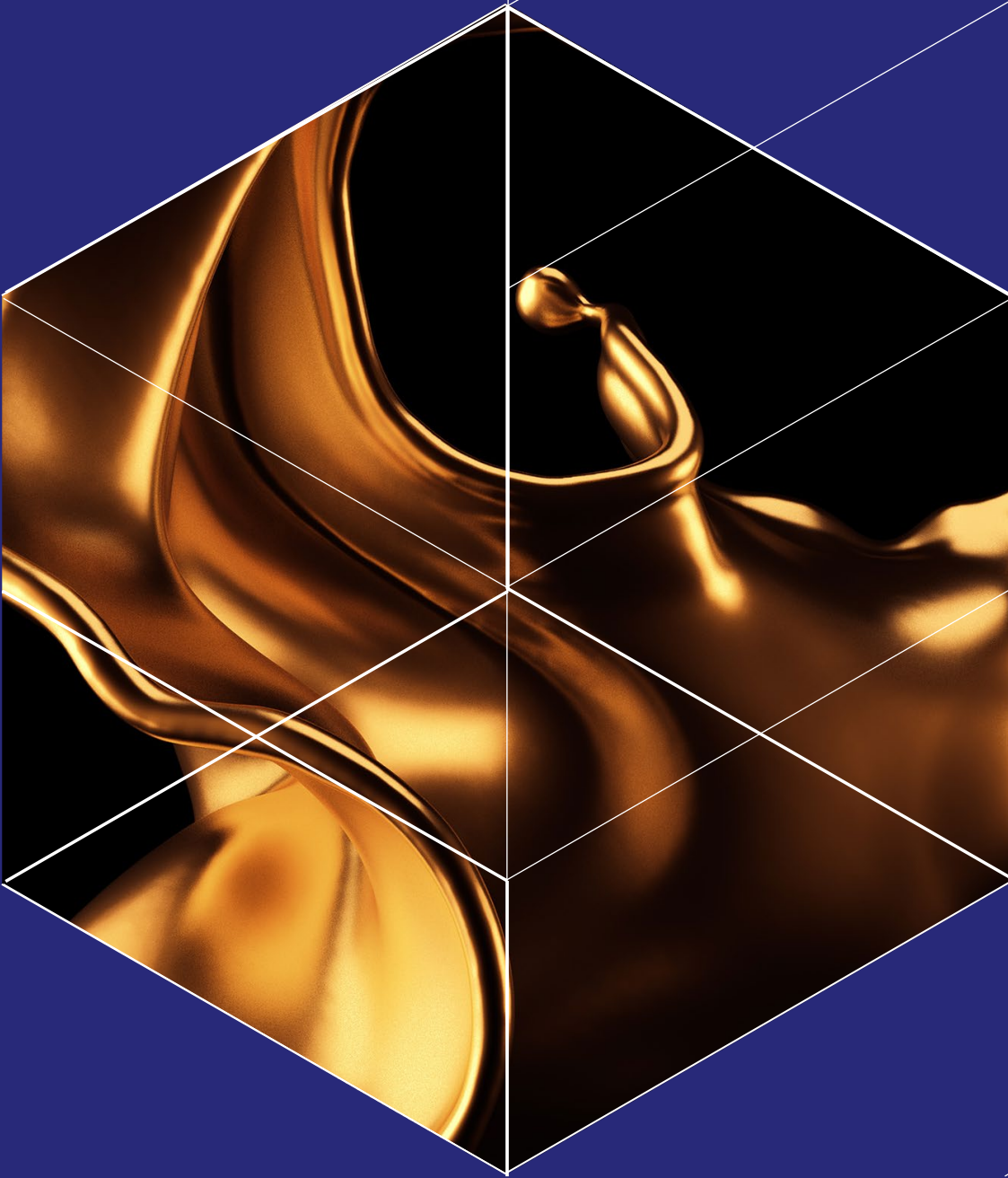


Data and Transparency in Precious Metals Markets

**Spotlight
Review
July 2023**



About us

Financial Markets Standards Board

Financial Markets Standards Board Limited (FMSB) is a private sector, market-led organisation created in light of the recommendations in the Fair and Effective Markets Review (FEMR) Final Report in 2015.

