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Export Crypto: A Paradigm Shift in Digital Currency Anchored to Economic Fundamentals and Global Trade

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Abstract

This paper introduces an innovative model of the Central Bank Digital Currency (CBDC), offering a novel perspective on its design and functionalities. It presents an innovative approach to digital currency design, introducing "Export Crypto" as a novel cryptocurrency that diverges from conventional Central Bank Digital Currencies (CBDCs) by anchoring its value not to fiat currencies but to intrinsic economic factors and global trade dynamics. In contrast to traditional CBDCs, our model relies on the principles of the purchasing power parity (PPP) model to establish a more robust and transparent link between cryptocurrency value and real economic activities. The core parameters for assessing the value of Export Crypto revolve around equitable trade balances among nations and their respective export volumes. This approach fundamentally deviates from the conventional practice of pegging digital currencies to a country's fiat currency. Our research findings underscore that a cryptocurrency rooted in economic fundamentals can offer a more effective tool for managing the money supply, particularly in regions where traditional CBDCs may not be optimally suited. Furthermore, Export Crypto's design can foster fair-trade practices and encourage sustainable economic growth by aligning its value with a nation's economic prowess and trade interactions on the global stage. This groundbreaking approach to central bank digital currency opens new avenues for enhancing economic stability and promoting equitable international trade relationships.

Highlights

- Introducing "Export Crypto," a groundbreaking cryptocurrency.
- Establishing a transparent link between cryptocurrency value and real economic activities, leveraging the principles of PPP to enhance stability and reliability.
- Using the Three-Trade Balance-Centric Approach
- Promoting Fair Trade and Sustainable Growth

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1. Introduction

The shift toward cashless societies, a trend that has gained momentum in recent years, has been further propelled by the global coronavirus pandemic. All Central Bank Digital Currency (CBDCs) models have surfaced as viable substitutes for conventional fiat currencies, drawing interest from more than 100 countries that are actively investigating their potential adoption. While CBDCs offer benefits compared to traditional fiat money, they present challenges that require attention. Current research has predominantly concentrated on the technical facets of CBDCs, with limited exploration of their economic and monetary policy ramifications. Furthermore, there is a gap in existing research, lacking a comprehensive model that adequately addresses concerns related to fiat money and the introduction of a novel CBDC format. In contrast to conventional bank reserves and clearing account balances, the Central Bank Digital Currency (CBDC) stands out as a digital currency. Numerous nations express a keen interest in CBDC, driven by the era of digital technology. Central banks across various countries are actively exploring, testing, and integrating CBDC, demonstrating a widespread embrace of this digital currency. Despite potential effects on bank deposits and other banking activities, financial institutions find it imperative to incorporate CBDC considerations into their operations (Ozili, 2022b).

In addition, there are few studies that focus on fiat currency issues with significant solutions, particularly solutions for CBDCs. RSCoin is the first CBDC model, developed by the Bank of England, and is based on Bitcoin's UTXO concept. Senner and Sornette in 2019 suggested that the recent structures of cryptocurrencies will fail to complete or substitute fiat money. Another viewpoint suggests that (crypto) monetary policy should factor in organized wage negotiations systematically to address the perceived divide between tangible and financial realms. It represents the fact that enterprises set prices in accordance with cost-based pricing guidelines. According to a study from the Congressional Research Service in 2018, since bitcoin is traded internationally, a government's attempts to limit its trade by buying and selling it could have a negative impact on the economies of other nations. For the same reason that they make heavy use of that currency. Therefore, the crypto-currency policies of a particular country might have a negative impact on the economies of other countries, making them more vulnerable to recession or overheating.

