Global Scientific JOURNALS

GSJ: Volume 12, Issue 11, November 2024, Online: ISSN 2320-9186
www.globalscientificjournal.com

Redefining Currency Value Based on a Global Points-Based Monetary System

Date: November 26, 2024

Author: Mohamed Mahmoud Amin Rehab

About the Author: *Has an MBA from European International University, Paris, France, and Bachelor of Commerce, Major Accounting from Tanta University, Egypt*

Honorary Board Member of Global Advisory Council USA and Fellow member of Global Academy of Finance and Management, the International Board of Standards USA, and Chartered Certified CFO, Fellow of CMI Uk, Lifetime Fellow of ISDS, Member of The Institute of Certified Management Accountants Australia, Member of The Institute of Public Accountants Australia, Assoc Member of Institute of Financial Accountants UK, Assoc Member of SOCPA Saudi Arabia

Corresponding Author emails:

mohamed.rehab@alumni.eiu.ac | mohamed.rehab94@gmail.com

Address: *DTVC, King Fahd University of Petroleum and Minerals, Saudi Arabia*

Abstract

This article introduces an innovative economic framework: a points-based global economic system. Under this model, the value of a nation's currency is determined by points assigned for its contributions to global production, resources, and economic outputs. The system aims to replace speculative currency valuation mechanisms with a transparent, fair, and merit-based approach. Each country's currency gains points proportional to its contribution to the global economy, including GDP, natural resources, and production of key economic drivers. This paper explores

the structure, benefits, and implementation challenges of the system, while providing case studies to illustrate its potential impact on global trade and economic equity. (Rodrik, D. , (2011).)

Introduction

The global economy has long relied on systems of valuation for currencies rooted in market demand, supply, geopolitical considerations, and speculative forces. These factors, while significant, often overlook a fundamental question: does a currency's value truly reflect its nation's contribution to the global economy? Traditional monetary systems often reward wealth concentration and speculative activities while sidelining real productivity and sustainable practices.

This article explores an innovative global points-based economic system where a nation's currency derives its value directly from measurable contributions to the global economy. These contributions include (1) Gross Domestic Product (GDP), (2) Natural resources, and (3) The Production of essential goods and services. By fostering transparency, equity, and sustainability, this model offers a visionary alternative to conventional monetary systems. (Sachs, J. D. , (2015))

Conceptual Framework

The global points-based economic system redefines currency valuation by linking it to three core parameters: (1) Economic output, (2) Natural resource wealth, and (3) Contributions to global production. The following sections delve deeper into these pillars:

1. Economic Output as a Basis for Points (GDP)

Economic productivity is central to this system. Nations earn points based on their GDP relative to the global GDP. For example, if a country contributes 10% to the global GDP, its currency accrues a proportional percentage of points. This model inherently incentivizes higher economic productivity and efficient resource utilization.

Unlike traditional systems, where a country’s currency might be bolstered by speculative activities or fiat decisions, this system ensures value reflects tangible outputs. Developed economies with robust technology sectors, manufacturing capabilities, and service industries will find their contributions accurately mirrored in their currency strength.

2. Natural Resource Wealth

A nation's endowment of natural resources is another critical component. Points are allocated based on the abundance of resources such as oil, gas, minerals, forests, and arable land. However, unlike traditional systems that might encourage exploitation, this model emphasizes sustainable management.

For instance, countries with significant oil reserves “i.e. Saudi Arabia” would earn points proportionate to their share of global reserves, but penalties could be introduced for environmentally harmful practices. This creates a dual incentive: nations are rewarded for their wealth while being encouraged to use it responsibly.

3. Contribution to Essential Production

A key differentiator of this model is its emphasis on the production of essential goods and services. Points are allocated to countries that lead in producing critical resources like food, energy, and technology. This parameter not only acknowledges the importance of diversifying economies but also fosters global interdependence.

For example, countries with advanced agricultural sectors or renewable energy capabilities would earn points for addressing global needs. Similarly, nations driving technological innovation, such as AI or medical breakthroughs, would see their currency value rise accordingly. (Schwab, K. , (2017).)

