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Legal architectures of bullion banking for Indonesia and Singapore in developing regional hubs and aligning with LBMA international standards

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ABSTRACT

Background: This study aims to deconstruct the legal architecture of bullion banking in Indonesia and formulate a robust harmonization model aligned with international protocols. Current literature indicates that global gold market integrity depends on standardized regimes, but Indonesian regulations lack formal integration of international benchmarks, creating a significant research gap in domestic banking law. **Methods:** This research employs a normative-dogmatic legal method with a functional comparative perspective, analyzing positive legal norms in Indonesia and Singapore. The theoretical component focuses on the civil liability of custodians and the reclassification of gold as a hybrid financial asset through systematic and teleological interpretation of primary and secondary legal materials. **Findings:** Analysis reveals that jurisdictional dualism between the Financial Services Authority and the Commodity Futures Trading Supervisory Agency generates systemic legal uncertainty and fiscal inefficiency, contributing to capital outflows toward jurisdictions with more stable regulatory environments. Singapore's standing as a regional gold hub rests on fiscal neutrality for investment-grade gold and the formal adoption of London Bullion Market Association (LBMA) standards within its domestic legislation. The theory of hybrid financial assets indicates that effective bullion banking depends on asset segregation and international quality standardization to support global fungibility and institutional credibility. **Conclusion:** Formal integration of LBMA protocols into banking law constitutes a necessary precondition for Indonesia to develop a credible regional gold hub, though implementation faces institutional and coordination challenges that merit further study. **Novelty/Originality of this article:** The originality of this research lies in the reconceptualization of gold as a hybrid financial asset within the contemporary legal-economic framework and the formulation of a specific regulatory blueprint for integrating private transnational standards into domestic banking statutes to resolve persistent jurisdictional collisions.

KEYWORDS: bullion banking; hybrid financial assets; LBMA Standards; legal harmonization; regulatory dualism.

1. Introduction

Gold has evolved from a physical commodity into a strategic financial instrument within the global monetary architecture due to its scarcity, durability, and intrinsic value, which position it as a store of value across jurisdictions and a medium of exchange across civilizations (Schenk, 2013). As capital markets deepen and financial risks become increasingly systemic, market participants have progressively shifted the function of gold from physical money under the gold standard regime to a reliable hedge and liquidity instrument, particularly during periods of global financial crises and heightened

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inflationary pressures (Sineni, 2023; Rahim et al., 2018; McKay & Peters, 2017; Rusakova & Saychenko, 2016). Institutional and individual investors employ gold as a portfolio diversification tool, while central banks strengthen foreign exchange reserve management through post-2008 gold accumulation to mitigate currency depreciation risks amid geopolitical uncertainty (Borisovich & Zaernyuk, 2018; Dodonov, 2022; Simanjuntak et al., 2025). These developments indicate that gold no longer functions merely as a passive reserve asset but has become an integral component of modern financial intermediation.

The transformation of gold's economic function has encouraged the emergence of a bullion banking ecosystem that reshapes the governance of precious metal assets by positioning banks as active intermediaries in financing, hedging, and liquidity management. Within this framework, investors increasingly perceive gold as a portfolio balancer that responds dynamically to macroeconomic fluctuations, including in emerging markets where financial volatility is more pronounced (Hastasari & Suharini, 2025; Krishnakumar & Lissy, 2025; Yakupoglu & Okur, 2021). This shift necessitates a regulatory environment that supports financial innovation without undermining gold's intrinsic stability. Accordingly, regulators are required to modernize legal frameworks so that instruments such as bullion-based lending can enhance market liquidity while enabling banks to transition from passive custodians to active providers of market liquidity (He, 2020; Rasheed et al., 2021; Supatmojo et al., 2024; Zubir & Ali, 2020).

In Indonesia, the ratification of Law Number 4 of 2023 on the Development and Strengthening of the Financial Sector and the enactment of Financial Services Authority Regulation Number 17 of 2024 mark a new phase in the formal recognition of bullion banking activities. These legal instruments aim to centralize supervision under the Financial Services Authority and remove historical barriers that previously restricted banks from managing gold as a productive financial asset. However, the implementation of this regulatory shift encounters structural tension with Law Number 10 of 2011 on Commodity Futures Trading, which continues to classify gold as a commodity under the authority of Bappebti. This dualism of regulatory authority generates jurisdictional ambiguity and constrains national banks in performing their role as active liquidity managers. As a result, the legal transformation of bullion banking in Indonesia remains incomplete without inter-agency harmonization.

