

GOLD TRADE-BASED MONEY LAUNDERING AND CENTRAL BANKING GOVERNANCE IN INDONESIA: IMPLICATIONS FOR RESERVE INTEGRITY, PAYMENT SYSTEMS, AND FINANCIAL SYSTEM STABILITY

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Abstract

Trade-based money laundering (TBML) has increasingly exploited commodities markets, including gold trading, to disguise illicit cross-border financial flows. In Indonesia, the growing integration of gold markets with the financial system has created vulnerabilities that threaten the financial system's integrity, endangering its stability and effective central bank governance. This paper examines how TBML using gold affects key domains of central bank oversight in Indonesia, particularly reserve integrity, payment system monitoring, and financial system stability. The study employs a legal-institutional analytical approach, combining regulatory analysis with an institutional examination of central banking mandates and anti-money-laundering governance frameworks. The findings indicate that using gold to facilitate TBML can obscure the traceability of cross-border financial transactions, complicate monitoring of payment systems, and potentially weaken safeguards related to reserve management and financial system oversight. These vulnerabilities create governance challenges for financial authorities responsible for maintaining financial system integrity. From a normative legal perspective, the study highlights the need for strengthened regulatory coordination, improved oversight of gold-related financial transactions, and enhanced integration between supervision of Anti-Money Laundering and Combating the Financing of Terrorism (AML/CFT) measures and central bank regulatory design. Such measures are essential for safeguarding the integrity of the reserves and supporting the stability of the financial system.

Keywords: *trade-based money laundering, gold trading, central banking governance, foreign exchange reserves, payment system oversight, AML/CFT.*

I. INTRODUCTION

Gold has long occupied a distinctive position in the architecture of the international monetary and financial system. Beyond its role as a traded commodity, gold continues to function as a monetary asset held in central bank reserve portfolios and as a symbolic anchor of financial credibility.¹ For many central banks, gold contributes not only to portfolio diversification but also to public and market confidence in monetary authorities, particularly in emerging and commodity-linked economies.² This dual character places gold at the intersection of trade, finance, and central banking governance.³

At the same time, the globalisation of commerce has created opportunities for the abuse of legitimate commercial activities for illicit purposes. Trade-based money laundering (TBML) has emerged as one of the most complex forms of money laundering, exploiting weaknesses in trade documentation, valuation practices, and cross-border payment mechanisms.⁴ Within this broader category, TBML using gold presents distinct challenges due to gold's high value-to-weight ratio, liquidity, and the opacity surrounding sourcing,

¹ Serkan Arslanalp et al., “Gold as International Reserves: A Barbarous Relic No More?,” *Journal of International Economics* 145 (2023): 103822, <https://doi.org/10.1016/j.jinteco.2023.103822>; Hyun Song Shin, *The Next-Generation Monetary and Financial System* (Bank for International Settlements, 2025), <https://www.bis.org/publ/arpdf/ar2025e3.htm>.

² John A. Cassara, *Trade-Based Money Laundering: The next Frontier in International Money Laundering Enforcement* (John Wiley & Sons, 2016); Aleksandr V. Gevorkyan and Tarron Khemraj, “Back to the Future: Gold in International Reserves as a New Stabilizer (Again!) of Exchange Rate Systems,” SUERF Policy Brief No. 604 (SUERF: The European Money and Finance Forum, 2023), <https://www.suerf.org/publications/suerf-policy-notes-and-briefs/back-to-the-future-gold-in-international-reserves-as-a-new-stabilizer-again-of-exchange-rate-systems/>; Carroll Howard Griffin, “Gold, Bitcoin and Central Banks in the 21st Century: The New Dynamic,” *International Journal of Finance* 10, no. 2 (2025): 29–41, <https://doi.org/10.47941/ijf.2569>.

³ Fabian Maximilian Johannes Teichmann and Marie-Christin Falker, “Money Laundering—the Gold Method,” *Journal of Money Laundering Control* 26, no. 3 (2023): 509–22, <https://doi.org/10.1108/JMLC-07-2019-0060>; Roman Grynberg and Fwasa K. Singogo, “Dubai: Conflict Gold, Money Laundering and Illicit Global Trade,” in *African Gold* (Palgrave Macmillan, Cham, 2021), 315–55, https://doi.org/10.1007/978-3-030-65995-0_10; Yuliya Zabyelina and Lilla Heins, “All That Glitters: Money Laundering through Precious Metals and Minerals,” in *Illegal Mining*, ed. Yuliya Zabyelina and Daan Van Uhm (Palgrave Macmillan, Cham, 2020), 439–65, https://doi.org/10.1007/978-3-030-46327-4_16.

⁴ Financial Action Task Force and Egmont Group, *Trade-Based Money Laundering: Trends and Developments*, FATF-Egmont, 2020, <https://www.fatf-gafi.org/en/publications/Methodsandtrends/Trade-based-money-laundering-trends-and-developments.html>; Todd Hataley, “Trade-Based Money Laundering: Organized Crime, Learning and International Trade,” *Journal of Money Laundering Control* 23, no. 3 (2020): 651–61, <https://doi.org/10.1108/JMLC-01-2020-0004>; Jonathan S. Fisher and Anita Clifford, *The Criminal Finances Act 2017* (Informa Law from Routledge, 2018), <https://doi.org/10.4324/9781351053969>.

refining, and international settlement.⁵ While existing studies and policy work have extensively examined TBML from the perspectives of customs enforcement and trade compliance, far less attention has been paid to TBML's implications for central banking.⁶

This gap is particularly salient in jurisdictions where central banks hold gold as part of official reserve assets and exercise regulatory authority over payment systems and foreign exchange flows. In such systems, illicit gold trade cannot be viewed merely as a distortion of trade statistics or a revenue loss for the state.⁷ It may additionally pose governance risks to the central bank's core mandates, including the integrity of reserve assets, the soundness of payment systems, and the credibility of monetary and financial policy. The risks are amplified by the fact that trade mis-invoicing and mispricing (commonly associated with TBML) can hide value transfers through discrepancies in trade documentation and recorded values.⁸

Indonesia provides a particularly relevant case for examining these issues. Bank Indonesia's broad mandate encompasses monetary stability, regulation of the payment system, macroprudential policy, and management of foreign exchange reserves, including gold.⁹ These functions form part of Bank Indonesia's broader policy framework for maintaining monetary stability, safeguarding financial system stability, and ensuring the reliability of national payment systems through an integrated policy mix. The legal framework governing Bank Indonesia explicitly recognises that foreign exchange reserves recorded on its balance sheet may include gold.¹⁰ Concurrently, Indonesia faces persistent challenges related to illicit financial flows and misinvoicing

⁵ The Financial Action Task Force and the Middle East & North Africa Financial Action Task Force, *Money Laundering through the Physical Transportation of Cash* (Paris, France: FATF, Manama, Bahrain: MENAFATF, 2015), <https://www.fatf-gafi.org/content/dam/fatf-gafi/reports/money-laundering-through-transportation-cash.pdf>; Grynberg and Singogo, "Dubai"; Teichmann and Falker, "Money Laundering;" Zabyelina and Heins, "All That Glitters."

⁶ FATF-Egmont, *Trade-Based Money Laundering*.

⁷ Fritz Brugger et al., "Unravelling the Nexus of Illicit Gold Trade, Protection Rackets, and Political Settlement Dynamics: Evidence from Burkina Faso," *World Development* 181 (2024): 106682, <https://doi.org/10.1016/j.worlddev.2024.106682>; John Madinger, *Money Laundering: A Guide for Criminal Investigators*, 3rd ed (Taylor & Francis, 2012).

⁸ Keejae P. Hong and Simon J. Pak, "Estimating Trade Misinvoicing from Bilateral Trade Statistics: The Devil Is in the Details," *The International Trade Journal* 31, no. 1 (2017): 3–28, <https://doi.org/10.1080/08853908.2016.1202160>.

⁹ Perry Warjiyo, "Indonesia: The Macroprudential Framework and the Central Bank's Policy Mix," BIS Paper No. 94n (Bank of International Settlements, 2018), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3105966.

¹⁰ Bank Indonesia, Bank Indonesia Regulation (PBI) No. 19/10/PBI/2017 Concerning the Implementation of Anti-Money Laundering and Countering the Financing of Terrorism for Non-Bank Payment System Service Providers and Non-Bank Money Changers, 2017.

risks, including in high-value commodities trading.¹¹ Gold trade transactions frequently involve cross-border payments, foreign exchange conversions, and interactions with financial and non-bank payment service providers that fall within the central bank's supervisory perimeter, including in relation to Anti-Money Laundering and Combating the Financing of Terrorism (AML/CFT) measures for payment system providers and non-bank money changers.

Moreover, Indonesia's AML/CFT framework is designed as a multi-institutional system. Bank Indonesia operates in close coordination with the financial intelligence unit, financial regulators, customs authorities, and other state institutions through formal mechanisms.¹² Within this framework, Bank Indonesia plays a regulatory and supervisory role, overseeing payment system providers and foreign exchange activities, both of which may be exposed to money laundering and terrorist-financing risks. This institutional setting raises important questions of how central banks should conceptualise and manage TBML-related risks, particularly when such risks intersect with reserve management, payment system oversight, and international financial credibility.

Against this background, this article examines TBML facilitated by gold in Indonesia through the lens of central banking law and financial governance. The article asks how gold TBML poses governance risks to central banks and how these risks intersect with reserve integrity, payment system oversight, and financial system stability. Rather than focusing solely on typologies or enforcement failures, the study analyses the transmission channels through which illicit gold trade interacts with payment systems, foreign exchange flows, and reserve governance.¹³ It argues that TBML using gold poses a systemic governance risk that can undermine reserve integrity, expose central bank balance sheets to reputational vulnerabilities, and weaken confidence in monetary authorities if left unaddressed.¹⁴

To address this question, the study adopts a legal-institutional analytical approach to examine regulatory frameworks, institutional mandates, and governance arrangements related to gold trade, financial integrity, and central bank oversight. The article makes three contributions to the body of literature.

¹¹ Yeon Soo Choi et al., *Illicit Financial Flows via Trade Mis-Invoicing* (World Customs Organization, 2018).

¹² Bank Indonesia, Bank Indonesia Regulation (PBI) No. 19/10/PBI/2017; Republic of Indonesia, Law of the Republic of Indonesia No. 8 of 2010 on the Eradication of Money Laundering, 2010; Republic of Indonesia, Presidential Regulation No. 6 of 2012 on the National Coordination Committee for the Prevention and Eradication of Money Laundering, 2012.

¹³ FATF and MENAFATF, *Money Laundering through the Physical Transportation of Cash*; Financial Action Task Force, *Money Laundering and Terrorist Financing Risks and Vulnerabilities Associated with Gold*, Paris, France: FATF, 2015), <https://www.fatf-gafi.org/en/publications/MethodsandTrends/ML-tf-risks-and-vulnerabilities-gold.html>.