Advantages of a Points-Based System

The implementation of a global points-based economic system offers several transformative advantages:

1. Promoting Economic Equity

Under the proposed system, every nation’s currency value is directly tied to its contribution to global productivity. This eliminates many of the inequities found in traditional systems, where currencies can be overvalued or undervalued based on speculative trading or geopolitical factors.

2. Incentivizing Sustainability

One of the system's most profound implications is its ability to promote environmental sustainability (Sachs, J. D. , (2015)). Countries earn points for resource wealth but can lose them for unsustainable practices such as deforestation or pollution. This incentivizes nations to adopt greener policies and technologies. (Schwab, K. , (2017).)

3. Minimizing Economic Manipulation

In traditional systems, central banks often manipulate currency values through inflationary or deflationary policies. A points-based system minimizes such manipulation by grounding currency value in tangible metrics. Speculative trading of currencies would also diminish as the system emphasizes real economic performance over perception. (Sachs, J. D. , (2015))

4. Fostering Innovation and Diversification

Countries are encouraged to innovate and diversify their economies to maximize point accumulation. By rewarding contributions in technology, agriculture, and energy production, the system fosters a race toward progress and interconnectivity. (Schwab, K. , (2017).)

Challenges and Considerations

Despite its transformative potential, the points-based economic system faces several challenges:

1. Standardization and Measurement

Accurate, transparent metrics are critical for determining GDP, resource wealth, and production contributions. International organizations such as the United Nations, World Bank, or IMF could play pivotal roles in establishing and verifying these metrics. However, disparities in data collection standards across nations pose significant challenges. (World Bank. Natural Resource Management and Sustainability., (2023)) & (United Nations. Sustainable Development Goals and Economic Policy. , (2023).)

2. Achieving Global Cooperation

Adopting such a system requires unprecedented levels of international collaboration. Countries must agree on common evaluation methods, enforcement mechanisms, and dispute resolution systems. This requires a level of global trust and cooperation that is currently lacking in many areas.

3. Transitioning from the Current System

Transitioning to a points-based system would involve significant disruptions to the global financial architecture. The current monetary system, deeply embedded in market economies, cannot be replaced overnight. A phased approach, incorporating hybrid models, could help mitigate economic shocks.

4. Potential for Power Imbalances

While the system aims to promote equity, there is potential for powerful economies to dominate the framework. Safeguards must be implemented to prevent exploitation or imbalances that might disproportionately favor resource-rich or technologically advanced nations.

Implementation Strategy

Introducing a points-based economic system involves several strategic steps:

1. **Global Policy Framework**
    - International organizations must spearhead discussions to create a standardized framework for measuring contributions. These policies should account for both quantitative outputs (GDP) and qualitative factors (sustainability practices) (OECD. Economic Policy Reforms: Going for Growth. Retrieved from, (2022)).
2. **Technological Integration**
    - Technologies such as blockchain can enhance transparency in point allocation, while artificial intelligence (AI) can ensure accurate analysis of national contributions (OECD. Economic Policy Reforms: Going for Growth. Retrieved from, (2022)). These technologies also safeguard against corruption and manipulation. (Schwab, K. , (2017).)
3. **Incentive Mechanisms**
    - To encourage participation, the system could initially offer benefits, such as access to global trade agreements or development funds, for countries adopting the framework.
4. **Phased Transition**

- A gradual rollout, starting with pilot programs in specific regions, could help address unforeseen challenges. Hybrid models incorporating elements of the points system alongside traditional currency valuation could ease the transition. (Rodrik, D. , (2011).)

The Role of Technology in Implementation

Modern technology plays a crucial role in overcoming the system's challenges (Rodrik, D. , (2011).). Blockchain ensures transparency and trust in the points allocation process, while AI enables precise analysis of GDP, resource management, and production metrics. Additionally, data analytics can provide real-time updates on global economic contributions, ensuring fairness and accountability. (Schwab, K. , (2017).)

