



Research Article



## Implementation of Gold Bullion Funding as Alternative Instruments to Overcome the Problem of Currency Fluctuation

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**Abstract:** Infrastructure development has an important contribution in improving the national economy and realizing people's welfare. However, there are still problems in the implementation, namely the government's limited ability to fund infrastructure development projects. For this reason, the government has actually attempted to create a mechanism in the form of Public Private Partnership (PPP) by emphasizing risk sharing between the government and the private sector. However, this effort did not run smoothly because there were other risks, one of which was related to project financing which was at risk of currency value fluctuations. This situation shows that there is a need for a solution to optimize project financing in Indonesia through the Gold Bullion Funding (GBF) mechanism. The research method used is normative legal research by utilizing a qualitative method in analyzing data or secondary data through searching regulations and literature related to the object of the problem. Based on the research results, the author initiated the GBF mechanism to answer problems related to the implementation of project finance in PPPs. Regarding its implementation, the GBF mechanism will refer to the OJK regulation regarding the implementation of bullion business activities in order to optimize the government's role in forming the bullion ecosystem in Indonesia. With this mechanism, problems related to currency fluctuations in project finance in Indonesia can be resolved so that development can be realized that is effective, efficient and provides benefits to society.

**Keywords:** Bullion Bank; Project Financing; Gold Bullion Funding;



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## INTRODUCTION

Concept of the Indonesian state's goal to advance prosperity is generally stated in the Fourth Paragraph of the Constitution Republic of Indonesia 1945 Preamble ("UUD NRI 1945"). Regarding the country's goals, the government has tried to develop various aspects of life, such as human development and mastery of science and technology, sustainable economic development, and equality development.<sup>1</sup> Over the past few decades, development has evidently contributed to the welfare of society through provision infrastructure and consistent economic growth. In order to realize community welfare, development has a meaning of reducing poverty and inequality. This development is carried out through an equalization strategy and adequate infrastructure development.<sup>2</sup> This is reflected in the high infrastructure development

<sup>1</sup> Elis Deriantino Naiborhu and Dhanita Ulfa, 'The Lending Implication of a Funding for Lending Scheme Policy during COVID-19 Pandemic: The Case of Indonesia Banks', *Economic Analysis and Policy*, 78 (2023), 1059–69 <https://doi.org/10.1016/j.eap.2023.04.025>

<sup>2</sup> Erlan Wijatmoko, Armaidly Armawi, and Teuku Faisal Fathani, 'Legal Effectiveness in Promoting Development Policies: A Case Study of North Aceh Indonesia', *Heliyon*, 9.11 (2023), e21280 <https://doi.org/10.1016/j.heliyon.2023.e21280>



achievements related to basic infrastructure facilities, inter-regional connectivity, information and communication technology, electricity, irrigation canals and reservoirs from 2015 to 2022 which reached IDR 2,779.9 trillion.<sup>3</sup>

In line with this achievement, World Bank data noted that gross domestic product (GDP) per capita in that period experienced an increase of 37.6 percent or US\$ 1,307.28.5. This data shows that infrastructure development plays a role, which is important for the Indonesian economy. Even though it has shown good achievements, implementation of infrastructure development still faces challenges regarding provision funds. This can be seen from the infrastructure spending requirements in the Plan National Medium Term Development from 2020 to 2024 which reach IDR 6,421 trillion. From these figures, the provision capability funds for infrastructure development by the government are only IDR 2,385 trillion from the State Revenue and Expenditure Budget (APBN) or Regional Revenue and Expenditure Budget (APBD) and 1,353 trillion from State-Owned Enterprises (BUMN) or Regional-Owned Enterprises (BUMD). With this quite large financing gap, it has encouraged the need for private sector participation in developing domestic infrastructure. This participation provides space for the private sector to innovate in infrastructure development with allocation risks that are not only borne by the government, but are also borne by the government private party. This is the basis for using the work scheme Together with the government and Business Entities ("PPP") in development Indonesian infrastructure.<sup>4</sup>

The PPP scheme is regulated by Presidential Regulation Number 38 of 2015 concerning Government Cooperation with Business Entities ("*Perpres 38/2015*"). This regulation provides an opportunity for business entities to participate provide its resources in providing infrastructure, both economic and social. In this case, the resources provided by the business entity carried out in the form of financing in PPP projects. In essence, Implementing Business Entity ("BUP") which is a combination of several. The business entity will provide financing using a project financing scheme. In this case, the source of financing for project financing will be dominated by loan, namely 70 to 80 percent of the project cost.<sup>5</sup>

Relating to PPP project financing in countries developing, international financing institutions such as International Financing Institutions (IFI), International Finance Corporation (IFC), and banks. Other multilateral developments provide financial assistance infrastructure development, especially through loans in hard currency. Without IFI participation, international commercial banks would usually hesitate to participate in financing development projects the infrastructure.<sup>6</sup> However, the loans

<sup>3</sup> Yayan Satyakti, 'Did Partial Lockdown Policy Effectively Reduce the First Wave of COVID-19 in Indonesia? A Regression Discontinuity Approach', *Transportation Research Interdisciplinary Perspectives*, 23 (2024), 100998 <https://doi.org/https://doi.org/10.1016/j.trip.2023.100998>

<sup>4</sup> Antonio A Golpe, A Jesus Sánchez-Fuentes, and José Carlos Vides, 'Fiscal Sustainability, Monetary Policy and Economic Growth in the Euro Area: In Search of the Ultimate Causal Path', *Economic Analysis and Policy*, 78 (2023), 1026–45 <https://doi.org/https://doi.org/10.1016/j.eap.2023.04.038>

<sup>5</sup> Yong Ma and Lin Lv, 'Financial Development, Financial Instability, and Fiscal Policy Volatility: International Evidence', *The North American Journal of Economics and Finance*, 64 (2023), 101873 <https://doi.org/https://doi.org/10.1016/j.najef.2022.101873>

