

Accelerating the Internationalization of the RMB by Anchoring to Green Electricity: A Currency Anchoring Strategy Based on Green Energy

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Abstract

As the hegemony of the US dollar gradually declines, the global monetary system is undergoing significant transformation. This paper proposes that the internationalization of the Renminbi (RMB) can be achieved by anchoring it to green electricity. Green electricity, as the future mainstream of global energy, possesses vast consumption scales and market demand, providing a solid foundation for the internationalization of the RMB. This paper analyzes the advantages of green electricity as an anchor for the RMB and proposes specific implementation strategies, aiming to offer a new pathway for the internationalization of the RMB. Through case studies and specific statistical data, this paper further demonstrates the feasibility and necessity of anchoring the RMB to green electricity.

Keywords:

RMB internationalization, green electricity, currency anchoring, US dollar hegemony

1. Introduction

The hegemony of the US dollar has long been maintained through mechanisms such as money printing, borrowing, exchange rate manipulation, financial speculation, and military conflicts, allowing it to extract wealth globally. However, with the continuous expansion of US federal debt and the decline in the credibility of the US dollar, an increasing number of countries are reducing their dollar reserves and turning to gold, the euro, or the RMB as alternatives. This trend presents a historic opportunity for the internationalization of the RMB. This paper proposes that the RMB should be re-anchored by linking it to green electricity to accelerate its internationalization. By analyzing the development trends of the global green electricity market, China's technological advantages in green electricity, and the demands of the international community, this paper further explores the feasibility and implementation pathways of anchoring the RMB to green electricity.

1. The Decline of US Dollar Hegemony and the Opportunity for RMB Internationalization

The decline of US dollar hegemony has become an undeniable fact. In 2022, the aggressive interest rate hikes by the US led to a further decline in global trust in the dollar. The US federal debt has exceeded \$30 trillion and is growing at a rate of \$3 trillion per year, while federal tax revenue is only \$4 trillion. This unsustainable debt model has led to the gradual decline of US dollar hegemony. At the same time, following the Russia-Ukraine conflict, the US imposed financial sanctions on Russia, freezing its foreign exchange reserves and confiscating the assets of Russian oligarchs. This action exposed the risks of the US dollar as an international reserve currency, triggering a global crisis of confidence in the dollar. According to data from the International Monetary Fund (IMF), the global share of US dollar reserves fell to 59% in 2022, the lowest level in 25 years, while the share of RMB reserves rose to 2.88%, a record high (IMF, 2022). This trend indicates that countries worldwide are gradually reducing their reliance on the US dollar and seeking diversified reserve currencies. As the currency of the world's second-largest economy, the RMB has significant potential for internationalization.

2. The Advantages of Green Electricity as an Anchor for the RMB

2.1 Large-Scale Green Electricity Consumption and Extensive Market Demand

Green energy electricity is not only the future mainstream of global energy but will also become the largest traded commodity in terms of consumption. According to predictions by the International Energy Agency (IEA), by 2030, global renewable energy generation will account for over 40% of total electricity generation, and by 2050, this proportion will further increase to 70% (IEA, 2021). As non-renewable energy sources are gradually depleted, green electricity will replace traditional energy sources such as coal, oil, and natural gas.

Anchoring the RMB to green electricity will provide nearly unlimited market space for the internationalization of the RMB.

Taking China as an example, as of 2022, China's total installed capacity of green energy generation has reached 1.1 billion kilowatts, ranking first in the world. Among these, wind power installed capacity stands at 330 million kilowatts, photovoltaic power generation capacity at 310 million kilowatts, and hydropower capacity at 390 million kilowatts (National Energy Administration, 2022). China's leading position in the green electricity sector provides a solid foundation for anchoring the RMB to green electricity.

2.2 Enhancing the Credibility and International Circulation of the RMB

By permanently linking the value of the RMB to the feed-in tariff and consumption price of green electricity, the RMB will become the foundational currency for global green electricity transactions. This will enhance global confidence in the RMB and increase its international circulation and reserve holdings. According to data from the People's Bank of China, the cross-border payment volume of the RMB reached 36 trillion in 2022, a year-on-year increase of 29%, indicating a rapid rise in the use of the RMB in international trade and investment (People's Bank of China, 2022).

