

## Establishing International Monetary System Version 3.0 to Solve Triffin Dilemma

Li Jiandao

[ **Abstract** ] International Data Currency, abbreviated as Digital Currency, is issued by the United Nations. The first issue of “digital currency”, which anchors globally, is the sum of “foreign exchange cash” + “foreign exchange reserves” + “small amount of gold reserves”. Every year, “digital currency” is issued to anchor the weighted average of the three “data elements” including “①International trade annual increment + ②International investment annual increment + ③United Nations’ annual budget” globally, anchoring no physical assets anymore. Each contracting party of the International Monetary Convention shall apply for “digital currency” from the United Nations in accordance with regulations based on the sum of items ① and ② of their respective fiscal years. On the basis of IMF and others, Monetary Agency of the United Nations is supposed to be established. Besides, the International Data Currency Trading and Settlement Platform is supposed to be established based on SWIFT and other technologies. The United Nations charges a “service fee” for each transaction through various systems, which can replace the membership fee. All external debts of debtor countries shall be exempted. The credit limit of each creditor country shall be fully repaid by the United Nations in digital currency. “International Monetary System Version 3.0” shall be established to solve Triffin Dilemma.

[ **Key words** ] International Data Currency; International Monetary System Version 3.0; limit of firstly issued digital currency; limit of additionally issued digital currency; United Nations Monetary Bureau; Trading Settlement Platform Version 3.0; United Nations charging service fees; exempting foreign debt; repayment of external debt by the United Nations; solving the Triffin Dilemma

[ **About the author** ] Li Jiandao (Li Xiaochun, 1953—), male, from Changchun, Jilin, China, graduated from Department of Engineering Physics, Tsinghua University with the major of nuclear reactor engineering, formerly served as the head of the Medical Accelerator Laboratory at the Beijing Medical Device Research Institute, director of the Ministry of Education, executive vice president of the China Academy of Market Economics (preparatory), and chairman of Beijing Changneng Environmental Big Data Technology Co., Ltd., currently retired. Research interest: quantitative social management.

[ **DOI** ] <https://doi.org/10.62662/kxwxy0103001>

[ **Website** ] [www.oacj.net](http://www.oacj.net)

Creating new civilizations, theories, and elements must all meet the needs of the times. Civilizations that deviate from the needs of the times are unsustainable, theories that have not been tested in practice are castles in the air, and social elements that cannot operate in practice are aimless. “Data currency” is the interdependent element of “data economy” and “data assets”. They are components of each other, which are interdependent, supportive, and indispensable. All of them are closely aligned with the times, in strong demand, and running in parallel and sustainability. The endogenous mechanism is firm, with a coherent logic smooth and firm basis. As long as the United Nations follows the endogenous mechanisms and logic of economic operation, and formulates practical and feasible management mechanisms and systems, the “International Monetary System Version 3.0” can be naturally established, and the Triffin Dilemma can be smoothly solved.

## **1 Evolution of International Monetary System after World War II**

### **1.1 International Monetary System Version 1.0**

As is known to all, in July 1944, after World War II, the council of International Monetary Fund (IMF) held an International Monetary and Financial Conference in Bretton Woods, New Hampshire, USA, to construct an “International Monetary System” with anchored gold as the basis for issuing US dollars, known as the “Breton Woods System”. It can be referred to as “International Monetary System Version 1.0”. Afterwards, the US dollar entered a golden period of about 30 years (1947–1976) along with “Version 1.0”.

### **1.2 International Monetary System Version 2.0**

In the 1960s – 1970s, due to the inherent flaws of International Monetary System Version 1.0, as well as factors such as the oil crisis and the outbreak of the Vietnam War, the US dollar was overvalued and inflationary, resulting in a mismatch between the total amount of the US dollar and the value carrying capacity of gold. In 1976, the council of International Monetary Fund (IMF) held a meeting in Jamaica and reached the Jamaica Agreement, also known as Jamaica System. This system includes “SWIFT”, which serves as “International Monetary System Version 2.0” and stipulates that “the issuance of international circulating currency will no longer be anchored by gold”, terminating the monopoly of the US dollar as the sole international currency.

### **1.3 Diversification of quasi–international currencies**

#### **1.3.1 Geopolitical countries are eager to try**

International Monetary System Version 2.0 has made significant progress in decoupling from gold. Unfortunately, not only did it fail to solve Triffin Dilemma, but also accelerated its diffusion process. International Monetary System Version 2.0, while giving rise to the official circulation of the euro, also triggered the idea of Asia’s “10+3” issuance of the Asian dollar. However, due to well-known reasons, the plan to issue the Asian dollar was stillborn. On May 30, 2023, at the meeting of the Association of South American States held in Brazil, Brazilian President Lula proposed the issue of South American economic integration and the unification of South American currencies. The Union of African States may also unify the African currency on the basis of the West African Monetary Union, the Central African Monetary Union, and the African Development Fund. The Y2 currency issued by the League of Arab States has a history of five years and is the world’s first so-called “data currency”.

#### **1.3.2 Chaos of global virtual currency**

Currently, the US dollar remains one of the major currencies in circulation worldwide, accounting for over 50% of the total global flow. But in recent years, the arbitrary issuance of currency by the private sector is undermining the dominant position of the US dollar. Although the legitimacy of the world’s top ten virtual currency platforms has been questioned, they have become a popular investment topic among the public. Global virtual currencies such as Bitcoin, Ethereum, and Ripple, as well as the so-called “Top 10 Private Asian Dollar Platforms”, are all catalysts that contribute to the cyclical fluctuations of the world economy. The impact of such currency abuse on international people’s livelihoods cannot be underestimated. Faced with the current situation of excessive currency issuance, countries around the world are eagerly hoping for a completely new, globally unified, unique, exclusive, irreplaceable international monetary system that can solve the Triffin Dilemma.

#### **1.3.3 Triffin Dilemma—Remain unchanged**

International Monetary System Version 2.0 accelerated diversification of international currencies. But regardless of US dollar, euro, pound, Chinese yuan, or Japanese yen, the more currencies are used globally, the more common Triffin Dilemma becomes. There are four manifestations of this. Firstly, the country issuing the global circulating currency still replaces the international currency with the currency of itself. Secondly, the method of issuing excess currency to compensate for trade deficits and local currency deficits is still used, in order to meet

the demand for so-called “international currency marketization”. Thirdly, although the euro represents the will of EU countries, it is still a currency issued by one country. It has not fundamentally changed the nature of the issuer as a “country”. Fourthly, the internationalization of the Chinese yuan, Japanese yen, and any other national currency is nothing more than the addition of several currencies with similar properties to the US dollar on a global scale, which still cannot fundamentally solve the escalating trend of Triffin Dilemma.

## **2 Data economy and data assets**

### **2.1 Data economy**

In the 21st century, the fourth industrial revolution characterized by “communication technology, Internet, Internet of Things, big data, cloud computing, storage technology, blockchain, meta universe, artificial intelligence, quantum technology” (hereinafter collectively referred to as “modern high-tech”) has formed a new element of economics—data economy. According to the 2022 data provided by the China Institute of Information and Communications, the added value of data economy in 51 countries worldwide was 41.4 trillion US dollars, a year-on-year nominal growth of 7.4% , accounting for 46.1% of GDP. From this, it can be seen that the data economy will definitely become a new element for measuring the development level of a region, a country, and even the global economy in the near future. Supported by data assets, data economy will also be included in the scope of New Economics.

