

# Research on the Restructuring of the International Financial System under the COVID-19 Epidemic

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Abstract. A global public health event with far-reaching and far-reaching consequences, the COVID-19 epidemic has not only disrupted the struggling global governance system and the world, but has also had a profound impact on international financial markets. In the post-corona era, the accumulation of financial risks and the escalation of risk crises can accelerate the rebuilding of the international financial system. On this basis, the development of the international reserve currency and institutional changes are indications. This article summarizes the development of the international financial system and its laws. Then, by analyzing the international financial situation resulting from the COVID-19 crisis, it concludes that it is impossible to balance the dollar's hegemony in the modern international financial system. Globalization has not led to decentralization of finance, but rather to concentration of finance, increased financial risk and an imperfect international financial governance structure. Finally, the development direction of the international financial administration system is proposed on the basis of three aspects: international monetary system, international financial markets and international financial supervision.

Keywords: COVID-19 epidemic  $\cdot$  international financial system  $\cdot$  reserve currency  $\cdot$  dollar

# 1 Introduction

The history of the development of the international financial system includes changes and advancements in the international financial infrastructure, financial markets and financial management, which are mainly based on international currencies, financial transactions and financial management. In the history of international financial development, it can be divided into three phases: the phase of fragmentation of the international financial system, the phase of the international system dominated by the US dollar, and the development of the modern international financial system. In the post-corona era, the accumulation of financial risks and the escalation of risk crises could accelerate the rebuilding of the international financial system. On this basis, the development of the international reserve currency and institutional changes are indications.

# 2 The Impact of COVID-19 on the Impact of COVID-19

# 2.1 Liquidity Crisis

# 2.1.1 The World Economy Faces the Possibility of a Recession

The global development and spread of the COVID-19 pandemic will have a significant impact on global industrial and supply chains, and will have a greater impact on the scale of international trade and the growth rate of international investment. Everyone is predicting a global recession. The latest report from the International Monetary Fund (IMF) predicts that the global economy will grow by -4.9 percent in 2020. OECD Chief Economist Lawrence Boehner and FRB Chair Jerome Powell said the world is experiencing its worst recession since World War II [1].

# 2.1.2 Liquidity Crisis Caused by Consumer Confidence Index

Huge instability in US financial markets caused by the coronavirus has plunged the dollar into another liquidity crisis after the subprime mortgage crisis. After the crisis, central banks, led by the Federal Reserve, have done everything they can to facilitate liquidity and revitalize the market. The temporary liquidity crisis in the financial markets has been somewhat resolved as asset prices rose sharply after the sharp drop in March thanks to large-scale liquidity injections and government financial support to financial market countries. In the short term, it has prevented the outbreak of a liquidity crisis and partially prevented the transition from a liquidity crisis to a debt crisis. At the end of April, however, the price of crude oil fell below -37.63 per barrel, decimating national crude oil inventories. International financial markets are very vulnerable in the short term, especially when financial markets are in trouble and fragile economies face more severe crises. Therefore, the governments of all countries are working together to revitalize the economy by coordinating and working together by combining fiscal, monetary and structural policies to help consumers and businesses return to work and production and boost the economy. Help recover from the crisis.

# 2.2 The International Financial Market Continued to Vibrate Violently

#### 2.2.1 Causes of Financial Shocks

The continuous and violent shock of the concentrated outbreak in March 2020 is apparently due to the irrationality of the financial market-facing public health events due to the COVID-19 epidemic. The ensuing treasury bond market turmoil has long sown the seeds for this crisis. The deeper reason is that since the global financial crisis, to survive the crisis, the global market failure caused by the low-interest rates in the global market and the passivation of financial risk pricing methods have squeezed the debt and equity markets accumulated by various factors. The bubble, which in turn caused a domino effect, collapsed the ten-year-old stock market in one fell swoop and spread to the international foreign exchange market and the global bond market [2].