<sup>6</sup> Tim Cadman and others, 'The Role of Fiscal Instruments in Encouraging the Private Sector and Smallholders to Reduce Emissions from Deforestation and Forest Degradation: Evidence from



provided in the hard currency still contains currency value risk as a result of nature of the international floating exchange rate regime. With this characteristic, the rupiah exchange rate will be affected with the country's economic conditions. In recent years, economic and geopolitical uncertainty globally tends to have an increasing trend. Conditions of global uncertainty This has implications, including fluctuations in currency exchange rates money. Specifically, currency fluctuations are one of the risks will have an impact on the progress of development projects infrastructure. This risk arises as a result of activities or transactions using foreign currency, such as in importing raw materials and machinery production, export of products, as well as loans made using foreign currency. Therefore, a reduction effort is needed or protection for PPP projects against currency exchange rate risks.<sup>7</sup>

Regarding currency fluctuations, the government actually has carry out efforts to mitigate the risk of the impact of global uncertainty, namely through a hedging mechanism. Based on Bank Regulations Indonesia ("PBI") No.15/8/PBI/2013, hedging is defined as a method to minimize risks that arise or have the potential to arise as a result of price fluctuations in the financial market. This PBI is at the same time become a reference for economic actors in mitigating risks exchange rate fluctuations. In this mitigation effort, economic actors need to carry out hedging transactions for its economic activities with using derivative instruments, such as forwards and swaps. Transaction this hedging can support the deepening of the foreign exchange market domestica.<sup>8</sup>

When viewed from its implementation, the current hedging mechanism has not yet run optimally in hedging the rupiah against foreign currency. This problem is caused by several factors.<sup>9</sup> First, the current regulations do not yet regulate hedging comprehensive so that the majority of business entities are reluctant to implement the mechanism hedging. Second, when compared to exchange rate losses, the burden of hedging risk still much smaller. This is due to the lack of facilities varied hedging for business players due to shallow markets Indonesian finance. Third, there is disagreement between actor economics regarding hedging positions, especially state-owned companies. Matter This is a challenge for policy makers related to BUMN, trade and monetary. Fourth, the issue of support from everyone authority in helping to realize financial markets with choices wide range of instruments. There is an understanding of all authorities involved will provide opportunities for banks to transmit liquidity for move more freely. Fifth, the rupiah exchange rate is still weak compared to foreign currency exchange rates (soft currency). Factors This increases the level of exchange rate risk due to the existence of an exchange rate gap currency to project financing.

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Indonesia', *Forest Policy and Economics*, 108 (2019), 101913  
<https://doi.org/https://doi.org/10.1016/j.forpol.2019.04.017>

<sup>7</sup> Canh Phuc Nguyen and others, 'The Effects of the Global Economic Policy Uncertainty on Fiscal Cyclicity: An Institutional Perspective', in *Reference Module in Social Sciences* (Elsevier, 2023)  
<https://doi.org/https://doi.org/10.1016/B978-0-44-313776-1.00142-2>

<sup>8</sup> Noor Syaifudin, Nurkholis, and Ardiyansyah Yatim, 'Fiscal Instruments to Support the Environmental Friendly Product Development in Indonesia: Hybrid Vehicle', *Energy Procedia*, 65 (2015), 248–56  
<https://doi.org/https://doi.org/10.1016/j.egypro.2015.01.040>

<sup>9</sup> Richard S J Tol, 'The Fiscal Implications of Stringent Climate Policy', *Economic Analysis and Policy*, 80 (2023), 495–504 <https://doi.org/https://doi.org/10.1016/j.eap.2023.09.004>



Problems arise due to global uncertainty encourage the government to enact Law Number 4 2023 concerning Strengthening and Development of the Financial Sector ("UU P2SK"). The provisions in the P2SK Law were formed to support efforts developing and strengthening the financial sector and responding to various risks arising from global uncertainty, such as technological disruption, climate change and the international geopolitical situation.<sup>10</sup> One of the economic activities. The new thing that has been regulated in the P2SK Law is bullion business activities. Refer in Article 130 of the P2SK Law, bullion business activities are defined as activities businesses that are correlated with gold, either in the form of savings, financing, trading, custody, and/or other activities carried out by Financial Services Institutions ("LJK"). The existence of a legal basis for the activity it is hoped that the bullion business in the P2SK Law will help strengthen Indonesia's economic resilience. Bullion is considered as one of the economic activities that can strengthen the Indonesian economy because gold is an instrument that is considered more stable than differences in currency values (exchange rates). Gold is considered as a "safe haven", namely assets whose value is expected to remain constant or increase even though market conditions are being shaken. Gold can be the most important asset safe for mining in Indonesia and has the capability to become hedge, when the financial market is faced with a situation that fluctuating, such as during the Covid-19 pandemic. Stable characteristics of gold can answer the problem of global instability, especially in reduce the gap in currency exchange rates.<sup>11</sup>

The bullion is applied in project financing, bank initiation of bulion acts as a financing intermediary with gold monetization. In realizing gold denominations in project financing and business activities bullion in bank bullion must be followed by the creation of a bullion ecosystem through the creation of a good market mechanism. Therefore, the mechanism Gold Bullion Funding is a solution to project financing problems infrastructure that has been occurring in Indonesia due to global instability.<sup>12</sup> The existence of a Gold Bullion Funding mechanism can be implemented as alternative instruments in overcoming the problem of currency value fluctuations in the project financing scheme. can encourage financial inclusion by offering new investment and financing options to the community.