Real-World Applications

This model could be piloted in regional economic unions, such as the European Union or ASEAN. By applying the points-based system on a smaller scale, nations can identify potential pitfalls and refine methodologies before implementing them globally.

Key Assumptions and Notes for the Table of Global Points-Based Monetary System (GPBMS):

- **Data Sources:** The points attributed to each country would be based on current economic and environmental data, such as GDP, energy consumption, natural resource management, and production statistics. These would be updated periodically by an international body overseeing the GPBMS, likely a coalition of global institutions like the United Nations, World Bank, or IMF. (International Monetary Fund. Global Economic Outlook., (2023)) & (United Nations. Sustainable Development Goals and Economic Policy. , (2023).)

- **Currency Value Conversion:** The Currency Value and Conversion Rate are hypothetical approximations. In the real world, these values would be based on the real-time performance of the countries, and the market dynamics could result in fluctuations.

- **Geopolitical Considerations:** Countries like the U.S. and China would have significant influence over the system due to their size and power. However, the goal of the GPBMS is to decentralize this power, allowing smaller or developing nations to thrive based on sustainable and equitable practices, not just sheer economic output. (Stiglitz, J. E., 2002)

This table and structure serve as a model for how countries could be assessed under the Global Points-Based Monetary System (GPBMS), linking currency values to global economic performance, natural resource management, and primary production. For a complete table of 100 countries, a full-scale implementation would require extensive real-world data collection and analysis. (Acemoglu, D., & Robinson, J. A. , (2012))

Global Points Allocation Table with Conversion Rate Based on the Leading Country

Points Breakdown for Table Entries:

- **The Contribution Points** of each factor to be determined annually by the Monetary System
- **The Final Factors** are to be determined by the Monetary System.
- **GDP Contribution (Points):** Based on the country's GDP relative to the global economy. Higher GDP countries, like the U.S. or China, receive higher points.
- **Natural Resources (Points):** Countries with abundant natural resources, such as Saudi Arabia, Russia, or Brazil, score higher points.
- **Primary Production (Points):** This refers to the level of primary goods produced, such as oil, agricultural products, and mining output. Nations like Brazil, Australia, and Russia score highly.

Currency Value Approximation:

- **Currency Value (Approximate):** This column provides a rough estimate of the value of the country's currency based on its total points. The currency value will be dynamic and change as countries accumulate more points or face economic challenges (Rodrik, D. , (2011).).
- **Conversion Rate (Relative to U.S.):** The exchange rate of the country's currency relative to the U.S. dollar (USD) is presented here. Countries with higher points would generally have a stronger conversion rate against the USD, reflecting stronger

economies, better resource management, and high levels of industrial or primary production.

- **To calculate the conversion rate** of points for each country relative to the highest-scoring country (United States with 690 points), the formula is:

$$\textbf{Conversion Rate} = \frac{\text{Total Points of Country}}{\text{Points of Leading Country}} \times 1$$

Key Notes:

1. **Conversion Rate Formula:** The highest scoring country (U.S.) serves as the benchmark, with its conversion rate set to **1.00**. All other rates are calculated relative to it.
2. **Flexibility:** This table can be adjusted dynamically if additional data or weighting factors (GDP, natural resources, production) change.
3. **Refinement:** For accuracy, real-time and granular data will further enhance these approximations.

This approach boosts the country's points by appropriately weighing its natural resources, ongoing diversification efforts, and contributions to the global economy. It ensures that all relevant factors contribute to its final score, giving a fair and balanced view of its economic strength.

To fairly assess the country's points, allocate weights to the primary economic factors (GDP, natural resources, and primary production), we should consider the importance of each factor in the global economy. Based on the significance of these factors in determining a country's economic value, we can assign the following weights:

Proposed Weights for Key Factors:

Retrieved from (International Monetary Fund. Global Economic Outlook., (2023)) **&** (United Nations. Sustainable Development Goals and Economic Policy. , (2023).)

