Cotterill, J., Abboud, L., Wheatley, J. and Yang, Y. (2023): Zambia agrees 'milestone' debt relief plan with China and other creditors. In: *Financial Times, 23.06.2023;* ft.com/content/e3b66798-1c5c-4c0c-8339-83a76e1e2c34

Crawford, J. (2019): Brownile's Principles of Public International Law. Oxford University Press, 9th edition.

Day, G. R. (2014): Market Failure, *Pari Passu*, and the Law and Economics Approach to the Sovereign Debt Crisis. In: *Tulane Journal of International and Comparative Law, Vol. 22, No. 2, Spring 2014;* https://heinonline.org/ HOL/Page?handle=hein.journals/tulicl22&div=15&g\_sent=1&casa\_token =&collection=journals.

UK Department for Business and Trade, and UK Department for Business, Energy and Industrial Strategy (2023) Resilience for the Future: The UK's Critical Minerals Strategy. *Department for Business* and Trade, and Department for Business, Energy and Industrial Strategy, Policy paper, 13.03.2023; https://www.gov.uk/government/publications/ uk-critical-mineral-strategy/resilience-for-the-future-the-uks-critical-minerals-strategy#why-do-we-need-a-strategy-why-now

**Diem** (2022): Statement by Diem CEO Stuart Levey on the Sale of the Diem Group's Assets to Silvergate. *Press Release*, *31.01.2022*; https://www.diem.com/en-us/updates/stuart-levey-statement-diem-asset-sale/.

Drysdale, P. et al. (2017). China's new role in the international financial architecture. In: Asian Economic Policy Review, Vol. 12, No. 2, 258–277, July 2017; https://onlinelibrary-wiley-com.ezproxy.unibo.it/doi/full/10.1111/aepr.12182

Duffie, D., and Economy, E. (2022): Digital Currencies: The US, China, and The World at a Crossroads. In: *Hoover Institution Press, Stanford University*; https://www.hoover.org/sites/default/files/research/docs/duffie-economy\_digitalcurrencies\_web\_revised.pdf.

EU Sanctions Map: Russia; https://sanctionsmap.eu/#/main/details/26/ ?search=%7B%22value%22:%22%22,%22searchType%22:%7B% 7D%7D.

European Central Bank: FAQs on the digital euro; https://www.ecb. europa.eu/paym/digital\_euro/faqs/html/ecb.faq\_digital\_euro.en.html

**European Council and Council of the European Union:** EU sanctions against Russia explained; https://www.consilium.europa.eu/ en/policies/sanctions/restrictive-measures-against-russia-over-ukraine/ sanctions-against-russia-explained/

**European Parliament** (2023): Energy policy: General principles. In: *Fact Sheets on the European Union;* https://www.europarl.europa.eu/ftu/pdf/en/FTU\_2.4.7.pdf#:~:text=According%20to%20the%20Energy%20 Union%20%282015%29%2C%20the%20five,innovation%20to%20 drive%20the%20energy%20transition%20and%20improvecompetitive ness

Eurostat (2022): The EU imported 58% of its energy in 2020. News article, 28.03.2022; https://ec.europa.eu/eurostat/web/products-eurostat-

news/-/ddn-20220328-2#:~:text=In%202020%2C%20the%20EU%20 imported%2058%25%20of%20the,13%25%20nuclear%20energy%20 and%2011%25%20solid%20fossil%20fuels.

**FAO** (2022): FAO Food Price Index rises to record high in February, 04.03.2022; https://www.fao.org/newsroom/detail/fao-food-price-indexrises-to-record-high-in-february/en

Financial Stability Board (2019): FSB report on market fragmentation. Press Release, 04.06.2019; https://www.fsb.org/2019/06/fsb-reporton-market-frag. Financial Stability Board (2022): Assessment of Risks to Financial Stability from Crypto-assets, 16.02.2022; https://www.fsb.org/ wp-content/uploads/P160222.pdf.

Fleming, S., Peel, M. and Parker, G. (2021): UK and EU move to calm tensions over access to vaccines. In: *Financial Times, 24.03.2021;* https://www.ft.com/content/da800a0d-cd27-48d1-a06f-d0c49599c5d2.

Freifeld, K., Alper, A. and Nellis, S. (2023): U.S. stops granting export licenses for China's Huawei. In: *Reuters*, *31.01.2023*; https://www.reuters. com/technology/us-stops-provision-licences-export-chinas-huawei-ft-2023-01-30/

G7 (2023): G7 Hiroshima Leaders' Communiqué, 20.05.2023;.