# 2.2.2 The Spread of Financial Shocks

With COVID-19 still under control, a global economic shock could lead to a recession in the real economy. On the other hand, the COVID-19 epidemic has led to a significant drop in market demand, mainly due to the predictable slowdown in demand for durable goods and energy. On the other hand, COVID-19 has limited production factors such as labor and capital. Kind of. As a result, normal production and operations of companies have been hampered and the global supply chain has often been disrupted due to each country's logistics regulations to prevent and combat COVID-19. The UN conference on trade and development predicts that foreign direct investment will decline by 30–40 percent in 2020–2021. The COVID-19 pandemic is significantly changing the landscape of trade and investment.

# 2.2.3 COVID-19 Becomes a Key Factor Affecting Future Economic and Financial Trends

A recession in the US and the global economy is inevitable. Due to the asynchronous nature of the global spread of COVID-19, ongoing external uncertainty could negatively impact some economies that managed COVID-19 early on. As in past crises, the US Treasury Duration Gap, TED and US Dollar indices remain forward-looking indicators of a turning point in the current financial crisis. The economic recession caused by COVID-19 is dominated by COVID-19 [3]. If the COVID-19 epidemic can be effectively brought under control in the short term without triggering a corporate or sovereign debt crisis, most economic activity will recover. It is believed that the spread of the COVID-19 pandemic is not being controlled in a timely and effective manner. The supply and demand chains have not been broken, but corporate and household incomes are also weakening cash flows, which could lead to widespread insolvency and a bleak economic outlook. Assuming the COVID-19 pandemic lasts too long, vaccine development and treatment technology will not find a breakthrough. In this case, it cannot be ruled out that people will have to fight the COVID-19 virus for a long time to come. The potential growth of the global economy and the efficiency of operations are systematically declining.

# 3 The Current State of the International Financial System

With the successful "Brexit" of the United Kingdom, a series of measures to withdraw from regional organizations, and the rise of economic nationalism after the Trump administration came to power. The United States has embarked on a new wave of deglobalization, building and developing in globalization. The international financial system of China will face profound changes because of these challenges. In the new era, opportunities and risks are infinitely magnified. The current situation of the international financial system urgently needs to be understood and measures developed to ensure the stability of the global financial system and the economy [4]. Based on the analysis of the international financial situation, it is clear that the international financial system has the following characteristics (Fig. 1).

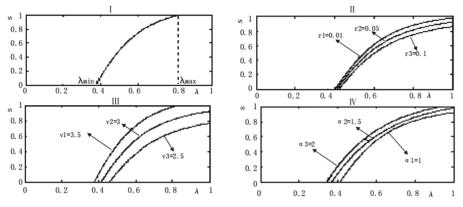


Fig. 1. Relationship between financial structure and equity financing efficiency

#### 3.1 The "Hegemonic" Balance of the U.S. Dollar is Unsustainable

#### 3.1.1 The Development of the U.S. Dollar's "Hegemonic" Status

After World War II, the United States created the legal framework for the internationalization of the US dollar through the Bretton Woods system, using an asymmetrical model of world politics and economics. Since the US dollar is pegged to gold and other currencies to the US dollar, it can be said that the reliance on the US dollar is strong. It determines the magnitude and direction of liquidity in the global economic system and is given the rights to global monetary financing and monetary policy. With the rapid post-war development of the United States, the overall strength has remained at the highest level in the world, and the role of various factors, such as the financial markets of developed countries and the dollar's status as the world's major currency, has risen. is steadily increasing. Integrate into a dollar-centric, global revolving credit system. And with the development of consolidation, global integration, various economies are forced to the rules of the dollar hegemony game created by the United States through the expansion of the domestic economic and political order. While the dollar has faced crises such as the collapse of the Bretton Woods system, the dollar crisis, stagflation, the special drawing rights granted by the International Monetary Fund (IMF) and the strengthening of the euro, the supremacy of the dollars not shaken. Reserve currency after the Bretton Woods regime. The dollar has strengthened despite the global financial crisis caused by COVID-19. This is mainly due to two reasons: global financial institutions such as the World Bank, the Bank of International Settlements, the Global Settlement and Settlements System, the International Monetary Fund (IMF) and other global financial institutions. Coupled with the strong financial system and mature financial markets of the United States, as well as the strong political, economic, military and technological power of the United States, international investment markets generally recognize it as a safe haven. The economic and trade exchange between countries is developing, and as the world's largest economy, the United States cannot do without trade exports from different countries, so it guarantees a net flow of capital. The global economy prefers to work with a strong status quo [5].