### **2.2 Data assets**

#### **2.2.1 Emerging social elements have taken shape**

It goes without saying that “quantifying social factors changes social structure”. Human civilization is accumulated from the sum of everything done by every natural person, every group, enterprise, NGO, public institution, country, and national group in the long river of history. The fourth industrial revolution is a sense of behaviors, with modern high-tech methods to break through certain constraints, quantifying, materializing, iterating, upgrading, and reconstructing certain social elements, and create certain social elements. At all levels and types of new social elements, some can be exchanged, while others cannot be exchanged without authorization. According to the principles of political economy, all new economic factors, whether exchangeable or not, belong to the category of productive forces and can be regarded as assets with “property rights”. Therefore, the new element of “data assets” coexisting with “data economy” in New Economics emerged.

#### **2.2.2 Definition of ordinary data assets**

- An “exchangeable subject matter” formed by the empowerment of traditional and new assets through modern high-tech.
- A new type of productivity element expressed in the form of data.
- The entire process from generation to application can be proven by the “physical chain” formed by modern high-tech.
- Can be traced back to the source.
- The six social elements include but are not limited to politics, economy, culture, population, ideology, and environment, which cover various fields.
- In a rule of law society, it has the attribute of power and is protected by law.
- The fundamental element that will make up “data GDP” in the future.
- Assets that are not allowed to be exchanged without authorization as stipulated by the United Nations.

#### **2.2.3 Definition of natural person data assets**

It is considered to be a kind of acting of absorbing and releasing that a natural person takes every meaningful action during his/her life time. Every effort is considered as a contribution to humanity, the country, society, and themselves (including family and friends). We can quantify each contribution according to certain rules using

modern high-tech, and categorize them into specific numerical values. The sum of these values is called “lifetime contribution value of a natural person”, which is also known as the “natural person data assets”, aiming to express one’s “contribution degree”. Natural person data assets, like enterprise data assets and public data assets in the host country, are a part of the entire national data assets. Data assets formed by intelligent robots when they do not possess independent human right qualifications belong to their owners.

#### 2.2.4 Definition of enterprise data assets

The definition of enterprise data assets is to empower five major types of assets in an enterprise, including fixed assets, intangible assets, current assets, investment assets, dispersed and sleepy assets, using “modern high-tech” methods, and endowing them with expected returns, valuation, and long-term existence value under the dynamic and accurate calculation of big data. In this way, new, aggregated, and exchangeable productivity elements can be formed, which can reduce costs, increase benefits, and enable the enterprise, and serve as “enterprise data assets”.

#### 2.2.5 Definition of public data assets

“Public data assets” refers to assets formed by public data. Public data refers to information resources created by international institutions, international organizations, multinational corporations, sovereign countries, as well as those under the jurisdiction of “special regions”, including but not limited to: public institutions, NGOs, for-profit organizations, families, natural person groups, and natural persons, which can be shared by the public. It also includes its social responsibility, obligation reports, and integrity commitment data. The characteristics of “public data assets” include but not limited to: property rights, verifiability, openness, value, exchangeability, free and paid use, and so on.

#### 2.2.6 Definition of national data assets

Li Jiandao and Gong Chunzi published an article in Journal of Huanghe S&T University, which is entitled “Exploration on Defining the Structure of Ownership Economy”. They provide a calculation formula for the national capital stock, namely “national capital stock calculation formula”. However, due to certain limitations, the concepts of “data economy” and “data assets” are not introduced. National data assets of a country should include three parts: public data assets, enterprise data assets, and natural person data assets. In the long run, in order to measure a country’s strength, the sovereign country’s airspace, territory, territorial sea, valuable underground and seabed resources have been measured. Data on elements formed in space should also be included in “national data assets”.

#### 2.2.7 Definition of global data assets

Undoubtedly, if the mechanism “data assets” mentioned above is correct and the endogenous logic is coherent and smooth, then the definition of “global data assets” is also very clear, i. e. “Global data assets are equal to the sum of data assets from various countries and ‘special regions’ around the world”. The United Nations should establish unified standards, conduct “asset clearance and verification” on global data assets and collect data assets for all humanity. The purpose is to understand the “economic foundation” globally, plan and guide the global economic layout, coordinate the development and scientific utilization of global resources, coordinate the protection of the environment, and promote sustainable human survival and development.

#### 2.2.8 Attribute positioning of data assets

Data assets are an iterative upgrade of traditional assets, and their attributes remain to be assets. They’re assets, as well as commodities that can be exchanged. Undoubtedly, the traditional definition of assets as “goods” is exchangeable. But some of the modern “goods” defined by data assets cannot be exchanged without authorization. The data assets that cannot be exchanged without authorization include but are not limited to: the territory, territorial waters, airspace, underground resources of sovereign countries, as well as other assets that

cannot be exchanged without authorization as stipulated by the United Nations.

### **3. Emergence of data currency**

#### **3.1 Data assets generating data currency**

##### **3.1.1 Conversion of “data assets” to “data currency”**

Based on the function positioning of “data assets”—a kind of “modern goods” which are exchangeable, what measures should be used to measure their value? Obviously, the main measure is “currency”. Traditional “coins”, although able to express the value of traditional “goods”, it cannot express the value of modern “goods”—“data assets”. In order to accurately express the value of “data assets”, it is necessary to use “modern high-tech” methods to endow traditional “coins” with new connotations and energy, transforming them into modern “coins” that can carry the value of “data assets”—referred to as “data coins”. In this way, it can match with modern “goods”, that is, “data assets”. This is not only the mechanism of transforming “data assets” into “data currency”, but also the endogenous logic of “data economy”, “data assets”, and “data currency”, which are mutually supportive.

##### **3.1.2 High technology empowering data assets to generate “digital currency”**

The industrial revolution and global economic integration are twin brothers, which are interdependent, mutually reinforcing, growing together, and experiencing ups and downs with each other. The situation created by the twin follows the extension of the second law of thermodynamics—the law of entropy. Since modern times, both industrial revolutions and the widespread application of new technologies have promoted rapid global economic growth. The rapid growth of economy has fueled some desire for expansion. Unreasonable expansion led to war. War has severed the chain of global economic integration. “McKinsey Institute believes that the direction of the world’s development is not to reverse globalization, but to reconstruct existing globalization connections”. With the passage of time, modernization that follows the “law of entropy increase” will inevitably include the new exchangeable element of “data assets”. This new type of exchangeable element will inevitably give rise to data currency.

##### **3.1.3 Global economic integration giving rise to “international digital currencies”**

After the end of World War II, the world economic order, including versions 1.0 and 2.0, was rebuilt, leading to the rapid formation of global economic integration. Especially in the 21st century, the fourth industrial revolution characterized by “modern high-tech” and the introduction of new regulations such as WTO have led to the rapid restructuring, lengthening, thickening, and networking of global supply chains, accelerating the process of global economic integration. Modern high-tech has given rise to data assets. Data assets form a data economy. The data economy has given rise to data currency. Data currency is supported by modern high-tech. This closed-loop logic is not only a naturally formed endogenous mechanism, but also a necessity of the global “data economy” and “data assets” using “data currency” as the measure.

### **3.2 Definition of data currency**

#### **3.2.1 Basic definition of traditional currency**

For the definition of traditional currency, there is already a plethora of knowledge and differences. The commonly accepted abstract definition is: “Money is a contract between the owner of property and the market regarding exchange rights, which is essentially an agreement between the owners”. Although this definition is quite vivid, it still cannot be fully justified in reality, and the debate is still ongoing. The focus of the debate is that “currency” is not the entire “contract”, but only one of the main elements that make up “contract”. The emergence of the new social elements of “digital economy” and “data assets” can, on the basis of numerous traditional currency definitions, incorporate the strengths of various families, iterate, upgrade, and reconstruct the definition of traditional currency.