**G20** (2023): G20 – Background Brief. In: *G20 India 2023;* https://www.g20.org/content/dam/gtwenty/gtwenty\_new/about\_g20/G20\_Background\_Brief.pdf

Gang, Y. (2023): Speech by Governor of the People's Bank of China Yi Gang at the Macro Week 2023 held at Peterson Institute of International Economics. In: *PIIE, 15.04.2023;* https://www.piie.com/events/macroweek-2023

**Gao, H.** (2022): China's digital renminbi is no fast track to internationalisation of the currency. In: *East Asia Forum, 02.03.2022;* https://www.eastasiaforum.org/2022/03/28/chinas-digital-renminbi-isno-fast-track-to-internationalisation-of-the-currency/

Gaspar, V., Medas, P. and Perrelli, R. (2021): Global Debt Reaches a Record \$226 Trillion. In: *IMF BLOG*, *15.12.2021*; https://www.imf.org/en/Blogs/Articles/2021/12/15/blog-global-debt-reaches-a-record-226-trillion#:~:text=In%202020%2C%20we%20observed%20the,crisis%20 and%20a%20deep%20recession.

**Gelpern, A.** (2016): Sovereign Debt: Now What?'. In: Yale Journal of International Law, Vol. 41, No. 2, pp. 45 – 95, August 2016; https://bpbus-e1.wpmucdn.com/campuspress-test.yale.edu/dist/8/1581/files/2016/10/ YJIL-Online-Special-Edition-Sovereign-Debt-Full-File-tt8u6b.pdf

Gelpern, A., Horn, S., Morris, S., Parks, B. and Trebesch, C. (2022): How China Lends: A Rare Look into 100 Debt Contracts with Foreign Governments. In: *Economic Policy, November 2022;* https://academic. oup.com/economicpolicy/advance-article-abstract/doi/10.1093/epolic/ eiac054/6827797.

Georgieva, K. and Pazarbasioglu, C. (2021): The G20 Common Framework for Debt Treatments Must Be Stepped Up. IN: *IMF BLOG*, 02.12.2021; https://www.imf.org/en/Blogs/Articles/2021/12/02/ blog120221the-g20-common-framework-for-debt-treatments-must-bestepped-up

**Ghoshal, D. and Jayasinghe, U.** (2023): China offers Sri Lanka debt moratorium, IMF help still in doubt. In: *Reuters, 24.01.2023*; https://www.reuters.com/markets/asia/chinas-exim-bank-offers-sri-lanka-debt-extension-letter-2023-01-24/

Hancock, T. (2023): China Wants the World Bank to Offer Debt Relief to Zambia. In: *Bloomberg*, *31.01.2023*; https://www.bloomberg.com/news/articles/2023-01-31/china-wants-the-world-bank-to-offer-debt-relief-to-zambia?sref=KGFxHIUE

He, A. (2021): Digital RMB: A Possible Way to Reassert Data Control in the Digital Economy. In: *Center for International Governance Innovation, Policy Brief No. 169*; https://www.cigionline.org/static/documents/PB\_no.169.pdf

Herbert Smith Freehills (2023): UK Government and Bank of England launch Consultation on a Digital Pound. *Fintech notes, 10.02.2023;* https://hsfnotes.com/fintech/2023/02/10/uk-government-and-bank-of-england-launch-consultation-on-a-digital-pound/

HM Treasury (2021a): G7 Finance Ministers and Central Bank Governors Communiqué. *Policy paper, 05.06.2021;* https://www.gov.uk/government/ publications/g7-finance-ministers-meeting-june-2021-communique/ g7-finance-ministers-and-central-bank-governors-communique.

HM Treasury (2021b): G7 Public Policy Principles for Retail Central Bank Digital Currencies and G7 Finance Ministers and Central Bank Governors' Statement on Central Bank Digital Currencies and Digital Payments. Policy paper, 14.10.2021; https://www.gov.uk/government/publications/ g7-public-policy-principles-for-retail-central-bank-digital-currencies-and-g7finance-ministers-and-central-bank-governors-statement-on-central-bank

Horn, S., Reinhart, C. M. and Trebesch, C. (2021): China's Overseas Lending: Data and replication files; https://data.mendeley.com/datasets/4mm6kdj4xg/1

Iglesias, S. P. (2023): Lula Backs BRICS Currency to Replace Dollar in Foreign Trade. In: *Bloomberg, 13.04.2023;* https://www.bloomberg.com/ news/articles/2023-04-13/lula-supports-brics-currency-to-replace-dollar-inforeign-trade#xj4y7vzkg.