2.3 Avoiding Deflation and Inflation

Unlike anchoring to gold, anchoring to green electricity can effectively avoid both deflation and inflation. As green electricity technology advances, the cost of green electricity will gradually decrease, naturally leading to an increase in the issuance of RMB and a technical devaluation, thereby avoiding deflation. At the same time, as a basic means of production, the decline in the cost of green electricity will not trigger inflation. Taking photovoltaic power generation as an example, the global average cost of photovoltaic power generation in 2022 has dropped to \$0.05 per kilowatt-hour, an 80% decrease compared to 2010 (IRENA, 2022). This trend indicates that the declining cost of green electricity will provide strong support for the stability of the RMB.

2.4 Promoting the Global Export of Green Electricity Infrastructure Capacity

China has significant competitive advantages in the green electricity industry, with its integrated manufacturing capabilities across the entire industrial chain driving continuous cost reductions in hydropower, wind power, photovoltaic power generation, and nuclear power. By anchoring the RMB to green electricity, China can

accelerate the export of green electricity infrastructure capacity through the Belt and Road Initiative. For example, through the China-Pakistan Economic Corridor project, China has helped Pakistan build multiple wind and photovoltaic power projects, with a total installed capacity exceeding 1.5 gigawatts, significantly enhancing the country's green energy supply capacity (National Development and Reform Commission, 2021).

2.5 Leading the Construction of Global Smart Grids

China holds a leading position in ultra-high voltage (UHV) technology and smart grid construction. As of 2022, China has built and put into operation over 35,000 kilometers of UHV transmission lines, accounting for more than 80% of the global total (State Grid Corporation of China, 2022). Anchoring the RMB to green electricity will position China as a global leader in smart grid construction, promoting the development of smart grids in Belt and Road countries. For instance, through the investment and construction of the Belo Monte UHV transmission project in Brazil, the State Grid Corporation of China successfully transmitted hydropower resources from the Amazon River Basin to the load centers in southeastern Brazil, significantly improving the country's power supply capacity (State Grid Corporation of China, 2021).

3. Implementation Strategies for Anchoring the RMB to Green Electricity

3.1 Announcing the Decision to Anchor the RMB to Green Electricity

At an appropriate time, China should announce to the world the decision to permanently anchor the RMB to green electricity, with the commitment that "holding RMB is equivalent to holding non-depreciating green electricity." This decision will enhance global confidence in the RMB and accelerate its internationalization. For example, China could announce this decision at major international forums such as the United Nations Climate Change Conference (COP) to strengthen its global influence.

3.2 Researching the Cost and Technological Advancements of Green Electricity

Research should be conducted on the costs and technological advancements of green electricity, including photovoltaic power generation, wind power, hydropower, and nuclear power, to determine the specific exchange rate between the RMB and green electricity, such as how many kilowatt-hours of electricity correspond to 1 RMB in feed-in tariffs and consumption prices. According to 2024 data, the average feed-in tariff for photovoltaic power generation

in China is 0.35 RMB per kilowatt-hour, 0.45 RMB for wind power, and 0.25 RMB for hydropower (National Energy Administration, 2022). These data can serve as a reference for anchoring the RMB to green electricity.

3.3 Developing Models for Green Energy Power Plant Construction

Countries and regions that hold RMB as a foreign exchange reserve can commission China to build green energy power plants based on the RMB-anchored feed-in tariffs. At the same time, research should be conducted on the construction models of green energy power plants, including type selection, cooperation models, and investment and financing models. China can take the lead in cooperating with Southeast Asian countries, utilizing their abundant solar resources to build photovoltaic power projects and settling transactions in RMB.

3.4 Promoting the Construction of Global Smart Grids

China should take the lead in the research, planning, and construction of global smart grids, promoting the development of smart grids aimed at "meeting global electricity demand in a clean and green manner." This will serve as a flagship project for China's infrastructure going global. For example, through the Belt and Road Initiative, China can promote the construction of smart grids in Central Asian countries, helping these nations achieve energy transformation.

4. Conclusion

Anchoring the RMB to green electricity provides a new pathway for its internationalization. By linking the RMB to green electricity, not only can the international credibility and circulation of the RMB be enhanced, but it can also promote global green energy transformation and smart grid construction. This strategy will not only contribute to the end of US dollar hegemony but also provide strong support for the green recovery of the global economy. Through case studies and specific statistical data, this paper further demonstrates the feasibility and necessity of anchoring the RMB to green electricity.

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