### 3.2.2 Definition of ordinary data currency

- The “data elements” formed by anchoring “exchangeable assets” issued by central banks of national groups, sovereign countries, or “special regions” are limited to circulation within their respective jurisdictions.
- The processes of generation, issuance, trading, calling, and storage are all demonstrated through a system constructed with modern high-tech, and are stored and backed up in the central bank’s overall database.
- A physical quantity that proves the value of the exchange subject matter, existing in the form of “electronic digital” in the distributed “electronic ledger” and personal “electronic wallet” of the physical network architecture.
- Each call generates a continuous, uninterrupted, and legally binding “archive chain”.
- One of the contracts that people have regarding the right to exchange subject matter.

### 3.2.3 Definition of International Data Currency

International Data Currency (IDC), commonly known as “foreign exchange”, is a new functional element added to the “definition of ordinary data currency” and can be defined as:

- Unified by the United Nations;
- Having global unity, uniqueness, exclusivity, and irreplaceability;
- Globally applicable, not limited by time, space, geography, borders, holders, etc;
- Specially used for international transactions, exchanges, and settlement during a considerable historical period;
- International Monetary Convention—hereinafter referred to as the Convention—provides other definitions.

### 3.2.4 Differences between digital currency and traditional currency

- Centralization. Both traditional currency and data currency are issued by power centers of national groups, sovereign states, and special regions. Within this jurisdiction, it has centralization, uniqueness, and exclusivity. In this regard, data currency is no different from traditional currency.
- Certainty of evidence. Although both traditional currency and data currency express valuable social factors in a physical way, there are fundamental differences in their connotations. Behind traditional currency, there is no “physical chain” serving as legal evidence to support it. And every “data currency”, from its generation, circulation, to every stranded node, has a detailed “physical chain” behind it as legal evidence support.
- Traceability. The circulation and trading of traditional currency can be either real name or anonymous, and each currency itself does not have the function of being traced. However, each data currency itself not only has the function of being traced, but also has the verifiability of being reviewed in every transaction; even if anonymity is possible, it is only superficial and can be traced back to real names.
- Non-concealable. Traditional currency is concealable, while data currency cannot be hidden. Even super hackers who invade the data currency system can only make small moves within the system. Even if a small action succeeds, this abnormal data currency will never be taken away and can only be used and stored in a dedicated link and system, and will eventually be discovered.
- Anti-counterfeiting. Traditional currency can be forged, using fake currency to confuse the real. While data currency, supported by modern high-tech, exists in electronic form in the distributed electronic ledger of physical network architecture, especially in the application of quantum communication, blockchain, cryptography technology, etc., which eliminates the possibility of forgery.
- Anti-damage. The traditional forms of currency include paper money and metal money, which are prone to damage and decay, resulting in a distorted total amount of existence in society. But for data currency, as

long as the central database and its dynamic hot backup and static cold backup databases are not paralyzed, there will be no damage or decay. Moreover, the total amount of credit can be obvious.

- Value stability. Due to the influence of well-known factors, traditional currencies are often subject to significant fluctuations in value. As the issuance of data currency is anchoring the “factor data” of economics, rather than anchoring a “single item”, it has the character of low and stable value carrying volatility.

### 3.3 First issuance of “International Data Currency (IDC)”

#### 3.3.1 Principles of first issuance of “International Data Currency”

For the first time, the United Nations has issued a globally unified, unique, exclusive, and irreplaceable International Data Currency (IDC), which will be fully normalized to replace those circulating globally, including but not limited to: US dollars, euros, pounds, renminbi, yen, Canadian dollars, Australian dollars, Hong Kong dollars, Swiss francs, Swedish kroner, etc. It should be based on the principles of respecting history, reality-oriented, future-oriented, sustainability, seeking truth from facts, fairness, reasonableness, protecting rights, smooth operation, easy to remember, and convenient use.

#### 3.3.2 Anchors of first issuance of “International Data Currency”

The quota for the first issuance of International Data Currency (IDC) by the United Nations can be referred to as the Global Basic Foreign Exchange Quota (BFEQ), which should anchor the sum of the following three data elements:

- **Foreign exchange cash.** It refers to the cash and foreign exchange held by various legal entities and natural persons at all levels around the world, outside the central banks of various countries. Central banks of various countries, under the supervision of the United Nations, can collect and exchange “International Data Currency (IDC)” in accordance with the provisions of the Convention.
- **Foreign exchange reserves.** It refers to the “foreign exchange reserves” held by central banks of various countries as defined by the IMF, which must be exchanged for “International Data Currency (IDC)” in accordance with the provisions of the Convention and the unified exchange rate published by the United Nations.
- **A small amount of gold.** The Convention should stipulate that during the initial issuance of International Data Currency (IDC) by the United Nations, countries holding IMF Special Drawing Rights (SDRs) are allowed to prioritize the use of gold to offset SDR amounts. After completing the SDR offset, only a small amount of gold is allowed to be exchanged for a single currency by central banks of each country, and the exchange amount is uniformly determined by the United Nations.

### 3.4 Annual issuance of “International Data Currency (IDC)”

#### 3.4.1 Principles of annual issuance of “International Data Currency (IDC)”

The annual quota for issuing International Data Currency (IDC) refers to the foreign exchange quota issued by the United Nations each year after the issuance of the global “Basic Foreign Exchange Quota (BFEQ)”, which can be referred to as the Annual Increments of International Data Currency (AIIDC). The determination of the incremental amount should be based on but not limited to the following principles: ①Expressing the economic situation; ②Representing wealth increment; ③Expanding wealth flow; ④Increasing the ratio of high-tech entropy increase area; ⑤Macroeconomic regulation and vitality; ⑥Avoiding economic recession; ⑦Suppressing inflation; ⑧The basic principles include meeting the annual funding needs of the United Nations.

#### 3.4.2 Anchors of annual issuance of “International Data Currency (IDC)”

According to the above principles, the United Nations issue “Annual Increments of International Data Currency (AIIDC)” annually, which is different from issuing global “Basic Foreign Exchange Quota (BFEQ)”

anchors. It no longer anchors gold and any other physical items, but the following “three data elements” directly measured in foreign exchange:

- **Annual increment of international trade.** It refers to the total global trade volume, the value added compared to the previous fiscal year. In the past decade, due to the impact of various factors such as the epidemic, the total international trade volume has basically hovered between 28–39 trillion US dollars. The highest volume of \$39.3 trillion was reached in 2019, while the lowest of \$28.5 trillion was reached in 2021. Although the fluctuation of the annual increment of international trade is relatively high, it should be one of the data elements anchored as a data element directly measured by the International Data Currency (IDC) by the United Nations’ issuance of “Annual Increments of International Data Currency (AIIDC)”.
- **Annual increase in foreign direct investment (FDI).** It refers to the total amount of international investment actually paid by countries around the world, which is the added value compared to the previous fiscal year. Although this element is already included in the annual increment of international trade and the amount is not large, it basically has the functions listed in Section 3.4.3. Therefore, it is necessary and indispensable to anchor it as one of the “data elements” for the issuance of “Annual Increments of International Data Currency (AIIDC)”.
- **United Nations’ total budget for the fiscal year.** This indicator is a rigid demand (note: specific amount, please refer to Part 5 of this article: United Nations charges service fees for each transaction), and is the total annual budget of the United Nations for global affairs. It must be one of the “data elements” anchored by the United Nations’ issuance of “Annual Increments of International Data Currency (AIIDC)”.