# 3.1.2 The U.S. Dollar's "Hegemony" Status is Facing Challenges

However, the dollar hegemony maintained by export inflation through domestic debt issuance and long-term trade deficits is bound to be unsustainable. First, the U.S. dollar has flowed out of the U.S. economic entity through the continuous issuance of bonds. On the one hand, it has caused an irreversible long-term current account deficit and trade deficit. On the other hand, it has also caused the U.S. economy to turn from the real to the virtual, triggering subprime mortgages. The crisis and the intense financial turmoil during this COVID-19 period will only jeopardize the credibility of the U.S. dollar, exacerbate the "global balance of terror", and create instability in the global financial markets and financial system. The biggest unsettling factor in the international financial system is betting on global financial stability. Regarding establishing a more secure, stable, fair, reasonable, efficient and durable international financial system, the digital currency developed based on blockchain technology is A global monetary system that offers one possibility [6]. Secondly, with the transformation of the global production division, emerging economies and developing countries have begun to eliminate the situation of primary processing and started a new round of technological innovation. The issuance of new bonds by the U.S. dollar has also been excluded, mainly in Russia, India, etc. Persistence in dollar assets and reliance on gold, and with the rise of populism and national protectionism, the United States and even the world economy is facing great changes unseen in a century, and the dollar hegemony is facing severe challenges.

## 3.2 Globalization Leads to Financial Concentration and Increased Financial Risks

#### 3.2.1 Financial Concentration

In the context of globalization, the influence of the international financial system should be extended in theory, and the global financial structure should also show a trend of globalization and decentralization. However, the international financial system has shown a trend of centralization, which is mainly reflected in the following three: Aspects: First, in the post-Bretton Woods era, the core status of the U.S. dollar should gradually weaken with the trend of international currency diversification, but this status has not been shaken; secondly, the financial centres spawned by globalization should be diversified [7]. However, the situation of New York and London as all-around financial centres, and Hong Kong, Tokyo and Singapore as regional financial centres is quite stable in the short term; finally, financial groups rely on their strong capital, outstanding talents and advanced management experience under globalization. Financial institutions and financial transactions have become more concentrated. After the global financial crisis, systemically important financial institutions that have experienced the crisis have remarkably improved their credit due to their professional management and scale advantages, making financial business more concentrated in these institutions.

#### 3.2.2 Financial Prosperity and Increased Financial Risks Go Hand in Hand

In globalization, the global financial system presents two sides that deviate from each other. On the one hand, the increased risk appetite in the financial market has made

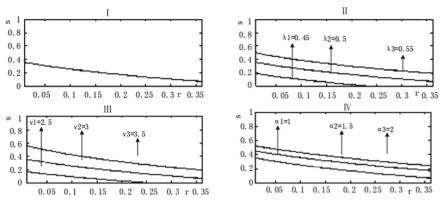


Fig. 2. The relationship between financial structure and debt financing efficiency

the financial sector unprecedentedly prosperous. In 2018, the nominal value of overthe-counter derivatives in global risk assets reached US\$60 billion. On the one hand, after the crisis, the overall sentiment of the financial market was not very optimistic, the liquidity preference was high, and there was infinite worry about the global recession that the economic downturn may cause [7]. Credit risk has become a major problem faced by developed economies. Financial risks, as far as the United States is concerned, the US\$6.5 trillion non-financial corporate bonds in the United States are still huge, but their growth rate has not decreased but increased. Faced with the fundamentals of the global economic downturn, financial bubbles may accumulate, and financial risks will intensify (Fig. 2).

#### 3.3 The International Financial Governance Structure is not Perfect

The study of the international financial system has long neglected to pay attention to the structure of international financial governance. The horizontal competition and division of labour among governance networks have made the prevalence of networked governance and failed to bring about a mutually beneficial and equal international financial governance structure.