**IMF** (2017): People's Republic of China Financial system stability assessment—press Release and statement by the executive Director for people's republic of china. In: *IMF Country Report No. 17/358, December 2017;* https://www.imf.org/-/media/Files/Publications/CR/2017/cr17358.ashx

IMF (2023): World Economic Outlook: a Rocky Recovery, *April 2023;* https://www.imf.org/en/Publications/WEO/Issues/2023/04/11/world-economic-outlook-april-2023

IMF: Direction of Trade Statistics (DOTS); https://data.imf.org/?sk= 9D6028D4-F14A-464C-A2F2-59B2CD424B85

IMF: World Economic Outlook database: Gross national savings, percent of GDP, 2023; https://www.imf.org/en/Publications/WEO/weo-database/2023/April/weo-report?c=924,&s=NGSD\_NGDP,&sy=2021&ey=2023&ssm=0&scsm=1&scc=0&ssd=1&ssc=0&sic=0&sort=country&ds=.&br=1

**IMF-World Bank** (2020): Collateralized Transactions: Key Considerations for Public Lenders and Borrowers, *24.01.2020;* https://www.imf.org/en/Publications/Policy-Papers/Issues/2020/02/19/Collateralized-Transactions-Key-Considerations-for-Public-Lenders-and-Borrowers-49063.

Institute of International Finance (2020a): Progress Update on Private Sector Engagement in the G20 Debt Service Suspension Initiative (DSSI), 15.07.2020; https://www.iif.com/Publications/ID/4003/Progress-Updateon-Private-Sector-Engagement-in-the-G20-Debt-Service-Suspension-Initiative-DSSI

Institute of International Finance (2020b): IIF Letter to the G20 on DSSI Extension and Common Framework, *12.11.2020;* https://www.iif.com/Publications/ID/4173/IIF-Letter-to-the-G20-on-DSSI-Extension-and-Common-Framework

Institute of International Finance (2021): IIF Letter to the G20 on Common Framework, Debt Transparency, ESG Considerations, 09.04.2021; https://www.iif.com/Publications/ID/4371/IIF-Letter-to-the-G20-on-Common-Framework-Debt-Transparency-ESG-Considerations

International Organization for Migration (2021): World Migration Report 2022; https://worldmigrationreport.iom.int/wmr-2022-interactive/.

Jones, H. and Wilkes, T. (2022): Explainer: Russian banks isolated, UK cuts insurance ties with Moscow. In: *Reuters, 03.03.2022;* https://www.reuters.com/markets/europe/russian-banks-out-cold-eu-unveils-swift-sanctions-2022-03-02/.

Kawakami, T. and Hoyama, T. (2019): Trump's blacklist squeezes 200 Chinese companies as net widens. In: *Nikkei Asia, 19.11.2019*; https://asia. nikkei.com/Economy/Trade-war/Trump-s-blacklist-squeezes-200-Chinesecompanies-as-net-widens.

Keister, T., and Sanches, D. (2023). Should central banks issue digital currency? In: *The Review of Economic Studies, Vol. 90, No. 1, pp. 404–431, January 2023*; https://www.philadelphiafed.org/-/media/frbp/assets/working-papers/2021/wp21-37.pdf

Klein, F., and Baker, N. (2023): China and its Central Bank Digital Currency: is the e-Yuan a role model for Europe and the Euro system? In: Friedrich Ebert Stiftung, February 2023; https://library.fes.de/pdf-files/ international/20024-20230214.pdf.

**Krueger, A.** (2001): A New Approach to Sovereign Debt Restructuring – Speech address by Anne Krueger, First Deputy Managing Director, IMF, given at the National Economists' Club Annual Members' Dinner American Enterprise Institute, Washington DC. In: *IMF, 26.11.2001;* https://www. imf.org/en/News/Articles/2015/09/28/04/53/sp112601.

Kynge, J., Hopkins, V., Warrell, H. and Hille, K. (2021): Exporting Chinese surveillance: the security risks of 'smart cities'. In: *Financial Times*, 09.06.2021; https://www.ft.com/content/76fdac7c-7076-47a4-bcb0-7e75af0aadab

Lai, E. (2021): The Prospects of RMB Internationalization. In: One Currency, Two Markets: China's Attempt to Internationalize the Renminbi (pp. 269–286). Cambridge: Cambridge University Press.