1. **Gross Domestic Product (GDP) - 40%**: (OpenAI., (2024).)

- GDP reflects a country's ability to produce goods and services in general, indicating the strength of the overall economy.
- For countries like **the United States** and **China**, this factor plays a significant role in their economic power.

2. **Natural Resources - 40%**: (OpenAI., (2024).)
   - Natural resources include **oil, gas, minerals, water**, and **agriculture**. Some countries like **Saudi Arabia**, **Russia**, and **Australia** are heavily reliant on these resources, making them crucial in determining their economic value.
   - **Oil and gas** contribute significantly to the global economy, especially for countries like **Saudi Arabia** and **Russia**.
3. **Primary Production - 20%**: (OpenAI., (2024).)
   - Primary production includes **agriculture**, **industry** (such as mining and manufacturing), and **energy**. This factor defines a country's ability to meet local and global market demands in various sectors like food and energy.
   - Countries like **Brazil**, **Australia**, and **Argentina** have strong agricultural sectors, while others like **Germany** and **Japan** are more industrialized.

How are the Weights Applied:

The final points will be calculated based on these factors' weights. Here's how we calculate the final points: This section was developed with the assistance of OpenAI's ChatGPT, an AI-based language model. (OpenAI., (2024).)

Weighted Final Points = (GDP Points×**0.40**) + (Natural Resources Points ×**0.40**) + (Primary Production Points×**0.20**)

For Example: if the points of United States as follows; GDP 600 points,
Natural Resources 500 points, Primary Production Points 1250 points.

Then, the calculation of final weighted points = (600×**0.40**) + (500 ×**0.40**) + (1250 ×**0.20**) = **690**

Table: Global Points-Based Monetary System (GPBMS) - Country Evaluation Model

Country	GDP Contribution (Points)	Natural Resources (Points)	Primary Production (Points)	Weighted Points (Final)	Currency Value (Approximate)	Conversion Rate (Relative to U.S.)	Notes
United States	240	200	250	690	690 USD	1.00	Largest global economy, significant energy resources, and agricultural production leader.
China	190	250	200	640	640 CNY	0.93	Dominates manufacturing, agriculture, and rare earth metals.
India	70	100	150	320	320 INR	0.46	Strong agricultural sector, growing manufacturing, and natural resources like coal.
Germany	80	10	100	190	190 EUR	0.28	Industrial leader with a strong technology sector but limited natural resources. (Schwab, K. , (2017).)
Russia	50	300	100	450	450 RUB	0.65	Rich in oil, gas, and minerals, with a smaller GDP share globally.
Saudi Arabia	40	200	30	270	270 SAR	0.39	Major oil exporter, diversifying economy with Vision 2030 initiatives.
United Kingdom	40	20	50	110	110 GBP	0.16	Service-driven economy with limited natural resource reliance.
France	50	20	60	130	130 EUR	0.19	Strong agricultural and industrial sectors.
Japan	90	10	80	180	180 JPY	0.26	Technology and industrial leader, with reliance on imported natural resources. (Schwab, K. , (2017).)
Canada	30	150	50	230	230 CAD	0.33	Rich in natural resources (oil, gas, minerals) with a robust agricultural sector.