### 3.4.3 Reasons for anchoring the above “three data elements”

The above “three data elements” serve as the anchor for the issuance of “Annual Increments of International Data Currency (AIIDC)” for the following reasons: Firstly, they can comply with the above 3.4.1 Principles of annual issuance of “International Data Currency (IDC)”. Secondly, the quota for issuing foreign exchange for the next fiscal year can be derived without the need for intermediary conversion. Thirdly, the statistical methods of “modern high-tech” and “big data models” provide detailed and reliable results with small errors. Fourthly, it can meet the demand of global economic growth for the carrying capacity of data currencies. Fifthly, it can be mutually adjusted to minimize duplicate calculations. Sixthly, it provides a basis for the United Nations to propose a “global investment orientation”. Seventhly, it can stimulate the enthusiasm of investment entities to expand reproduction. Eighthly, the issuance of currency undergoes a historic transformation from anchoring a “single physical object” to anchoring “economic elements”, which is a leap in human civilization.

### 3.4.4 Calculation formula for annual issuance of “International Digital Currency”

After the issuance of the global “Basic Foreign Exchange Quota (BFEQ)” by the United Nations, the total amount of International Data Currency (IDC) will be issued annually, i. e. Annual Increments of International Data Currency (AIIDC), can be calculated using the following weighted average formula:

$$\bar{a} = \frac{a_1 \cdot W_1 + a_2 \cdot W_2 + a_3 \cdot W_3}{3 - h}$$

In the formula:

$\bar{a}$ —“Annual Increments of International Data Currency (AIIDC)”.

$W$ — The total weight coefficient of the three data elements ( $a_1, a_2, a_3$ ) listed in the numerator of the above formula. The weight coefficient value is “ $0 < W_1 + W_2 + W_3 \leq 1$ ”.

$a_1$ — “Annual Increments of Global International Trade”.



$W_1$ — Weight coefficient of “Annual Increments of Global International Trade”.

$a_2$ —Annual increments of global “Foreign Direct Investment ( FDI )”.

$W_2$ — Weight coefficient of annual increments of global “Foreign Direct Investment ( FDI )”.

$a_3$ —United Nations’ total budget for the fiscal year.

$W_3$ —Weight coefficient of “United Nations’ total budget for the fiscal year”, which should generally not be zero.

3—The numerator of the above formula includes a total of 3 data elements.

$n - n \geq 1$  or  $2 \leq 3$ . When either of the three data elements in the numerator of the formula is zero, the denominator  $3 - 1 = 2$ ; when two elements are zero, the denominator  $3 - 2 = 1$ . In extreme years, the weight coefficients of all three data elements can also be set to zero, which means that there is no need to issue Annual Increments of International Data Currency for that year.

#### 3.4.5 Leverage could be applied on the supply side in special years

When  $a_1$  and  $a_2$  in the above formula are naturally equal to zero or negative under non-artificial adjustment, then “Annual Increments of International Data Currency ( AIIDC )” are left with only the data element “United Nations’ total budget for the fiscal year”, indicating that the global economy has declined. At this point, the weight coefficient is equal to 1. If so, certain leverage should be applied on the money supply side to drive global economic recovery. The size of leverage ratio should be determined based on the current situation.

#### 3.4.6 Solution to “extreme problems”

Once a contracting party to the Convention encounters an “extreme situation” when both  $a_1$  and  $a_2$  are zero, its foreign relations may have basically come to a standstill. This can be resolved through methods such as priorities to export products, applying for loans from the United Nations ( with collateral ), and borrowing from other countries. It is also possible to sell data assets that cannot be exchanged without the consent of the United Nations, including but not limited to: “the right of usage or ownership of territory, territorial waters, airspace, etc.”

#### 3.4.7 Exchange rate of International Data Currency ( IDC )

The exchange rate of International Data Currency ( IDC ) refers to the relatively stable floating exchange rate provided by the United Nations on an annual basis. Global measurement, including but not limited to: national currencies, data GDP, exchangeable assets, various levels and factors, etc. , shall be based on the annual floating exchange rates provided by the United Nations and shall not vary from country to country.

#### 3.4.8 Reasons why gold should no longer serve as the anchor

The Convention should stipulate that after the issuance of the global Basic Foreign Exchange Quota ( BFEQ ) by the United Nations, Annual Increments of International Data Currency ( AIIDC ) will be issued annually, and gold will no longer serve as the anchor, for reasons including but not limited to:

- **The carrying capacity of gold value is insufficient.** Although gold is one of the many elements that make up data assets, its annual increment accounts for a small proportion of the global economic increment. If the portion of gold increment is directly used as the only anchor for Annual Increments of International Data Currency ( AIIDC ), the carrying capacity of its value will not match the global demand for foreign exchange.
- **The gold value is prone to alienation.** If we must convert the annual increment of global gold into the increment of foreign exchange demand, we will inevitably fabricate this part of the gold price. In order to stabilize prices, it is necessary to combine the “base period gold stock” with the annual increment of gold to calculate prices. If this happens, it will lead to the alienation of gold value and the fluctuation of its price, which will also trigger a series of social problems.
- **Anchoring gold will increase distortion rate.** Although the price increase of global gold reserves can be

forcibly converted into the annual increase in global foreign exchange demand, it is not only necessary to determine the total amount of gold reserves in each country every year, but also to calculate the foreign exchange issuance for the next fiscal year. Such repeated calculations increase the distortion rate, and the work is complicated, adding unnecessary details and not worth the loss.

- **Gold cannot reflect the global economy.** Due to the fact that Annual Increments of International Data Currencies (AIIDC) are determined by the global economic situation, it is not closely related to the global gold reserves. Therefore, the total amount of gold reserves held by global central banks cannot intuitively reflect the overall global wealth and economic situation. If it is surely associated with gold, it is a farfetched and forced application, which is unnecessary.
- **Directly anchor the use of foreign exchange elements.** Anchoring gold serves as an intermediary for issuing currency due to the inability to statistically analyze various economic data elements at all levels around the world. Modern high-tech methods can use the above three data elements to accurately calculate the foreign exchange flow for the next fiscal year, without the need for gold as an intermediary.
- **Restore the original value of gold.** After the issuance of the global Basic Foreign Exchange Quota (BFEQ) by the United Nations, the exchange of gold for International Data Currency (IDC) should enter a normal state according to market laws. The original value of gold should be restored to prevent it from being hyped and alienated.

### 3.5 Control of International Data Currency

#### 3.5.1 Management model of power separation

The so-called “power separation” refers to: “management power of data currency”, “legislation power of data currency”, “enforcement power of data currency”, “supervision power of data currency (note: mainly refers to independent intelligence power)”. The four powers are established as “Monetary Agency of the United Nations” on the basis of international NGOs such as IMF, which receive new management functions and gradually become the “central bank” of the United Nations.

#### 3.5.2 Subsidiaries of the Monetary Agency

- **Four bureaux run parallel.** There are “bureau” level administrative bodies in “Monetary Agency of the United Nations” corresponding to “management power, legislation power, enforcement power, and supervision power”, namely “Bureau of Data Currency Management, Bureau of Data Currency Legislation, Bureau of Data Currency Enforcement, and Bureau of Data Currency Supervision”. The four bureaux respectively assume the functions of the aforementioned four powers and form relatively independent systems, mutually supervising and constraining each other, and running parallel.
- **Establish offices under the bureau.** “Offices” can be independently established under the four bureaux in any contracting state of the Convention according to actual needs. They are responsible to the United Nations, the stable operation of the world economy, the compliant use of International Data Currency (IDC), the authenticity of data declared by each country, and the tracking and investigation results of each transaction.
- **Implement flat management and bear the expenses.** “Monetary Agency of the United Nations” implements vertical and flat management to its affiliated bureaux and offices. The required expenses are fully borne by the United Nations with no donations or sponsorships from any country, organization, enterprise or individual. Any donations or sponsorships will be considered as bribery.