#### 3.3.1 Horizontal Competition

The horizontal competition between governance networks makes global financial governance more difficult. On the one hand, horizontal competition limits the breadth and depth of cooperation among various economies, which is very unfavourable for forming a unified multilateral governance network. The hierarchical structure of global financial governance and the differentiation of interests among countries make the global financial governance system appear more complicated. The fragmentation characteristics, in turn, intensify the horizontal competition between governance networks [8]. The horizontal competition between governance networks can be viewed from the following two aspects: First, under the pattern of interest differentiation, countries are clustered in different governance networks, which not only enhances the internal cohesion of the

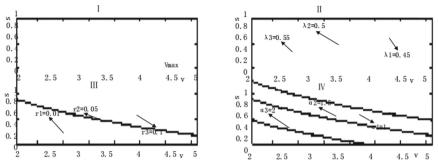


Fig. 3. The relationship between financial structure and the potential value of innovative projects

governance network but also makes the core countries and peripheral countries more competitive. Exclusivity and differentiation of interests. On the other hand, the horizontal competition in global financial governance increases the risk of normative conflicts, and the decline in the legitimacy of the "Anglo-Saxon" model caused by the international financial crisis is that emerging market countries in the global governance network are in the region. The influence of cross-regional cooperation has increased significantly. After the financial crisis, emerging market countries have deepened cooperation to build an international financial safety net and have a strong will to reform the international financial governance network (Fig. 3).

#### 3.3.2 Vertical Division of Labour

From a process perspective, the practice of global financial governance is mainly reflected in the vertical division of labour in the governance network. The governance network involved in the governance process can be divided into the following three categories according to different functions: First, the agenda-setting entities of the ministries of finance and central banks of various countries can negotiate and finally reach a policy consensus, which is the entity of crisis response; Standard-setting entities dominated by financial regulators, because of their "depoliticized" characteristics, such entities often have limited influence; the third is authorized supervision by the IMF and the World Bank and the non-authorized supervision of the standard-setting network under financial governance—composed supervisory entity [9]. However, the imbalance of power and unequal status between the central and peripheral countries has led to an unequal vertical division of labour in the process and results of global governance in the three aspects of agenda-setting, standard-setting, and monitoring and implementation.

# 4 Outlook for the International Financial System in Post COVID-19 Period

#### 4.1 The International Monetary System

#### 4.1.1 The International Monetary System is Developing Towards Multi-polarity

First, the international monetary system is based on the world economic model and the reality of international trade. The multipolar development trend of the world economy and international trade determines the development of the diversification of international currencies. First, the US dollar's position as the dominant international currency is not currently being undermined. The historical, current and future problems associated with changing the dollar's position will not change. A unified monetary system would be an effective means. Second, the formation of competing and restrictive international currencies changed the dependence of various economies on the US dollar, created a more stable international financial environment and promoted the diversification of the international monetary system. The direction of development is especially important. In the long run, actively promoting the diversification of international reserve currencies is the basis for building and improving a competitive system. In fact, it can be seen that the international monetary system shows a trend towards multipolar development, which corresponds to the development of the monetary structure of international foreign exchange reserves and international financial assets. However, this trend relies more on the operation of complex forces, such as the continued weakness of the US dollar, the rise of the euro and the internationalization of the yuan [10].

Due to the impact of the COVID 19 most economies are fully affected. Different countries and states have developed responsenses to recapture on financial renewal. For instance, some have removed restrictions and prioritize specific essential industrial sectors. I. China financial market stability has been achieved by providing Monterey policy support by injection of liquid money in banks as well as expansion and releasing and rediscounting facilities by 1.8 trillion RMB to support industries (Fig. 4).