By contrast, Singapore has consolidated its position as a regional gold hub through a legal architecture that integrates fiscal incentives, regulatory clarity, and strict compliance with international standards. Investment-grade gold is exempt from Goods and Services Tax under the GST Act, and this fiscal policy is supported by a robust legal regime that guarantees property rights and mandates adherence to LBMA standards within domestic regulation (Goh, 2022; Zhao, 2021). In Indonesia, however, the taxation framework under Minister of Finance Regulation Number 48 of 2023 continues to impose fiscal burdens that reduce the competitiveness of domestically produced gold bars. This regulatory asymmetry contributes to capital outflows as gold assets migrate toward jurisdictions with more efficient and predictable legal environments (Thomsen et al., 2024). A comparative examination of Singapore's regulatory model is therefore essential to identify the legal prerequisites for developing a credible regional bullion hub.

The core research gap addressed in this study is the absence of formal integration of LBMA standards into Indonesia's banking regulations despite their partial recognition in the commodity trading sector. Bappebti Regulation Number 13 of 2019 acknowledges LBMA standards, yet Financial Services Authority Regulation Number 17 of 2024 does not establish them as mandatory benchmarks for financial institutions. The divergence between national standards under Government Regulation Number 34 of 2018 and international protocols further limits the fungibility of Indonesian gold in global markets (Rahim et al., 2018). Without harmonization of security, purity, and transparency standards, the credibility of Indonesia's bullion banking industry remains questionable among global institutional investors. This study adopts a normative-dogmatic legal approach with a functional comparative perspective to evaluate whether recent regulatory reforms resolve normative collisions between banking law and commodity trading regimes, positioning gold as a hybrid financial asset that combines commodity characteristics with monetary functions.

The study addresses three interrelated questions. First, what normative conflicts arise from the bifurcated classification of gold under Indonesian law and what are their practical consequences? Second, how does Indonesia's framework compare with Singapore's in institutional design, fiscal treatment, and LBMA integration? Third, what harmonization model can most plausibly resolve the jurisdictional dualism within the existing statutory architecture? The primary objective is to deconstruct Indonesia's bullion banking legal architecture and formulate a harmonization model aligned with international protocols. Theoretically, the study reconstructs banking law doctrine on the civil liability of custodians and trustees in digitally mediated bullion transactions (He, 2020; Zubir & Ali, 2020). Practically, it offers a regulatory blueprint covering taxation reform, AML-CFT strengthening, and mandatory purity standardization.

2. Methods

2.1 Research design

This study employs a normative-dogmatic legal research design focusing on the systematic and doctrinal examination of positive legal norms governing bullion banking. The research assesses the coherence, internal consistency, and normative effectiveness of the Indonesian regulatory framework in governing gold as a hybrid financial asset within the broader process of international standard integration. The normative approach is appropriate because the principal legal issues concern conflicts of norms, regulatory fragmentation, jurisdictional overlap, and institutional dualism between banking regulation and commodity trading law.

Within this methodological framework, law is treated as an autonomous and self-referential normative system. Accordingly, the analysis is directed toward the interpretation of legal norms, the application of general principles of law, and the doctrinal reconstruction of fragmented regulatory provisions. Legal problems are resolved through rational, structured, and verifiable legal reasoning rather than through empirical measurement of market behaviour or institutional performance (Indriati et al., 2022). The dogmatic dimension of the research is used to identify the normative meaning, regulatory scope, and binding force of the relevant legal provisions and to examine their implications for the transformation of gold from a regulated commodity into a banking-based financial instrument.

The research is analytical and descriptive in character. It analytically examines the structure, hierarchy, and interaction of the relevant legal norms, while descriptively mapping the regulatory architecture applicable to bullion business activities. Particular attention is given to legislative intent, institutional competence, normative collisions, regulatory gaps, and the legal consequences arising from overlapping banking and commodity-trading regimes. This approach is intended to produce conceptual clarity, normative coherence, and legal certainty regarding the legal status and governance of bullion banking activities (Putra et al., 2024; Vachev, 2023).

2.2 Legal materials and research sources

The legal materials used in this study are classified according to their degree of legal authority into primary and secondary legal materials. Primary legal materials consist of authoritative legal instruments enacted or issued by competent state institutions and regulatory authorities. These materials possess binding legal force and constitute the principal basis for evaluating the legality, institutional structure, and regulatory coherence of bullion banking activities in Indonesia.