Manning, R. A. (2020): Trade and Financial Fragmentation: New Challenges to Global Stability. In: *Atlantic Council, Scowcroft Center for Strategy and Security, 07.07.2020;* https://www.atlanticcouncil.org/ in-depthresearch-reports/issue-brief/trade-and-financial-fragmentation-new-challenges-to-global-stability/

**McKinsey Global Institute** (2021): Rethinking operations in the next normal. In: *McKinsey Operations Practice, Article, 12.04.2021;* https://www.mckinsey.com/capabilities/operations/our-insights/rethinking-operations-in-the-next-normal.

McKinsey Global Institute (2023): What is central bank digital currency (CBDC)?, 01.03.2023; https://www.mckinsey.com/featured-insights/mckinsey-explainers/what-is-central-bank-digital-currency-cbdc.

**Milesi-Ferretti, G. M.** (2022): 2021 was a year of strong global capital flows: Updating External Wealth of Nations database with year-end 2021 data. In: *Brookings Institution, Commentary, 15.12.2022;* https://www.brookings.edu/blog/up-front/2022/12/15/updating-external-wealth-of-nations-database-with-year-end-2021-data/.

**Mu, C.** (2023): Speech by Changchun Mu at the BIS Innovation Summit 2023: Technological innovation in an age of uncertainty, 22 Mar 2023. In: *BIS;* https://www.bis.org/events/bis\_innovation\_summit\_2023/overview.htm.

Murphy, H. (2019): Facebook unveils global digital coin called Libra. In: *Financial Times, 18.06.2019;* https://www.ft.com/content/af6b1d48-90cc-11e9-aea1-2b1d33ac3271.

Murphy, H. and Stacey, K. (2022): Facebook Libra: the inside story of how the company's cryptocurrency dream died. In: *Financial Times*, *10.03.2022*; https://www.ft.com/content/a88fb591-72d5-4b6b-bb5d-223adfb893f3.

National Committee on U.S.-China Relations (2005): Whither China? From Membership to Responsibility, *21.09.2005*; https://www.ncuscr.org/ wp-content/uploads/2020/04/migration\_Zoellick\_remarks\_notes06\_ winter\_spring.pdf

Nguyen, N., and Some, M. (2022): Outlook for Asia and Pacific: Sailing into Headwinds. In: *IMF, 28.10.2022;* https://www.imf.org/en/Publications/ REO/APAC/Issues/2022/10/13/regional-economic-outlook-for-asia-and-pacific-october-2022.

Nyabiage, J. (2021): Lack of detail in Angola's debt deals with China could hide future risk. In: *South China Morning Post, 18.01.2021;* https://www.scmp.com/news/china/diplomacy/article/3118140/lack-detail-angolas-debt-deals-china-could-hide-future-risk

**G20** (2009): G20 Leaders Statement: The Pittsburgh Summit, September 24–25, 2009, Pittsburgh; http://www.g20.utoronto.ca/2009/2009communique0925.html#top

**OECD** (2016): OECD Business and Finance Outlook for 2016. In: *OECD Publishing*; https://read.oecd-ilibrary.org/finance-and-investment/oecd-business-and-finance-outlook-2016\_9789264257573-en#page19.

**OECD** (2020): Interventions from the 2019 OECD-G20 High-Level-Seminar; www.oecd.org/investment/Interventions-OECD-G20-High-Level-Seminar-2019.pdf **OECD** (2022): International trade during the COVID-19 pandemic: Big shifts and uncertainty, *10.03.2022*; https://read.oecd-ilibrary. org/view/?ref=1129\_1129345-casormobh7&title=International-trade-during-the-COVID-19-pandemic.

Olivares-Caminal, R. (2013): The pari passu clause in sovereign debt instruments: developments in recent litigatio. In: *BIS Papers No. 72;* https://www.bis.org/publ/bppdf/bispap72u.pdf

Olivares-Caminal, R. and Subacchi P. (2021): The Debt Burden: How to Create a Better Debt Management Framework. In: *Global Policy Institute, Queen Mary University of London;* https://www.qmul.ac.uk/gpi/publications/items/how-to-create-a-better-debt-management-framework.html.