One of the central recommendations of FEMR was that participants in the wholesale markets should take more responsibility for raising standards of behaviour and improving the quality, clarity and market-wide understanding of trading practices. Producing guidelines, practical case studies and other materials that promote the delivery of transparent, fair and effective trading practices will help increase trust in wholesale markets.

FMSB brings together people at senior levels from a broad cross-section of global and domestic market participants and end-users.

In committees and working groups, industry experts debate issues and develop FMSB Standards and Statements of Good Practice and undertake Spotlight Reviews - like this one - that are made available to the global community of financial market participants and regulatory authorities.

Spotlight Reviews

Spotlight Reviews encompass a broad range of publications used by FMSB to illuminate important emerging issues in financial markets. Drawing on the insight of Members and industry experts, they provide a way for FMSB to surface challenges market participants face and may inform topics for future work.

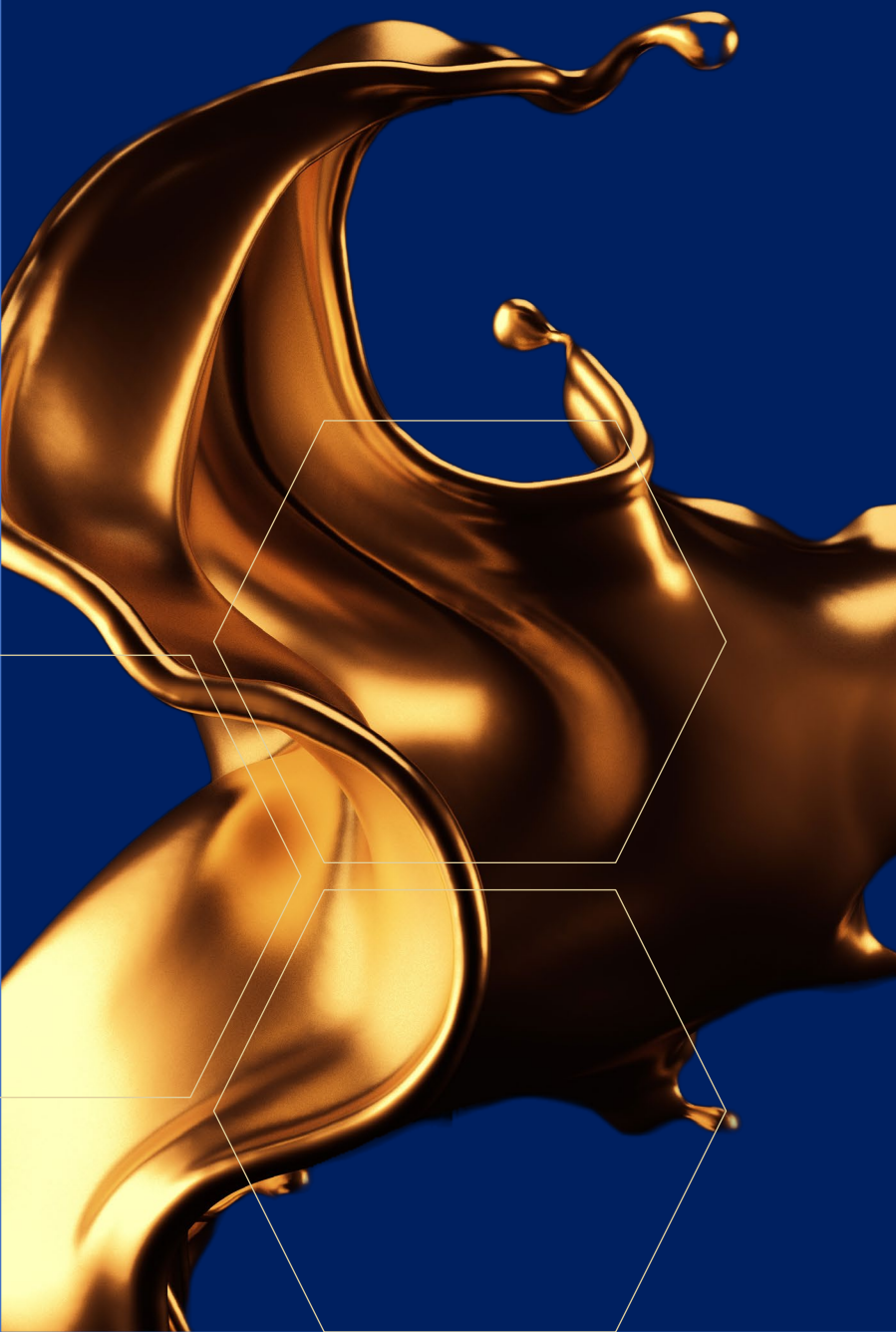
Spotlight Reviews will often include references to existing law, regulation and business practices. However, they are not intended to set or define any new precedents or standards of business practice applicable to market participants.