The primary legal materials comprise Law Number 4 of 2023 concerning the Development and Strengthening of the Financial Sector; Law Number 7 of 1992 concerning

Banking, as amended most recently by Law Number 6 of 2023 concerning the Stipulation of Government Regulation in Lieu of Law Number 2 of 2022 concerning Job Creation into Law; Law Number 21 of 2008 concerning Islamic Banking, as amended by Law Number 6 of 2023; Law Number 10 of 2011 concerning Commodity Futures Trading, as amended by Law Number 4 of 2023; and Law Number 8 of 2010 concerning the Prevention and Eradication of Money Laundering, as affected by Law Number 1 of 2023 concerning the Criminal Code.

The regulatory framework examined also includes Financial Services Authority Regulation Number 17 of 2024 concerning the Implementation of Bullion Business Activities; Financial Services Authority Regulation Number 8 of 2023 concerning the Implementation of Anti-Money Laundering and Counter-Terrorism Financing and Counter-Proliferation Financing Programs in the Financial Services Sector; Regulation of the Head of the Commodity Futures Trading Regulatory Agency Number 13 of 2019 concerning Technical Requirements for Physical Gold Trading in the Digital Futures Market; Government Regulation Number 34 of 2018 concerning the National Standardization and Conformity Assessment System; and Minister of Finance Regulation Number 48 of 2023 concerning Income Tax and Value-Added Tax Treatment of Gold and Related Services. These legal instruments are examined collectively to reconstruct the complete regulatory architecture governing bullion banking, physical gold trading, financial integrity, standardization, and taxation.

Secondary legal materials are used to explain, interpret, and contextualize the primary legal materials. They include legal textbooks, peer-reviewed journal articles, previous research, academic commentaries, and scholarly doctrines addressing banking law, commodity law, financial law, regulatory governance, and international economic law. These materials provide the theoretical and doctrinal foundations required to situate Indonesian positive law within broader debates concerning custodianship, fiduciary responsibility, trustee liability, asset segregation, prudential supervision, and financial intermediation. Legal dictionaries, legal encyclopaedias, and other reference materials are additionally used to maintain terminological precision and conceptual consistency throughout the analysis.

2.3 Collection of legal materials

Legal materials were collected through structured and document-based legal research. The collection process involved identifying, retrieving, verifying, and classifying the relevant statutory provisions, implementing regulations, regulatory guidelines, policy documents, academic publications, and comparative legal instruments. Primary legal materials were obtained from official government and regulatory sources to ensure authenticity, validity, and conformity with the most authoritative version of each legal instrument.

The collection procedure was conducted by tracing legal provisions according to their subject matter, institutional origin, hierarchical position, and regulatory function. The materials were subsequently grouped into several substantive domains, including banking authorization, Islamic banking operations, commodity futures regulation, physical gold trading, prudential supervision, anti-money laundering obligations, national standardization, taxation, custodial arrangements, and international bullion standards. This classification was necessary to identify areas of normative convergence, institutional overlap, regulatory inconsistency, and legal uncertainty.

Secondary legal materials were collected from reputable national and international academic publications and legal databases. The selection of secondary sources was based on their relevance to the research problem, doctrinal authority, analytical quality, and contribution to the interpretation of primary legal norms. Particular emphasis was placed on scholarship addressing the legal characterization of gold, the distinction between commodities and financial instruments, the regulatory treatment of custodial assets, the role of financial intermediaries, and the integration of international private standards into domestic financial regulation.

2.4 Legal analysis and comparative framework

The collected legal materials were analysed qualitatively through systematic and teleological interpretation. Systematic interpretation examined each provision as part of an integrated legal order, enabling assessment of the relationships among statutory provisions, implementing regulations, supervisory mandates, and sector-specific regimes. Teleological interpretation identified the regulatory objectives underlying the relevant instruments and evaluated the consistency of their substantive content with those objectives. The analysis incorporates hierarchical and conflict-of-law principles to resolve normative inconsistencies. *Lex superior derogat legi inferiori* tests the conformity of subordinate regulations with higher legislation, *lex specialis derogat legi generali* assesses the relationship between general banking or commodity rules and specialised bullion provisions, and *lex posterior derogat legi priori* applies where successive instruments regulate the same subject inconsistently. These principles function as doctrinal instruments for reconstructing a coherent bullion banking framework rather than mere formal rules of preference. A functional comparative approach uses Singapore as the sole comparator, focusing on regulatory design, institutional competence, legal classification, standard-setting, custodial protection, and legal certainty rather than empirical market performance. Singapore was selected for its regional proximity, its demonstrated capacity to attract international gold trading through an integrated regulatory and fiscal framework, and the accessibility of its primary legal materials. The single-comparator design prioritises analytical depth over jurisdictional breadth.