¹⁴ Arslanalp et al., "Gold as International Reserves;" FATF, *Money Laundering and Terrorist Financing Risks and Vulnerabilities Associated with Gold*.

First, it reframes gold TBML as a central banking issue, demonstrating how illicit trade practices can affect the core functions and credibility of monetary authorities.¹⁵ Second, it integrates legal and institutional analysis to show how central bank mandates, AML/CFT obligations, and inter-agency coordination frameworks jointly shape the governance response to gold-related financial crime.¹⁶ Third, by examining Indonesia's experience within a broader international context, the study offers insights relevant to other central banks confronting similar tensions among commodity-based reserve assets, financial integrity standards, and global regulatory expectations.¹⁷

II. METHODOLOGY

This study employs a descriptive-qualitative approach combined with thematic analysis to examine the mechanisms of TBML through gold trading in Indonesia. The descriptive approach is particularly suitable for this research, as it allows a detailed exploration of specific TBML practices, while thematic analysis provides the flexibility to uncover patterns in qualitative data and develop a novel typology of TBML. The thematic analysis process was guided by the systematic framework introduced by Braun and Clarke,¹⁸ which ensures a structured and transparent approach in identifying, analysing, and interpreting patterns within the data. In addition to qualitative analysis of empirical data, the study adopts a legal-institutional perspective to examine how TBML-related practices intersect with the regulatory mandates and governance functions of central banking institutions.

Data for this study were collected from multiple sources to ensure a comprehensive understanding of the TBML practices under investigation. Document analysis formed a significant part of the data collection process, encompassing court verdicts, investigative reports from the Indonesian Financial Intelligence Unit (PPATK) and the Corruption Eradication Commission (KPK), as well as customs records and relevant legal frameworks. These documents provided critical insights into the mechanisms and institutional practices surrounding TBML. These documentary sources were also examined to assess how existing legal and regulatory frameworks address

¹⁵ Arslanalp et al., "Gold as International Reserves."

¹⁶ Bank Indonesia, Bank Indonesia Regulation (PBI) No. 19/10/PBI/2017; Republic of Indonesia, Law of the Republic of Indonesia No. 8 of 2010; Republic of Indonesia, Presidential Regulation No. 6 of 2012

¹⁷ Claudio Borio et al., *What Share for Gold? On the Interaction of Gold and Foreign Exchange Reserve Returns*, BIS Working Papers no. 906 (Bank for International Settlements, 2020); World Bank, *Central Bank Reserve Management Practices: Insights into Public Asset Management* (World Bank, 2021).

¹⁸ Virginia Braun and Victoria Clarke, "Using Thematic Analysis in Psychology," *Qualitative Research in Psychology* 3, no. 2 (2006): 77–101, <https://doi.org/10.1191/1478088706qp0630a>.

risks arising from commodity-based trade manipulation and to understand the institutional responsibilities of relevant authorities, including Bank Indonesia, within the broader financial integrity architecture.

To complement the documentary analysis, the study also draws on practitioner insights obtained through professional discussions conducted in the context of TBML case examinations. These discussions involved key practitioners from relevant institutions, including financial intelligence analysts from PPATK, investigators from the Corruption Eradication Commission (KPK), and officials from the Customs Authorities. These interactions were not conducted as formal, semi-structured interviews but rather as part of case-based discussions and institutional exchanges. Accordingly, they were not treated as primary empirical interview data. Instead, the insights derived from these discussions were used to inform and triangulate the analysis, particularly in interpreting institutional practices, coordination challenges, and emerging TBML patterns. Practitioner insights derived from these discussions provided contextual understanding of institutional challenges, inter-agency coordination, and anomalies in detecting TBML schemes. Practitioner insights obtained through institutional discussions were used to inform and contextualise the analysis, particularly in understanding coordination challenges and emerging TBML patterns. Additionally, secondary data from international organisations such as the FATF and the World Customs Organisation (WCO) were used to situate the findings within global practices.

To ensure the credibility and trustworthiness of the research, measures were taken to align with established qualitative research standards. Triangulation was employed by integrating data from multiple sources, including documentary materials, case records, and secondary reports, to cross-verify the findings. Reflexivity was maintained throughout the research process to mitigate potential bias, and peer debriefing was conducted to validate the identified themes and ensure they accurately represented the data. These efforts align with the trustworthiness criteria proposed by Nowell et al. for qualitative research, thereby reinforcing the study's reliability and validity.¹⁹

The adoption of thematic analysis is particularly justified in this study due to its ability to identify nuanced patterns and themes within complex data sets. This approach is highly adaptable, making it well-suited for integrating diverse sources of qualitative data into coherent findings. Furthermore, the descriptive approach employed in this research enhances its capacity to unravel the intricate dynamics of TBML practices in Indonesia, while the thematic analysis framework provides a robust mechanism for synthesising these insights into actionable knowledge.

¹⁹ Lorelli S. Nowell et al., "Thematic Analysis: Striving to Meet the Trustworthiness Criteria," *International Journal of Qualitative Methods* 16 (2017): 1-13, <https://doi.org/10.1177/1609406917733847>.

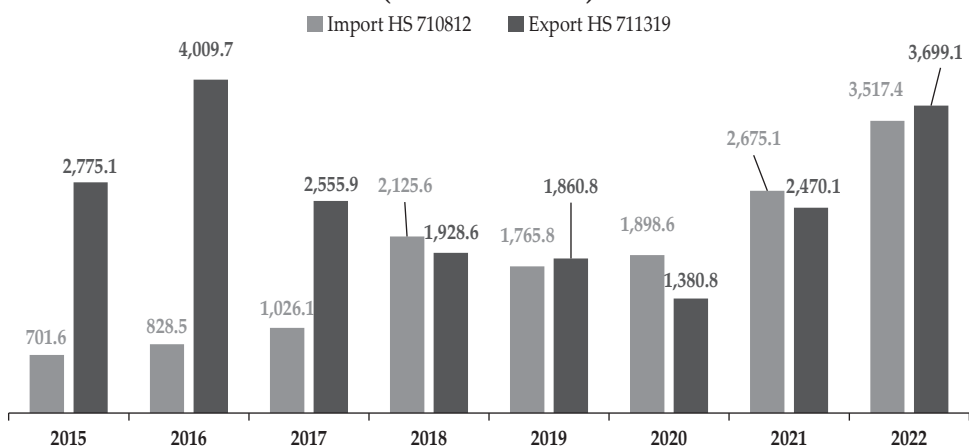
Ethical considerations were integral to the research process. The study relies primarily on documentary and institutional data, and all sources were handled in accordance with principles of confidentiality and responsible data use. Where expert insights informed the interpretation of findings, they were incorporated in an anonymised, non-attributable manner.

Despite its strengths, the study acknowledges certain limitations. Access to detailed financial and operational data was restricted by confidentiality laws, limiting the granularity of some findings. Additionally, reliance on documentary and secondary sources, while valuable for contextualisation, may not fully capture the nuances of specific TBML practices. Nevertheless, these limitations do not undermine the methodology’s robustness, which provides a reliable framework for understanding TBML in the context of Indonesia’s gold trade. This methodological approach also enables the study to bridge empirical case evidence with institutional and regulatory analysis, thereby supporting the article’s objective of examining TBML through the lens of central banking governance.

Finally, to enhance the clarity and fluency of the English writing, the authors employed artificial intelligence (AI)-assisted tools (OpenAI’s ChatGPT). The use of this tool was limited to improving language expression and did not influence the substance of the research design, data collection, analysis, or conclusions. The authors remain solely responsible for the accuracy and integrity of the content.

III. INDONESIA’S TAXATION POLICIES OF IMPORT GOLD AND RESTRICTIONS ON EXPORTING GOLD

Figure 1. Comparative Data on Gold Jewellery Exports and Gold Bar Imports (in thousand USD)



Source: trademap.org

Data presented in Figure 1 highlight the contrasting trends in the export of gold jewellery (HS 711319) from Indonesia and the import of gold bars (HS 710812) into Indonesia over the period 2015–2022. The chart demonstrates a steady increase in the value of gold bar imports, particularly from 2020 onwards, contrasting with fluctuating trends in gold jewellery exports. This dynamic reflects the underlying impact of Indonesia's taxation and trade policies.

From 2015 to 2017, exports of gold jewellery significantly outpaced imports of gold bars. However, starting in 2018, the gap between imports and exports began to narrow, with gold bar imports rising sharply by 2021, reaching USD 2.67 billion. By 2022, the value of imported gold bars (USD 3.69 billion) surpassed the value of exported gold jewellery (USD 3.47 billion), underscoring a critical shift in trade dynamics.

This statistical trend contradicts the claims made by the Indonesian Jewellery Manufacturers Association (APPI), which has expressed concerns about two major challenges affecting gold jewellery production: (1) the imposition of a 10% Value Added Tax (VAT) on domestic gold sales, making Indonesian gold more expensive than gold in international markets, leading to limited domestic supply as granulated gold production is more profitable for export rather than domestic distribution; and (2) the imposition of a 0.25% income tax (PPH 22) on purchases of gold bars in Indonesia for use as raw material in jewellery exports. Despite the government's fiscal policy adjustment in 2021, which exempted domestic granulated gold sales from VAT, imports of gold bars (purportedly intended as raw materials for jewellery) continued to rise significantly in 2021 and 2022.

This trend raises concerns regarding the legitimacy of gold bar imports for the jewellery industry, as unscrupulous actors within the sector may misuse tax exemption facilities such as the *Surat Keterangan Bebas* (SKB), which allows imported gold bars to be exempt from all tax obligations under the premise that they will be processed into jewellery for export. In practice, this loophole can be exploited to introduce tax-free gold into the domestic market, undermining government revenue and enabling TBML.

This situation highlights the urgent need for enhanced monitoring and regulatory enforcement to ensure that imported gold bars genuinely serve their declared purpose in jewellery production and export, rather than being diverted into domestic circulation or exploited for financial crime. Strengthening inter-agency coordination among customs, financial intelligence units, and taxation authorities is crucial to mitigating potential abuses of the system and maintaining the integrity of Indonesia's gold trade.

Furthermore, Figure 1 illustrates the volatility in gold jewellery exports, which can partly be attributed to fraudulent practices. For instance, exporters falsely declaring raw gold as jewellery to bypass export restrictions have contributed to the observed fluctuations. This fraudulent behaviour not only undermines the integrity of Indonesia's trade data but also highlights the systemic vulnerabilities in enforcement mechanisms.

The rising import values, coupled with the relatively stable but volatile export trends, underscore the unintended consequences of Indonesia's taxation and export policies. The dual burden of VAT on domestic sales and restrictive export regulations hampers the competitiveness of the local gold industry, compelling manufacturers to depend on imported raw materials. This dependency, in turn, creates opportunities for trade misrepresentation and tax evasion, further complicating regulatory enforcement efforts.

Indonesia's tax policies on gold imports and the domestic gold trade, as well as restrictions on gold exports, are characterised by complexities that have unintended consequences for both the domestic gold industry and regulatory enforcement. These policies are designed to regulate the trade of gold, encourage downstream activities, and prevent smuggling; however, their implementation has created challenges for stakeholders.