## METHOD

This research uses normative legal research methods. Normative legal research action is carried out based on what is written in the statutory regulations (law in books). According to Soerjono Soekanto space The scope of normative juridical research includes research on principles law, research on legal systematics, research on legal synchronization both vertically and horizontally, comparison law, and legal history. This research uses secondary data collected through literature study or

<sup>10</sup> Cumhur Çiçekçi and Esma Gaygısız, 'Procyclicality of Fiscal Policy in Oil-Rich Countries: Roles of Resource Funds and Institutional Quality', *Resources Policy*, 85 (2023), 103675 <https://doi.org/https://doi.org/10.1016/j.resourpol.2023.103675>

<sup>11</sup> Rachmad Hidayat and Jonathan Cowie, 'A Framework to Explore Policy to Support the Adoption of Electric Vehicles in Developing Nations: A Case Study of Indonesia', *Transportation Research Procedia*, 70 (2023), 364–71 <https://doi.org/https://doi.org/10.1016/j.trpro.2023.11.041>

<sup>12</sup> Noor Syaifudin, Aziiz Sutrisno, and Andri Dwi Setiawan, 'The Impact of Fiscal Transfer on Energy Efficiency in Indonesia', *Energy Procedia*, 65 (2015), 239–47 <https://doi.org/https://doi.org/10.1016/j.egypro.2015.01.037>





literature research, namely data obtained from the results of a literature search consisting of primary, secondary and legal materials tertiary. Other approaches that used is legislation approach (statue approach), case approach (case approach), comparative approach (comparative approach), and conceptual approach (conceptual approach). the data analysis technique used is interpretation. Interpretation in data processing techniques is a technique that uses juridical methods in discussing a legal problem. In research Currently, the data processing technique used is descriptive techniques. Descriptive data processing techniques are data processing using provide an overview of research data.

## RESULT AND DISCUSSION

### *Problems in Implementing Project Finance in Indonesia*

Infrastructure development is fundamental for state and the state should carry out infrastructure development appropriate in each region. To carry out infrastructure development feasible, of course various financing schemes are needed for procurement infrastructure. Currently, the government has alternative project financing infrastructure so that it does not depend on the APBN/APBD, namely through PPP. Infrastructure development is one of the state's efforts to accelerate the economy in order to advance public prosperity. However, the smooth implementation of infrastructure development has the potential to be hampered due to a gap between funding needs for infrastructure and funds provided by the government.<sup>13</sup>

The government is trying to open up opportunities for the private sector to get involved in infrastructure development through project finance in the scheme PPP. This is because the involvement of the private sector will be able to meet funding needs in a sustainable manner and create optimal investment climate so that funding constraints in infrastructure development can be resolved. Basically, the financing system in development infrastructure has 3 (three) main elements, namely the form of financing, financing instruments, and capital costs. Meanwhile, the form of financing.<sup>14</sup> The infrastructure used in the PPP scheme is Infrastructure Project Finance. In this case, the funder (sponsor) will form a special and independent entity as a tool for carrying out the project to be built. This entity is also referred to as special-purpose-vehicle (SPV) or BUP whose existence is focused as project executor and specifically as an internal intermediary accommodate equity and debt for project financing.<sup>15</sup>

The existence of project finance in the PPP scheme is sought to increase private participation in development. In this case, the implementation of project finance is carried out with level restrictions obligations of project sponsors, namely the government or BUMN through risk allocation to private parties. However, the

<sup>13</sup> Ablam Estel Apeti, Jean-Louis Combes, and Alexandru Minea, 'Inflation Targeting and Fiscal Policy Volatility: Evidence from Developing Countries', *Journal of International Money and Finance*, 141 (2024), 102996 <https://doi.org/https://doi.org/10.1016/j.jimonfin.2023.102996>

<sup>14</sup> Avinash Ramlogan and Andell Nelson, 'Assessing the Influence of Fiscal and Monetary Policies on Carbon Dioxide Emissions', *Latin American Journal of Central Banking*, 2023, 100114 <https://doi.org/https://doi.org/10.1016/j.lacbc.2023.100114>

<sup>15</sup> Andri D Setiawan and others, 'Investigating Policies on Increasing the Adoption of Electric Vehicles in Indonesia', *Journal of Cleaner Production*, 380 (2022), 135097 <https://doi.org/https://doi.org/10.1016/j.jclepro.2022.135097>



application of project finance in implementing the PPP, various problems are still faced, especially related to fluctuations in currency exchange rates. Fluctuations in currency exchange rates are one of the risks involved a PPP project. The risk of currency exchange rate fluctuations includes in the unpredictable risks of PPP projects.<sup>16</sup>

In fact, at in some countries, currency exchange rate risk is a risk classified as high or high level. In Indonesia, the exchange rate regime is used is a floating exchange rate or floating exchange rate system. The implementation of the exchange rate system has a great influence on fluctuations in currency exchange rates. The floating exchange rate system determines currency exchange rates based on demand and supply on the foreign exchange exchange. In this system, the government through the Central Bank has freedom to issue money. This freedom causes value currencies depreciate and fluctuate freely. With the adoption of a floating exchange rate system, the potential for value fluctuations arises exchange currencies as they occur.<sup>17</sup>

In project finance under the PPP scheme, exchange rate fluctuations currency is included in financial risk and occurs at all stages, both from the pre-construction, construction and operation stages. Value fluctuations Currency exchange is highly correlated with exports and imports of raw materials used in infrastructure development. This happens because depreciation of the rupiah against hard currency or other countries, currencies causing an increase in the price of goods, imported raw materials, and prices domestic products. This can be seen in the construction of toll roads. Trans Sumatra is threatened with delays due to increased costs project due to the need for imported components which reaches 60% (sixty percent). The majority of PPP project raw materials originating from abroad results in additional costs PPP project development. The problems above are in line with research compiled by Indawan entitled "The Effect of Exchange Rate Protection on Foreign Debt and Company Performance" which states that depreciation of the rupiah exchange rate which causes inflation.<sup>18</sup>

In connection with these conditions, the company must bear the burden increase in installments in principal foreign debt payments company. The problem of increasing installment expenses is caused by an aggressive increase in the benchmark interest rate over time simultaneously. Efforts to increase interest rates are one of them actions that are often carried out by countries in the world to suppress inflation. The inflation risk of PPP projects will result in PJPK and BUP as the executor is faced with an increase in the project value. If it is not resolved immediately, there will be problems

<sup>16</sup> Chinmaya Behera, Badri Narayan Rath, and Pramod Kumar Mishra, 'The Impact of Monetary and Fiscal Stimulus on Stock Returns during the COVID-19 Pandemic', *Journal of Asian Economics*, 90 (2024), 101680 <https://doi.org/https://doi.org/10.1016/j.asieco.2023.101680>