3. Results and Discussion

3.1 Reconceptualizing gold as a hybrid financial asset in modern legal architecture

Conceptualizing gold as a hybrid financial asset positions gold as an instrument that derives value from its physical underlying, but expresses economic rights through contractual legal constructs and, in certain variants, digitally transferable representations (Tsaregradskaya, 2021; Захаркина, 2022). This hybrid framework forces legal systems to establish a consistent taxonomy because gold-based instruments can shift their status to commodities, securities, or digital financial assets depending on the design of rights, redemption mechanisms, and custody structures attached to the product (Sempere, 2025; Tsaregradskaya, 2021). The literature on the tokenization of real-world assets asserts that legal legitimacy cannot rely solely on claims of gold existence, but rather on the regulatory regime's ability to verify ownership, ensure the link between token units and gold units, and regulate interoperability so that rights can be enforced across jurisdictions (Bihani et al., 2025). Therefore, physical quality standards such as purity, bar identification, and refining track records serve as normative components of financial rights, not merely technical attributes, so that the law must treat material standards as part of the validity and enforceability requirements of a contract (Santoso et al., 2025; Schöneich et al., 2023).

In the context of the global market, the LBMA standard regime establishes the prerequisites for fungibility through its Good Delivery List, bar specifications, and verification mechanisms that result in operational quality equivalence, allowing gold to circulate as collateral and settlement assets without the need for re-examination at each transaction (LBMA, 2017; Immanuvel & Lazar, 2022). This standard function also extends the hybrid asset dimension to the realm of proof, as the LBMA provides a framework that facilitates due diligence on quality, provenance, and supply chain integrity in institutional transactions (LBMA, 2017; Pieth, 2023). Governance literature emphasizes that hybrid assets increase the need for chain-of-custody arrangements because vulnerabilities no longer lie solely in gold production but also in the transfer of rights through custodians, issuers, and transaction intermediaries that manage claims on physical gold (Perepelytsya, 2021; Schöneich et al., 2023).

The construction of hybrid assets therefore requires asset segregation and verifiable periodic audits, because without segregation, the rights of instrument holders can easily become mixed with custodian assets, giving rise to the risk of bankruptcy and ownership disputes at the time of liquidation (He, 2020; Santoso et al., 2025). At the doctrinal level, hybridization requires a restructuring of the civil liability of custodians and trustees through the imposition of measurable standards of care, including risk disclosure obligations, redemption guarantee obligations, and obligations to maintain adequate records to protect bona fide rights holders (He, 2020; Zubir & Ali, 2020). The digital asset policy literature shows that regulatory fragmentation is a structural risk because cross-border classification differences enable regulatory arbitrage, so norm design needs to combine a hard law approach for investor protection and systemic stability aspects with soft law tools for rapidly changing technical standardization (Sempere, 2025; Ukwueze, 2021).

On the compliance side, gold tokenization increases the relevance of AML/KYC because transactions can fragment ownership, accelerate cross-border transfers, and make it difficult to track the ultimate beneficiaries. so the law must integrate customer due diligence obligations, transaction monitoring, and sanctions controls as prerequisites for product design, rather than merely post-transaction obligations (Partini et al., 2025; Sunarmi et al., 2022). The literature also highlights that strengthening the integrity of the digital gold market requires integration between private governance and public obligations, as private standards on responsible sourcing and supply chain transparency are only effective if national laws adopt compatible verification and enforcement mechanisms (Pieth, 2023; Schöneich et al., 2023).

3.2 Dualism of regulatory authority in Indonesia and its implications for the effectiveness of bullion banking

Indonesia's bullion banking framework is divided between two parallel regimes. Law No. 4 of 2023 and OJK Regulation No. 17 of 2024 classify gold as a financial instrument under OJK micro-prudential oversight, while Law No. 10 of 2011 retains gold as a tradable commodity within Bappebti's jurisdiction. The bifurcation reflects divergent regulatory philosophies. OJK emphasises systemic financial stability. Bappebti prioritises market integrity and consumer protection in physical trading. Because both regimes derive authority from statutes of equal hierarchical standing, the resulting normative collision cannot be resolved through inter-agency memoranda or informal coordination.