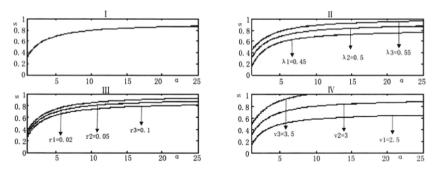


Fig. 4. The relationship between financial structure and innovation risk

## 4.1.2 The Development of the International Monetary System Towards a Multireserve Monetary System

A significant change in the international currency system has more impact on the currencies of other countries. The United States in particular is an important currency reserve in light of several adjustments. While the US dollar continues to weaken in line with past patterns, there is still no alternative to the US dollar in the market [11]. No currency can compete with the US dollar as the dollar continues to weaken. Therefore, it is difficult to get the will to build a supranational currency or a common global currency in any given time. Even if the currency could replace the dollar, it would continue with the dollar's old hegemony, but not solve the problem. In the current world economic situation, it is no longer appropriate for the single currency to be a sovereign currency. We see that diversification is a long-term trend in the reform of the international monetary system. Consequently, the international monetary system will change significantly in the future and will be affected by the central position of the US dollar as a major international reserve currency. In addition, each system continuously researches and gathers discussions about the future directions and models of international monetary systems. The world is moving towards a stable multi-reserve currency system made up of the renminbi, the euro and the dollar. What cannot be changed, however, is that the dollar is cheaper [12]. Despite the current economic imbalance, its overall resilience is stronger than its peers. Thus, the dollar will continue to dominate and not lose its dominant position, but will likely try to share this role with other currencies as well.

# 4.1.3 Digital Currency Promotes the Reform of the International Monetary System

The legal digital currencies developed by the central banks of different countries are competing for the new dominant currency position using the network between the central banks' digital currencies and starting a new round in the reorganization of the international financial situation. Today, many central banks around the world are committed to developing central bank digital currencies [13]. My country's central bank practice has been at the forefront of major countries, and DCEP has begun to conduct landing tests. In the past, the Central Bank of Uruguay and the Riksbank have conducted similar experiments called "e-peso" and "e-Krona" respectively. The Bank of England said it is not actively considering using a central bank digital currency, and the European Central Bank joined Japan. The central banks are jointly investigating the possible application of decentralized accounting in the financial infrastructure. It has become a demonstration for major economies to jointly develop a blockchain financial infrastructure based on common technical standards. Follow the progress of central banks in issuing digital currencies. If all goes well, on this basis it will be possible to form a global sovereign digital currency and promote the widespread adoption of decentralized currencies such as SDR as digital currencies.

## 4.2 International Financial Market

## 4.2.1 Debt Risks are Highlighted

The country's debt risk has increased as debt has increased since the financial crisis due to the spread of COVID-19. First, the total leverage ratio of US non-financial corporations has risen to 75%, surpassing pre-subprime levels. The new energy sector, which accounts for 16 percent of BBB-rated bonds, could face corporate bankruptcy as a result of lower global oil prices. Second, emerging markets debt is over \$71 trillion. Dollars, up to 220% of GDP. In the 1980s, developing countries took advantage of the international financial market to borrow debt, leading to the debt crisis. We cannot but pay attention to emerging economies. The possibility of a massive debt crisis in the face of volatility in interest and exchange rates [14].

## 4.2.2 The Stock Market Will Continue to Fluctuate

After the international financial crisis, the negative Q.E. has been continuously introduced and global capital surplus has continuously increased asset prices in the stock market. In 2019, the US stock index S&P 500, the European STOXX50 index and the MSCI World index rose 20%, all reflecting the current bull market in US equities, which contrasts sharply with the slowdown in the real economy. Monetary policy can be a pillar of bubbles - of prosperity. The economic shock caused by the COVID-19 pandemic is enormous. The global economy has been in decline for a long time, the physical base is weak due to financial virtualization, financial market investors are sensitive and vulnerable. When monetary policy is adjusted or liquidity is tight, collective selling may be unavoidable [15]. Falling prices and drying liquidity create a vicious circle that leads to severe financial shocks. In addition, we must be particularly vigilant in a difficult external environment. Consumption has become an important factor supporting economic growth in developed countries such as the United States. The development of the stock exchange is closely related to the income and consumption of the residents. If stock prices fall sharply, the financial system and the real economy suffer enormously.

#### 4.3 International Financial Regulation

In a situation where financial markets are in a chain reaction due to the novel coronavirus infection (COVID-19), all economies are strengthening integration and international financial cooperation to revitalize the economy as soon as possible and renew domestic and foreign financial markets in order to breathe life back in the control system. In particular, "black swan" and "grey rhinoceros" cases, which can co-exist in the current complex international financial situation, will be prevented by the establishment of an international cooperation organization to combat terrorist financing and financial fraud, and the national financial markets will be secured. † any economy. It was generally stable without being affected by the international situation. Due to the role of externalities, financial risk can turn individual rationality into collective irrationality. Countries should continue to pay attention to close relationships in the financial sector [16]. Balancing financial supervision, improving the competitiveness of financial institutions and avoiding financial risks, improving and building a systematic and functional macro stability

management system for economic activity, and promoting the continuous improvement of the supervision process of the international financial system. To encounter challenges the dollar is facing globally we need financial liberalisation, social convergence, global education providers and need of economic of scale.