OPEC: Angola facts and figures; https://www.opec.org/opec\_web/en/ about\_us/147.htm

Pahis, S. (2021). BITs & Bonds: The International Law and Economics of Sovereign In: *Debt. American Journal of International Law, 115(2), pp. 242–280;* https://www.cambridge.org/core/journals/american-journal-of-international-law/article/bits-bonds-the-international-law-and-economics-of-sovereign-debt/165C41E267DE4568FF39BF6804B01889

Park, S. K. and Samples, T. R. (2021): Distrust, Disorder, and the New Governance of Sovereign Debt, *Harvard International Law Journal, Vol. 62, No. 1, Winter 2021;* https://harvardilj.org/wp-content/uploads/sites/15/ HLI13\_crop.pdf

People's Bank of China (2021): Progress of Research & Development of E-CNY in China, *July 2021;* http://www.pbc.gov.cn/en/3688110/3688172/ 4157443/4293696/2021072014364791207.pdf.

**Praswad, E.** (2021): The Future of Money: How the Digital Revolution Is Transforming Currencies and Finance. Harvard University Press.

Quirino de Souza Filho, O. (2022): Diplomacy, Debt, and Change: The International Debt Architecture After the Covid-19 Pandemic. In: *Revista Tempo do Mundo, n. 28, pp. 151–176, July 2022;* https://doaj.org/ article/9554c3925e5b402c82e9559a6621f691

Reuters (2022): China-led SCO bloc agrees to expand trade in national currencies, 16.09.2022; https://www.reuters.com/markets/commodities/ china-led-sco-bloc-agrees-expand-trade-national-currencies-2022-09-16/

**Reuters Staff** (2022): Kenya publishes loan documents for Chinese-built railway. In: *Reuters*, 07.11.2022; https://www.reuters.com/article/kenya-china-debt-idINL8N3234AQ.

**Rudyak, M.** (2020): Who is Who in the Chinese Lending Institutional Landscape. In: *urgewald*; https://www.urgewald.org/sites/default/files/media-files/urgewald\_who\_is\_who.pdf.

Rudyak, M. and Chen, Y. (2021): China's lending landscape, approach to debt and the Common Framework. In: *ODI, 31.10.2021*. http://www.odi.org/en/publications/chinas-lending-landscape-and-approach-to-debt-relief.

Schreuer, C., Malintoppi, L., Reinisch, A. and Sinclair, A. (2009): *The ICSID Convention: A Commentary*. Cambridge University Press, 2nd edition.

Segal, S., and Risberg, P. (2020). Central bank digital currency, design choices, and impacts on currency internationalization. In: *CSIS BRIEFS*. https://csis-website-prod.s3.amazonaws.com/s3fs-public/publication/210104\_Segal\_Digital\_Currency.pdf.

Seong, J., White, O., Woetzel, J., Smit, S., Devesa, T., Birshan, M. and Samandar, H. (2022): Global flows: The ties that bind in an interconnected world. In: *McKinsey Global Institute, Discussion Paper, 15.11.2022;* https://www.mckinsey.com/capabilities/strategy-and-corporate-finance/our-insights/global-flows-the-ties-that-bind-in-an-interconnected-world.

Shin, F. (2022): What's behind China's cryptocurrency ban? In: World Economic Forum, 31.01.2022; https://www.weforum.org/agenda/2022/01/ what-s-behind-china-s-cryptocurrency-ban/

Skingsley, C. (2023): Speech by Cecilia Skingsley at the BIS Innovation Summit 2023: Technological innovation in an age of uncertainty, 21 Mar 2023. In: *BIS*; https://www.bis.org/events/bis\_innovation\_summit\_2023/ overview.htm Sullivan, J. (2023): Remarks by National Security Advisor Jake Sullivan on Renewing American Economic Leadership at the Brookings Institution. In: *The White House, 27.04.2023;* https://www.whitehouse.gov/ briefing-room/speeches-remarks/2023/04/27/remarks-by-national-securityadvisor-jake-sullivan-on-renewing-american-economic-leadership-at-thebrookings-institution/

**Stognei, A.** (2023): Russia embraces China's renminbi in face of western sanctions. In: *Financial Times, 26.03.2023;* https://www.ft.com/content/65681143-c6af-4b64-827d-a7ca6171937a.

**Subacchi, P.** (2017): *The People's Money: How China is building a global currency.* Columbia University Press.

**Subacchi, P.** (2020): The Cost of Free Money: How Unfettered Capital Threatens Our Economic Future, Yale University Press.

**Subacchi, P.** (2022): China and the Global Financial Architecture: Keeping two tracks on one path. In: *Friedrich-Ebert-Stiftung*; https://asia.fes.de/ news/china-global-finance

Subacchi, P., and Vines, D. (2023). Fifty years on: what the Bretton Woods System can teach us about global macroeconomic policy-making. In: Oxford Review of Economic Policy, 39(2), 164–182; https://academic.oup.com/oxrep/article/39/2/164/7113958

**SWIFT** (2022): An update to our message for the Swift Community, 20.03.2022; https://www.swift.com/news-events/news/message-swift-community.