The conflict is explicit in Article 132 of Law No. 4 of 2023, which extends OJK's mandate to bullion activities in banking, while Law No. 10 of 2011 preserves Bappebti's technical authority over physical gold trading. Banks offering gold-based products must satisfy divergent licensing, capital adequacy, storage, and reporting obligations under two independent channels. This dual compliance burden inflates operational costs and obscures which authority holds enforcement jurisdiction when disputes arise in digital or physical transactions.

Operational consequences follow. Banks hesitate to expand gold-backed lending given unresolved uncertainty over the status of gold collateral (Hastasari & Suharini, 2025; Supatmojo et al., 2024). AML programs are weakened because transaction data flows to two agencies with incompatible reporting frameworks. Storage standards under the OJK regulation remain unsynchronised with Government Regulation No. 34 of 2018 and with LBMA Good Delivery specifications, restricting international acceptability of Indonesian bars. Foreign institutional investors cite this fragmentation as a custody risk. Singapore's centralised model under the Monetary Authority of Singapore illustrates the alternative, yet consolidation alone is insufficient. Harmonization requires statutory amendment and sustained political commitment, and carries transitional risks: enforcement gaps, resistance from established regulatory constituencies, and uncertainty for participants already licensed under the current framework.

3.3 LBMA as a transnational standard regime and institutional foundation of the global gold market

The London Bullion Market Association (LBMA) operates as a transnational standard regime whose regulatory potency derives not from formal state delegation but from institutional consensus among international market participants (Immanuvel & Lazar, 2022). This consensus establishes a hierarchy in which LBMA protocols dictate the terms of engagement for global bullion trade. The association integrates the physical gold market with global financial infrastructure through an objective and verifiable rule system (Yu, 2023) and functions as a quasi-regulatory institution producing operational certainty via quality standardization and market-based compliance (Yan, 2024). Jurisdictions internalize these standards to preserve access to major trading hubs, since uniform material quality is a functional prerequisite for gold trading at international scale (Immanuvel & Lazar, 2022). Market participants treat LBMA certification as a de facto license for cross-border trade. The association thus creates a private legal order transcending domestic boundaries. Refineries must pass rigorous audits to retain their status, and non-compliance results in exclusion from core global liquidity pools. This arrangement marks a shift toward self-regulation in commodity markets that reduces reliance on slower state regulation, making institutional maturity in the gold sector contingent on alignment with these transnational protocols.

In the pricing dimension, LBMA AM and PM daily fixings constitute the foundation of financial contract conventions and international gold price formation (Immanuvel & Lazar, 2022). These fixings serve as the primary data source for analyzing gold returns and volatility (Bouri et al., 2021; Yan, 2024), while the 2014 auction reform enhanced transparency and benchmark reliability through an open electronic platform (Immanuvel & Lazar, 2022). Quantitative research employs LBMA price series as target variables in predictive modeling and artificial intelligence applications (Bhimireddy et al., 2025; Puspita et al., 2024). Reliance on a single benchmark reduces interpretive dispersion among participants across jurisdictions and minimises price discrepancies between trading centres (Immanuvel & Lazar, 2022). Institutional investors value gold-backed exchange-traded funds against these fixings, central banks use them to calculate national reserve values, and the benchmarks support collateral valuation in bullion-based lending. The global financial architecture consequently treats LBMA prices as the epistemic authority on gold value, and this trust underpins the liquidity of the entire bullion ecosystem.

In the physical dimension, standardization through Good Delivery technical criteria ensures efficient cross-border settlement (Bolay, 2021). The LBMA maintains the list of refiners satisfying purity and weight standards, while standard reference materials for assay calibration guarantee comparability of laboratory results among global refiners and strengthen authentication along the international supply chain (Greenough et al., 2021). Certification transforms gold into a passport for liquid movement within the global vaulting system (Sari & Panggabean, 2024), and uniform quality standards directly reduce physical verification costs (Bolay, 2021). Banks accept certified bars as high-quality liquid assets without re-assaying, which accelerates settlement in large-scale transactions and eliminates information asymmetry between producers and institutional buyers. The Good Delivery framework thereby defines the physical parameters of global fungibility, supports chain-of-custody integrity from mine to vault, and functions as the catalyst for the financialization of gold on a global scale.