At the core of these policies is the VAT imposed on domestic gold transactions. Mining companies producing granulated gold with 99.99% purity face a dilemma: selling to domestic markets incurs a 10% VAT, making their products more expensive compared to imported gold bars. Similar challenges have been observed globally, where taxation policies inadvertently increase costs for local industries, reducing their competitiveness.²⁰ As a result, mining companies often prefer exporting granulated gold to receive VAT refunds, leaving local gold buyers with higher costs and reduced access to competitively priced raw materials. The dynamic created by this taxation scheme shifts the burden onto the domestic jewellery industry, which relies heavily on imported gold bars to remain competitive in international markets.

Export restrictions on gold further complicate the situation. Indonesia prohibits or restricts the export of processed gold with a purity of less than 99.99% unless it is declared as finished jewellery. The Ministry of Trade announced Regulation 46/M-DAG/PER/7/2012 requiring exporters of gold and silver to obtain an approval letter from the Ministry first.²¹ This regulation

²⁰ Amit Ranjan and Chulanee Attanayake, "The Bay of Bengal in the Evolving Indo-Pacific Debate," *Australian Journal of Maritime & Ocean Affairs* 16, no. 3 (2024): 285–91, <https://doi.org/10.1080/18366503.2024.2383820>.

²¹ Republic of Indonesia, Ministry of Trade Regulation 46/M-DAG/PER/7/2012 Concerning Provisions on the Export of Silver and Gold.

aims to promote value addition within the country. However, such restrictions often lead to manipulative practices, as exporters seek ways to bypass these controls. As highlighted in global studies, misdeclaration of goods is a common method for circumventing export restrictions, further complicating enforcement efforts.²² For instance, some exporters falsely declare semi-processed gold as jewellery to exploit the preferential treatment of finished goods, effectively enabling the smuggling of unprocessed or semi-processed gold under the guise of legitimate trade.²³

The dual burden of high domestic VAT and restrictive export policies has been highlighted by the APPI. They argue that these policies create significant barriers for the local industry to compete, as jewellery manufacturers face higher raw material costs compared to their international counterparts.²⁴ Furthermore, the preferential tax treatment for exports compared to domestic sales incentivises mining companies to prioritise international markets. This aligns with broader observations that export-oriented tax incentives often disincentivise domestic trade development.²⁵ Such dynamics discourage the creation of a robust domestic gold market and downstream industries, perpetuating dependence on imported materials.

Additionally, the administrative process for accessing tax facilities, such as the Notice of Tax Exemption, has become another area of concern. While these facilities are designed to support industries, limited oversight and inconsistencies in enforcement have enabled tax evasion and misallocation of imported gold. These inefficiencies are consistent with critiques of taxation systems in developing economies, where preferential regimes sometimes create unintended vulnerabilities.²⁶

Overall, Indonesia's taxation and trade policies on gold illustrate the challenges of balancing regulatory objectives with economic realities.²⁷ While

²² Dev Kar and Joseph Spanjers, *Illicit Financial Flows from Developing Countries: 2004-2013* (Global Financial Integrity, 2015), https://gfintegrity.org/wp-content/uploads/2015/12/IFF-Update_2015-Final-1.pdf.

²³ United Nations Interregional Crime and Justice Research Institute, "Strengthening The Security and Integrity of The Precious Metals Supply Chain" (United Nations Interregional Crime and Justice Research Institute (UNICRI), 2016); Emmanuel Mathias and Bert Feys, "Implementing AML/CFT Measures in the Precious Minerals Sector: Preventing Crime While Increasing Revenue," Technical Notes and Manuals 14/01 (Washington, D.C: International Monetary Fund, 2014).

²⁴ Lili Yan Ing et al., *The Indonesian Economy: Trade and Industrial Policies*, 1st ed. (Routledge, 2017), <https://doi.org/10.4324/9781315161976>.

²⁵ Jeffrey D. Sachs et al., "Economic Reform and the Process of Global Integration," *Brookings Papers on Economic Activity* 1995, no. 1 (1995): 1, <https://doi.org/10.2307/2534573>.

²⁶ Jayesh D'Souza, *Terrorist Financing, Money Laundering, and Tax Evasion: Examining the Performance of Financial Intelligence Units*, (CRC Press, 2017), <https://doi.org/10.1201/b11067>.

²⁷ Julia Tijaja and Mohammad Faisal, *Industrial Policy in Indonesia: A Global Value Chain Perspective*, nos. WPS146901-3 (Manila, Philippines: Asian Development Bank, 2014), <https://www.adb.org/sites/default/files/publication/110982/ewp-411.pdf>.

aimed at controlling trade and increasing industrial value, these policies inadvertently incentivise fraudulent practices, reduce domestic industry competitiveness, and create vulnerabilities that can be exploited by illicit actors. A more balanced policy framework is required to address these unintended consequences and foster a sustainable and transparent gold trade system. Lessons can also be drawn from international experiences, where aligning taxation policies with local industry needs has proven crucial for long-term success.²⁸

IV. GOLD-RELATED CRIME IN INDONESIA'S INTERNATIONAL TRADE

IV.A. Customs Fraud Case related to Exporting Gold

In 2016, Indonesia's Customs Office at Soekarno-Hatta Airport uncovered a significant case of fraudulent gold exports, where the exported goods were declared as gold jewellery in export documentation. The primary actor in this scheme was an Indonesian company, PT. Tujuan Utama, which collaborated with several entities to facilitate the fraud. These included PT. Loco Montrado as its local partner, Zhong Cheng, PTE. Ltd. in Hong Kong as the gold supplier, Metalor Technology Hong Kong as the consignee, and G4S Cash Services as the transportation company. The motive, as revealed by the public prosecutor, was to evade Indonesia's prohibition and restriction on the export of raw gold.²⁹

The fraudulent shipment declared 218,039.36 grams of "gold jewellery" at USD 31.50 per gram, amounting to a total value of USD 6,868,239.84. However, customs inspections revealed significant discrepancies. The shipment was found to consist of the following items:

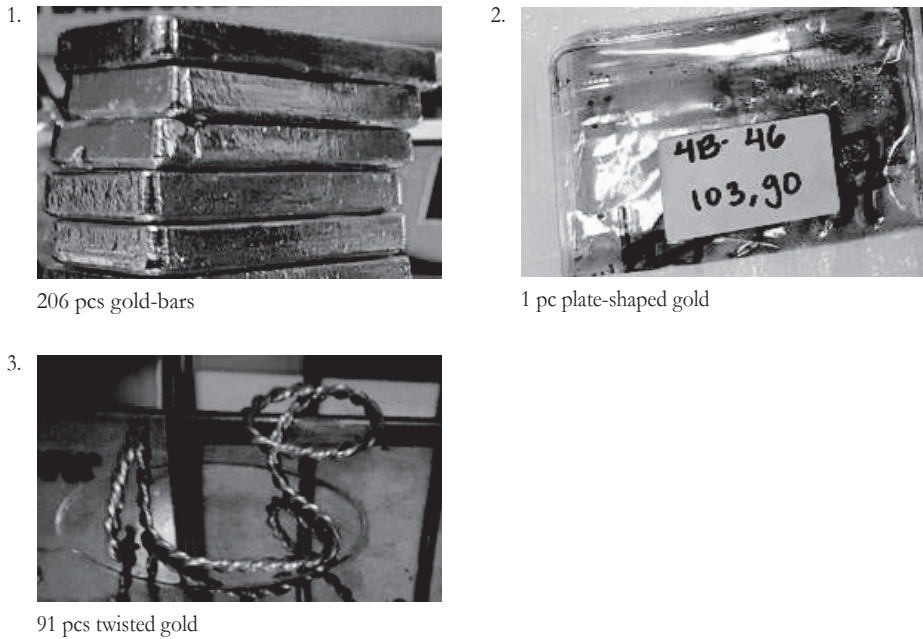
- 199,925.87 grams of 24-carat gold, including gold bars, gold sticks, twisted gold, and plate-shaped gold;
- 8,079.21 grams of 23-carat gold bars.

The detailed breakdown included 206 pieces of gold bars, 91 pieces of twisted gold, one gold stick, and one plate-shaped gold piece. Laboratory tests confirmed that the gold had a purity of 98.73% and 98.84%, which rendered it subject to export. This discovery is visually depicted in Figure 2, which illustrates the fraudulent export declaration.

²⁸ Paul Collier and Anthony J. Venables, *International Rules for Trade in Natural Resources*, Working Paper ERSD-2010-06, (Oxford, UK: World Trade Organization, 2010), https://www.wto.org/english/res_e/reser_e/ersd201006_e.pdf.

²⁹ The Supreme Court of the Republic of Indonesia, 17 July 2019, 200 PK/Pid.Sus/2019, url: <https://putusan3.mahkamahagung.go.id/direktori/putusan/zaeb44495fc71756a272313833323239.html>.

Figure 2. Customs fraud of gold export, but declared as gold jewellery in January 2016



Note: The Customs Laboratory stated that the gold content was 98.73% and 98.84%, which was prohibited/restricted for export.

Source: Indonesia Anti-Money Laundering Task Force formed by Coordinating Ministry for Politics, Law and Security Affairs in 2023

Figure 2 illustrates the export fraud scheme involving the misclassification of raw gold as jewellery products. This scheme illustrates how misclassification in trade documentation can conceal the true economic value of commodity transactions. From a financial governance perspective, such manipulation creates opportunities for illicit value transfers that may later be settled through formal payment channels.

The case underwent multiple legal proceedings, beginning at the district court. While the court acknowledged the fraudulent nature of the gold exports, the judges ruled that the act did not constitute a crime, releasing the defendants from all charges and ordering the return of the gold to PT. Tujan Utama. However, the Supreme Court overturned this decision during cassation, sentencing the individual defendants, Mr. Benny and Mr. Dicson, to six months imprisonment followed by a one-year probation. They were also fined IDR 1 billion (USD 62,500) and IDR 2.3 billion (USD 143,750), and the gold was forfeited to the state.

Despite this resolution, the case resurfaced in 2017 during a judicial review. The defendants argued that the export declaration error was unintentional,

claiming that the exported goods, including twisted gold and gold bars, were byproducts of jewellery manufacturing. The Supreme Court accepted this argument, acquitting the defendants and returning the gold. However, this decision did not deter the Indonesian Financial Transaction Report and Analysis Centre (INTRAC–PPATK) from continuing its investigation into suspicious financial transactions linked to the gold trade.