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Introduction



Gold has long been considered a store of value and a “safe haven” asset in times of market volatility. It has a unique market structure, evolved to blend features seen in mature, widely-traded financial products, with which gold shares similar functions, and physical commodities, with which it shares a form.

The second Basel Accords reduced the incremental cost of carry for unallocated gold as larger institutions were able to opt to use model-based approaches to calculate their capital, operational and market risk. No such model-based approach currently exists, however, for the new liquidity requirements laid out in Basel III, which took effect in 2021.

Gold has not been deemed a High-Quality Liquid Asset (HQLA) under the Liquidity Coverage Ratio (LCR), which mandates a buffer designed to be rapidly liquidated to meet a sudden cash outflow. Further, gold’s Required Stable Funding (RSF) mandates 85% of its value must be met in longer-term Available Stable Funding (ASF) under the longer-term Net Stable Funding Ratio (NSFR).

This paper considers the characteristics of gold as an asset and the wider gold market against the backdrop of the new Basel III liquidity requirements. It assumes a basic understanding of the structure of the wholesale gold markets, an overview of which can be found in FMSB’s Spotlight Review on Precious Metals Market Structure.

Section 1 of this paper draws on existing literature to conduct a gap analysis comparing gold against the principles for a HQLA and RSF. Sections 2, 3, and 4 consider key opportunities for evolution, which could improve trust and confidence in precious metals markets and provide further evidence of gold’s suitability as a HQLA.

Finally, Section 5 highlights synergistic improvements in market conduct which could be enabled through this wider suite of changes.

See also:



Precious Metals Market Structure Spotlight Review



Precious Metals Market Post-Trade Spotlight Review



Standard for the Conduct of Participants in LBMA Precious Metal Auctions

at FMSB.com.



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Basel III and prudential liquidity requirements

Gold's traditional status as a safe haven asset has historically been reflected in its prudential treatment.

The original Basel Accords, which agreed the first international standards for bank capital requirements and risk weighting of assets, treated gold in the same category as both cash and claims on OECD or the reporting bank's home government. This meant that banks could risk weight their gold assets at 0%, therefore requiring no capital to be held against potential deterioration in its value, despite the increased volatility compared to the other assets in this category.

However, this treatment only extended to bullion held in a bank's own vaults, or on an allocated basis.

The ability for larger institutions to opt to use model-based approaches to calculate their capital, operational and market risk since the implementation of the second Basel Accords reduced the incremental cost of carry for unallocated gold. However, in the aftermath of the 2008 Global Financial Crisis, the Bank of International Settlements introduced an overhaul of its framework for international standards for prudential risk management for banks.