3.4 Comparison of the legal architecture of bullion banking in Indonesia and Singapore

Comparative analysis reveals significant disparities in institutional maturity between the two jurisdictions. Singapore has consolidated its position through the Securities and Futures Act 2001, integrating gold derivatives with capital market stability, while Indonesia's repositioning through Law No. 4 of 2023 seeks to centralize bullion oversight under the Financial Services Authority. Despite Indonesia's substantial resource base, the historic absence of a consolidated framework has impeded regional hub formation, whereas Singapore leverages first-mover advantages through legal certainty standards that transcend domestic jurisdictions. Fiscal policy constitutes the primary differentiator. Singapore's Goods and Services Tax Act 1993 exempts Investment Precious Metals meeting international purity criteria from tax, while Minister of Finance Regulation No. 48 of 2023 imposes Income Tax and VAT on Indonesian gold bar transfers. This asymmetry reduces the price competitiveness of domestic bullion and drives capital flight toward Singapore's cost-efficient jurisdiction.

Table 1. Comparative legal architecture of bullion banking

Distinguishing aspect	Regulatory substance in Indonesia	Regulatory substance in Singapore
Core legal classification of gold	Law No. 10 of 2011 as amended by Law No. 4 of 2023 retains gold as a commodity despite partial financial recognition.	No rigid statutory classification; gold functions flexibly under the Commodity Trading Act 1992 and Securities and Futures Act 2001.
Formal recognition of bullion banking	Law No. 4 of 2023 and POJK No. 17 of 2024 explicitly recognize bullion activities, though constrained by legacy commodity regulations.	Recognized implicitly through integrated financial legislation without a separate bullion banking category.
Supervisory authority	POJK No. 17 of 2024 assigns oversight to OJK while Law No. 10 of 2011 preserves Bappebti's powers, producing overlapping mandates.	Centralized under the Monetary Authority of Singapore with coherent supervision across banking and capital markets.
Commodity trading regulation	Bappebti Regulation No. 13 of 2019 imposes technical, licensing, and operational requirements grounded in commodity logic.	Commodity Trading Act 1992 emphasizes contractual freedom and market efficiency over prescriptive regulation.
Banking law framework	Gold activities permitted under Law No. 7 of 1992 as amended by Law No. 6 of 2023, subject to prudential limitations.	Governed by the Banking Act and SFA 2001 within general prudential and conduct requirements.
Islamic banking	Law No. 21 of 2008 permits gold-based Sharia financing, with uncertainty from overlapping classifications.	Islamic structures recognized contractually under general financial law without a bullion-specific statute.
LBMA standards adoption	Indirectly acknowledged via Bappebti Regulation No. 13 of 2019; POJK No. 17 of 2024 imposes no formal mandate on banks.	Embedded through market practice and regulatory expectations as a practical prerequisite for international participation.
Tax treatment	MoF Regulation No. 48 of 2023 imposes tax obligations on gold bars, reducing fiscal neutrality.	GST Act 1993 exempts investment-grade gold, creating a fiscally efficient environment.
AML and proliferation controls	Law No. 8 of 2010 and POJK No. 8 of 2023 impose comprehensive AML duties; proliferation risks addressed only indirectly.	Sector-specific AML/CFT duties for precious metals dealers plus explicit proliferation obligations under the PPFOM Act.
Price benchmark	No domestic benchmark institution; reliance on external reference prices.	Reliance on internationally recognized LBMA price mechanisms.
Bar integrity and traceability	National standards with voluntary international alignment; traceability dispersed across regulations.	Good Delivery compliance functionally required; sourcing aligned with OECD Due Diligence Guidance.
Custody and settlement	Custodial responsibility addressed indirectly through civil law; settlement only partially accommodates bullion instruments.	Clear property and trust law principles; integrated settlement systems for physical and financial gold.

As shown in Table 1, the regulatory comparison reveals fundamental differences between Singapore and Indonesia. Oversight structures diverge fundamentally. Singapore coordinates the Monetary Authority of Singapore with authorities under the Commodity Trading Act 1992 without regulatory overlap. Indonesia faces dualism between OJK (POJK No. 17 of 2024) and Bappebti (Law No. 10 of 2011), with digital gold classified simultaneously as a tradable commodity and a banking deposit instrument. On financial integrity, Singapore relies on the Precious Stones and Precious Metals Act 2019 and its 2024 amendment through the Prevention of Proliferation Financing and Other Matters Act. Indonesia's POJK No. 8 of 2023 aligns technically with international AML/CFT principles, yet enforcement at the physical trader level requires infrastructural strengthening. Regarding standards, Singapore explicitly adopts LBMA criteria as mandatory for investment gold in its tax regulations. POJK No. 17 of 2024 mandates high purity but does not formally bind banks to LBMA standards, while Government Regulation No. 34 of 2018 remains domestically oriented. This gap limits the international acceptability of Indonesian bullion.