<sup>17</sup> Ade Paranata, 'The Miracle of Anti-Corruption Efforts and Regional Fiscal Independence in Plugging Budget Leakage: Evidence from Western and Eastern Indonesia', *Heliyon*, 8.10 (2022), e11153 <https://doi.org/https://doi.org/10.1016/j.heliyon.2022.e11153>

<sup>18</sup> K P Prabheesh, Aryo Sasongko, and Fiskara Indawan, 'Did the Policy Responses Influence Credit and Business Cycle Co-Movement during the COVID-19 Crisis? Evidence from Indonesia', *Economic Analysis and Policy*, 78 (2023), 243–55 <https://doi.org/https://doi.org/10.1016/j.eap.2023.02.007>



with the project This finance has the potential to hinder the completion of work PPP project development.<sup>19</sup>

The existence of risks in project finance results in increases non-essential expenditure on projects using the scheme PPP. To minimize the amount of costs that must be paid when carrying out transactions with parties abroad both in terms of financing and cooperation costs for PPP project needs, BUP takes certain actions to avoid being affected by exchange rate fluctuations or unpredictable increases in interest rates. One of ways to ensure that PPP project needs are not affected currency exchange rate fluctuations is by using Hedging or hedging transactions. Hedging is a mechanism that used in PPP projects to minimize risks that arise or those that are projected to arise due to instability exchange rate in the financial market. In this case, the Hedging mechanism is wrong one step that can be used to reduce related costs uncertainty of the rupiah exchange rate against foreign currencies, the potential for this to occur losses resulting from changes in interest rates, and changes in prices of key commodities.<sup>20</sup>

In practice, hedging is done by creating documents contracts whose value is measured based on the underlying asset. Hedging scheme implementation is generally carried out through 2 (two) transaction models, namely forward and swap transactions. Forward transactions (futures) carried out between the corporation and the bank by transferring the risk of a decline in the rupiah exchange rate through currency purchases and a specific date in the future. Meanwhile, the swap transaction is a combination of spot and forward transactions carried out with exchanging foreign currency for rupiah through buying or selling cash on the spot market followed by sales or repurchases futures (forward). This transaction is carried out with a counterparty or the same bank at a price level agreed upon by both parties.<sup>21</sup>

Hedging implementation is reflected in the transactions carried out by PT. TD Automotive Compressor Indonesia. In August 2014, PT. TD Automotive purchases raw materials in foreign currency USD with a credit hedging method with 4 (four) different invoices totaling \$4,382,518.01 or equal to Rp. 51,349,963,523 (refers to the Bank Indonesia exchange rate amounting to Rp. 11,717). At the end of September 2014, PT. TD Automotive Compressor Indonesia closed its books, namely by make adjustments to the exchange rate of IDR 12,212, so that for 4 (four) The invoice found a total loss of IDR 2,169,346,465. When repayment on October 29 2014, the company has hedged \$1,774,899.84 at a hedging rate of Rp . 12,155 and on October 15 2014 with a hedging rate of Rp.12,230. From these hedging efforts, PT. TD Automotive Compressor Indonesia recorded a profit of Rp. 54,232,164 which if do

<sup>19</sup> Matondang Elsa Siburian, 'The Link between Fiscal Decentralization and Poverty – Evidence from Indonesia', *Journal of Asian Economics*, 81 (2022), 101493 <https://doi.org/https://doi.org/10.1016/j.asieco.2022.101493>

<sup>20</sup> Yvonne Lee, Aliya Marissa Binti Azlan, and WeiLee Lim, 'Dataset on Macroeconomic Indicators and Fiscal Decentralisation Indices' Variables in Central Java Province, Indonesia', *Data in Brief*, 50 (2023), 109554 <https://doi.org/https://doi.org/10.1016/j.dib.2023.109554>

<sup>21</sup> Elijah Acquah-Andoh and others, 'Coalbed Methane Development in Indonesia: Design and Economic Analysis of Upstream Petroleum Fiscal Policy', *Energy Policy*, 131 (2019), 155–67 <https://doi.org/https://doi.org/10.1016/j.enpol.2019.04.035>



not apply acceptable hedging methods losses can reach Rp. 2,115,114,251, namely the loss at the time of adjustment in September 2014.<sup>22</sup>

Although hedging mechanisms are said to be able to provide hedge against fluctuations in currency values, but this mechanism has not completely eliminated the risk of losses in project finance PPP. This can be understood in hedging transactions as instruments Derivatives have a market that is not transparent. There are various factors that influence the market price of hedging transactions, such as notional, tenor, payment frequency, company credit quality, regulations. credit exposure between the parties. This condition is what causes it the price of the hedging transaction is uncertain. It can be seen that access is difficult regarding information on hedging transactions that have been carried out by the bank. Therefore, this condition is quite difficult for development PPP projects that have the potential to obtain inefficient prices when entering into a hedging agreement with a bank due to stipulation hedging transaction prices are influenced by transaction structure and quality market.<sup>23</sup>

Look at the conditions of the futures market as the place where this occurs hedging commodity transactions, then there are certain fees charged that needs attention. This condition is also called market price risk term, namely the burden of costs such as transportation costs and handling costs other than storage costs (carrying charge). It is understood that the use of deep hedging In fact, PPP project finance involving foreign parties still exists provide additional costs. Next, on transactions PPPs that use hedging instruments are often faced with mismatch between physical conditions and futures or basis conditions.<sup>24</sup> Condition This is also called basis risk, which is the uncertainty of the difference spot price or price when starting hedging with the current price end of hedging. This risk arises due to the characteristics of the price position hedged products cannot be adjusted to positions hedging futures contracts. It is understood that by using Hedging in PPP project finance is the same as exchanging risk price fluctuations with basis risk. Thus, implementation hedging mechanisms have not been able to fully overcome the problem hedging against the risk of currency value fluctuations on the project PPP project financing. Therefore, more alternatives are needed stable in facing the challenges of exchange rate fluctuation instability. Gold Bullion Funding initiated can be a good choice in facing global uncertainty because it makes gold the main instrument in combating currency value fluctuations.<sup>25</sup>