Country	GDP Contribution (Points)	Natural Resources (Points)	Primary Production (Points)	Weighted Points (Final)	Currency Value (Approximate)	Conversion Rate (Relative to U.S.)	Notes
Australia	20	200	30	250	250 AUD	0.36	Significant mineral and energy resources, with a smaller population base.
Brazil	50	150	100	300	300 BRL	0.43	Major agricultural producer and home to significant natural resources.
South Africa	10	150	50	210	210 ZAR	0.30	Rich in minerals (gold, platinum) and a leader in African industrial output.
Egypt	60	150	100	310	310 EGP	0.45	Major gas and oil reserves, strong agricultural and tourism sectors, and historical assets. (Piketty, T. Harvard University Press., (2014).)
UAE	30	100	40	170	170 AED	0.25	Oil-rich economy with growing sectors like tourism and technology. (Schwab, K. , (2017).)
Nigeria	20	150	30	200	200 NGN	0.29	Leading oil producer in Africa with significant agricultural potential.
Qatar	20	120	20	160	160 QAR	0.23	Major natural gas exporter, with a small but wealthy economy.
Kuwait	10	100	20	130	130 KWD	0.19	Oil-dependent economy with a small population base.
Italy	60	10	70	140	140 EUR	0.20	Strong industrial and agricultural sectors, and tourism hub.
South Korea	80	10	70	160	160 KRW	0.23	Technology powerhouse with limited natural resources. (Schwab, K. , (2017).)
Turkey	30	50	60	140	140 TRY	0.20	Key agricultural producer with growing industrial capacity.

Country	GDP Contribution (Points)	Natural Resources (Points)	Primary Production (Points)	Weighted Points (Final)	Currency Value (Approximate)	Conversion Rate (Relative to U.S.)	Notes
Switzerland	40	10	50	100	100 CHF	0.14	Banking and technology leader with limited resource reliance. (Schwab, K. , (2017).)
Netherlands	50	10	60	120	120 EUR	0.17	Agriculture (especially exports) and advanced industrial capacity.
Indonesia	30	100	80	210	210 IDR	0.30	Rich in natural resources and a leading agricultural producer.
Argentina	20	50	50	120	120 ARS	0.17	Agriculture-focused economy with significant natural gas reserves.
Vietnam	20	30	60	110	110 VND	0.16	Fast-growing manufacturing and agricultural sectors.
Iraq	10	150	20	180	180 IQD	0.26	Rich in oil, gas, and minerals, with a smaller but developing economy.

Conclusion: Toward a Balanced Global Points-Based Economic Framework

The proposed global points-based economic system offers a transformative approach to understanding and valuing national contributions to the global economy. By incorporating key factors such as GDP, natural resources, and primary production, the system provides a fair and comprehensive method to determine currency value, reflecting the true economic strength of each nation.

These points-based framework underscore the flexibility of the proposed system in recognizing diverse strengths across nations. By fairly balancing the contributions of natural resources, industrial capacity, and cultural assets, the framework avoids an overreliance on any single metric, encouraging countries to optimize their unique resources while fostering innovation and diversification. (Schwab, K. , (2017).)

In conclusion, this points-based framework offers a more equitable and transparent alternative to traditional currency valuation systems. It provides a platform for all countries to be

recognized for their distinctive contributions, enabling fairer international trade and fostering economic collaboration (Rodrik, D. , (2011).). As nations adapt and innovate within this system, it has the potential to redefine global economic relationships and promote sustainable development for all.

References

OECD. Economic Policy Reforms: Going for Growth. Retrieved from. ((2022)). *Retrieved from www.oecd.org*.

Acemoglu, D., & Robinson, J. A. . ((2012)). Why Nations Fail: The Origins of Power, Prosperity, and Poverty. Crown Business.

International Monetary Fund. Global Economic Outlook. ((2023)). *Retrieved from www.imf.org*.

OpenAI. ((2024).). *ChatGPT (November 2024 version) [Large language model]. Retrieved from https://chat.openai.com*.

Piketty, T. Harvard University Press. ((2014).). Capital in the Twenty-First Century.

Rodrik, D. . ((2011).). *The Globalization Paradox: Democracy and the Future of the World Economy.* W.W. Norton & Company.

Sachs, J. D. . ((2015)). The Age of Sustainable Development. . *Columbia University Press.*

Schwab, K. . ((2017).). The Fourth Industrial Revolution. *Crown Publishing Group.*

Stiglitz, J. E. (2002). *Globalization and Its Discontents.* . Retrieved from W.W. Norton & Company.

United Nations. Sustainable Development Goals and Economic Policy. . ((2023).). *Retrieved from www.un.org*.

World Bank. Natural Resource Management and Sustainability. ((2023)). *www.worldbank.org.*