Currency regulation adds friction. Bank Indonesia Regulation No. 17/3/PBI/2015 mandates Rupiah for domestic transactions despite the gold market's US Dollar convention, and PBI No. 24/7/PBI/2022 permits foreign exchange only within strict prudential corridors. Singapore allows full foreign currency flexibility. Indonesia holds a distinctive Sharia dimension through Law No. 21 of 2008 and Fatwa No. 77/DSN-MUI/V/2010, offering financial inclusion potential absent in Singapore's capital-market-focused model. Ultimately, legal certainty proves a more fundamental strategic asset than physical reserves, and success depends on political will for comprehensive regulatory reform.

3.5 Model for harmonizing bullion banking law based on LBMA standard integration

The harmonization model for bullion banking law must hinge on redefining gold as a hybrid financial asset to bridge domestic regulatory fragmentation. Integrating London Bullion Market Association (LBMA) standards serves as a normative bridge connecting national laws with the global market ecosystem. The Financial Services Authority (OJK) must transform Regulation No. 17/2024 to explicitly adopt Good Delivery criteria as a legal mandate for financial institutions. This step will establish legal certainty equivalent to Singaporean jurisprudence in managing investment assets. Such alignment requires the elimination of rigid dichotomies between commodity and banking regimes through a functional approach. Formal recognition of international standards will enhance the competitiveness and fungibility of Indonesian gold bars in global financial centers.

Resolving jurisdictional conflicts between the OJK and Bappebti necessitates an integrated oversight model modeled after Singapore's success. The Indonesian legal structure must reconstruct the relationship between the P2SK Law and Law No. 10/2011 through an authoritative single-window coordination mechanism. This harmonization model situates banking gold within a banking law corridor exempt from the technical constraints of traditional commodity trading. Singapore achieved this efficiency by utilizing the Commodity Trading Act 1992 in alignment with central monetary policy. Indonesia can formulate oversight synchronization protocols to eliminate regulatory arbitrage practices that undermine financial system stability. Unity of vision among regulators is an absolute prerequisite for building jurisdictional credibility among institutional investors.

Achieving fiscal efficiency is a crucial pillar of this harmonization model to prevent capital flight to overseas markets. Indonesia must revise the taxation scheme in Minister of Finance Regulation No. 48/2023 to align with the principle of tax neutrality for investment gold. The primary reference for this reconstruction is Singapore's Goods and Services Tax Act 1993 which provides full tax exemption for Investment Precious Metals. Current non-competitive fiscal burdens significantly hinder the liquidity acceleration of the national bullion market. Fiscal harmonization will create a level playing field for domestic banks competing for global gold deposits. Tax policy transformation must prioritize gold's function as a strategic savings instrument rather than a mere luxury consumption object.

Strengthening financial system integrity must be executed by incorporating standards for preventing the financing of proliferation of weapons of mass destruction into national law. Indonesia must expand the scope of OJK Regulation No. 8/2023 by adopting progressive elements from Singapore's Prevention of Proliferation Financing and Other Matters Act 2024. This model demands stricter oversight across the entire precious metal supply chain to mitigate transnational economic crime risks. The due diligence mechanism regulated in the Precious Stones and Precious Metals Act 2019 provides an effective framework for verifying customer profiles. Transparent law enforcement will strengthen Indonesia's position in compliance assessments by international bodies such as the FATF. Jurisdictional security serves as a strategic bargaining chip determining the success of regional trade hub formation.

Table 2. Recommended legal architecture for bullion banking harmonization based on LBMA standard integration