SWIFT: RMB Tracker; https://www.swift.com/our-solutions/complianceand-shared-services/business-intelligence/renminbi/rmb-tracker

Tang, F. (2020): China moves to legalise digital yuan and ban competitors with new draft law. In: *SCMP, 27.10.2020;* https://www.scmp.com/economy/china-economy/article/3107119/china-moves-legalise-digital-yuan-and-ban-competitors-new

The Dialogue: China-Latin America Finance Database; https://www. thedialogue.org/map\_list/

**The Economist** (2022): New research counts the costs of the Sino-American trade war, 01.01.2022; https://www.economist.com/finance-and-economics/2022/01/01/new-research-counts-the-costs-of-the-sino-american-trade-war.

The Federal Government (2023): Strategy on China of the Government of the Federal Republic of Germany, https://www.auswaertiges-amt.de/ blob/2608580/49d50fecc479304c3da2e2079c55e106/china-strategieen-data.pdf

U.S. Energy Information Administration (2022): Europe is a key destination for Russia's energy exports. *Today in Energy, 20.12.2022;* https://www.eia.gov/todayinenergy/detail.php?id=55021#:~:text=In %202021%2C%20Russia%20was%20the,country%20behind%20 Indonesia%20and%20Australia.

**UN** (2021): Many countries spending more on debt than education, health and social protection combined. *In: UN News, 01.04.2021;* https://news.un.org/en/story/2021/04/1088852

United Nations Population Fund: World Population Dashboard: Total population in millions, 2023; https://www.unfpa.org/data/world-population-dashboard

UN: Comtrade Database; https://comtradeplus.un.org.

**UNICEF** (2021): Pre-pandemic data show 1 in 8 countries spends more on debt than on education, health and social protection combined. *Office of Research-Innocenti, 25.03.2021;* https://www.unicef-irc.org/article/2119-pre-pandemic-data-show-1-in-8-countries-spends-more-on-debt-than-on-education-health-and-social-protection-combined-unicef.html

United States Trade Representative (2018): 2017 USTR Report to Congress on China's WTO Compliance; https://ustr.gov/sites/default/files/files/Press/Reports/China%202017%20WTO%20Report.pdf.

Van der Lugt, S. and Hough, G. (2021). Monetary sovereignty: why the EU needs a digital euro. In: *Clingendael Institute, March 2021;* 

https://spectator.clingendael.org/en/publication/monetary-sovereignty-why-eu-needs-digital-euro

Von der Leyen, U. (2023): Speech by President von der Leyen on EU-China relations to the Mercator Institute for China Studies and the European Policy Centre. In: *European Commission, 30.03.2023*; https:// ec.europa.eu/commission/presscorner/detail/en/speech\_23\_2063

**Waibel, M.** (2011): Sovereign Defaults before International Courts and Tribunals, Cambridge: Cambridge University Press.

Wan, W. (2020): Opportunities and Challenges Facing Digital Currency Electronic Payment. In: *Institute of International and Strategic Studies Peking University, 24.09.2020;* http://en.iiss.pku.edu.cn/research/bulletin/4036.html

Wang Jisi, (2020): Wang Jisi: Uphold three bottom lines for China-US relations. In: *Institute of International and Strategic Studies Peking University*, 12.06.2020; https://ciss.tsinghua.edu.cn/info/Opinions/1573

Wang, O. (2021): China's yuan internationalisation goal 'is not to replace US dollar', top banking official insists. In: *SCMP*, *19.04.2021*; https://www.scmp.com/economy/china-economy/article/3130089/us-china-relations-yuan-internationalisation-goal-not-replace

White, O., Woetzel, J., Smit, S., Seong, J. and Devesa, T. (2023): The complication of concentration in global trade. In: *McKinsey Global Institute, January*; https://www.mckinsey.com/mgi/our-research/thecomplication-of-concentration-in-global-trade.

Wilson, T. and Jones, M. (2021): China Proposes Global Rules for Central Bank Digital Currencies. In: *Reuters, 25.03.2021;* https://www. reuters.com/world/europe/china-proposes-global-rules-central-bank-digitalcurrencies-2021-03-25

Woolfenden, T. (2021): New Briefing – Debt and the climate crisis: a perfect storm. In: *Debt Justice, 25.09.2021;* https://debtjustice.org.uk/ news/new-briefing-debt-and-the-climate-crisis-a-perfect-storm

Woollacott, E. (2022): U.S. Bans Chinese Telecom Kit Over National Security Concerns. In: *Forbes, 28.11.2022*; https://www.forbes.com/sites/emmawoollacott/2022/11/28/us-bans-chinese-telecom-kit-over-national-security-concerns/?sh=65dd3b155682.