#### 3.5.3 Central banks fulfill their responsibilities

Central banks of each contracting party to the Convention shall not only accept the leadership of their own central government, but also exercise the comprehensive management power over their own currency granted by

their own government. At the same time, it is also the only government agency that “connects” with Monetary Agency of the United Nations and must accept its political management and business guidance, exercising the comprehensive management authority of International Data Currency (IDC) granted by the United Nations. The dual management approach of central banks in various countries is similar to the “block by block” management model implemented by the United States, China, and countries around the world. This is one of the important links in building International Monetary System Version 3.0.

#### 3.5.4 Operational Diagram of Monetary Agency of the United Nations



Figure 1. Organizational structure and operational diagram of Monetary Agency of the United Nations

## 4 Building an “Transaction and Settlement Platform for International Data Currency”

### 4.1 Expressing the version 3.0 system with the “Platform”

In Chinese, it is believed that “system” is composed of “subsystem”, which is subordinate to “system”. Two or more “subsystems” can be called “system”. Due to the fact that International Monetary System Version 3.0 is an indivisible entity composed of multiple interrelated “subsystems” closely surrounding the “core” of the International Data Currency (IDC). Only by integrating modern high-tech and endowing it with special missions and functions, can we fully and accurately express the interrelationships between them. In order to concretely express the envelope of “International Monetary System Version 3.0”, the United Nations must use “modern high-tech” methods to uniformly construct the “Transaction and Settlement Platform for International Data Currency Version 3.0”, hereinafter referred to as the “Platform”, to express the connotation and functions of “International Monetary System Version 3.0”, and to fulfill the functions assigned by the United Nations to the contracting parties to the Convention. This platform is very important and indispensable!

### 4.2 Basic purpose of building the “Platform”

The aim is to integrate various levels and types of transaction and settlement systems worldwide, break down barriers to the transaction and settlement of currency, facilitate transaction channels and settlement paths, open up the application scope of International Data Currency (IDC), regulate the use of IDC, and building a fair and reasonable international financial order. In order to facilitate trading entities to perceive international market information in advance and promote the process of global integration, we will gradually eliminate gray, black, and virtual currency trading scenarios, and crack down on speculative behaviors. We will help but not limited to: countries such as the United States, the European Union, the United Kingdom, China, Japan, etc. that issue international circulating currencies, to get rid of international debt, and avoid cyclical fluctuations in the world economy. To increase the increment of global data assets, data GDP, and total exchange, and serve a more open and relatively free global market economy, so that people around the world can lead a happy and healthy life. The “Platform” charges service fees for each transaction from various levels and types of trading entities through its respective “systems” (note: please refer to Part 5 of this article: United Nations charges service fees for each

transaction) to solve the financial difficulties of the United Nations.

#### **4.3 Safety principles for site selection of the “Platform”**

The construction of the “Platform” and its large data center and data backup center, as well as the construction of a warehouse for storing gold of the United Nations are crucial for site selection. It is necessary to break through the limitations of a certain point in the United Nations Charter and preset crisis response plans for emergencies, preferably on islands that are not far or near a certain continental plate. The island should possess geographical advantages in case of war, with relatively stable economic construction and social development, leading the world in technological progress, accelerating the integration of Eastern and Western cultures, and being a relatively neutral country with high overall cultural quality. It can also be located in “special regions” that are “not allowed to become” sovereign independent countries, as “special administrative regions” directly controlled by the United Nations, and supported and protected by the world.

#### **4.4 Technical principles for building the “Platform”**

“International Data Currency (IDC)” is the irreplaceable “core element” of the “Platform”. The technical principles for designing the “Platform” must highlight the dominant position of this “core element” and revolve closely around it. Advanced technology should be chosen in advance, adhering to design principles such as authority, neutrality, openness, security, and privacy. We are supposed to apply edge computing, privacy algorithms and encryption programs, and use “customized” and “special” hardware for physical cutting and logical isolation. The correct network type should be selected, with a globally shared network; standards should be unified to grasp traffic interfaces, make it simple and convenient, and ensure the security of the “Platform” and its various systems. We should design a business management model that fits our own characteristics based on the unique needs of each system in the “Platform”.

#### **4.5 Overview of each system that constitutes the “Platform”**

The “Platform” can be composed of several sections, including but not limited to: ①Public Application Section, which includes systems such as data declaration, data verification, and data currency issuance. ②Data Currency Banking Section, which includes systems such as bank management, currency storage, currency exchange, and currency settlement. ③Digital Currency Exchange Rate Section, which includes systems such as digital currency exchange rates, exchange rates of various countries, and credit evaluations of various countries. ④Data Currency Financing Section, which includes systems such as national loans, national bonds, outward investment, corporate stocks, and corporate loans. ⑤Data Asset Trading Section, which includes systems such as global futures, physical barter, insurance guarantees, gold trading, and cross-border e-commerce. ⑥Data Currency Control Section, which includes systems such as inspection and punishment, public opinion monitoring, information disclosure, forum advice, and reporting and complaints. ⑦Intangible Asset Management Section, which includes international patent registration, intangible asset recognition, international certification management, and international bidding system. ⑧Platform Management Section, which includes major news, financial knowledge, intelligence consulting, government transparency, United Nations functions, advertising management, public welfare donations, platform operation and maintenance systems. The systems covered by each sector can be adjusted according to actual needs, following objective laws and logical dependencies.

#### **4.6 Technical architecture for building the “Platform”**

The overall technical architecture of “Transaction and Settlement Platform for International Data Currency Version 3.0” is shown in the following figure:

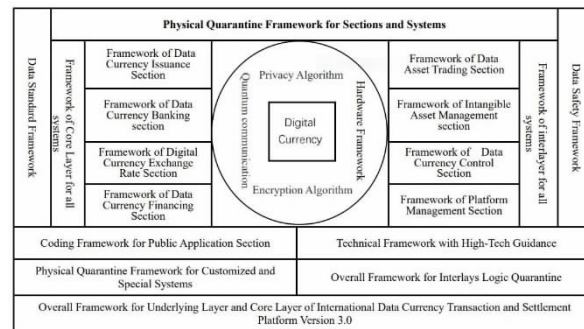


Figure 2. Overall technical architecture diagram of “Transaction and Settlement Platform for International Data Currency Version 3.0”

#### 4.7 Integrating SWIFT to endow it with new functions

At present, the world’s major settlement platforms include but are not limited to: SWIFT, CHAPS, CHIPS, CIPS, etc. With indispensable contributions in particular since its establishment in May 1973, SWIFT has done a lot of meticulous work in the world economy, global integration, serving trading entities, and so on. It is worth mentioning that recently, these transaction and settlement systems have been upgraded, greatly improving the speed of transaction and settlement and receiving praise from trading entities around the world. The United Nations should issue a globally unified International Data Currency (IDC) and exercise unified control over major transaction and settlement platforms worldwide, while maintaining minimal changes in owner’s equity. Specifically, it can be achieved by focusing on the SWIFT platform, integrating other trading and settlement platforms, incorporating the advantages of other platforms, especially drawing on the advantages of e-commerce and virtual currency transaction and settlement platforms, reconstructing Transaction and Settlement Platform for International Data Currency, and endowing it with new functions, making it truly an expression of “International Monetary System Version 3.0” and an important support for the United Nations to fulfill its functions.

### 5 United Nations charges service fees for each transaction

#### 5.1 Purpose of charges

One of the main purposes of establishing the Platform by the United Nations is to charge service fees for each transaction from various levels and types of trading entities through each system it belongs to. This approach is similar to the taxation of sovereign countries, and the transaction subject is similar to the taxpayer. There are five purposes of charging service fees: First, to enhance the responsibility and awareness of trading entities in building a peaceful, prosperous, and beautiful “global village”, and to encourage them to make more contributions. Second, to meet the needs of the United Nations reform and the historic transformation of its functions, especially the need for newly established institutions to fulfill their responsibilities. Third, to solve the financial difficulties of the United Nations, make up for the deficit, and avoid situations where work is suspended or workload is compressed due to insufficient funds. Fourth, to avoid unnecessary disputes that may arise during the payment of membership fees, such as “more or less, sooner or later, reduction or not, exemption or not”. Fifthly, it is an important measure taken to promote the integration of the free market economy globally.