Among other measures, Basel III strengthened existing bank capital requirements and introduced new rules for liquidity. While the capital requirements for gold remained unchanged, the liquidity rules have become the limiting factor in the cost of carry for gold.

Basel III implemented a change in rules on the required amounts of liquid assets that must be held by banks to withstand severe financial stress. Consequently, the LCR is intended to ensure that banks have at least the minimum HQLA to be resilient in times of stress.

Assets are considered HQLA 'if they can be easily and immediately converted into cash at little or no loss of value'¹. There are seven main characteristics of HQLA² which are split into fundamental characteristics (1-4) and market-related characteristics (5-7):

- 1 Low risk**
- 2 Ease and certainty of valuation**
- 3 Low correlation with risky assets**
- 4 Listed on a developed and recognised exchange**
- 5 Active and sizeable market**
- 6 Low volatility**
- 7 Flight to quality (market tending to move towards these assets in times of crisis)**

¹ Liquidity Coverage Ratio, Chapter 30.2, Basel Framework, Bank of International Settlements

² Ibid, Chapter 30.6-30.12



1. Basel III and prudential liquidity requirements continued

The second liquidity measure introduced by Basel III is the NSFR, a reflection of banks' overall funding structure. It encourages the funding of longer-term assets with longer-term funding, thereby reducing roll-over risk. Although not directly connected, the LCR and NSFR are related; assets that can be rapidly liquidated at minimal discount to market clearing price require less longer-term funding.

Of the seven criteria outlined above, insufficiently low volatility is often cited as a barrier to gold being treated as a HQLA. However, gold's volatility is inversely correlated with positive and negative macro-economic shocks, supporting its use as a hedging tool and safe haven asset. Similarly, research published by the World Gold Council and London Bullion Market Association, LBMA¹ looking at gold's performance during the covid asset liquidation event, suggests that intra-day volatility in gold spot markets over the period studied compared favourably with a basket of liquid stocks traded on the NYSE. In addition to volatility levels, limited understanding of the structure of the precious metals market, compared to other physical commodities markets, has also been considered an obstacle to gold's inclusion as a HQLA. Increased transparency, supported by public-private dialogue, will be important to address this concern.

Building confidence and trust in the precious metals market through increased price transparency should support higher trading volumes and overall market size as well as improving the ease and certainty of valuations. In turn, this may increase the likelihood of gold achieving HQLA recognition.

This paper considers three areas that can drive greater trust and confidence in the market:

- (i) **availability of reference prices;**
- (ii) **pre- and post-trade transparency; and**
- (iii) **robust market surveillance.**

Benchmarking: The re-introduction of a gold reference rate, through the proposed creation of a forward benchmark, could improve transparency in the market and would evidence an 'active and sizeable' gold market.

Transparency: Improving both point-of-trade transparency through greater adoption of electronic trading, and post-trade price transparency through publicly available historic transaction prices, should demonstrate the 'ease and certainty' of gold's valuation, as well as the presence of an active, liquid market. Having sustained price transparency, where price data is published and accessible, could also demonstrate that gold has a low correlation with risky assets, as it has historically been shown to keep its value in times of market stress or crisis.

Market surveillance: Robust market surveillance supports market integrity thereby increasing participant confidence in such markets.

1. [The Impact of the NSFR on the Precious Metals Market](#), World Gold Council and LBMA, April 2021



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Benchmarking

Benchmarks are ubiquitous in wholesale financial markets. By providing single price points for a basket of quotes, benchmarks reduce information asymmetries, search costs, and improve overall levels of efficiency and transparency in their respective markets.

Since 2015, the spot price for physical gold has been set through the LBMA. Both traditional clients, such as miners, refiners, end users and central banks, and wholesale clients can participate in the gold auction. However, the majority of participants in the gold market do not transact through auctions, but through bilateral trades that utilise the LBMA gold price as a benchmark, which underscores the critical role of the LBMA gold price in maintaining the robustness of the gold market.