World Bank (2021): Central Bank Digital Currencies for Cross-border Payments: A Review of Current Experiments and Ideas, *November 2021*; https://openknowledge.worldbank.org/entities/publication/a6212c81-2336-5445-9e35-a7494a6f1ae2.

World Bank (2022a): World Development Report 2022: Finance for an Equitable Recovery; https://openknowledge.worldbank.org/server/api/core/bitstreams/e1e22749–80c3–50ea-b7e1–8bc332d0c2ff/content

World Bank (2022b): Debt Service Suspension Initiative: Q&As. *Brief*, 10.03.2022; https://www.worldbank.org/en/topic/debt/brief/debt-service-suspension-initiative-qas

World Bank (2023a): Global Economic Prospects, January 2023; https:// openknowledge.worldbank.org/server/api/core/bitstreams/254aba87-dfeb-5b5c-b00a-727d04ade275/content.

World Bank (2023b): The World Bank in China: Overview. Last updated: 20.04.2023; https://www.worldbank.org/en/country/china/overview.

World Bank: International Debt Statistics: DSSI, series debt service on external debt, total, (TDS, current US\$); https://databank.worldbank. org/source/international-debt-statistics:-dssi.#

World Bank (2023): Remittance Prices Worldwide Quarterly: An analysis of trends in cost of remittance services. *Issue 45, March 2023;* https://remittanceprices.worldbank.org/sites/default/files/rpw\_main\_report\_and\_annex\_g123\_final.pdf

World Bank: GDP per capita (current US\$); https://data.worldbank.org/ indicator/NY.GDP.PCAP.CD

World Bank: Goods exports (BoP, current US\$); https://data.worldbank. org/indicator/BX.GSR.MRCH.CD?locations=CN-1W World Bank: Gross domestic savings (% of GDP); https://data. worldbank.org/indicator/NY.GDS.TOTL.ZS?locations=CN-1W

World Bank: Imports of goods and services (current US\$); https:// data.worldbank.org/indicator/NE.IMP.GNFS.CD?locations=CN-1W

World Bank: International Debt Statistics: External debt stock, Public and Publicly Guaranteed (PPG) (current US\$); https://databank.worldbank.org/ reports.aspx?source=international-debt-statistics

WTO (2022): World Trade Statistical Review 2022; https://www.wto.org/ english/res\_e/booksp\_e/wtsr\_2022\_c3\_e.pdf.

**WTO** (2023a): WTO issues note on trade policy developments following one year of war in Ukraine. In: *WTO News, 02.03.2023;* https://www.wto.org/english/news\_e/news23\_e/trdev\_02mar23\_e.htm.

**WTO** (2023b): Global Trade Outlook and Statistics; https://www.wto.org/ english/res\_e/booksp\_e/trade\_outlook23\_e.pdf.

Xi Jinping. (2020a): Speech: Major Issues Concerning China's Strategies for Mid-to-Long-Term Economic and Social Development. In: CS/S, 31.10.2020; https://interpret.csis.org/translations/major-issues-concerning-chinas-strategies-for-mid-to-long-term-economic-and-social-development/.

Xi Jinping (2020b): Full Text: Remarks by Chinese President Xi Jinping at 15th G20 Leaders' Summit. In: *Xinhua, 21.11.2020*; http://www. xinhuanet.com/english/2020-11/21/c\_139533609.htm

York, E. (2022): Tracking the Economic Impact of U.S. Tariffs and Retaliatory Actions. In: *Tax Foundation*, *01.04.2022*; https://taxfoundation.org/tariffs-trump-trade-war/.

Zhou Xiaochuan, (2009): Zhou Xiaochuan: Reform the international monetary system – Essay by Dr Zhou Xiaochuan, Governor of the People's Bank of China, 23 March 2009. In: *BIS Review 41/2009*; https://www.bis.org/review/r090402c.pdf.

Zhou Xiaochuan, (2020): China's choices for a digital currency system. In: *Nikkei Asia, 22.02.2021;* https://asia.nikkei.com/Spotlight/Caixin/ Zhou-Xiaochuan-China-s-choices-for-a-digital-currency-system

Zhou Xiaochuan, (2021): Digital Yuan Won't Replace Dollar, Ex-Bank of China Chief Says. In: *Bloomberg News, 22.05.21;* https://www.bloomberg.com/news/articles/2021-05-22/digital-yuan-won-t-replace-dollar-ex-bank-of-china-chief-says?leadSource=uverify%20wall.