<sup>22</sup> Haula Rosdiana, Inayati, and Murwendah, 'Evaluation of Fiscal Policy on Agropolitan Development to Raise Sustainable Food Security (A Study Case in Bangli Regency, Kuningan Regency and Batu Municipality, Indonesia)', *Procedia Environmental Sciences*, 20 (2014), 563–72 <https://doi.org/https://doi.org/10.1016/j.proenv.2014.03.069>

<sup>23</sup> Fitri Nurfatriani and others, 'Redesigning Indonesian Forest Fiscal Policy to Support Forest Conservation', *Forest Policy and Economics*, 61 (2015), 39–50 <https://doi.org/https://doi.org/10.1016/j.forpol.2015.07.006>

<sup>24</sup> L A Smales and B M Lucey, 'The Influence of Investor Sentiment on the Monetary Policy Announcement Liquidity Response in Precious Metal Markets', *Journal of International Financial Markets, Institutions and Money*, 60 (2019), 19–38 <https://doi.org/https://doi.org/10.1016/j.intfin.2018.12.003>

<sup>25</sup> Gregory Veeck, 'Grassland Protection Policy in China: Post-Wenchuan Economic and Environmental Change in Aba Prefecture, Sichuan Province', *Environmental Science & Policy*, 139 (2023), 195–203 <https://doi.org/https://doi.org/10.1016/j.envsci.2022.11.002>





### ***Implementation of Gold Bullion Funding in Project Financing***

Bullion Bank carries out banking-like activities general by offering loan services, buying and selling transactions, investment, as well as financing services with mainly precious metals as the main instrument gold. This means that the difference between bullion banks and conventional banks lies in the use of gold as a financial instrument or legal tender in transaction activities. In this case, if it is associated with risk currency fluctuations in project financing, gold instruments are used as hedging mechanisms to minimize these risks. With Thus, the use of bullion transactions is more profitable for investors because can protect the portfolio from inflation.

One concrete example of bank bullion implementation can be seen in Singapore is a country that manages business activities. The most progressive bullion in Southeast Asia. Singapore Bullion Association ("SBMA") acts as an intermediation institution operating like a bank conventional by providing trade options and various activity platforms bullion, such as clearing, risk management, hedging, trading, and vaulting. Apart from that, the implementation of bank bullion in Singapore is also supported with a good ecosystem through the implementation of regulations related to trading gold and gold markets. Some of these regulations include MAS - Security and Futures Act 2001, MAS - Commodity Trading Act 1992, IRAS e-Tax Guide - GST: Guide on Exemption of Investment Precious Metals (IPM). With this support, Singapore has succeeded in creating a chain mature bullion ecosystem resulting in top deposit products gold and exchange products for bullion. It's not just interesting for domestic banks, but also attractive for foreign banks incl Indonesia to join the Singapore bullion ecosystem, with thus, the existence of a good bullion regulation and ecosystem is very important needed in the implementation of bullion banks in a country.<sup>26</sup>

When compared with Indonesia, institutions that have the supervisory and regulatory functions in Singapore are in place Monetary Authority of Singapore (MAS). In this case, MAS plays a role as a central bank to issue regulations and supervise activities related to money, banking, insurance, and the financial sector in general included currency issuance. For the precious metals market including gold and bullion, There is SBMA which is a liaison institution between regulatory bodies with industry players in developing the precious metals market, including gold in Singapore. Apart from SBMA, there are several other institutions that supports the bullion ecosystem in Singapore, such as the Singapore Exchange (SGX), Enterprise Singapore (ESG), and Inland Revenue Authority of Singapore (IRAS). The existence of these institutions can strengthen and Facilitate bullion business activities in Singapore. Based on this comparison, there is the ability of bullion banks which can minimize risks in financing activities, the author initiated a mechanism in the form of Gold Bullion Funding (GBF) which is rigid will be explained from the aspects of regulation, concept, implementation in project financing, as well as the arrangements in the financing agreement.<sup>27</sup>

<sup>26</sup> Rajat Kumar Soni and Tanuj Nandan, 'Modeling Covid-19 Contagious Effect between Asset Markets and Commodity Futures in India', *Resources Policy*, 79 (2022), 103061 <https://doi.org/https://doi.org/10.1016/j.resourpol.2022.103061>

<sup>27</sup> Adil Ahmad Shah, Arif Billah Dar, and N R Bhanumurthy, 'Are Precious Metals and Equities Immune to Monetary and Fiscal Policy Uncertainties?', *Resources Policy*, 74 (2021), 102260 <https://doi.org/https://doi.org/10.1016/j.resourpol.2021.102260>



The government's progressive steps will be to establish business activities bullion appeared in the passing of the P2SK Law. In Article 130 of the P2SK Law, Bullion business activities refer to business activities regarding internal gold form of savings, financing, trading, gold custody, and/or other activities carried out by LJK with permission from OJK. Through the government hopes to open the legal umbrella of the P2SK Law LJK innovation space to contribute to developing the bullion market through financial products and also encourage and improve community participation in increasing the added value of Indonesian gold through the use of gold-based financial products.<sup>28</sup>

In Article 130 of the P2SK Law, implies the government's aims and objectives in establishment of bullion business activities, including diversity of investment options and transactions that are not only focused on transaction instruments conventional and other valuable instruments (bonds, shares, letters valuable, and so on), and the application of gold as a financial asset. It is further regulated in article 132 of the P2SK Law which mandates its existence an implementing regulation related to guidelines, directions and limitations in forming the bullion ecosystem in Indonesia. It is also regulated in the mandate of article 132 of the P2SK Law that business activities bullion is under the regulatory and supervisory function of the OJK, so it is necessary POJK was formed regarding Procedures for Implementing Business Activities Bouillon. The POJK will regulate the parties involved in carrying out bullion business activities, namely LJK which already has permission from OJK. Then, the POJK will also regulate the composition of implementation of bullion business activities, governance, risk management, implementation of prudential principles in banking, as well as sanctions provisions administrative. The existence of POJK needs to be enforced as stated has been implemented by the state of Singapore using various regulations to form the bullion ecosystem.<sup>29</sup>