The author suspects that the dynamics of gold bar import data from 2015 to 2022, as well as fluctuations in gold jewellery exports during the same period, were likely influenced by the fraud case uncovered by customs authorities in early 2016. Additionally, intelligence reports issued by PPATK in 2017 and 2019 may have prompted further responses from customs officials (DJBC) and tax officers (DJP), forcing entities implicated in the PPATK reports to adjust their operations accordingly. In a subsequent financial intelligence report, the PPATK identified suspicious transactions totalling IDR 180 trillion (USD 11.8 billion) from entities affiliated with Siman Bahar, the alleged beneficial owner of the network. The investigation expanded to cover the 2017–2019 period, revealing further irregularities amounting to IDR 189 trillion (USD 11.2 billion). These transactions included discrepancies between the declared value of gold imports and exports in customs records and the actual financial transactions. Such findings highlight the systemic vulnerabilities in Indonesia’s customs enforcement and financial oversight.³⁰

It is also suspected that the PPATK’s second intelligence report influenced fraudulent business practices within illegal mining operations and nominees falsely claiming to be jewellery manufacturers. Moreover, the final PPATK report, which involved DJP in 2020, contributed to a significant increase in gold bar import data. This suggests the possibility that granulated gold was illegally exported through customs fraud schemes, processed abroad, and subsequently re-imported into Indonesia. These patterns emphasise the evolving nature of fraudulent activities and the challenges regulatory authorities face in curbing illicit financial flows in the gold trade.

In 2023, when controversies surrounding gold exports reemerged, customs officials issued an intelligence report targeting Siman Bahar’s affiliated companies. These companies exported “gold jewellery” with designs so rudimentary that they did not align with international jewellery industry standards, raising suspicions of disguised gold exports. As depicted in

³⁰ Yuni Priskila Ginting and Louise Shania Sabela, “Suspicious Financial Transactions from Initial Evidence of Customs Offenses,” *UNES Law Review* 6, no. 4 (2024): 11353–61, <https://doi.org/10.31933/unesrev.v6i4.2091>; Yusuf Marsel Surbakti and Maria Puspitasari, “The Threat of Illegal Imports Related to Narcotics and Cosmetics Smuggling in the Border Area of Tarakan: A Review from the Perspective of National Resilience,” *Indonesian Journal of Multidisciplinary Science* 4, no. 2 (2024): 116–28, <https://doi.org/10.55324/ijoms.v4i2.1033>.

Figure 3, the goods were designed with a rough and oversised appearance, complicating customs assessments and blurring the line between raw gold and finished jewellery. Financial transaction data further indicated that the same consignee that received exported “gold jewellery” also shipped raw gold bars to companies affiliated with Siman Bahar that enjoyed tax exemptions in Indonesia.

Figure 3. Alleged customs fraud: export of “gold” made to look like gold jewellery



Note: The results of the seizure by Soekarno Hatta Customs in 2023. However, the case could not be continued because technically the exported goods were “gold jewellery” even though in terms of design and quality of workmanship it could not be considered jewellery for the international market.

Source: Indonesia Anti-Money Laundering Task Force formed by Coordinating Ministry for Politics, Law, and Security Affairs in 2023

Despite these efforts, customs investigations have struggled to conclusively curb these schemes because international best practices in customs enforcement often rely on non-physical inspections (green line channels), and physical inspections are only conducted based on intelligence reports. This limited scope of inspection has created opportunities for perpetrators to adapt their methods, as evidenced by the evolving strategies of the exporters in their 2023 disclosures.

IV.B. Corruption Case of Gold Refinery

The network of entities affiliated with Siman Bahar has also been implicated in a significant corruption case involving PT Antam, a state-owned enterprise operating in Indonesia’s mining sector. This case, investigated by the Indonesian Anti-Corruption Commission (KPK), revealed a scheme that caused substantial financial losses to the state. One of PT Antam’s officials,

Dody Martimbang, was found guilty of orchestrating an unlawful agreement that resulted in state losses exceeding IDR 100 billion.³¹

The investigation revealed that PT Antam, which was responsible for refining and processing high-grade metal anodes (gold) and low-grade metal anodes (silver) into gold and silver bars, had violated its mandate. Instead of processing these materials internally or through authorised third-party arrangements, PT Antam engaged in an unauthorised exchange of high-grade anodes (gold) and low-grade anodes (silver) for finished gold bars. This exchange was facilitated through PT Loco Montrado, a company linked to Siman Bahar. Such an arrangement deviated from PT Antam's operational obligations and caused direct financial harm to the state.

As depicted in Figure 4, the scheme involved a flow of gold doré and metal anodes from PT Antam and other gold mining companies to PT Antam's refining unit. However, instead of conducting the refining process as required, PT Antam exchanged the doré for gold bars, which were subsequently routed through PT Loco Montrado to Siman Bahar's network. This bypassing of the processing stage not only undermined the value chain but also deprived the state of potential revenue from the refined gold and silver products.

Figure 4. Transactional mechanism for exchanging doré for gold bars in the PT Antam corruption case

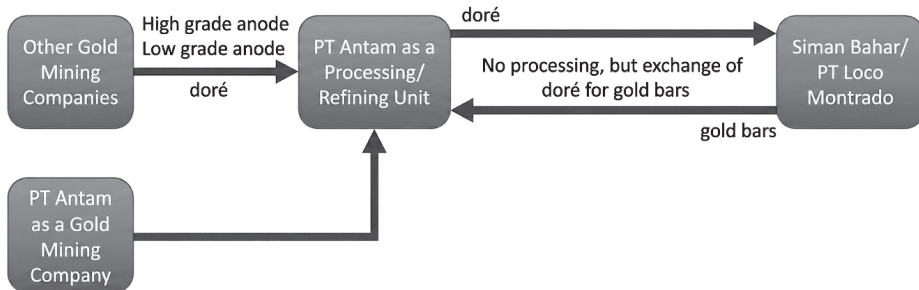


Figure 4 illustrates how the exchange of doré for gold bars may occur without genuine refining activity, thereby obscuring the provenance and transformation of the underlying commodity. Analytically, this mechanism reveals how weaknesses in verification processes within refining and processing stages can create opportunities for value manipulation. When such transactions are subsequently settled through formal financial channels, the scheme may enable illicit value embedded in commodities trading to enter regulated financial

³¹ The District Court of Central Jakarta, 24 May 2023, 52/Pid.Sus-TPK/2023/PN Jkt.Pst, url: https://sipp.pn-jakartapusat.go.id/index.php/detil_perkara

infrastructures. From a central banking governance perspective, this dynamic is significant because the financial settlement of these transactions can pass through payment systems and foreign exchange markets that fall within the central bank's regulatory and supervisory domain.

The Court found Dody Martimbang guilty of causing significant economic harm through these unlawful transactions and sentenced him to imprisonment. The case highlighted systemic weaknesses in the governance of state-owned enterprises and the exploitation of these vulnerabilities by organised networks linked to influential actors like Siman Bahar.

This corruption case reflects broader issues in Indonesia's gold trade, where a lack of oversight and transparency in operational processes enables the exploitation of state resources. The involvement of PT Loco Montrado in both this corruption case and the earlier customs fraud case underscore the recurring role of key entities within this network. Furthermore, the unauthorised exchange of doré for finished gold bars demonstrates a deliberate attempt to bypass accountability mechanisms and secure profits at the expense of state interests.

To prevent similar fraudulent schemes, it is imperative to strengthen the regulatory oversight of state-owned enterprises and enforce stricter accountability measures for officials involved in high-value transactions. The use of advanced monitoring technologies and the establishment of independent audit systems could significantly improve transparency and reduce the risk of fraud. Figure 4 illustrates the process flaws exploited in this case, emphasising the need for systemic reforms in Indonesia's gold processing and trading sectors.

V. THE POTENTIAL FOR MONEY LAUNDERING IN THE GOLD SUPPLY CHAIN IN INDONESIA AND HOW TO PREVENT IT

Indonesia's gold supply chain presents unique vulnerabilities that can be exploited for money laundering. While traditional money laundering often involves financial institutions or cross-border cash movement, gold trading has emerged as a significant alternative for criminals. Gold's universal acceptance, high value, portability, and anonymity make it an ideal vehicle for laundering illicit funds.³² These characteristics allow for the seamless movement of value across borders, often under the guise of legitimate trade.³³

V.A. Why Gold Facilitates Money Laundering

³² Grynberg and Singogo, "Dubai;" Teichmann and Falker, "Money Laundering."

³³ Fabian Maximilian Johannes Teichmann, "Twelve Methods of Money Laundering," *Journal of Money Laundering Control* 20, no. 2 (2017): 130–37, <https://doi.org/10.1108/JMLC-05-2016-0018>.

Gold has intrinsic qualities that make it attractive for money laundering: (1) It is a universally accepted store of value and medium of exchange; (2) It maintains stable pricing and high demand globally; (3) It offers anonymity in transactions and ownership, complicating tracking efforts; (4) Its liquidity and ease of transport make it versatile for international trade; and (5) Gold can easily be disguised as jewellery or other forms to obscure its true origin.³⁴ These features make gold an effective tool for criminals seeking to obscure the origins of illicit funds, particularly in a country like Indonesia, which is rich in gold reserves and hosts extensive legal and illegal mining operations.³⁵

These characteristics make gold especially suitable for integration into TBML schemes. By embedding illicit value within apparently legitimate commodity transactions, actors can disguise the movement of funds through international trade flows. While the physical commodity may move through trade channels, the associated financial settlements often flow through formal financial infrastructure, including banking systems, payment service providers, and foreign exchange markets. The governance implications of these financial transmission channels are examined in the subsequent sections.

V.B. Systemic Vulnerabilities in Indonesia's Gold Supply Chain

One of the most significant vulnerabilities arises from the prevalence of illegal gold mining activities in several regions of Indonesia. Gold extracted through unlicensed operations bypasses regulatory oversight, environmental standards, and taxation requirements. Once extracted, this gold frequently enters informal trading networks where its origin becomes increasingly difficult to trace. The integration of illegally mined gold into formal supply chains creates opportunities for laundering illicit proceeds under the appearance of legitimate commodity transactions.³⁶

A second vulnerability relates to the manipulation of trade documentation. As illustrated in the customs fraud cases discussed earlier, raw or semi-processed gold can be misdeclared as finished jewellery in export documentation. This practice enables exporters to circumvent regulatory restrictions and exploit preferential tariff treatment.³⁷ Beyond tax evasion, such misclassification also facilitates TBML by allowing illicit gold to move across borders disguised as facially legitimate commercial shipments.

Fiscal and trade policies may unintentionally reinforce these vulnerabilities.

³⁴ Teichmann and Falker, "Money Laundering."

³⁵ Ongku P. Hasibuan et al., "Illegal Gold Mining in Indonesia: Structure and Causes," *International Journal of Emerging Markets* 17, no. 1 (2022): 177–97, <https://doi.org/10.1108/IJOEM-11-2019-0964>.

³⁶ Hasibuan et al., "Illegal Gold Mining in Indonesia."

³⁷ Grynberg and Singogo, "Dubai."