On the other hand, a country's monetary circumstances, such as the number of cryptocurrencies in circulation, would be adjusted in response to changes in the country's economic climate. However, the same required change may not be beneficial for a country with a different economic situation. The existence of multiple currencies, as in a fiat currency and cryptocurrency economy, complicates the process of making exchanges, as it is essential for buyers and sellers to understand and track the value of various currencies (Perkins, 2018). A few kinds of research have been done in this field, but the existing research has not provided a model for solving fiat money issues and launching a new form of CBDCs. Limited research has delved into the impact of central bank digital

currency (CBDC) on bank performance. [Chiu et al. \(2019\)](#) proposed that a CBDC coupled with a moderate interest rate may incentivize dominant banks to raise consumer deposit interest rates. This strategy attracts additional deposits, enabling banks to extend their lending capacity ([Chiu et al., 2019](#)). In their recent study, [Kim and Kwon \(2022\)](#) employed a monetary general equilibrium model to explore the effects of the central bank digital currency (CBDC) on bank loan supply. Their findings indicate that the inclusion of credits in CBDC accounts leads to a decrease in the availability of bank credit, an increase in the nominal interest rate, a reduction in a bank's reserve-deposit ratio, and an elevated likelihood of a bank alarm when cash reserves are depleted ([Kim & Kwon, 2022](#)).

There are several models of CBDC that are different based on their business models or protocols. One of them is the Multi-Chain Model for CBDC ([Tsai et al., 2018](#)). This research suggests a novel CBDC model, called the Panda model, that can hold account balances in the same way as conventional banking systems. However, it employs effective consensus methods to guarantee that all involved parties have the same financial data. Because of its adaptability to changing conditions, this model can accommodate a wide range of financial organizations. Also, there is research on CBDC based on digital currency electronic payment (DCEP). Transaction verification may be performed in real-time, with a focus on secrecy, audibility, supervision, and a steady supply of CBDC ([Wang et al., 2022](#)). In a different study, Digital Programmable Euro, Libra, and CBDC and their effects on European Banks were assessed ([Sandner et al., 2020](#)). In addition, in an interesting study, China's CBDC and E-CNY are assessed, and the authors stated that if the Chinese E-CNY were to gain widespread use, the implementation of CBDC may help address some of the issues that have plagued more conventional monetary systems thus far ([Allen et al., 2022](#)). [Farajnezhad, M \(2022\)](#), suggests that the bank's characteristics exhibit a substantial and adverse liquidity ratio in comparison to the loan amount. Additionally, there exists a notable yet adverse correlation between the interplay of inflation, interest rates, and both the liquidity ratio and loan amount in India.

The purpose of this research is to create a new model for determining the true worth of CBDCs by considering key economic elements such as trade balance and the fair value of foreign currency. Specifically, we pay special attention to how the US dollar compares with the Yuan, Pound, and Yen. To create a balanced trade-monetary model for a novel CBDC, we provide a new ratio (the adjusted trade ratio) and a novel model (Balanced Trade-Monetary Theory). In addition, addressing the challenges of the current CBDCs and considering that the exports play a significant role in the progress of CBDC. A CBDC that is widely accepted in international trade could have a significant impact on a country's exports, making them more competitive in the global market.

The goal of this research is to establish a framework for the introduction and development of a new CBDC called "Export Crypto" that accounts for the relative economic power of economies and main macroeconomic elements including gross domestic product (GDP), economic output, inflation, and environmental

concerns our model of trade balance among countries is based on their economic strength, with stronger economies having stronger currencies. In addition, this study aims to provide a comprehensive model for launching a new form of CBDC that addresses the challenges of fiat money and is based on a balanced trade-monetary system. Such a model would advance fair trade, avoid trade wars, and help maintain a stable global economy.

2. A Review of the Related Literature

Large countries like China are already working out a pilot version of a digital currency called CBDC. Bitcoin, the first decentralized cryptocurrency, has been in operation since 2009 (Hileman & Rauchs, 2017). Part of the term "crypto" comes from the Greek for "hidden," thus the name. Cryptocurrencies are digital currencies that use cryptography to secure numerous transactions. There is no central authority controlling their issuance and they are not backed by physical commodities like gold or silver (Dasgupta et al., 2019). They are frequently described as "vying for private unrecoverable funds." (Krishna et al., 2019). Some contend that the first cryptocurrency appeared in the world in 2008 when Satoshi Nakamoto introduced the "blockchain". However, the idea of a cryptographically secure chain of blocks has been credited to Stuart Haber and W Scott Stornetta since 1991.