Architectural substance	Indonesian adoption	Recommendation
Classification of Gold as a Hybrid Financial Asset	X	Revise the P2SK Law and Banking Law to explicitly establish the legal status of gold as a monetary and investment instrument.
Integration of Mandatory LBMA Good Delivery Standards	X	Explicitly mandate compliance with LBMA protocols in OJK Regulation 17/2024 as a requirement for bank asset liquidity.
Tax Exemption for Investment Precious Metals (IPM)	X	Harmonize MoF Regulation 48/2023 with the Singaporean GST Act model to remove VAT and Income Tax on pure gold bars above 99.5 percent.
Centralization of Bullion Supervisory Authority	X	Eliminate the OJK-Bappebti dualism by transferring all gold banking supervisory functions to the OJK.
Mitigation of WMD Proliferation Financing Risks	X	Adopt the principles of the Prevention of Proliferation Financing Act 2024 into amendments of OJK Regulation 8/2023 and the AML Law.
Recognition of International Refiner Certification	X	Mandate the accreditation of domestic refining facilities under LBMA standards to guarantee global fungibility.
Flexibility in the Use of Foreign Currency	X	Relax Bank Indonesia Regulation No. 17/3/PBI/2015 specifically for international bullion transactions to support global market integration.
Legal Sandbox for Gold Tokenization	✓	Strengthen consumer protection rules and digital gold asset segregation within an SFA-style framework under the OJK.
Harmonization of Sharia Standards and Global Bullion Protocols	✓	Align National Sharia Council Fatwas with LBMA technical standards to ensure Sharia products are tradable in international markets.
Mandatory Periodic Independent Physical Audits	X	Require bullion-organizing banks to conduct third-party physical audits recognized internationally every semester.
Integrated Clearing and Settlement Infrastructure	X	Establish a national gold clearing house connected to global banking settlement systems.
Absolute Property Rights and Custody Protection	X	Draft specific regulations regarding the civil liability of banks as trustees in the physical storage of gold.

This harmonization model must also accommodate the unique dimensions of Sharia banking law to expand gold-based financial inclusion. The reconstruction of Law No. 21/2008 should be directed toward aligning domestic Sharia standards with international bullion operational protocols. This integration ensures that gold-based financing products maintain Sharia compliance while simultaneously meeting LBMA liquidity standards. National Sharia Council Fatwas serve as an ethical foundation, strengthening consumer protection in non-cash transactions. Singapore has demonstrated that the recognition of Islamic financial contracts can function harmoniously under general commercial law. Synergy between local wisdom and global standards will create an inclusive and competitive bullion banking ecosystem.

Asset digitalization through gold tokenization requires a legal sandbox within modern banking law, referencing Singapore's Securities and Futures Act 2001 to govern digital representations of physical gold. Digital property rights must rest on periodically verified physical backing, guaranteed through asset segregation mandates in OJK Regulation No. 17/2024 and mandatory independent physical audits to maintain token holder trust. Equally essential is synchronizing quality standards under Government Regulation No. 34/2018 with LBMA Good Delivery protocols. Mandatory international accreditation of national refineries eliminates technical barriers that have historically hindered Indonesian gold's acceptance in global clearing systems and reduces re-verification costs burdening transaction efficiency. The blueprint's success depends on consistent cross-sectoral regulatory reform. LBMA integration is the primary key to transforming Indonesia from raw gold producer into a regional precious metal financial hub, with legal certainty of property rights attracting global institutional investors. Table 2 maps these disparities systematically.

4. Conclusions

This research identifies the bifurcated classification of gold under Indonesian law as the principal structural obstacle to a coherent bullion banking framework. The jurisdictional dualism between the OJK and Bappebti generates normative conflict that current inter-agency arrangements have not resolved. Evidence from Singapore's regulatory model indicates that fiscal neutrality for investment-grade gold and the formal adoption of LBMA standards are significant determinants of a jurisdiction's capacity to attract institutional gold capital, though the causal relationship is context-dependent and cannot be confirmed through normative comparison alone. The exclusion of LBMA standards from OJK Regulation No. 17 of 2024 restricts the fungibility and international acceptability of Indonesian gold products. The harmonization model proposed in this study offers a doctrinal framework for addressing these gaps, with the acknowledgment that its practical realization depends on legislative, institutional, and political conditions that fall outside the scope of normative analysis. Clear property rights protection and transparent custodial liability are foundational requirements for a trustworthy bullion banking ecosystem, though their effective implementation requires both statutory reform and institutional capacity that must be developed incrementally.

Theoretical contributions involve the doctrinal reconstruction of banking law regarding the civil liability of custodians and trustees within digitally mediated bullion transactions. On a practical level, the study offers a regulatory roadmap for tax reform, anti-money laundering (AML) optimization, and mandatory quality standardization aligned with global benchmarks. This research is limited by its normative-dogmatic scope, which does not account for empirical market performance metrics. Future research must examine the relationship between bullion banking and national monetary stability or foreign exchange reserve optimization. Research should also address the legal dimensions of asset tokenization and distributed ledger technology (DLT) regarding the evolution of fiduciary responsibility. Analyzing the efficiency of inter-agency coordination is essential for securing the long-term integrity of the national precious metal infrastructure.

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