Differences between domestic and international gold prices, combined with taxation structures and export restrictions, can create incentives for actors to engage in misrepresentation or outright smuggling. Where regulatory frameworks generate significant price distortions, market participants may be incentivised to circumvent formal rules through informal or fraudulent mechanisms, thereby increasing the risk that gold trade becomes intertwined with illicit financial flows.³⁸

Finally, illicit networks often exploit legitimate corporate entities within the gold supply chain. Refineries, jewellery manufacturers, and commodity traders can provide institutional cover for transactions that obscure the origin of gold or the movement of funds. When such entities possess recognised certifications or established market reputations, their involvement can lend credibility to transactions that would otherwise raise regulatory suspicion.³⁹ This commingling of legal and illegal activities complicates enforcement efforts and illustrates how gold-based money laundering can operate within formally legitimate market structures.

These structural vulnerabilities demonstrate that gold-based money laundering cannot be understood solely as a problem of individual criminal acts. Rather, it reflects systemic weaknesses within the broader gold supply chain. The interaction among illegal mining, trade manipulation, and institutional actors creates an environment in which illicit value can be generated, transferred, and eventually integrated into the financial system.

V.C. Interlinkages with Corruption and Organised Crime

The intersection of corruption, illegal mining, and weak regulatory oversight compounds the risks of money laundering. For instance, the activities of Siman Bahar's network, as evidenced in previous sections, demonstrate how corruption within state-owned enterprises and private sector entities facilitates the laundering of illicit funds. These networks exploit both domestic and international trade channels, highlighting the transnational nature of the issue.

Additionally, weak coordination among law enforcement agencies has hampered efforts to address money laundering. Investigations by different agencies, such as Customs, PPATK, and KPK, have often been siloed, preventing a comprehensive understanding of the broader network. This fragmentation allows criminal actors to exploit gaps in enforcement and perpetuate fraudulent practices.

Figure 5 illustrates suspected fraudulent activities in Indonesia's gold

³⁸ Zabyelina and Heins, "All That Glitters."

³⁹ Grynberg and Singogo, "Dubai."

supply chain, highlighting the interplay among legal and illegal mining, trade misclassification and/or misdeclaration in trade documents, and customs fraud. The process begins with gold mining, which can be conducted legally or illegally. While legal mining generally follows the regulatory framework, illegal mining operations exploit natural resources without proper authorisation and is then sold illicitly. These illegal sales contribute to the shadow economy and often enter legal supply chains, obscuring the origin of gold.

In preparation for export, raw gold in forms such as gold doré, granules, or scraps is often fraudulently declared as gold jewellery to exploit loopholes in trade regulations. This misdeclaration allows traders to avoid customs duties, evade taxes, and conceal illicit transactions. Once the mis-declared gold is exported, it reaches an overseas refinery, where it is processed and refined into gold cast or minted bars. These refined gold products then re-enter the Indonesian market under an import declaration, now classified as high-value gold bars, thereby laundering the gold.

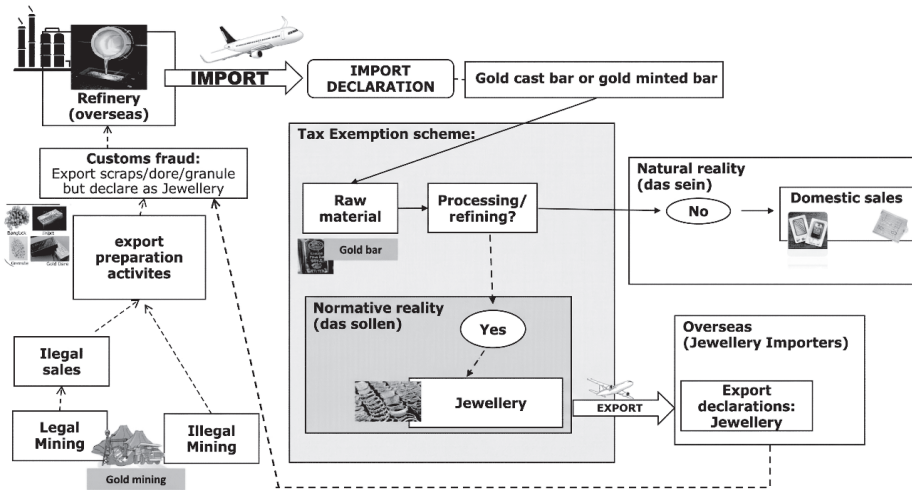
The fraudulent scheme is further facilitated by a tax exemption, whereby imported gold bars are declared as raw materials for processing into jewellery. Ideally, in a normative reality (*das sollen*), this gold should undergo processing or refining before being converted into jewellery. However, in the natural reality (*das sein*), many of these gold imports bypass the intended processing and instead are directly sold domestically, thereby evading taxation.

For exports, the scheme continues, with fabricated gold jewellery exports declared for sale abroad as finished products, even though the products may not meet the legal definition of jewellery. This practice allows perpetrators to claim trade benefits while effectively laundering the illicit gold.

Figure 5 synthesises the structural vulnerabilities within Indonesia's gold supply chain that may facilitate trade-based money laundering. The diagram highlights how discrepancies between the normative regulatory framework (*das sollen*) and the practical realities of market transactions (*das sein*) create opportunities for regulatory arbitrage. In particular, the misclassification of gold exports as jewellery products enables actors to exploit tax exemptions and export controls, allowing illicitly sourced gold to enter formal trade channels. Once embedded within legitimate export and import documentation, the associated financial settlements can be conducted through cross-border payment systems and foreign exchange transactions.

This illustrates how commodity-based fraud schemes may ultimately

Figure 5. Structural vulnerabilities and fraud typologies in Indonesia's gold supply chain



intersect with regulated financial infrastructures, thereby transforming a trade compliance issue into a broader financial governance concern. These dynamics help explain why TBML using cannot be addressed solely through customs enforcement, as the financial settlement of such transactions may involve payment systems and foreign exchange markets overseen by the central bank.

V.D. Implications for Central Banking and Financial Governance

The vulnerabilities identified in the preceding sections have implications that extend beyond trade enforcement and commodities market regulation. When illicit gold transactions intersect with cross-border payments, foreign exchange settlements, and financial intermediaries, they enter the institutional domain of central banking governance. This section, therefore, examines how gold TBML creates risks for key central bank functions, including reserve management, payment systems oversight, macroprudential stability, and the broader financial integrity framework.

TBML using gold raises significant concerns for central bank functions, particularly in the realms of reserve management, payment system oversight, and commodity credibility. First, gold remains an important safe-haven asset among central banks, especially amid economic or geopolitical turmoil, which is a trend that has accelerated after the Global Financial Crisis.⁴⁰ Reserve managers increasingly allocate portions of their foreign exchange reserves to

⁴⁰ Arslanalp et al., "Gold as International Reserves."

gold for its stability and insurance-like characteristics.⁴¹

Moreover, both theoretical and empirical research indicate that central banks hold gold not only for diversification but also to meet the core objectives of reserve management (liquidity, security, and return), which form the foundational pillars of official reserve management strategies.⁴² Recent evidence further emphasises that, for many emerging economies, holding gold can enhance sovereign creditworthiness and mitigate macro-financial vulnerabilities.⁴³

In terms of monetary governance, gold also plays a stabilising role in foreign exchange regimes as central banks use it as a buffer against external shocks and currency crises.⁴⁴ In the broader contemporary context, while digital assets such as Bitcoin are emerging, gold continues to anchor reserve strategy due to its enduring value and lifeline in digital disruption.⁴⁵

Against this backdrop, TBML practices involving gold pose grave risks: they can contaminate legitimate reserve channels, obscure reserve transparency, weaken sovereign credit, and undermine trust in a central bank's ability to maintain monetary stability. These risks are compounded if illicit gold enters payment systems or is laundered through international transactions that the central bank oversees. Thus, reinforcing AML frameworks for high-value commodities such as gold is not just a law enforcement issue, but a critical financial governance imperative. Understanding and mapping TBML using gold, therefore, is key for monetary authorities such as BI, as it enables them to safeguard reserve integrity, support payment system resilience, and preserve the credibility of commodities exposed to financial crime vectors.

From a legal perspective, these implications are directly relevant to Bank Indonesia's statutory mandate. Under the Bank Indonesia Law, Bank Indonesia is entrusted not only with maintaining monetary stability but also with safeguarding the soundness of payment systems, managing foreign exchange reserves, and supporting financial system stability, including the gold market. These mandates place the central bank squarely within the governance perimeter of risks arising from TBML using gold.

V.D.1. Transmission Channels: From Cross-Border Payments to TBML Using Gold

⁴¹ Sawan Rathi, Sanket Mohapatra, and Arvind Sahay, "Central Bank Gold Reserves and Sovereign Credit Risk," *Finance Research Letters* 45 (2022): 102127, <https://doi.org/10.1016/j.frl.2021.102127>.

⁴² International Monetary Fund, *Revised Guidelines for Foreign Exchange Reserve Management*, International Monetary Fund, 2014, <https://www.imf.org/external/np/mae/ferm/2014/revgudferm14.pdf>; Claudio E. V. Borio et al., eds., *FX Reserve Management: Elements of a Framework*, BIS Papers 38 (Bank for International Settlements, 2008).

⁴³ Rathi et al., "Central Bank Gold Reserves."

⁴⁴ Gevorkyan and Khemraj, "Back to the Future."

⁴⁵ Griffin, "Gold, Bitcoin, and Central Banks;" Shin, *The Next-Generation Monetary and Financial System*.

While the previous sections described how gold facilitates money laundering within trade transactions, the critical governance question concerns how these illicit flows interact with the financial system. In practice, TBML cannot be completed without financial settlement mechanisms. Cross-border payment systems, correspondent banking networks, and foreign exchange markets, therefore, function as transmission channels through which illicit value embedded in commodity trade is laundered into usable financial assets.

TBML using gold does not operate independently from the formal financial system. Although gold transactions are often perceived as commodity trades occurring outside conventional banking channels, empirical and policy-oriented studies consistently show that TBML schemes ultimately depend on regulated financial infrastructures for settlement and value transfer.⁴⁶ This insight is central to understanding why TBML using gold intersects directly with central banks' mandates rather than being confined to the domain of trade regulation.

The literature on TBML emphasises that trade misrepresentation, such as under-invoicing, over-invoicing, or falsification of quantity and quality, is only one step in the laundering process. TBML requires the settlement of payments associated with manipulated trade documents, often through cross-border wire transfers, correspondent banking relationships, or non-bank payment service providers.⁴⁷ In the context of gold trade, this reliance on payment systems is intensified by the commodity's high value-to-weight ratio and its frequent use in international transactions, characteristics that the FATF has identified as key risk factors for money laundering and terrorist financing.⁴⁸

From a central banking perspective, this settlement dependency constitutes a critical transmission channel. Payment systems overseen or regulated by central banks serve as conduits through which illicitly held gold is converted into usable financial assets. Studies on TBML have noted that weaknesses in payment monitoring and foreign exchange controls can significantly reduce the effectiveness of customs-based interventions, allowing illicit value to cross borders even when physical inspections are in place.⁴⁹ This finding reinforces the view that TBML should be analysed as a hybrid phenomenon that combines trade manipulation with exploitation of the financial system.