Furthermore, it merges with other creations by Nakamoto (Schilling et al., 2019, Chohan, 2017, Nadarajah et al., 2017, Urquhart 2016). This technology created technology in 2008 and Bitcoin's advent in 2009. It's not a novel concept to use a ledger in place of currency. Using the blockchain, a decentralized distributed ledger can be created and applied to store records among several devices under human control. Records of digital money transactions are shown. First, crypto-study and cryptography techniques are applied to secure the transactions so that only authorized parties can spend any money associated with an "address," and second, to secure the transaction ledgers of the structure, so that no unauthorized parties can alter the system's balances. The latter is a crucial quality. Cryptocurrencies serve as a method of exchange, a store of wealth, and a unit of account and have many useful functions. Many virtual currencies are "public blockchain" flows.

Decentralization provides and ensures secrecy, ownership, and smart energy savings, making it an initial superior option. (Cherrier et al., 2015). Cryptocurrencies provide more independence from financial institutions than conventional banking options like checking accounts and online banking. The banks may then lend to other financial institutions or the government, thus contributing to the development of a debt-based financial system. One of the key causes of the 2008 global financial crisis was the debt-based economy that led to the housing debt bubble. Second, there will not be 24/7 bank hours. There are standard business hours for banks. Therefore, when it comes to our things, we rely on them more and more. It has been suggested that one can use online banking at any time. However, there are a few drawbacks to banking online. We must await

the bank's confirmation of the transaction if a NEFT form is used. However, this technology allows for immediate and global transaction verification and processing. Internet banking has the additional issue of being a centralized system. As clients, we are talking to a single server. At this time, If the server goes down, we will have to wait until it comes back up before we can do anything.

Fortunately, this is not an issue when working with decentralized cryptocurrencies. Nodes in a P2P network communicate with one another by nodding their heads. If a node fails, traffic and transactions may still occur between the remaining nodes. In addition, not all banking transactions can be done in complete secrecy. Bitcoin miners, who verify transactions, may operate independently of the transaction details and identities of the sender and recipient. The group is kept secret. Transactions are recorded on a computerized ledger system.

2.1 Money Politicization

Central banks formerly mediated all transactions, including currency exchange. Since the introduction of Bitcoins, however, things have changed. People take control of governments and central banks (Yeong, 2019). An innovative shift in transaction management can remake economies. To protect their customers and facilitate audits, financial institutions and Central Banks record all public transactions. People who have access to digital currency may now challenge this economic dominance. This has resulted in the delivery and operation of a new brand of self-sufficient individuals. When Bitcoins are widely used, monetary politics may become involved (Xiong & Tang, 2020; Yang, 2016).

2.2 Concerns among Central Banks

The idea that Bitcoins can be used to secretly launder money abroad has implications. Bitcoin and other cryptocurrencies were uncontrollable and unpredictable by central banks throughout the globe (Yeong, 2019). The Malaysian central bank has become more involved in crypto and the internet. This bank's inability to track economic activity is due to cryptocurrency-related data gaps (Yussof & Al-Harthy, 2018). Our concept is quickly introduced because it uses purchasing power parity (PPP). Macroeconomics often uses the "basket of goods" technique to compare the relative values of currencies from different countries. Taylor (1995), Ragoff (1996), Sarno and Taylor (2002), Taylor and Peel (2000), Lothian and Taylor (2008), Sue et al. (2012), Steven, Miguel, and Ramirez (2015), Lothian (2016), Wu, Bahmani & Chang (2018), Guris and Tıraşoğlu (2018), Truong and Ha (2018), Zayed, Chowdhury, and Hasan (2018), Zhao. L and Zhao. Y (2018), Fischer and Lipovská (2018), Rani and Kumar (2018), Wang and Liu (2022), Bahmani-Oskooee and Wu (2018), Khan (2020), and Nagayasu (2021) have made important impacts on purchasing power parity theory literature. Tajdini et al., (2021) provided an unconventional risk-based strategy predicated on the wide swings in currency values that conventional theories had trouble explaining. Since the CBDC based on fiat money has