# 5 Conclusion

This article summarizes the development of the international financial system and its laws. It then analyzes the international financial situation during the COVID-19 pandemic and concludes that the balance sheet of dollar hegemony is not viable in the current international financial system. Globalization has not led to decentralization of finances. Rather, it leads to concentration of public finances, increased financial risk and imperfect international financial governance. Finally, he proposes the development direction of the international financial management system from three perspectives: the international monetary system, international financial markets and international financial supervision.

# References

- 1. Doshi, P. 2021, "Covid-19 vaccines: In the rush for regulatory approval, do we need more data?", BMJ : British Medical Journal (Online), vol. 373.
- Hidayat, W.W. & Husadha, C. 2021, "The Impact of COVID-19 on the Finances of the Tourism Industry in Indonesia", Journal of Environmental Management & Tourism, vol. 12, no. 8, pp. 2224-2231.
- 3. Khozaei, F., Carbon, C.C., Mahdieh, H.N. & Mi, J.K. 2022, "Preferences for Hotels with Biophilic Design Attributes in the Post-COVID-19 Era", Buildings, vol. 12, no. 4, pp. 427.
- 4. Li, S. & Yan, Y. 2022, "DATA-driven shock impact of COVID-19 on the market financial system", Information Processing & Management, vol. 59, no. 1, pp. 1.
- Magwedere, M.R. & Marozva, G. 2022, "The Nexus Between Bank Credit Risk and Liquidity: Does the Covid-19 Pandemic Matter? A Case of the Oligopolistic Banking Sector", Folia Oeconomica Stetinensia, vol. 22, no. 1, pp. 152-171.
- Md Abu, I.G., Nahiduzzaman, M., Harymawan, I., Masud, A.A. & Dhar, B.K. 2022, "Impact of COVID-19 on Financial Performance and Profitability of Banking Sector in Special Reference to Private Commercial Banks: Empirical Evidence from Bangladesh", Sustainability, vol. 14, no. 10, pp. 6260.
- 7. Obstfeld, M. 2022, The international financial system after COVID-19, Federal Reserve Bank of St Louis, St. Louis.
- Petit, G. & Tedds, L. 2019, "Fiscal Policy Trends: The Federal Government's Policy Response to COVID-19: Acting Quickly and Decisively", The School of Public Policy Publications (SPPP), vol. 12.
- 9. Puacz-Olszewska, J. 2022, "Financial security during a pandemic SARS-CoV-2 Coronovirus pandemic in Poland", VUZF Review, vol. 7, no. 2, pp. 69-77.
- Richards, T.N., Nix, J., Mourtgos, S.M. & Adams, I.T. 2021, "Comparing 911 and emergency hotline calls for domestic violence in seven cities: What happened when people started staying home due to COVID-19?", Criminology & Public Policy, .

- Sari, R.C., PL, R.F., Ilyana, S. & Hardika, D.H. 2022, "Augmented reality (AR)-based sharia financial literacy system (AR-SFLS): a new approach to virtual sharia financial socialization for young learners", International Journal of Islamic and Middle Eastern Finance and Management, vol. 15, no. 1, pp. 48-65.
- Schiff, M., Larysa, Z., Pat-Horenczyk Ruth & Rami, B. 2021, "COVID-Related Functional Difficulties and Concerns Among University Students During COVID-19 Pandemic: A Binational Perspective", Journal of community health, vol. 46, no. 4, pp. 667-675.
- 13. Shah, Z., Bonyah, E., Alzahrani, E., Rashid, J. & Alreshidi, N.A. 2022, "Chaotic Phenomena and Oscillations in Dynamical Behaviour of Financial System via Fractional Calculus", Complexity, vol. 2022.
- 14. Wang, H. & Yu, Z. 2022, "Chinese Stock Market's Reaction to COVID-19 in the Short and Long Run", Complexity, vol. 2022.

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