Foreign exchange mechanisms further enhance this money laundering channel. Gold trade transactions are typically denominated in foreign currencies, and mispriced or fictitious trades may distort recorded foreign exchange flows. Previous studies have demonstrated that trade mis-invoicing

⁴⁶ FATF-Egmont, *Trade-Based Money Laundering*.

⁴⁷ Hong and Pak, "Estimating Trade Misinvoicing."

⁴⁸ FATF, *Money Laundering and Terrorist Financing Risks and Vulnerabilities Associated with Gold*.

⁴⁹ FATF-Egmont, *Trade-Based Money Laundering*.

can obscure the true magnitude and direction of cross-border value transfers, creating informational asymmetries that complicate macroeconomic monitoring.⁵⁰ For central banks responsible for external sector stability, such distortions undermine the reliability of balance of payments data and weaken the analytical foundations of monetary and exchange rate policy.

These dynamics resonate with broader discussions in the central banking literature regarding the governance of reserve-related assets and cross-border financial flows. Recent studies highlight that commodities held as reserve assets, including gold, introduce governance challenges that extend beyond portfolio management to encompass transparency, provenance, and reputational considerations.⁵¹ When illicitly traded gold is settled through regulated payment channels, the resulting risks are not merely operational but institutional, affecting the credibility of oversight frameworks and the perceived integrity of the financial system overall.

Taken together, the body of literature supports the proposition that TBML using gold should be conceptualised through its financial transmission channels rather than as a purely trade issue. By linking trade misrepresentation to payment settlement and foreign exchange flows, this analysis positions central banks as structurally exposed actors within the TBML value chain. Framing the issue in this way provides the analytical foundation for examining how these channels translate into concrete risks for reserve integrity, financial stability, and central banking credibility, all of which are explored in the following sub-sections.

V.D.2. Risks to Reserve Integrity and Central Bank Balance Sheet

The implications of TBML using gold extend beyond payment settlement and foreign-exchange flows, affecting the core of central-banking governance: the integrity of reserve assets. Gold occupies a distinctive place within official reserves, serving not only as a store of value but also as a symbol of monetary credibility and institutional trust. As recent central banking literature has emphasised, the governance of gold reserves involves considerations that differ materially from those associated with financial instruments and foreign currencies, including provenance, custody arrangements, transparency, and reputational exposure.⁵²

From this perspective, TBML using gold introduces a set of risks that can

⁵⁰ Hong and Pak, “Estimating Trade Misinvoicing.”

⁵¹ Arslanalp et al., “Gold as International Reserves;” Borio et al., *What Share for Gold*.

⁵² Borio et al., “What Share for Gold? On the Interaction of Gold and Foreign Exchange Reserve Returns; Omar Zulaica, What Share for Gold? On the Role of Gold in Central Bank Reserves,” BIS Working Paper No. 906 (Bank for International Settlements, 2019), <https://www.bis.org/publ/work906.pdf>.

be categorised as reserve integrity risks. Although central banks do not typically engage directly in commercial gold trading, they operate within an ecosystem in which gold circulates among private markets, financial intermediaries, and, in some cases, official reserve holdings. When illicitly traded or misrepresented gold moves through formal financial channels and international markets, questions arise regarding the traceability and legitimacy of gold entering or influencing the broader reserve system. The concern is not that illicit gold will mechanically appear on a central bank's balance sheet, but that weaknesses in the surrounding governance environment may undermine confidence in the integrity of reserve assets as a whole.

For Bank Indonesia, the notion of “contamination” should not be understood as the physical incorporation of illicit gold into official reserves. Rather, the risk lies in governance and reputational exposure stemming from systemic weaknesses in the governance of the gold markets surrounding reserve management. Where domestic gold markets, settlement channels, or associated payment infrastructures are perceived as vulnerable to TBML, confidence in the integrity of reserve-related governance may be indirectly undermined, with potential implications for the credibility of the Bank Indonesia's balance sheet.

The literature on central bank reserve management underscores that confidence and credibility are central to the effectiveness of reserves. Previous studies show that gold continues to play a strategic role in central bank portfolios precisely because it is perceived as a reliable and politically neutral asset.⁵³ This perception, however, is contingent on robust governance. When gold markets are associated with money laundering, trade mis-invoicing, or opaque sourcing practices, the reputational benefits of holding gold may be undermined. For central banks, reputational risk associated with reserve assets can translate into broader credibility concerns, particularly in emerging economies, where public trust in monetary institutions remains sensitive to governance failures.

Policy-oriented analyses further highlight that gold poses unique challenges related to provenance and transparency. Unlike financial securities, gold's physical characteristics and global supply chains can obscure its origin and ownership history. The FATF has identified the precious metals sector as vulnerable to money laundering precisely because of difficulties in verifying the legitimacy of sources and monitoring value transfers embedded in trade transactions.⁵⁴ When such vulnerabilities intersect with reserve assets, the resulting risks are not merely legal but institutional, affecting how central

⁵³ Arslanalp et al., “Gold as International Reserves;” Gevorkyan and Khemraj, “Back to the Future.”

⁵⁴ FATF, *Money Laundering and Terrorist Financing*; Raden Pribadi, “The Significance of the Nickel Ore Export Prohibition for Indonesia in Consolidating Its Middle-Income Status in the World System,” Master's thesis (Lund University, 2024), <http://lup.lub.lu.se/student-papers/record/9161036>.

banks are perceived by markets, counterparties, and international standards-setting bodies.

These issues have direct implications for central bank balance sheets, albeit indirectly and in a governance-oriented sense. Central bank balance sheets are not only accounting documents but also instruments for policy signalling. The credibility of reported reserve positions depends on confidence that reserve assets are managed in accordance with sound governance principles and international standards. Studies by the Bank for International Settlements (BIS) emphasise that reserve governance increasingly encompasses transparency, risk management, and reputational safeguards alongside traditional financial considerations.⁵⁵ In this context, systemic exposure to illicit gold markets can create balance-sheet risks that erode confidence rather than immediate financial losses, whether through domestic gold sectors, settlement systems, or cross-border trade linkages.⁵⁶

In Indonesia, where gold is explicitly recognised as part of foreign exchange reserves under Bank Indonesia's mandate, these considerations take on particular relevance. The coexistence of official reserve management functions and a domestic gold market exposed to TBML risks underscores the need for a governance-oriented approach. The challenge is not to conflate commercial gold trading with reserve management, but to recognise that vulnerabilities in one domain can spill over into perceptions of the other. This spillover risk is especially salient in periods of financial stress, when reserve assets play a stabilising role and public scrutiny of central bank balance sheets intensifies.

The existing literature, therefore, supports a broader interpretation of reserve-related risk that goes beyond valuation and liquidity metrics. TBML using gold introduces governance risks that may weaken the credibility of reserve assets by associating them with illicit financial activity directly or indirectly. For central banks, mitigating such risks requires attention not only to internal reserve management practices but also to the regulatory and supervisory frameworks governing gold markets, payment systems, and foreign exchange transactions. This perspective reinforces the argument that TBML using gold should be treated as a central-banking governance issue rather than a peripheral trade or law-enforcement concern. In this sense, the risk is not primarily physical contamination of reserve holdings but rather a governance risk that affects confidence in the institutional integrity of reserve

⁵⁵ Borio et al., *What Share for Gold*.

⁵⁶ Ratih Hastasari and Suharini Suharini, "The Role of Bullion Banks as Market Risk Management Instrument in Indonesia's Gold Sector," *Jurnal Ilmiah Multidisiplin* 4, no. 04 (July 2025): 114–19, <https://doi.org/10.56127/jukim.v4i04.2195>.

management.

V.D.3. Macroprudential and Financial Stability Implications

Beyond risks to reserve integrity, gold-based trade-based money laundering generates broader macroprudential and financial stability implications that fall within the analytical and policy concerns of central banks. Macroprudential frameworks are designed to identify and mitigate systemic risks arising from interconnected financial activities, regulatory arbitrage, and concentrated exposures. When TBML using gold becomes embedded within payment systems, foreign exchange markets, and commodity-linked financial institutions, it introduces channels through which illicit financial activity can amplify systemic vulnerabilities.

The literature on financial crime and systemic risk increasingly recognises that money laundering is not merely a micro-level compliance issue but can have macroeconomic-level consequences. An initial study argues that large-scale money laundering can distort financial flows, undermine market discipline, and weaken the effectiveness of financial regulation.⁵⁷ In the context of TBML, these effects are compounded by the opacity of trade transactions and the difficulty of distinguishing legitimate commercial activity from illicit value transfers. Gold, as a high-value and globally traded commodity, magnifies these challenges by enabling large volumes of value to move with relatively limited physical or transactional footprints.⁵⁸

From a macroprudential perspective, one key concern is the concentration of risk within specific segments of the financial system. TBML related to gold often involves a narrow set of actors, including bullion dealers, commodity traders, non-bank payment service providers, and money changers. Empirical and policy studies show that such sectoral concentration increases vulnerability to shocks, particularly when supervision is uneven or fragmented.⁵⁹ If these actors become channels for laundering illicit proceeds, weaknesses in their oversight can propagate risks across the broader financial system through interconnected payment and settlement networks.

Another important dimension relates to regulatory arbitrage and the migration of risk outside the traditional banking sector. The growth of non-bank financial intermediation has been widely documented as a source of macro-financial risk, particularly when regulatory frameworks lag behind market

⁵⁷ Brigitte Unger and Joras Ferwerda, *Money Laundering in the Real Estate Sector: Suspicious Properties* (Edward Elgar Publishing, 2011), <https://doi.org/10.4337/9781781000915>.

⁵⁸ Brugger et al., "Unravelling the Nexus;" FATF, *Money Laundering and Terrorist Financing*.

⁵⁹ Basel Committee on Banking Supervision, *Implications of Fintech Developments for Banks and Bank Supervisors Sound Practices*, Bank for International Settlements, 2018; Borio et al., *What Share for Gold*.

innovation.⁶⁰ TBML related to gold exploits these specific gaps, leveraging non-bank payment services, informal remittance channels, or lightly regulated commodity markets to bypass stricter controls on conventional banking. For central banks with macroprudential mandates, such dynamics complicate the task of monitoring systemic risk, as vulnerabilities may accumulate outside the perimeter of conventional prudential supervision.

Financial stability concerns are further heightened by the potential interaction between TBML and periods of market stress. During episodes of economic uncertainty, demand for gold often increases, reflecting its role as a safe-haven asset. Previous studies note that shifts in gold markets frequently coincide with broader financial volatility and changes in investor sentiment.⁶¹ In such environments, illicit gold flows may intensify, exploiting heightened trading volumes and price fluctuations to obscure laundering activities. This procyclical interaction between market stress and TBML risk raises concerns that illicit financial activity could exacerbate, rather than merely accompany, periods of financial instability.