#### 5.2 Usage of charges

United Nations charge the service fee for each transaction of the “Platform”, which must be based on the basic principle of being collected from various transaction entities at all levels around the world and used by taxpayers worldwide. It should not only consider the regular use of the United Nations, but also coordinate special needs globally. For example, United Nations peacekeeping forces, international law enforcement officers, disaster relief, refugee assistance, subsidies for major global projects, and expenses related to the normal survival of the “global

village”. Especially for interstellar exploration and other expenses related to the common destiny of humanity, it is unfair to bear them solely by the United States, China, the European Union, Russia, and individuals such as Musk. It should be planned and implemented by the United Nations, or receive strong support.

### 5.3 Principles of charges

There are five principles for the United Nations to charge service fees: First of all, it should not be for profit, but should balance income and expenditure, with a slight surplus. The annual service fee charged is entirely used for the annual expenses of the United Nations. Secondly, each system under the “Platform” charges a service fee of the same proportion for each transaction amount to all parties involved in the transaction. Thirdly, it is necessary to allocate the service fee ratios charged by each system of the “Platform” according to the transaction amount, forming a gradient and adjusting it according to the fiscal year. Fourthly, all systems under the “Platform” shall not impose “downgrade” fees on any trading entity, nor shall they arbitrarily waive them. Fifthly, for the heads of the “Platform” who arbitrarily reduce or increase service fees, especially for the primary heads, they are deemed to have committed illegal acts and will be severely punished by the Enforcement Bureau of Monetary Agency of the United Nations; those with serious circumstances shall be handed over to the country or region where their nationality is located for legal punishment.

### 5.4 Ratio of charges

Looking back for 10 years, the top 10 globally representative industries and 10 curves for ratio of charges based on their charging ratios include but are not limited to service fees, intermediary fees, management fees, etc. By applying the “approximate value synthesis formula”, we can synthesize these 10 curves to obtain the “normal distribution baseline” of the ratio of charges for global service fee. With the Gaussian integration formula again we can obtain the integral area value of the normal distribution map. We draw a line connecting the stationary points of the normal distribution perpendicular to the X-axis to obtain the Y-axis, and take the length of the line connecting point A and point B on the Y-axis as one side length of the rectangle. If we apply the “Excel infinite convergence formula” again, we can find points C and D, and calculate the length of their connecting lines as the other side length of the rectangle. The area of AB multiplied by CD should be equal to the integral area enclosed by the “normal distribution baseline”. Therefore, the values of the positive projection of points C and D on the X-axis can be considered as the theoretical threshold for the proportion of service fees charged by each system of the “Platform”, as shown in Figure 3.

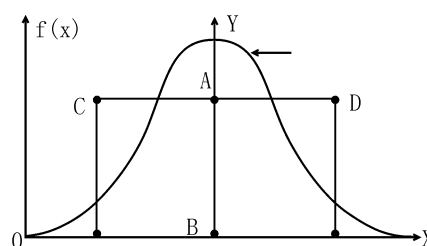


Figure 3. Ideal threshold diagram for charging ratios of various systems on the “Platform”

### 5.5 Model of charges

Once the threshold for charging ratio is established, it provides a basis for determining the charging ratio, charging gradient, charging level, and designing charging models for each system of the “Platform”. Monetary Agency of the United Nations will separate the fee models of each system into a module and embed it into each system of the “Platform” for direct control. Each transaction is able to be compared and calculated through this model to determine the amount of service fee payment. And each transaction service fee is able to be directly deposited into a dedicated account established by the United Nations. There are four advantages to this approach:

firstly, there is no need to build a separate supercomputing center, which saves resources. Secondly, congestion caused by insufficient computing power can be avoided. Thirdly, high technology can be utilized to improve recognition and prevent human operation. Fourthly, in the long run, as long as the computing power of each system on the “Platform” is strong enough, it can meet the demand for continuous increase in transaction frequency and volume.

### **5.6 Limit of charges**

The total amount of service fees charged by Monetary Agency of the United Nations from the “Platform” each year is equal to the sum of service fees charged by the various systems to which the “Platform” belongs, and is equivalent to the total amount of service fees paid by each contracting party and “special region” for each transaction under the Convention. The calculation of the total service fee is related to the determination of fee ratio, fee gradient, fee level, and the design of fee models. For example, the global trade volume was 32 trillion US dollars according to the report of the United Nations in 2022, if we do not calculate small transactions on cross-border e-commerce platforms, and only use SWIFT’s statistics of over 500 banks, over 4 billion accounts, and nearly 10 billion transactions for rough calculation, the average transaction volume per transaction is about 3200 US dollars. If we do not consider the factor of charging according to the level of transaction volume, and only charge an average of 0.025% per transaction volume, and calculate a two-way fee of 0.05%, the total service fee charged by the United Nations from the “Platform” each year is about 16 billion US dollars. This number is about five times the total membership fee that the United Nations should charge in 2023, which is 3.2178 billion US dollars, or about 0.05% of the global transaction volume in 2022. It can basically meet the needs of United Nations reform and increased functions. Moreover, it should be believed that a service fee of 0.025% of the total transaction amount per transaction can be borne and supported by all levels and types of transaction entities (taxpayers) worldwide.

### **5.7 Summary of charges**

Deduced from the above, six conclusions can be drawn: firstly, the endogenous mechanism of the United Nations in building the “Platform” is reasonable, and the logic is coherent and smooth. Secondly, the “Platform” is the only and irreplaceable “foreign exchange fund pool” in the world, and the United Nations injects foreign exchange quotas, including “service fees”, into this fund pool every year without occupying foreign exchange reserves of various countries. Thirdly, the practice of the United Nations issuing the Annual Increments of International Data Currency (AIIDC) every year is feasible. Fourthly, the United Nations charges and uses service fees for each transaction in accordance with certain rules, which is a good way to solve the financial difficulties of the United Nations. Fifthly, it is both reasonable and necessary to meet the needs of the United Nations in exercising its functions. Sixth, after the United Nations charges service fees, it will no longer charge membership fees.

## **6 Upcoming “International Monetary System Version 3.0”**

### **6.1 Time to establish International Monetary System Version 3.0**

#### **6.1.1 Unstoppable global economic integration**

Since the 21st century, the process of human civilization has still followed the law of “industrial revolution driving global economic integration”. The fourth industrial revolution gave birth to data assets. Data assets constitute the data economy. The data economy expresses the process of global economic integration. The process of global economic integration calls for a unified global data currency. The unified global data currency has given rise to a new monetary system, namely International Monetary System Version 3.0. This is not only the endogenous mechanism of human social progress, but also the law of logical coherence and smooth operation. Even within a certain time interval, global economic integration may experience brief pauses due to factors such as war. But in the

long run, its trend of “entropy increase” expansion is not something that humans can resist for a long time.

#### 6.1.2 Chaos in the community has accumulated experience and lessons

At present, those who are building a “virtual currency platform” are flocking to it. Although its negative effects have shortened the financial crisis cycle, fueled selfish desires and speculative behavior, it has also produced three positive effects. Firstly, the community spontaneously attempted to quantify people’s thoughts and behaviors, and classified and sorted out some of the “ownership of things”. Secondly, it quantifies and qualifies data assets, and generates a scaling effect on their existence value. Thirdly, the settlement method of “flat and parallel” transactions adopted by the United Nations has broken through the traditional currency issuance and trading model, and has made beneficial attempts to issue a globally unified “International Data Currency (IDC)” and build “International Monetary System Version 3.0”.