numerous issues, we provide a new model based on macroeconomic variables in this paper. CBDC's existing framework is based on the same principles as fiat money. However, the money supply in certain countries, like China, is managed primarily via the printing of currency, the regulation of foreign exchange rates, and the modification of the reserve ratio and discount rate. Therefore, the Central Bank Digital Currency (CBDC) should not be based on the current fiat money system. Purchasing power parity (PPP) was used since it is one of the most widely used variables in macroeconomic analysis for comparing economic output and living standards across countries. According to the concept of purchasing power parity (PPP), the value of one currency relative to another is equal to the ratio of the prices of a basket of products in both countries. The PPP exchange rate may be used as a basis for linking the PPP to CBDCs by linking the value of the CBDC to a basket of products in a certain country. This will guarantee that the CBDC's buying power stays steady and in accordance with changes in the actual economy's pricing of products. The implementation of PPP as a benchmark would strengthen the CBDC's resistance to inflation and lessen the danger of currency depreciation. However, keeping a CBDC stable relative to the PPP benchmark would require close monitoring of the PPP exchange rate and any resulting fluctuations. In addition, this model is an economic theory that compares the currencies of different countries with a "basket of goods" method, and it is a CBDC match theory based on macroeconomic data. The existing fiat money system is flawed, and the central bank digital currency (CBDC) may be built on a new structure. A decentralized or blockchain-based architecture, for example, might minimize the reliance on central agencies for regulating the money supply and provide more transparency in financial activities. However, designing and implementing such a system would need serious research and assessment of its advantages and disadvantages.

3. The Study Model and Methodology

3.1 Purchasing Power Parity Theory

In this study used the purchasing power parity (PPP) used to make cross-national comparisons of economic output and living standards because it is one of the most widely used measures in macroeconomic studies. Similarly, this model is an economic theory that compares the currencies of various countries via the use of a "basket of goods" method. It is also a match theory for CBDC based on macroeconomic variables. According to this model, a nation with a robust economy must have a strong currency (Tajdini et al., 2021). The hypothesis of purchasing power parity (PPP) is that the relationship between a country's price level and its exchange rate should be the same. This indicates that a product's price in two nations should be the same, taking into consideration the impact of the exchange rate on the economies of both countries over time. The "Law of One Price" describes this phenomenon. Exchange rate fluctuations are related to the predicted inflation rates of the two nations using the concept of relative purchasing power parity. The currency of a country loses its buying power due to

inflation. In a country with a yearly inflation rate of 10%, for example, the purchasing power of the currency will decrease by 10% relative to the beginning of the year. According to the theory of relative purchasing power parity, exchange rates fluctuate to reflect differences in inflation rates across countries.

The connection can be described as follows:

$$E(S_t) = S_0 \times [1 + (h_{FC} - h_{US})]^t \quad (1)$$

3.2 Theory of Balanced Trade-Monetary

In addition, other factors that affect the exchange rate according to this theory include the mean difference in GDP per capita between the two countries, the standard deviation of GDP per capita, and the standard deviation of the dollar versus the exchange rate during the time in question. To expect the market to estimate and analyze foreign exchange rates by applying the single-feature inflation approach in the purchasing power parity theory with respect to inflation rates in previous years is unrealistic. The value of the dollar relative to other currencies is computed using this theory, along with other variables such as the annual rate of GDP per capita, its standard deviation, and the standard deviation of the dollar's value against other currencies. Hence, the equation is an illustration of the four-factor PPP theory.

$$FV = \left[S_0 \times \left[1 + (inf_{FC} - inf_{US}) + \frac{(growth_{gpcUS} - growth_{gpcFC})}{expexp(\sigma_{gpcFC})} \right]^t \right] \times expexp(\sigma_{EX}) \quad (2)$$

In this equation, inf_{FC} represents the average U.S. inflation rate, inf_{US} represents the average domestic inflation rate, S_0 represents the current exchange rate of each country's currency in terms of the U.S. dollar, $growth_{gpcFC}$ represents the average growth rate of GDP per capita in the United States, σ_{gpcFC} is the standard deviation of the GDP per capita rate in each country, $exp(\sigma_{EX})$ represents the average standard deviation of the U.S. dollar versus the exchange rate in each country.

To compute the adjusted trade ratio, the market value (Current rate) of the exchange rate for every country was split into its fair value using the following formula:

$$\text{Adjusted trade ratio} = MV/FV \quad (3)$$

In this research, for each currency, we introduce a fair value (FV) based on important macroeconomic indicators versus the market value (MV) of currencies based on economic and non-economic factors, including government actions, etc. In other words, the difference in market value (current rates) and the fair value of countries' currencies is due to the policies and economic strategies of the governments. In principle, the Balanced Trade-Monetary Theory contends that "It seems reasonable that a country with a robust economy would also have a robust currency" to achieve commercial equilibrium.