The literature on macroprudential policy emphasises the importance of information quality and data integrity for effective risk assessment. TBML, particularly when conducted through misinvoicing or false trade documentation, undermines the reliability of trade and financial statistics used by central banks for monitoring.⁶² Distorted data can impair early-warning systems, weaken stress-testing frameworks, and reduce the effectiveness of policy interventions aimed at preserving financial stability. For central banks responsible for macro-financial monitoring and monetary policy analysis, such distortions complicate the interpretation of trade statistics, balance of payments data, and cross-border capital flows. In this sense, TBML using gold introduces a form of informational risk that undermines the analytical foundations of macroprudential oversight.

These concerns align with broader discussions on the relationship between financial integrity and financial stability. The International Monetary Fund has repeatedly highlighted that weaknesses in AML/CFT regimes can pose material risks to financial stability, particularly in economies with significant

⁶⁰ Mugabil Isayev, "Financial Inclusion and Economic Growth: The Role of Non-Bank Financial Intermediation," *International Review of Economics & Finance* 105 (2026): 104829, <https://doi.org/10.1016/j.iref.2025.104829>.

⁶¹ Arslanalp et al., "Gold as International Reserves."

⁶² Hong and Pak, "Estimating Trade Misinvoicing."

cross-border financial exposure.⁶³ Similarly, the Financial Stability Board underscores that illicit financial activities can exacerbate systemic risk by eroding trust, encouraging de-risking, and fragmenting financial markets.⁶⁴ TBML using gold, by fouling the intersection of trade, finance, and commodity markets, exemplifies these dynamics and illustrates why financial integrity considerations must be integrated into macroprudential frameworks.

For central banks such as Bank Indonesia, these insights suggest that TBML using gold should be incorporated into systemic risk monitoring and macroprudential analysis. While central banks are not enforcement bodies, their responsibility for safeguarding financial stability requires understanding how illicit financial practices interact with market structures, regulatory boundaries, and cyclical dynamics. Addressing these risks requires coordination with supervisory authorities, financial intelligence units, and other regulators to ensure that macroprudential tools and oversight frameworks adequately identify vulnerabilities arising from commodity-linked financial crime.

In sum, existing literature supports the view that gold-based TBML has implications that extend well beyond individual institutions or transactions. By contributing to sectoral concentration, regulatory arbitrage, informational distortions, and procyclical risk dynamics, TBML using gold can undermine macroprudential objectives and financial stability. Recognising and addressing these risks is therefore integral to the governance of central banking in economies where gold plays a significant role in trade, finance, and reserve management. Consequently, persistent TBML activities within commodity trade, especially gold, may introduce hidden vulnerabilities into macro-financial monitoring frameworks used by central banks.

V.D.4. Central Bank Responsibility for Addressing AML/CFT and Institutional Coordination

The macroprudential and financial stability implications of TBML using gold ultimately converge on the question of the role of central banks within the national AML/CFT framework. Although central banks are not criminal enforcement agencies, contemporary financial governance frameworks increasingly recognise them as key institutional actors responsible for safeguarding financial integrity through regulation, supervision, and

⁶³ Kasper Brandt, "Illicit Financial Flows and Developing Countries: A Review of Methods and Evidence," *Journal of Economic Surveys* 37, no. 3 (2023): 789–820, <https://doi.org/10.1111/joes.12518>; International Monetary Fund, *Anti-Money Laundering and Combating the Financing of Terrorism (AML/CFT): Report on the Review of the Effectiveness of the Program*, Legal Document, IMF, 2011, <https://www.imf.org/external/np/pp/eng/2011/051111.pdf>.

⁶⁴ Financial Stability Board, *Global Monitoring Report on Non-Bank Financial Intermediation*, Financial Stability Board, 2020.

coordination. This role is particularly salient in relation to payment systems, foreign exchange markets, and non-bank financial intermediaries, all of which are frequently implicated in TBML schemes.

In Indonesia, this responsibility is reflected in Bank Indonesia's regulatory authority over payment systems service providers and foreign exchange intermediaries, both of which are required to implement AML/CFT measures as part of the national financial integrity framework. In Indonesia, therefore, this role is not merely conceptual but grounded in regulatory obligations. Bank Indonesia has issued specific regulations requiring AML/CFT measures to be implemented by payment systems service providers and non-bank money changers under its supervision. These regulatory instruments operationalise Bank Indonesia's AML/CFT responsibilities within the payment system, reinforcing its role as a mandated actor within the national financial integrity framework rather than a voluntary participant.

The literature on AML/CFT governance emphasises that effective prevention of financial crime depends on a system-wide approach rather than isolated institutional actions. Researchers in previous studies argue that AML/CFT regimes function as networks of interdependent authorities, in which regulatory gaps or coordination failures can be exploited by illicit actors.⁶⁵ Within this framework, central banks play a pivotal role by setting prudential and conduct standards, supervising payment infrastructures, and shaping compliance incentives across the financial system. TBML using gold, which relies on both trade misrepresentation and financial settlement, exemplifies a risk that cannot be effectively mitigated without central bank engagement.

From a regulatory standpoint, central banks' AML/CFT responsibilities are most clearly articulated in their oversight of payment systems and foreign exchange transactions. FATF standards explicitly identify central banks as competent authorities for ensuring that financial institutions and designated non-financial businesses and professions implement risk-based AML/CFT controls.⁶⁶ In the context of gold trading, these controls are particularly relevant for non-bank payment services providers, money changers, and other intermediaries that facilitate settlement of high-value commodity transactions. Empirical studies show that weaknesses in AML/CFT supervision of non-

⁶⁵ Michael Levi and Peter Reuter, "Money Laundering," *Crime and Justice* 34 (2006): 289–375, <https://doi.org/10.1086/501508>; Brigitte Unger et al., *The Economic and Legal Effectiveness of the European Union's Anti-Money Laundering Policy* (Edward Elgar Publishing Limited, 2014), <https://doi.org/10.4337/9781783472772>.

⁶⁶ Financial Action Task Force, Methodology for Assessing Technical Compliance with the FATF Recommendations and the Effectiveness of AML/CFT/CPF Systems, FATF, 2025, <https://www.fatf-gafi.org/content/dam/fatf-gafi/methodology/FATF-Assessment-Methodology-2022.pdf>. coredownload.inline.pdf.

bank actors can create displacement effects, whereby illicit flows migrate from the regulated banking sector to less-supervised channels.⁶⁷

Institutional coordination constitutes a second, and equally critical, dimension of central bank responsibility. The literature on financial integrity highlights that TBML thrives in environments characterised by fragmented oversight and limited information sharing among responsible agencies.⁶⁸ Central banks are often uniquely positioned to act as coordination hubs because of their access to system-wide payment data, macro-financial intelligence, and cross-border regulatory networks. In many jurisdictions, including Indonesia, formal coordination mechanisms are designed to integrate the analytical capacities of central banks, financial intelligence units, supervisory authorities, and customs agencies, such as national AML/CFT committees or task forces.

Comparative experience suggests that the effectiveness of such coordination frameworks depends on both legal mandates and operational practices. Studies by the International Monetary Fund (IMF) note that countries with stronger integration between central banks and financial intelligence units tend to exhibit more effective AML/CFT and lower systemic vulnerability to illicit financial flows.⁶⁹ Similarly, BIS analyses emphasise that central bank participation in financial integrity frameworks enhances the alignment between prudential supervision, payment system oversight, and AML objectives.⁷⁰ These findings support the view that central bank involvement in AML/CFT is not ancillary but integral to modern financial governance.

In the specific context of TBML using gold, institutional coordination is further complicated by the involvement of trade and customs authorities. Gold transactions frequently span multiple regulatory domains, including trade licensing, customs valuation, foreign exchange reporting, and financial supervision. The literature underscores that without structured mechanisms for sharing trade, payment, and financial intelligence data, TBML risks remain difficult to detect and address.⁷¹ Central banks, while not responsible for trade enforcement, contribute to the effectiveness of such mechanisms by integrating payment system data and supervisory insights into joint risk assessments.

These considerations point to a broader reconceptualisation of central bank AML/CFT responsibilities. Rather than treating AML/CFT as a compliance obligation external to core policy mandates, an emerging body of literature recognises financial integrity as a critical foundation for monetary and financial

⁶⁷ FSB, *Global Monitoring Report*.

⁶⁸ FATF-Egmont, *Trade-Based Money Laundering*.

⁶⁹ International Monetary Fund, *Financial Intelligence Units: An Overview*, with International Monetary Fund, *Manuals & Guides*, Washington, D.C.: IMF, 2004, <https://doi.org/10.5089/9781589063495.069>.

⁷⁰ Borio et al., *What Share for Gold*.

⁷¹ FATF-Egmont, *Trade-Based Money Laundering*. Choi et al., *Illicit Financial Flows*.

stability, highlighting its close connection with prudential supervision, financial governance, and systemic risk management.⁷² TBML using gold illustrates how illicit financial practices can undermine trust in payment systems, distort macro-financial data, and weaken institutional credibility if left unaddressed. Central banks' engagement in AML/CFT thus reflects a recognition that financial stability and financial integrity are mutually reinforcing objectives.

In sum, existing scholarship supports the conclusion that central banks occupy a central position within national AML/CFT ecosystems, particularly where TBML risks intersect with payment systems and cross-border financial flows. Effective mitigation of TBML using gold, therefore, depends not only on enforcement actions by customs or law enforcement agencies but also on the strength of regulatory oversight, supervisory practices, and institutional coordination led or supported by central banks. This perspective reinforces the argument that gold TBML should be analysed and addressed as a core issue of central banking governance rather than as a peripheral compliance concern.

V.D.5. International Benchmarks and Policy Implications for Central Banks

Consistent with international practice, gold is formally recognised as part of Indonesia's official reserve assets and is reported within the foreign exchange reserve framework managed by Bank Indonesia. In parallel, the central bank exercises oversight over payment systems and foreign exchange transactions that may be utilised to settle gold trade, reinforcing the institutional linkage among gold markets, payment infrastructures, and reserve governance. These features highlight why gold-based TBML cannot be viewed as external to central banking responsibilities.

The governance challenges posed by gold-based trade-based money laundering are not unique to Indonesia. Similar risks have been recognised across jurisdictions where gold plays a significant role in trade, financial markets, or official reserves. International experience, therefore, provides a useful benchmark for situating Indonesia's policy challenges within the broader discourse on central banking and financial governance. Comparative insights from global standard-setting bodies and peer central banks underscore the need to integrate anti-money laundering considerations into reserve management, payment system oversight, and macro-financial governance.

At the international level, the FATF has repeatedly highlighted precious metals, including gold, as high-risk sectors due to their susceptibility to

⁷² Bank for International Settlements ed., *Sound Management of Risks Related to Money Laundering and Financing of Terrorism*, Jan. 2014 (Basel: Bank for International Settlements, 2014); Unger et al., *The Economic and Legal Effectiveness*.

trade mispricing, opaque supply chains, and cross-border value transfers.⁷³ Importantly, FATF guidance does not frame these risks solely as issues for law enforcement or customs authorities. Instead, it emphasises the role of financial regulators and central banks in ensuring that payment systems, foreign exchange markets, and regulated intermediaries do not facilitate illicit value flows. This perspective aligns with the view that central banks are integral components of national financial integrity frameworks, even where they are not designated as primary enforcement agencies.