Efforts to implement bullion business activities as envisioned. In the P2SK Law, this can be realized by establishing a bullion ecosystem. As England can run the gold market so can affecting global gold market conditions. In raising its power on the global gold market, Britain must first form the bullion ecosystem, starting with development gold standardization through the later London Good Delivery followed by setting the price of the gold commodity. 1987 LBMA was formed to play the role of custodian, maintenance, and regulatory development. After the formalities of the institution are established, it can be seen an increase in global gold production due to the impact of gold regulations international, which brings many countries to join in LBMA. It can be seen that the influence of legal guarantees is protective gold trading activities can have a positive impact on gold ecosystem that will be formed. The mandate of article 131 of the P2SK Law states that it is in implementation Bullion business activities must be under LJK. Product Driven Regulatory Strategy is one of the

<sup>28</sup> Piet-Hein van Eeghen, 'Funding Money-Creating Banks: Cash Funding, Balance Sheet Funding and the Moral Hazard of Currency Elasticity', *International Review of Financial Analysis*, 76 (2021), 101736 <https://doi.org/https://doi.org/10.1016/j.irfa.2021.101736>

<sup>29</sup> Laurence E Blose, 'Gold Price Risk and the Returns on Gold Mutual Funds', *Journal of Economics and Business*, 48.5 (1996), 499–513 [https://doi.org/https://doi.org/10.1016/S0148-6195\(96\)00037-9](https://doi.org/https://doi.org/10.1016/S0148-6195(96)00037-9)



recommended policy strategies good in developing bullion business activities through LJK.<sup>30</sup>

In efforts to optimize bullion business activities by LJK also need to be regulated related to a clear division of responsibilities and roles between agencies financial authorities and other institutions related to development and expansion types of bullion-based financial products. In general, the business model Bullion Bank includes two activities, namely financing services and sales trading services with various different product derivatives. Initiation of the implementation of Gold Bullion Funding under the auspices of the bank bullion requires a scope that needs to be regulated. Through comparison of countries that have implemented internal bullion transactional activities, the Indonesia Financial Group classifies characteristics of gold market regulation into 2 (two) types, namely centralized coordination (centrally-regulated) and coordination from stakeholders.<sup>31</sup>

Characteristics of bullion products that can be used as financing is gold or gold that has been certified or appropriate LBMA standards. The form of gold in this case can be paper gold, gold bar, and it does not rule out the possibility of digital gold projections as well innovated. Thus, the implementation of Gold Bullion Funding in the bullion business scope can be run as an intermediary for project financing that monetizes gold. The application of Gold Bullion Funding must be followed with the existence of regulations governing these business activities protect the parties involved in it, if regulations are in place established, will increase investor confidence in investing its assets in infrastructure development through PPP in Indonesia.<sup>32v</sup>

The bullion bank's role in the PPP is carried out as a monetization effort Gold is a source of financing whose value is guaranteed. Design bullion bank implementation mechanism as a transactional instrument Project financing is designed in the following mechanism. First, every investor, Business Entity (SPV), Bank and/or Service Institution Finance and financing related parties must have assets in his bullion account, second, bullion will later become a transaction tool or exchange tool capital provider with Business Entity (SPV) as project executor infrastructure, third, bullion Bank was initiated by a supervised Financial Services Institution by OJK, four, bullion Bank as a transaction intermediary (which bridges transactions) gold bullion in terms of funding or financing infrastructure projects by PPP, types of bullion that can be used as project financing is gold bullion; and the term Gold Bullion Funding is used to classify infrastructure development projects with gold bullion as the source of financing is to protect the project from value fluctuations currency.<sup>33</sup>

<sup>30</sup> George C Bitros, 'Destabilizing Asymmetries in Central Banking: With Some Enlightenment from Money in Classical Athens', *The Journal of Economic Asymmetries*, 23 (2021), e00199 <https://doi.org/https://doi.org/10.1016/j.jeca.2021.e00199>

<sup>31</sup> Lilia Costabile, 'Commodity Money, Natural Values, and Central Banking in Ricardo', *Structural Change and Economic Dynamics*, 63 (2022), 104–11 <https://doi.org/https://doi.org/10.1016/j.strueco.2022.09.011>

<sup>32</sup> Samuel J Spiegel, 'Resource Policies and Small-Scale Gold Mining in Zimbabwe', *Resources Policy*, 34.1 (2009), 39–44 <https://doi.org/https://doi.org/10.1016/j.resourpol.2008.05.004>

<sup>33</sup> Priya Narayanan, Balagopal Gopalakrishnan, and Arvind Sahay, 'Understanding the Government's Attempt to Transform Attitudes towards a Critical Resource: Gold Monetization in India', *Resources Policy*, 66 (2020), 101600 <https://doi.org/https://doi.org/10.1016/j.resourpol.2020.101600>



In the future, most of the project financing agreements will be implemented will remain the same, but several clauses need to be added has been mentioned above as a form of implementation of Gold Bullion Funding in Project Financing. It is hoped that the implementation of bank bullion in project financing can be achieved become one of the project financing instruments that is more stable towards global instability, one of which is the influence of currency value fluctuations. With the existence of this mechanism can increase investor confidence and interest business entities in implementing PPP projects. The existence of this mechanism becomes effective solutions amidst the widespread factors of global instability that can be influence the progress of the PPP project in terms of financing so that leading to a decline in investor confidence in the management system finance of a PPP project.<sup>34</sup>

## CONCLUSION

Based on the problem formulation and results of the discussions that have been carried out conclusions can be drawn as well as answers to problems in this scientific paper, namely, first, infrastructure development is one of the state's efforts to accelerate the economy in order to advance the welfare of society. However, the smooth implementation of infrastructure development has potential hampered by the gap between infrastructure funding needs and funds provided by the government. Therefore, the government Indonesia is trying to open up opportunities for the private sector to get involved in infrastructure development through project finance in the scheme PPP. However, the application of project finance in PPP implementation covered by various problems, such as movements in currency exchange rates money or exchange rate results in additional costs caused by transaction activities in PPP implementation and inflation risks high enough. Second, starting from Singapore which has SBMA as a form concrete implementation of the bullion ecosystem. Through the P2SK Law, the government is starting to build a bullion ecosystem in Indonesia. By Therefore, a mechanism is needed to implement it, including POJK in accordance with the mandate of the P2SK Law and regulations regulated by central bank and stakeholders. When the ecosystem bulion has been created, the role of bullion banks in the PPP can be initiated as an effort monetization of gold as a guaranteed source of financing value, namely with Gold Bullion Funding as a source financing to protect the project from currency fluctuations.