#### 6.1.3 High debt burden makes it hard to sustain without reform

According to the International Institute of Finance (IIF), in the first half of 2023, the combined global public and private debt increased \$10 trillion, reaching \$307 trillion. This is the first time that the total global debt has exceeded the \$300 trillion. On February 16, 2024, Treasury International Capital (TIC) released by the US Treasury Department showed that in December 2023, the US external debt holdings increased from \$7.808 trillion in November to \$8.06 trillion. The major holders of global US bonds are increasingly concerned about the collapse of the US dollar. As of now, 37 states in the United States have also announced that they allow gold to be used as a circulating currency similar to the US dollar. Various signs indicate that International Monetary System Version 2.0 has fallen behind the times and is in serious difficulties to sustain without reform.

### 6.2 Conditions for constructing “Version 3.0” are in place

#### 6.2.1 Sufficient conditions for constructing “Version 3.0”

Due to the accelerated popularization of “modern high-tech” according to the law of entropy increase, human can achieve the desired results by operating professional equipment or devices, whether in work, study or daily life, as the awareness of the macro physical world, micro physical world, virtual world, etc. has expanded unprecedentedly. Especially with the emergence and application of ChatGPT4, Pika, and simulated intelligent robots, people can basically achieve the desired results by operating professional equipment or some ordinary devices around them, whether in work, study, or daily life. Modern high-tech, especially the application of non-fungible tokens (NFTs) in blockchain technology, encrypted payments for each “data currency”, privacy algorithms, unforgeability, traceability, etc., have been able to provide almost perfect strong support for the construction of “International Monetary System Version 3.0”. The maturity of these high-tech elements is sufficient to prove that the conditions for constructing “International Monetary System Version 3.0” are already in place.

#### 6.2.2 Necessary conditions for constructing Version 3.0

The success of International Monetary System Version 3.0 mainly depends on the necessary conditions, for the sufficient conditions are only the technical guarantee. The necessary conditions for constructing “International Monetary System Version 3.0” are: “it must be widely recognized by the vast majority of countries and regions in the world, especially by the United Nations Security Council and Permanent Five”. Only with the unanimous recognition of United Nations member states can it form a “unified understanding, unified will, unified planning, unified steps, and unified action”. Without this, even with the guarantee of modern high-tech and sufficient start-up resources, it is difficult to make achievements.

#### 6.2.3 People’s awareness of reform has been awakened

Economic integration across the global free market will gradually present a sustainable and stable trend with the joint efforts of countries around the world, especially the efforts of the United Nations Security Council and Permanent Five. In the future, it is inevitable to produce and accelerate the improvement of the “International



Monetary System Version 3.0” under the flexible oppression of the “digital economy”, “data assets” and “data currency”. We must not delay the progress of human civilization due to the private interests of one or several countries, disregarding the interests of the people of the world. The behaviors of remaining stagnant, sticking to the old ways, solidifying and hindering change are unacceptable! This is the awakening of global wisdom, as well as people’s basic understanding of global economic integration and human progress.

### **6.3 Disposal of remaining issues arising from Version 3.0**

#### **6.3.1 Principles and methods for disposing existing circulating currencies**

We can refer to the consistent practices of traditional Chinese culture, implement the principle of “old things with old methods, new things with new methods”, and address a series of remaining issues brought about by international currency reform, innovation, iteration, upgrading, and reconstruction to recognize history, face reality, and face the future. The contributions of circulating currencies such as the US dollar, euro, pound, renminbi, and Japanese yen to the development of the world economy and global economic integration, should be acknowledged, but at the same time, we can’t ignore their ailments. For these currencies circulating globally, whether their domestic currencies can be exchanged or how they can be exchanged for International Data Currency (IDC), can be discussed by economists and politicians from around the world to provide a fair, reasonable, appropriate, and no longer problematic solution that can be recognized and implemented by the contracting parties to the Convention. A few other special problems can also be solved through special measures.

#### **6.3.2 Mutual exchange of status among contracting parties through the United Nations**

The Convention should stipulate that each contracting party is supposed to adopt a global integration, i. e. a “global free market model”, with the consent of the United Nations Monetary Programme. They are allowed to take the advantages of their own digital assets, including but not limited to: territory, territorial waters, airspace, rare metals and other data assets, through specialized agencies and platforms established by the United Nations Monetary Programme to exchange for “International Data Currency (IDC)” through bidding. This type of “specified exchange of goods for currency” transaction behavior includes, but is not limited to: auction, mortgage, pledge, lease and other methods; It can only be used to solve extreme scenarios such as zero long-term foreign exchange reserves, zero international debt, zero exchangeable data assets, and zero annual growth of data GDP in a certain contracting country or special region.

#### **6.3.3 Strict provisions of the Convention to prevent regression**

Once the Convention is officially implemented, the local currencies issued by each country and region, including data currencies, are only allowed to circulate within their respective jurisdictions. The act of any contracting state or special region that does not use the specialized agencies established by the United Nations to exchange its own currency, uses its own currency to exchange for resources of other countries, or engages in unauthorized bartering is considered a regretful and illegal act, and must be resolutely stopped and banned, and punished by the Enforcement Bureau of Monetary Agency of the United Nations. Otherwise, if anyone is allowed to do their own thing, issue and exchange currency indiscriminately, it will make the Convention meaningless. Over time, the Triffin Dilemma will reappear. In summary, all exchange activities in the world must be carried out within the framework of International Monetary System Version 3.0.

## **7 Solving the “Triffin Dilemma”**

### **7.1 “Prophecy” of Samuelson and Nordhaus**

Well-known American economist Paul A. Samuelson, in his co authored book “The Methodology of Economics” with William D. Nordhaus, bluntly emphasized that “after ten or twenty years, new things will overthrow outdated theories, while economics will further evolve”. Currently, it has been more than 40 years since these two economists proposed this “prediction”. Over the past 40 years, human society has undergone earth

shattering changes. Especially the “economic” element, one of the “six major social elements”, has been enriched and sublimated with the extension of “modern high-tech”. Some theories in economics are also being iteratively upgraded and quantitatively reconstructed. At present, it is ready to solve the Triffin Dilemma.

## **7.2 Obstacles to solve the Triffin Dilemma**

As mentioned earlier, since the late 1950s, Belgian economist and Yale University professor Robert Triffin proposed a paradox about “International Monetary System Version 1.0”, also known as “Bretton Woods System”. Although “International Monetary System Version 2.0” has made some improvements, it still has not broken out of the “Triffin Dilemma” cycle. All previous financial crises have verified the correctness of Triffin’s theory. For over 70 years, several generations of economists and N-generation politicians have been tirelessly searching for ways to solve the Triffin Dilemma. However, due to the limitations of historical development stages, especially technological progress, whether it is increasing the currency of international circulation or increasing the SDR of the IMF, the Triffin Dilemma can’t be solved fundamentally. The reasons for this include but are not limited to: firstly, the value carrying capacity of monetary anchors has been alienated. Secondly, the supply and demand relationship of currency is disorderly and misaligned. Thirdly, the neutral nature of currency in warrants is distorted. Fourthly, the value law of currency is malfunctioning. Fifth, it is due to the paradoxical nature of the marketization of currency issuance, as well as the interference of many other factors.