In this study, the criteria of the strength of an economy depend on more GDP per Capita, less inflation greater stability of GDP per Capita, and the number of

exports of each country. Considering that exports play a significant role in the expansion of a CBDC. A CBDC that is widely accepted in international trade could have a significant impact on a country's exports, making them more competitive in the global market. Therefore, to create a new cryptocurrency, we enter exports into the equation as follows. Also, by Equation 4, the value of each country's exports on the undervaluation and overvaluation of the exchange rate was used to estimate the amount of Right Issue of Export Crypto.

$$\text{Export Crypto} = \frac{\text{Export of each country}}{\text{Adjusted trade ratio}} \quad (4)$$

The information and statistics were obtained from the World Bank's main site, and EViews 8 was used to analyze them.

3.3 Conceptual Model

In this section, we provide a theoretical framework with five independent and four dependent variables. This model is built on the conceptual framework presented in this study. Using a behavioral economics perspective, we examine the causes of currency exchange rate volatility (Tajdini, Mehrara, and Taiebnia, 2021).

The market value of the exchange rate, the standard deviation of the inflation rate, the standard deviation of the GDP per capita rate, and the import/export ratio are independent variables. An independent variable representing the exchange rate's market value is included in the monetary-behavior approach model, which is a definite plus. Therefore, the model uses the current market value of the exchange rate together with the other five factors to determine the fair value exchange rate. Thus, the conceptual model is:

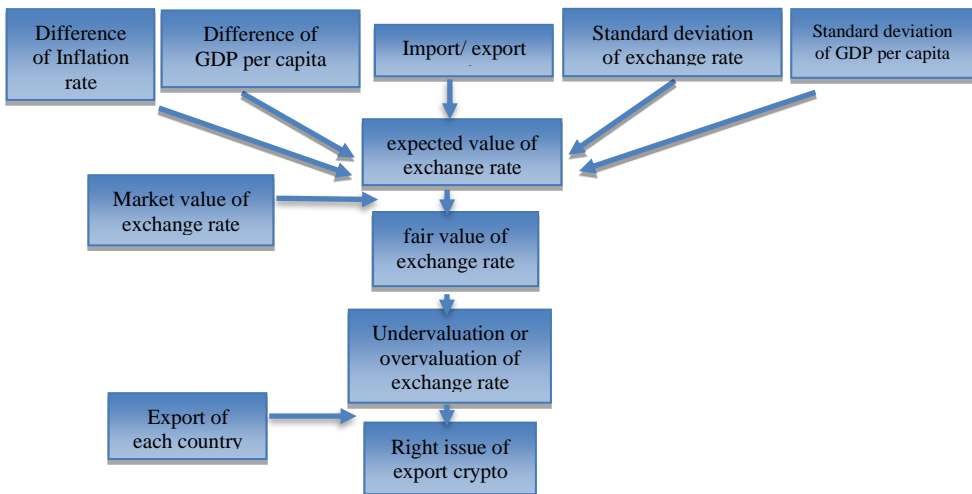


Figure 1. Conceptual Model

The logic of export-oriented and the importance of the trade-monetary balance of each country, considering the factor of undervaluation, and the overvaluation of the exchange rate for the export crypto currency is to show the productive capacity of each country in creating new crypto currencies.

4. Empirical Results

Table 1, this research used the new model and the Balanced Trade-Monetary Theory to determine that the fair value of the U.S. dollar relative to the Yuan is 1.7 units, and that the ratio of the market value of the Yuan to its fair value is 4.07; furthermore, based on China's export volume of \$ 2,641,000 million in 2019, the right issue of export crypto of the \$648,894 million Dollar was determined using Equation 4.

$$FV_{CHINA} = 8.62 * \left[1 + (0.026 - .022) + \frac{(0.014-0.082)}{e^{0.17}} \right]^{23} * e^{0.029} = 8.62 * 0.225 * 1.03 * 0.86 = 1.7 \quad (5)$$

$$Export\ Crypto = \frac{2,641,000\ Million\ Dollar}{4.07} \approx 648,894\ M\$ \quad (6)$$