## References

- Acquah-Andoh, Elijah, Herdi A Putra, Augustine O Ifelebuegu, and Andrews Owusu, 'Coalbed Methane Development in Indonesia: Design and Economic Analysis of Upstream Petroleum Fiscal Policy', *Energy Policy*, 131 (2019), 155–67 <https://doi.org/https://doi.org/10.1016/j.enpol.2019.04.035>
- Apeti, Ablam Estel, Jean-Louis Combes, and Alexandru Minea, 'Inflation Targeting and Fiscal Policy Volatility: Evidence from Developing Countries', *Journal of International Money and Finance*, 141 (2024), 102996 <https://doi.org/https://doi.org/10.1016/j.jimonfin.2023.102996>

<sup>34</sup> Irina Mădălina Doroftei, 'The Lessons of the Currency School-Banking School Dispute for the Present Post-Crisis Economy', *Procedia Economics and Finance*, 6 (2013), 48–56 [https://doi.org/https://doi.org/10.1016/S2212-5671\(13\)00112-3](https://doi.org/https://doi.org/10.1016/S2212-5671(13)00112-3)





- Behera, Chinmaya, Badri Narayan Rath, and Pramod Kumar Mishra, 'The Impact of Monetary and Fiscal Stimulus on Stock Returns during the COVID-19 Pandemic', *Journal of Asian Economics*, 90 (2024), 101680  
<https://doi.org/https://doi.org/10.1016/j.asieco.2023.101680>
- Bitros, George C, 'Destabilizing Asymmetries in Central Banking: With Some Enlightenment from Money in Classical Athens', *The Journal of Economic Asymmetries*, 23 (2021), e00199  
<https://doi.org/https://doi.org/10.1016/j.jeca.2021.e00199>
- Blose, Laurence E, 'Gold Price Risk and the Returns on Gold Mutual Funds', *Journal of Economics and Business*, 48.5 (1996), 499–513  
[https://doi.org/https://doi.org/10.1016/S0148-6195\(96\)00037-9](https://doi.org/https://doi.org/10.1016/S0148-6195(96)00037-9)
- Cadman, Tim, Tapan Sarker, Zahrul Muttaqin, Fitri Nurfatriani, Mimi Salminah, and Tek Maraseni, 'The Role of Fiscal Instruments in Encouraging the Private Sector and Smallholders to Reduce Emissions from Deforestation and Forest Degradation: Evidence from Indonesia', *Forest Policy and Economics*, 108 (2019), 101913 <https://doi.org/https://doi.org/10.1016/j.forpol.2019.04.017>
- Çiçekçi, Cumhur, and Esmâ Gaygısız, 'Procyclicality of Fiscal Policy in Oil-Rich Countries: Roles of Resource Funds and Institutional Quality', *Resources Policy*, 85 (2023), 103675  
<https://doi.org/https://doi.org/10.1016/j.resourpol.2023.103675>
- Costabile, Lilia, 'Commodity Money, Natural Values, and Central Banking in Ricardo', *Structural Change and Economic Dynamics*, 63 (2022), 104–11  
<https://doi.org/https://doi.org/10.1016/j.strueco.2022.09.011>
- Doroftei, Irina Mădălina, 'The Lessons of the Currency School-Banking School Dispute for the Present Post-Crisis Economy', *Procedia Economics and Finance*, 6 (2013), 48–56 [https://doi.org/https://doi.org/10.1016/S2212-5671\(13\)00112-3](https://doi.org/https://doi.org/10.1016/S2212-5671(13)00112-3)
- van Eeghen, Piet-Hein, 'Funding Money-Creating Banks: Cash Funding, Balance Sheet Funding and the Moral Hazard of Currency Elasticity', *International Review of Financial Analysis*, 76 (2021), 101736  
<https://doi.org/https://doi.org/10.1016/j.irfa.2021.101736>
- Golpe, Antonio A, A Jesus Sánchez-Fuentes, and José Carlos Vides, 'Fiscal Sustainability, Monetary Policy and Economic Growth in the Euro Area: In Search of the Ultimate Causal Path', *Economic Analysis and Policy*, 78 (2023), 1026–45  
<https://doi.org/https://doi.org/10.1016/j.eap.2023.04.038>
- Hidayat, Rachmad, and Jonathan Cowie, 'A Framework to Explore Policy to Support the Adoption of Electric Vehicles in Developing Nations: A Case Study of Indonesia', *Transportation Research Procedia*, 70 (2023), 364–71  
<https://doi.org/https://doi.org/10.1016/j.trpro.2023.11.041>
- Lee, Yvonne, Aliya Marissa Binti Azlan, and WeiLee Lim, 'Dataset on Macroeconomic Indicators and Fiscal Decentralisation Indices' Variables in Central Java Province, Indonesia', *Data in Brief*, 50 (2023), 109554



<https://doi.org/https://doi.org/10.1016/j.dib.2023.109554>

Ma, Yong, and Lin Lv, 'Financial Development, Financial Instability, and Fiscal Policy Volatility: International Evidence', *The North American Journal of Economics and Finance*, 64 (2023), 101873  
<https://doi.org/https://doi.org/10.1016/j.najef.2022.101873>

Naiborhu, Elis Deriantino, and Dhanita Ulfa, 'The Lending Implication of a Funding for Lending Scheme Policy during COVID-19 Pandemic: The Case of Indonesia Banks', *Economic Analysis and Policy*, 78 (2023), 1059–69  
<https://doi.org/https://doi.org/10.1016/j.eap.2023.04.025>