## **7.3 “Version 3.0” can solve Triffin Dilemma**

The issuance of International Data Currency (IDC) by the United Nations, which fully normalizes and replaces various currencies currently circulating globally, can completely solve the Triffin Dilemma. The reason is that currency issued will no longer anchor any intermediaries, but directly anchors the data elements that use foreign exchange. This approach is more targeted. Secondly, the anchored data elements can directly express the global economic situation. Thirdly, the value carrying capacity of anchored data elements will not be alienated, real, and no longer fictional. Fourthly, the exchange rate of currency is stable and controllable, without significant fluctuations. Fifthly, the recipients of currency are all sovereign and independent countries, with stable supply and demand relationships that are not easily disrupted. Sixth, by eliminating the interference of ideology and certain geopolitical factors, the “warrant attribute” of currency has returned to “neutrality”. Seventh, it can completely avoid the drawbacks of a few countries replacing international currencies with their own currencies, and eliminate the comprehensive problems caused by these countries issuing excessive currencies. Eighth, the normalization management of global currencies has been achieved, and the “speculative demand for currency” behavior proposed by John Maynard Keynes has been macroscopically banned. Ninth, a kind of unified currency issued by the United Nations will neither generate deficits nor external debt, nor trigger a global financial crisis. From the perspective of human civilization, the ability to gradually unify the global currency through non-war methods is a step forward in human civilization.

# **8 Three Suggestions**

## **8.1 Exempting all external debts of debtor countries such as the United States**

Undoubtedly, countries that issue international currencies have done a lot of work to promote global economic integration. However, replacing international currencies with the currency of one country lacks a survival mechanism, and the underlying logic is chaotic. In this case, it is even more impossible to establish effective control mechanisms and management systems for such currencies. The United States is forced to print money at full throttle in a helpless situation when it is unable to meet the demand for global economic growth. This is also one of the reasons why the United States has become the world’s largest debtor country. It is suggested to waive all external debts of countries around the world, that is to say, “regardless of the cause of external debts, as long as they belong to the definition of external debts by the International Monetary Fund and the World Bank, they will be

completely exempted". However, the domestic debts and currency deficits of each debtor country are considered internal affairs and are not included in this proposal.

### **8.2 United Nations repays the full amount of claims owed by the creditor countries**

It is suggested that the full amount of claims ( note: including interest but excluding fruits ) of each creditor country should be repaid by the United Nations in the issuance of the Basic Foreign Exchange Quota ( BFEQ ) while exempting all external debts of debtor countries worldwide, that is to say, "Regardless of the cause of the debt, as long as it belongs to the debt defined by the International Monetary Fund and the World Bank, it shall be fully repaid by the United Nations and deposited into the dedicated accounts of the central banks of each creditor country in a lump sum". Due to the large amount, the Convention should stipulate that each creditor country should make a plan for usage and gradually release it on an annual basis. Otherwise, it will lead to some inflation and cause global economic turmoil if a large amount of data currency is issued.

### **8.3 Permanent Five don't use the veto power**

It should be fully recognized that building and implementing "International Monetary System Version 3.0" is a global, systematic, structural, and historic transformation, which is a time-consuming process that cannot be achieved overnight and requires a soft landing. Therefore, it is strongly recommended that the Permanent Five do not use the "veto power" on the construction and implementation of "International Monetary System Version 3.0", as well as on the two proposals mentioned above. Regarding this plan, the Permanent Five should not only not use the "veto power", but should "unify understanding, planning, steps, and actions", to jointly propose the "Proposal for the Construction and Implementation of 'International Monetary System Version 3.0' ". After being voted upon by the United Nations General Assembly, the "Convention" should be signed, be planned and be implemented.

## **9 Conclusion and statement**

The above eight parts are the fundamental plan for the construction of International Monetary System Version 3.0 to solve the Triffin Dilemma. Finally, I would like to summarize a few more points and provide further explanations as follows:

**Firstly**, debtor countries of foreign exchange, especially the United States, have benefited greatly from zero foreign debt. And no need to repay their debts reduces their burden and boosts their morale. Afterwards, we can use the foreign exchange reserves prepared for debt repayment to conserve resources, invest in reproduction, expand employment, focus on infrastructure investment, reduce domestic deficits, and develop the domestic economy. If all debtor countries around the world do not have to repay their debts and instead use the proceeds for economic development, it would be a great boost to the global economy.

**Secondly**, creditor countries of foreign exchange can be repaid by full and equal amounts of debt, including interest, by the United Nations, with zero losses and significant benefits, which will also boost their morale. At the same time, it also eliminates concerns about debtor countries being unable to repay or refusing to repay their debts. Each creditor country can also continue to invest abroad, which is equivalent to using a sum of money at least twice. In fact, it shortens the capital operation cycle, improves the utilization rate of foreign exchange, and contributes greatly to boosting the global economy.

**Thirdly**, it should be objectively evaluated that the plan of exempting all foreign debts of countries and repaying them by the United Nations not only guarantees the legitimate rights and interests of creditor countries, but also solves the comprehensive difficulties of each debtor country, and revitalizes the high-quality resources that have been dormant for a long time and objectively exist. Not only is United States a beneficiary, but also all parties are beneficiaries; to avoid global economic recession, endow the global economy with new momentum, and stimulate global economic vitality, it should be a good solution that is acceptable to all parties.

**Fourthly**, from a global perspective to analyze “debt relief and repayment” plan, it seems that what is issued is “virtual currency”, but in reality, it is not. Imagine if we compare the world to a company and generate a balance sheet, with capital stock on one side and owner’s equity on the other, the total assets are balanced. Therefore, both creditor’s right and debt are objectively existing assets, and there is no matter of issuing “virtual currency”. The only difference is the duration of debt redemption.

**Fifthly**, developed countries are the main debtors according to the 2023 International Debt Report provided by the World Bank. These countries remain to earn the most foreign exchange just by exporting high-tech products and transit trade every year even though there are zero foreign exchange reserves, data GDP growth, and data asset growth. Therefore, these countries and regions do not have to worry about available foreign exchange, even if the United Nations no longer anchors gold for the issuance of Annual Increments of International Data Currency (AIIDC).

**Sixthly**, it is inevitable that there are inappropriate contents due to the wide coverage and extensive content of the paper, as well as the fact that I am not a practitioner in the financial and currency field. I sincerely hope that this foundational plan which suggests the United Nations to anchor data, issue digital currency, manage platform, charge fees, set up systems, exempt external debt, repay full payments, solve problems, can receive feedback from relevant sectors, including correcting and refuting errors, enriching and plugging loopholes, improving, and gaining recognition through evaluation. At the same time, I also sincerely hope the plan could be implemented as soon as possible.

## References:

- [1] CIICT. White Paper on Global Digital Economy (2023). China Academy of Information and Communications Technology, NO. 202327, January 2024.
- [2] Li Jiandao. Quantifying Social Factors to Change Social Structure [J]. Journal of Huanghe S&T University, Volume 23, Issue 7, 2021-07.
- [3] Li Jiandao. Reflections on Establishing the Lifetime Contribution Value of Natural Persons[J]. New Silk Road, Volume 9, Issue 312, 2023-08.
- [4] Ministry of Finance of China. Notice on Issuing the Interim Provisions on Accounting Treatment of Enterprise Data Resources. Finance and Accounting, [2023] No. 11, August 1, 2023.
- [5] Li Jiandao, Gong Chunzi. Exploration of Defining the Structure of Ownership Economy[J]. Journal of Huanghe S&T University, Volume 24, No. 146, October 10, 2022.
- [6] Liu Run. The Power of Evolution (Liu Run’s Annual Speech 2023). October 26, 2023 at 15:23, the official account of “Liu Run Business School” in Shanghai.
- [7] BWC Chinese. China Continues to Significantly Increase US Bond Holdings. 2024-02-16 21:29.
- [8] The World Bank. 2023 International Debt Report (UK). www.sohu.com/, 2023-12-17 10:21.