Table 1. Returns of monetary and trade variables in China and the US

Economic variables	Data	Max Returns	Min returns	Mean return	Median return	SD
China's per capita annual growth rate	23	0.13	0.06	0.08	0.08	0.01
Annual rate per capita of the USA	23	0.03	-0.03	0.01	0.01	0.01
China's inflation rate	23	0.18	-0.011	0.02	0.01	0.03
USA's inflation rate	23	0.03	-0.003	0.02	0.02	0.01
Currency exchange rate	23	0.06	-0.09	-0.01	-0.004	0.02

Source:

According to the new model developed for this study, the fair value of the dollar versus Pound was calculated to be 0.505, and the pound's market value to its fair value ratio stands at 1.52.. Furthermore, given that the UK's volume of exports in 2019 was \$ 436,500 million, the right issue of export crypto during the study period was 287,171 million Dollar (equation 4). Table 2 also includes statistics on the returns of monetary and trade variables for the United Kingdom and the United States.

$$(FV_{UK}) = 0.65 * \left[1 + (0.02 - 0.022) + \frac{(0.014-0.03)}{e^{0.085}} \right]^{23} * e^{0.07} = 0.65 * 0.68 * 1.073 * 1.065 = 0.505 \quad Real\ Ratio = \frac{MV}{FV} = \frac{0.77}{0.505} \approx 1.52 \quad (7)$$

$$Export\ Crypto = \frac{436,500\ Million\ Dollar}{1.52} \approx 287,171\ M\$ \quad (8)$$

Table 2. Returns of monetary and trade variables U.K and U.S

Economic variables	Data	Max Returns	Min returns	Mean return	Median return	SD
The UK's per capita annual growth rate	23	0.15	-0.2	0.03	0.04	0.08
Annual rate per capita of the USA	23	0.03	-0.03	0.01	0.01	0.01
The UK's inflation rate	23	0.04	0.0005	0.02	0.02	0.01
The USA's inflation rate	23	0.03	-0.003	0.02	0.02	0.01
Currency Exchange rate	23	0.1	-0.1	0.007	0.008	0.07

Table 3 displays the results of the current study's application of the new model and the Balanced Trade-Monetary Theory in arriving at a fair value of 89.2 for the dollar relative to the Yen; the ratio of the market value of the Yen to its fair value is 1.26; and the volume of Japan's exports in 2019 is estimated to be \$ 683,300 million; using equation 4, the right issue of export crypto is calculated to be 542,302 million Dollars.

$$FV_{JAP} = 102.208 * \left[1 + (0.00119 - 0.022) + \frac{(0.014 + 0.000941)}{e^{0.091}} \right] * e^{0.099} = 102.208 * 0.83 * 1.104 * 0.95 = 89.2 \text{ Real Ratio} = \frac{MV}{FV} = \frac{112.16}{89.2} \approx 1.26 \quad (9)$$

$$\text{Export Crypto} = \frac{683,300 \text{ Million Dollar}}{1.26} \approx 542,302 \text{ M\$} \quad (10)$$

Table 3. Returns of monetary and trade variables Japan and the U.S

Economic variables	Data	Max Returns	Min returns	Mean return	Median return	SD
Japan's per capita annual growth rate	23	0.12	-0.18	-0.00094	-0.004	0.09
The USA's per capita annual growth rate	23	0.03	-0.03	0.014	0.017	0.0
Japan's inflation rate	23	0.027	-0.01	0.001	-0.0005	0.009
The USA's inflation rate	23	0.03	-0.003	0.02	0.023	0.01
Currency Exchange rate	23	0.2	-0.1	0.004	0.01	0.099

As you can find in Fig 1, we introduced a new conceptual CBDC model. Standard deviations of inflation and GDP per capita are reduced in this model when inflation is low and when GDP per capita is high, respectively. Furthermore, a stronger currency vs the US Dollar is indicated by a lower import-to-export ratio.