Narayanan, Priya, Balagopal Gopalakrishnan, and Arvind Sahay, 'Understanding the Government's Attempt to Transform Attitudes towards a Critical Resource: Gold Monetization in India', *Resources Policy*, 66 (2020), 101600  
<https://doi.org/https://doi.org/10.1016/j.resourpol.2020.101600>

Nguyen, Canh Phuc, Christophe Schinckus, Felicia H L Chong, and Binh Quang Nguyen, 'The Effects of the Global Economic Policy Uncertainty on Fiscal Cyclicity: An Institutional Perspective', in *Reference Module in Social Sciences* (Elsevier, 2023) <https://doi.org/https://doi.org/10.1016/B978-0-44-313776-1.00142-2>

Nurfatriani, Fitri, Dudung Darusman, Dodik Ridho Nurrochmat, Ahmad Erani Yustika, and Muhammad Zahrul Muttaqin, 'Redesigning Indonesian Forest Fiscal Policy to Support Forest Conservation', *Forest Policy and Economics*, 61 (2015), 39–50  
<https://doi.org/https://doi.org/10.1016/j.forpol.2015.07.006>

Paranata, Ade, 'The Miracle of Anti-Corruption Efforts and Regional Fiscal Independence in Plugging Budget Leakage: Evidence from Western and Eastern Indonesia', *Heliyon*, 8.10 (2022), e11153  
<https://doi.org/https://doi.org/10.1016/j.heliyon.2022.e11153>

Prabheesh, K P, Aryo Sasongko, and Fiskara Indawan, 'Did the Policy Responses Influence Credit and Business Cycle Co-Movement during the COVID-19 Crisis? Evidence from Indonesia', *Economic Analysis and Policy*, 78 (2023), 243–55  
<https://doi.org/https://doi.org/10.1016/j.eap.2023.02.007>

Ramlogan, Avinash, and Andell Nelson, 'Assessing the Influence of Fiscal and Monetary Policies on Carbon Dioxide Emissions', *Latin American Journal of Central Banking*, 2023, 100114  
<https://doi.org/https://doi.org/10.1016/j.lacsb.2023.100114>

Rosdiana, Haula, Inayati, and Murwendah, 'Evaluation of Fiscal Policy on Agropolitan Development to Raise Sustainable Food Security (A Study Case in Bangli Regency, Kuningan Regency and Batu Municipality, Indonesia)', *Procedia Environmental Sciences*, 20 (2014), 563–72  
<https://doi.org/https://doi.org/10.1016/j.proenv.2014.03.069>

Satyakti, Yayan, 'Did Partial Lockdown Policy Effectively Reduce the First Wave of COVID-19 in Indonesia? A Regression Discontinuity Approach', *Transportation*



- Research Interdisciplinary Perspectives*, 23 (2024), 100998  
<https://doi.org/https://doi.org/10.1016/j.trip.2023.100998>
- Setiawan, Andri D, Teuku Naraski Zahari, Fara Jetira Purba, Armand O Moeis, and Akhmad Hidayatno, 'Investigating Policies on Increasing the Adoption of Electric Vehicles in Indonesia', *Journal of Cleaner Production*, 380 (2022), 135097  
<https://doi.org/https://doi.org/10.1016/j.jclepro.2022.135097>
- Shah, Adil Ahmad, Arif Billah Dar, and N R Bhanumurthy, 'Are Precious Metals and Equities Immune to Monetary and Fiscal Policy Uncertainties?', *Resources Policy*, 74 (2021), 102260  
<https://doi.org/https://doi.org/10.1016/j.resourpol.2021.102260>
- Siburian, Matondang Elsa, 'The Link between Fiscal Decentralization and Poverty – Evidence from Indonesia', *Journal of Asian Economics*, 81 (2022), 101493  
<https://doi.org/https://doi.org/10.1016/j.asieco.2022.101493>
- Smales, L A, and B M Lucey, 'The Influence of Investor Sentiment on the Monetary Policy Announcement Liquidity Response in Precious Metal Markets', *Journal of International Financial Markets, Institutions and Money*, 60 (2019), 19–38  
<https://doi.org/https://doi.org/10.1016/j.intfin.2018.12.003>
- Soni, Rajat Kumar, and Tanuj Nandan, 'Modeling Covid-19 Contagious Effect between Asset Markets and Commodity Futures in India', *Resources Policy*, 79 (2022), 103061  
<https://doi.org/https://doi.org/10.1016/j.resourpol.2022.103061>
- Spiegel, Samuel J, 'Resource Policies and Small-Scale Gold Mining in Zimbabwe', *Resources Policy*, 34.1 (2009), 39–44  
<https://doi.org/https://doi.org/10.1016/j.resourpol.2008.05.004>
- Syaifudin, Noor, Nurkholis, and Ardiyansyah Yatim, 'Fiscal Instruments to Support the Environmental Friendly Product Development in Indonesia: Hybrid Vehicle', *Energy Procedia*, 65 (2015), 248–56  
<https://doi.org/https://doi.org/10.1016/j.egypro.2015.01.040>
- Syaifudin, Noor, Aziiz Sutrisno, and Andri Dwi Setiawan, 'The Impact of Fiscal Transfer on Energy Efficiency in Indonesia', *Energy Procedia*, 65 (2015), 239–47  
<https://doi.org/https://doi.org/10.1016/j.egypro.2015.01.037>
- Tol, Richard S J, 'The Fiscal Implications of Stringent Climate Policy', *Economic Analysis and Policy*, 80 (2023), 495–504  
<https://doi.org/https://doi.org/10.1016/j.eap.2023.09.004>
- Veeck, Gregory, 'Grassland Protection Policy in China: Post-Wenchuan Economic and Environmental Change in Aba Prefecture, Sichuan Province', *Environmental Science & Policy*, 139 (2023), 195–203  
<https://doi.org/https://doi.org/10.1016/j.envsci.2022.11.002>
- Wijatmoko, Erlan, Armaidly Armawi, and Teuku Faisal Fathani, 'Legal Effectiveness in Promoting Development Policies: A Case Study of North Aceh Indonesia', *Heliyon*, 9.11 (2023), e21280  
<https://doi.org/10.1016/j.heliyon.2023.e21280>