In mature markets there is also a need for futures pricing and leasing costs (an effective interest rate) to enable hedging and efficient use of assets through their pledging as collateral. However, since the retirement of the Gold Forward Rate (GOFO) in January 2015, there is no longer a definitive forward reference rate for gold.

While LBMA members currently submit transaction data into the LBMA trade data store, the data collected is only available on an aggregated basis on T+1. Market participants whose trade data is submitted into the LBMA trade data store may also wish to consider whether further pricing information derived from LBMA trade data should be made publicly available to enhance transparency. This pricing data could be used to create a rate to perform a similar role to GOFO, helping to create a larger and more active gold swap market.

A new reference rate

Industry initiatives continue to investigate appropriate benchmark methodologies that would give the most voluminous tenor, with the lowest volatility, while being timely and resistant to manipulation. Although these efforts are far from concluding, two contrasting methodologies that have been discussed are outlined below.

GOSRA

One approach to creating a rate to perform a similar role to GOFO would be a **Gold Swap Rate in Arrears (GOSRA) rate**. The GOSRA rate would be an implied rate calculated in arrears, meaning it is based off previous transaction data. Executed tomorrow-next day ('Tom/Next') swap trades will be used to imply a look-back rate; a rate can then be implied for a given time window e.g., a 1-month forward rate is calculated by compounding in arrears the rates for all the trading dates in the month.

The GOSRA methodology would be a robust way to calculate a forward benchmark rate for gold, as there is a significant volume of data from executed Tom/Next transactions. Using realised transaction data and compounding multiple daily rates to calculate a term rate can also reduce the risk of benchmark manipulation.

However, while moving to a rate in arrears would match the post LIBOR transition approach being taken for the USD and GBP rates markets, there are drawbacks to moving to a rate calculated from historic data. Notably, GOSRA would be an imperfect proxy for future forward rates. In particular, the use of compounding of Tom/Next data could create anomalies due to idiosyncratic market moves that occurred during the reference period which would then be reflected in the forward rate. Adjusting the length of the reference period and/or use of a truncated average to determine the compounded rate could help to mitigate these anomalies. The compounding of a single average rate also implies a constant shape of a forward curve which may not be reflective of an actual market.



2. Benchmarking continued

GOFFR Rate

An alternative approach would be to create a **Gold Forward Financing Rate (GOFFR)** for the tenors with the highest transaction count and transaction volume in LBMA trade data. The required data on executed swap transactions is part of the LBMA trade data that is already collected, although it may be necessary to pair up the two legs of the swap transaction and compute the implied swap rate. It is anticipated that this may be possible for the 1-month and 3-month tenors.

A GOFFR rate has the advantage over a GOSRA rate that the tenor rates published for a particular date would be a forward-looking rate. It will be important to ensure that the volume of data being used to form the GOSRA or GOFFR rate is large enough to imply an accurate representation of the market. The LBMA already captures all swap trade data where at least one of the parties is an LBMA member. However, it is understood that even for 1-month and 3-month tenors, there is a lower transaction count and volume than for the Tom/Next transactions. Additionally, the GOFFR rate may be impacted as the prices of bilateral forward trades submitted into the LBMA trade data store can include XVA and/or credit margins.

The calculation of the GOFFR rate for particular tenors would not benefit from compounding rates from multiple periods of observation. As such, if there is insufficient transaction count and volume for the chosen tenors, a GOFFR rate calculation could be more susceptible to manipulation than a GOSRA rate.

Either approach is likely to have regulatory implications which will need to be considered when determining the desirability of the creation of a new benchmark as well as the appropriate methodology.





3. Pre- and post-trade transparency

For all markets, moving to multilateral electronic trading would help to increase transparency through data aggregation, as well as decreased liquidity search costs. This has been recognised internationally, including at the G20 in 2009, which called for all trading and clearing of standardised OTC derivative contracts to be conducted on exchanges, electronic platforms, and central counterparties, respectively.