5. Concluding Remarks

Usually, some governments actively control their currencies at a desirable level to achieve more stability and success, for example by increasing exports. In this research, we propose a novel type of CBDC based on extremely significant economic structures including exports of countries, to reduce the effects of countries' management on their currencies. For this purpose, for each currency, we estimate a fair value based on important macroeconomic indicators against the market value of currencies based on economic and non-economic factors, including government interventions. This research presents a novel model for estimating the fair value of exchange rates and introduces a new cryptocurrency called "Export Crypto" to address the robustness of existing cryptocurrencies. The model was based on important macroeconomic indicators and exports of countries to reduce the effects of countries' management on their currencies. The results showed that a country's strong economy should have strong money and vice versa, and the fair value of the dollar versus the Yuan, Pound, and Yen was estimated to be 1.7, 0.505, and 89.2 times, respectively. It follows that the U.K., China, and Japan, had a better trade balance with the U.S. than China. Therefore, the rights to issue Export Crypto from the United States, China, the United Kingdom, and Japan were \$ 2,498,000 million, \$ 648,894 million, \$ 287,171 million. The research also highlights the importance of CBDCs, which if designed correctly, can offer more transparency, resilience, safety, availability, and lower costs than other forms of digital money. With more than 100 countries exploring CBDCs, this study provides valuable insights for the development and potential regulation of new business models in decentralized finance such as NFTs, ICOs, and stablecoins.

Future research can expand on this model and consider other variables to assess the undervaluation or overvaluation of currencies and their economic policies and strategies. Additionally, the model can be applied to various monetary systems, such as decentralized/blockchain-based, stablecoins, digital versions of commodity money, or hybrid models, providing policymakers with more options to create stable and resilient monetary systems. In summary, in this research, we seek to evaluate and measure the fair value of each country's currency by using inflation and GDP per capita and the stability of GDP per capita and stability of currency. The variation between the theoretical value of a currency and its real market value or value in circulation may be attributed, of course, to the different economic policies and methods adopted by different governments. It is also possible to study these models for future studies:

- 1- Decentralized/Blockchain-based: This model uses decentralized ledger technology to create a secure and transparent monetary system, eliminating the need for intermediaries.
- 2- Stablecoin: This model utilizes a cryptocurrency that is controlled by a steady resource such as the US dollar, providing stability in value and reducing volatility.

- 3- Digital version of commodity money: This model is based on a valuable commodity, such as gold, and aims to provide stability in the value of money through a scarcity of the underlying asset.
- 4- Hybrid model: This model combines elements of different monetary systems, such as combining the stability of a stablecoin with the transparency of a decentralized ledger.

In conclusion, this paper introduces an innovative model of Central Bank Digital Currency (CBDC), offering a novel perspective on its design and functionalities. It introduces a pioneering perspective on Central Bank Digital Currencies (CBDCs) with the introduction of "Export Crypto," a cryptocurrency rooted in economic fundamentals and trade dynamics rather than fiat currencies. By anchoring its value to macroeconomic indicators and the trade balances of nations, Export Crypto offers a robust and transparent alternative to traditional CBDCs. This innovative model provides a novel approach to assessing currency value, emphasizing the intrinsic connection between a country's economic strength and the value of its currency. The study's findings shed light on the potential of CBDCs to enhance the stability, transparency, and efficiency of monetary systems, offering lower costs and greater accessibility. Importantly, it highlights the importance of considering economic characteristics and trade balances in currency valuation, underscoring the interplay between a nation's economic policies and the value of its currency. As over 100 countries explore the implementation of CBDCs, this research serves as a valuable resource for policymakers and regulators, providing insights into the development and regulation of emerging decentralized financial models, including NFTs, ICOs, and stablecoins. Future research avenues may delve deeper into expanding this model to incorporate additional variables and assess the impact of various economic policies on currency valuation. Furthermore, the applicability of this model to different monetary systems, including blockchain-based currencies and hybrid models, presents exciting possibilities for the creation of stable and resilient monetary systems. Ultimately, this study underscores the significance of reimagining CBDCs by incorporating economic fundamentals and trade balances, offering a promising path toward more effective and equitable global monetary management.

Author Contributions:

Conceptualization, all authors; methodology, all authors. Software, Validation, supervision, Formal analysis, Investigation, Resources, Data Curation, Writing - Original Draft, Writing - Review & Editing, Project administration, Funding acquisition. S T: Writing - Original Draft. M Q: Writing - Original Draft. M M. M L GH. M F: writing—review and editing, Investigation. All authors have read and agreed to the published version of the manuscript.

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The authors declare no conflict of interest.

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