#### ABBREVIATIONS

AI	Artificial Intelligence	G7	Group of Seven (Canada, France, Germany, Italy, Japan, the		
AIIB	Asian Infrastructure Investment Bank	<b>6</b> .2.0	United Kingdom, and the United States)		
BIS	Bank of International Settlements	G20	Group of Twenty (Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Republic of		
BISIH	Bank for International Settlements Innovation Hub		Korea, Mexico, Russia, Saudi Arabia, South Africa, Turkey, the United Kingdom, the United States, and the European Union)		
ВоР	Balance of Payments	ICBC	Industrial and Commercial Bank of China		
BRI	Belt and Road Initiative	IMF	International Monetary Fund		
BRICS	Brazil, Russia, India, China and South Africa	JBIC	Japan Bank for International Cooperation		
CBDC	Central Bank Digital Currency	LAC	Latin America and the Caribbean		
CDB	China Development Bank	MOFCOM	Ministry of Commerce		
CFDT	Common Framework for Debt Treatments	NDB	New Development Bank		
CHEXIM	China Export-Import Bank	OECD	Organisation for Economic Co-operation and Development		
CIDCA	China International Development Cooperation Agency	PboC	People's Bank of China		
CNY	Chinese yuan	PEBCs	Preferential Export Buyer's Credits		
CL	Concessional Loans	RMB	Renminbi		
CODF	China's Overseas Development Finance	SDR	Special Drawing Right		
DLT	Distributed Ledger Technology	SWIFT	Society for Worldwide Interbank Financial Telecommunication		
DSSI	Debt Service Suspension Initiative	UK	United Kingdom		
EBCs	Export Buyer's Credits	UN	United Nations		
ECB	European Central Bank	UNCTAD	United Nations Conference on Trade and Development		
EU	European Union	US	United States		
FSB	Financial Stability Board	WTO	World Trade Organisation		
GDP	Gross Domestic Product	ZILs	Zero-Interest Loans		

#### ABOUT THE AUTHOR

**Paola Subacchi** is Professor of International Economics and Chair of the Advisory Board, Global Policy Institute, Queen Mary University of London, and adjunct professor at the University of Bologna. She is a non-executive director of two public companies listed on the London Stock Exchange and a member of the board of the Istituto Affari Internazionali in Rome. From 2004 to 2019 she was director of economic research and senior fellow at Chatham House (The Royal Institute of International Affairs) in London. She has published extensively on international economics and finance, currencies, and the international monetary system. Her latest book, The Cost of Free Money: How Unfettered Capital Threatens our Economic Future, was published in 2020 by Yale University Press.

#### NEW YORK OFFICE

The office of Friedrich-Ebert-Stiftung (FES) in New York serves as the liaison for FES offices worldwide with the United Nations (UN) in New York and the international financial institutions (International Monetary Fund and World Bank) in Washington, D.C. The office addresses peace, justice and economic issues, working closely with academia, civil society, multilateral institutions and their Member State governments to convene multi-stakeholder debates. The formats of our work include international conferences, expert workshops and high-level meetings involving government representatives, as well as published policy briefs and analytical studies. Our overarching mission is to bring a special focus to the perspectives of trade unions, women, and developing and emerging-market countries in an effort to forge consensus toward multilateral solutions to international and global challenges.

#### IMPRINT

Publisher:

Friedrich-Ebert-Stiftung e. V. | Godesberger Allee 149 | 53175 Bonn | Germany

Email: info@fes.de

Register no.: VR2392 Bonn Register of Associations Bonn Local Court

Issuing Department: Division for International Cooperation / Global and European Policy

Responsibility for content: Dr. Michael Bröning | Executive Director | Friedrich-Ebert-Stiftung | New York Office | 747 Third Avenue, Suite 34D | New York, NY 10017 | USA Phone +1-212-687-0208 https://ny.fes.de

#### Contact/Order: Christiane.Heun@fes.de

The views expressed in this publication are not necessarily those of the Friedrich-Ebert-Stiftung. Commercial use of media published by the Friedrich-Ebert-Stiftung (FES) is not permitted without the written consent of the FES. Publications by the Friedrich-Ebert-Stiftung may not be used for electioneering purposes.

ISBN 978-3-98628-416-9

© 2023