However, while electronic trading platforms are used in the precious metals market today, some platforms are limited in their number of participants, and a sizeable volume of bilateral and voice trading still occurs in the precious metals market, relative to other markets. In the latter case, pre-trade pricing data is often not recorded or timestamped accurately. The use of multilateral platforms, such as Central Limit Order Books, could be further encouraged. By transmitting live bid and offer prices to the widest possible set of participants on those platforms, transparency and price discovery are improved across the market.

What is a central limit order book?

- A central limit order book (CLOB) is a trade execution model that matches bids and offers by price and priority.
- Outstanding bids and offers are queued and matched with a corresponding order by price and time of entry.
- The highest bid order and the lowest offer order are equivalent to the best available market price.
- Customers can enter limit orders between the bid and ask, as well as see, the market depth.
- A CLOB allows for transparent, real-time, and anonymous execution.

These prices are valuable pre-trade data, particularly in products such as OTC precious metals forwards where there is limited pre-trade transparency outside of electronic trading platforms. Given that the lack of pre-trade data and the corresponding challenges for ease and certainty of valuation are considered a barrier to gold achieving HQLA status, it may be worth considering whether data from electronic trading platforms could be aggregated and shared more broadly.

Pre-trade data is likely to be representative of the current prices that market participants receive, whereas backward looking post-trade data may not be. However, pre-trade data is also likely to become stale more quickly and have credit considerations. Additionally, there is a risk that pre-trade data may be proprietary, or client specific. This would limit its utility as a source of greater transparency, and data providers would have to be able to distinguish between pre-trade data from a competitive market which is relevant to all participants, against pre-trade data only applicable to a single, or small number of participants. This is potentially more difficult because pre-trade data in precious metals markets is driven by quotes not order books. Market evolution in other asset classes suggests that too much pre-trade transparency can make it harder for market-makers to absorb risk and therefore reduce liquidity. One potential solution could be to link the exchange-traded and OTC markets by way of a transparent and tradeable Exchange of Futures for Physical (EFP) rate, increasing the transparency and reducing the arbitrage between different platforms.

4. Surveillance and enforcing market behaviour

Part of building confidence and trust in a financial market is ensuring that market participants are confident that any incidents of market abuse and poor conduct will be detected and rooted out. This is supported by the implementation of high-quality surveillance capabilities trained both at market participants and on trading venues.

Greater data transparency and availability can support robust surveillance mechanisms driving correspondent improvements in market integrity. High-quality surveillance is dependent on the relevant pricing data being accessible and usable, which the move to electronic trading platforms, and increased post-trade data transparency discussed above, could help facilitate.

FMSB has previously conducted work in this area with a focus on the FX market ([FMSB Statement of Good Practice on Surveillance in FX Markets](#)). This Statement of Good Practice highlighted the necessity of retaining records of communications and on-going review of surveillance activities to identify trends and abnormal behaviour. Additionally, it highlighted emerging technologies and strategies which could be applied to facilitate surveillance. Such techniques could be extended from FX markets to the precious metals markets.

Natural Language Processing (NLP) could allow for automated identification of sentiment and context, aiding in the identification of conduct risks. Firms could consider a holistic surveillance model, bringing together disparate data sets (such as trade, written and voice communication, among others) into a single view, and applying more sophisticated data analytics engines and algorithms to connect them.

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Conclusion

If price benchmarking and greater transparency can be implemented in the precious metals market, it will improve the ease and certainty of valuation of instruments and, through enhancing the trust and confidence of market participants, contribute to a more sizeable and active market. Such steps could support gold's recognition as a HQLA.

Market participants, infrastructure providers and industry bodies will be best placed to take the observations in this Spotlight Review forward to improve the fairness and effectiveness of the market.