Central banking institutions and international financial organisations have also increasingly acknowledged the governance dimensions of reserve management. Studies by the BIS highlight that the composition and management of foreign exchange reserves, including gold, carry reputational and transparency implications that extend beyond portfolio optimisation.⁷⁴ As gold regains prominence in reserve portfolios, questions of provenance, custody, and ethical sourcing have become more salient. In this context, exposure to illicit gold markets, even indirectly, may undermine confidence in reserve governance practices and complicate engagement with international counterparts, particularly among emerging market central banks.

The International Monetary Fund (IMF) and the World Bank similarly frame financial integrity as a prerequisite for macroeconomic and financial stability. IMF analyses further highlight that weaknesses in AML/CFT regimes can generate cross-border spillovers by undermining correspondent banking relationships, disrupting capital flows, and eroding market confidence, thereby increasing systemic financial risk.⁷⁵ From this perspective, gold-based TBML represents a transmission mechanism through which weaknesses in trade and financial governance can undermine broader stability objectives. Central banks, as custodians of monetary credibility and external stability, are therefore expected to internalise such risks within their policy and surveillance frameworks.

International trade governance further reinforces this argument. While the World Trade Organization promotes principles of non-discrimination and transparency in commodity trade, it also recognises the need for members to address illicit trade practices that distort markets and undermine trust.⁷⁶ TBML using gold sits at the intersection of trade liberalisation and financial

⁷³ FATF, *Money Laundering and Terrorist Financing*.

⁷⁴ Borio et al., *What Share for Gold*.

⁷⁵ Michaela Erbenová et al., *The Withdrawal of Correspondent Banking Relationships: A Case for Policy Action*, IMF Staff Discussion Notes (SDNs), International Monetary Fund, 2016, <https://www.imf.org/external/pubs/ft/sdn/2016/sdn1606.pdf>.

⁷⁶ World Trade Organization, *World Trade Report 2019: The Future of Services Trade*, World Trade Organization, 2019, https://www.wto.org/english/res_e/booksp_e/00_wtr19_e.pdf.

integrity, illustrating the limits of sectoral approaches to governance. Without coordination among trade authorities, financial regulators, and central banks, policy responses risk fragmentation and regulatory arbitrage.

Comparative central bank practices suggest several policy implications. First, central banks increasingly incorporate AML/CFT considerations into payment system oversight, recognising that payment infrastructures are critical nodes in the transmission of illicit financial flows. Second, reserve governance frameworks are evolving to place greater emphasis on transparency, risk management, and reputational safeguards, particularly for non-traditional or commodity-based assets. Third, institutional coordination is considered essential to addressing TBML risks that transcend jurisdictional boundaries.

Experiences from central banks in advanced economies further illustrate these concerns. The European Central Bank has increasingly emphasised reputational risk, transparency, and compliance expectations in the context of financial market governance, recognising that weaknesses in financial integrity can undermine confidence in the Eurosystem. Similarly, the Bank of England has highlighted the importance of safeguarding market integrity and public trust as integral components of financial stability, particularly in contexts involving high-value assets and complex market infrastructures. Although institutional contexts differ, these perspectives underscore a shared recognition among central banks that financial integrity risks have direct implications for monetary credibility and governance, including those linked to precious metals.

For Bank Indonesia, these international benchmarks underscore the importance of aligning domestic governance frameworks with global standards. Addressing TBML using gold requires not only robust trade controls and AML/CFT supervision but also the integration of financial integrity considerations into Bank Indonesia's statutory mandates. This includes strengthening oversight of payment systems linked to high-risk commodity transactions, enhancing coordination with financial intelligence and customs authorities, and ensuring that reserve management practices are insulated from reputational and governance risks associated with illicit gold trade.

More broadly, the Indonesian case illustrates a challenge faced by many central banks in emerging and commodity-linked economies. As gold continues to play a role in reserves and financial markets, central banks must navigate the tension between leveraging its stabilising properties and safeguarding against the governance risks associated with its misuse. International experience suggests that this balance can only be achieved through a holistic approach that bridges monetary policy, financial stability, and AML/CFT governance. By situating TBML using gold within this broader framework, the analysis reinforces the argument that such risks should be addressed as a core concern of central banking governance rather than as a peripheral issue of trade

enforcement. These international benchmarks reinforce the importance of integrating financial integrity considerations into central banking governance, particularly in commodity-linked economies such as Indonesia's, where gold markets interact closely with trade flows, financial institutions, and official reserve management.

Taken together, these dynamics suggest that TBML involving gold should not be viewed solely as a trade-enforcement issue. Instead, it represents a multidimensional governance challenge that intersects with central banking mandates, including payment system oversight, foreign exchange monitoring, reserve management, and financial stability. Recognising these linkages is essential for central banks operating in commodity-linked economies, where vulnerabilities in gold markets may transmit risks into the broader financial system.

VI. ADDRESSING THE CHALLENGES

The analysis in the previous sections demonstrates that TBML related to gold cannot be addressed solely through traditional trade enforcement mechanisms. Because illicit gold transactions intersect with cross-border payments, financial intermediaries, and foreign exchange markets, they generate governance challenges that extend into the institutional domain of central banking and financial regulation. Addressing these risks, therefore, requires a coordinated policy approach that integrates trade supervision, financial oversight, and AML/CFT frameworks.

To mitigate the potential for exploiting Indonesia's gold supply chain for money laundering, a multifaceted approach is needed. First, strengthening trade monitoring mechanisms in the gold sector is essential. The customs fraud case discussed earlier illustrates how misclassification of raw gold as jewellery can be used to circumvent export restrictions and obscure the true nature of commodity transactions. Improving inspection procedures, harmonising product classification standards and enhancing data-sharing between customs authorities and financial intelligence units would reduce opportunities for such regulatory arbitrage.

Second, financial monitoring frameworks should be strengthened to detect suspicious transactions associated with the gold trade. As discussed in the analysis of financial transmission channels, TBML schemes ultimately require settlement through formal financial systems, including banking networks, payment services providers, and foreign exchange intermediaries. Enhancing AML/CFT supervision over these financial infrastructures can therefore play a critical role in identifying irregular transaction patterns linked to commodity trade.

Third, central banks should recognise the potential macro-financial implications of gold-related illicit trade. While customs authorities are primarily responsible for enforcing trade regulations, central banks oversee payment systems, foreign exchange markets, and financial stability monitoring. As demonstrated in the preceding analysis, vulnerabilities in the gold market may distort financial flows, complicate macroeconomic surveillance, and pose reputational risks to reserve governance. Strengthening coordination among central banks, financial regulators, and financial intelligence units is therefore essential to address these multidimensional risks.

Finally, international cooperation remains crucial to addressing TBML involving gold. Because gold trading frequently involves cross-border transactions and complex supply chains, unilateral enforcement measures may be insufficient. Aligning national regulatory frameworks with international standards promoted by organisations such as the FATF and the BIS can strengthen institutional capacity to detect and prevent illicit financial flows linked to commodity markets.⁷⁷

Taken together, these policy measures highlight the importance of addressing gold-related financial crime through an integrated governance approach. Rather than treating TBML solely as a customs enforcement issue, policymakers must recognise its broader implications for financial system integrity and central banking governance. By strengthening coordination among trade authorities, financial regulators, and central banks, it is possible to mitigate the systemic risks associated with illicit gold trade and enhance the resilience of financial oversight frameworks.

VII. CONCLUDING REMARKS

This article has examined TBML using gold through a central-banking governance lens, moving beyond conventional discourse that frames the phenomenon solely as a trade compliance or law-enforcement issue. By analysing the interactions among illicit gold trade, payment systems, foreign exchange flows, and reserve management, the study demonstrates that TBML involving gold poses risks that extend to central banks' core mandates. These risks are not limited to transactional irregularities but encompass broader governance concerns related to reserve integrity, financial stability, and institutional credibility.

The analysis shows that TBML using gold operates through identifiable transmission channels that connect trade misrepresentation to regulated

⁷⁷ Teichmann and Falker, "Money Laundering."

financial infrastructures. Cross-border payment systems and foreign exchange mechanisms serve as critical conduits through which illicit value embedded in gold trade is settled and transferred. As a result, central banks are structurally exposed to TBML-related risks even in the absence of direct involvement in gold trading, particularly those responsible for payment system oversight and foreign exchange regulation. This finding underscores the need to conceptualise TBML as a hybrid governance challenge spanning both trade and financial domains.

A central contribution of the article lies in highlighting the implications of TBML using gold for reserve integrity. Gold continues to play a strategic role in central bank reserve portfolios, especially in emerging and commodity-linked economies. However, its effectiveness as a stabilising asset depends on robust governance arrangements that safeguard provenance, transparency, and reputational credibility. The study argues that vulnerabilities in gold markets and settlement channels can indirectly undermine confidence in reserve assets and, by extension, central bank balance sheets, even where no immediate financial losses are observed.

The paper further situates TBML using gold within a macroprudential and financial stability framework. Existing literature and policy analyses suggest that illicit financial activity can contribute to systemic risk by distorting financial data, encouraging regulatory arbitrage, and amplifying vulnerabilities during periods of market stress. In this context, TBML using gold introduces informational and structural risks that complicate macro-financial monitoring and weaken the analytical foundations of policy calibration. Recognising these dynamics reinforces the view that financial integrity and financial stability are mutually reinforcing objectives rather than separate policy domains.

From an institutional perspective, the findings emphasise the importance of central bank engagement within national AML/CFT frameworks. While central banks are not enforcement agencies, their regulatory authority over payment systems, foreign exchange markets, and non-bank financial intermediaries positions them as key governance actors in addressing TBML risks. Effective mitigation, therefore, depends on strong institutional coordination among financial intelligence units, supervisory authorities, and trade-related agencies, as well as alignment with international standards and best practices.

By examining Indonesia's experience within a broader international context, the article highlights policy implications that extend beyond the national case. As gold regains prominence in reserve management and financial markets, central banks globally face similar tensions between leveraging the stabilising properties of commodity-based assets and safeguarding against the governance risks associated with their misuse. Addressing these challenges

requires a holistic approach that integrates monetary policy, financial stability frameworks, and AML/CFT governance.

Looking ahead, these findings suggest the need to develop further central bank law and regulatory coordination frameworks to address commodity-related financial risks. As illicit financial flows increasingly intersect with payment systems, foreign exchange markets, and cross-border trade, central banks may need to strengthen their analytical and supervisory engagement with sectors traditionally viewed as external to monetary governance. For emerging economies in particular, Indonesia's experience illustrates how vulnerabilities in commodity trade can interact with financial infrastructures and generate systemic governance risks. Recognising these linkages may help policymakers design more integrated approaches that align financial integrity objectives with financial stability and reserve governance.

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