Has There Been a Decade of London PM Gold Fixing Manipulation?

By Peter Fertig, Director, QCR Quantitative Commodity Research Limited

On February 28, Bloomberg reported on a study co-authored by New York University Stern School of Business Professor Rosa Abrantes-Metz and Albert Metz, a managing director at the rating agency Moody's Investors Service. In their not yet published draft research paper, the two authors claim that "The structure of the benchmark is certainly conducive to collusion and manipulation, and the empirical data are consistent with price artificiality" and that "It is likely that co-operation between participants may be occurring". We have come to the conclusion that their findings could be explained and are not a valid proof of manipulation of the pm London gold fixing.

The authors of the study refer to unusual price activity around 3:00 pm in London when the afternoon setting of the gold price is taking place. They have not observed these trading patterns during the morning fixing. Furthermore, large price moves during the afternoon fixing were overwhelmingly to the downside. Screening intraday data from 2001 to 2013, they found those patterns from 2004 until the end of the data sample. In a telephone interview, Professor Abrantes-Metz said: "There's no obvious explanation as to why the patterns began in 2004, why they were more prevalent in the afternoon fixing and why price moves tended to be downwards." Thus, the two authors concluded in their research paper that unexplained moves may indicate illegal behaviour by the five banks involved in the gold fixing working actively together to manipulate the benchmark.

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Mainstream academic theory is that financial markets, and gold could be included in this group, are efficient. Anomalies are only temporary and as soon as the market has discovered them, they are exploited and disappear. Nevertheless, many academic studies have also found that anomalies in stock markets persist even many years after their discovery. One of those anomalies is the year-end effect, in which stocks that have already performed well during the year tend to rally further towards the year-end. The reason behind this move is that institutional investors that had been not invested in or had been underinvested in those equities buy the stock for reasons of window dressing to show in their reports that they had also held the top performers in their portfolios. This behaviour is absolutely legal and is not regarded as market manipulation. This leads to our first objection against the conclusion of Abrantes-Metz and Metz. Detecting anomalies in price behaviour might be an indication of illegal behaviour, but it is by no means evidence that prices have been manipulated.

Furthermore, that Professor Abrantes-Metz could not explain the unusual price patterns is more an indication of the authors' lack of familiarity with the gold market than an indication of price manipulation.

Ross Norman, the CEO of Sharps Pixley, has already provided a good explanation why the unusual price behaviour has been detected for the pm fixing only and not for the morning fixing. The afternoon fixing covers trading in both financial centres, London and New York, and thus provides commercial participants in the gold market with higher liquidity and, thus, the chance to get a better price. In addition, many producers are located in North America and the afternoon fixing is more convenient for their time zone. While gold at the Comex division of the CME also trades electronically during the London morning hours, the liquidity is higher at the futures exchange during the afternoon fixing. This is another reason for commercial participants to prefer to buy or sell gold at the pm fixing.

However, one might argue that with higher liquidity the occurrence of price spikes should be reduced and not increased. What might sound like a compelling argument at first quickly turns out to be flawed on closer inspection, for several reasons:

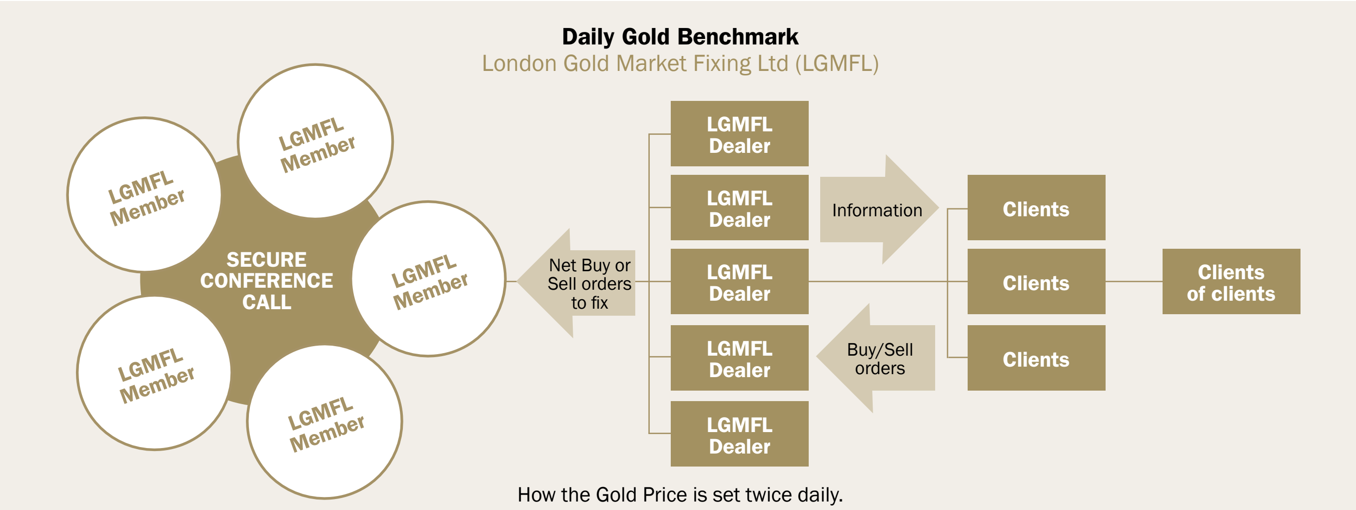
First, if a larger order has to be executed, the price impact would be greater in a less liquid market situation. Thus, a buyer or seller would still obtain the better price if it is executed in the afternoon fixing despite moving the price considerably from the level prevailing shortly before 3 pm in London.

Second, the development of the price of gold could be explained by the prices of some financial instruments and other commodities. In our quantitative fair value model, the weekly or monthly price development of gold is well explained by the S&P 500 index, the US dollar index and crude oil price. Also GARCH-X models show that these factors have an impact on the daily return and volatility of gold. Thus, we are not surprised that intraday spikes in the gold price occur during the afternoon gold fixing.

When the afternoon fixing starts in London, it is 10 am in New York (except for a couple of days during the year when the shifts to daylight savings time and back take place on different dates in spring and autumn). Some of the market-moving US economic data is released at this time. If this economic data deviates from the consensus forecast then the stock and forex markets react strongly. Sometimes, data releases confirming the consensus can also trigger stronger price moves in the stock and/or forex markets. Thus, it should not be surprising that participants at the gold fixing also react to those moves if a new price is called at the fixing, and bids and offers could be adjusted.

Also, the behaviour of institutional investors in the US stock market could provide an explanation for the price spikes at the London afternoon fixing. Trading at the NYSE starts at 9:30 am in New York. However, some studies have found that institutional investors don't enter the stock market until around 10 am –at around the time the fixing in London starts. Often the US stock market reverses direction around this time. Furthermore, a popular strategy among intraday traders is to trade breakouts of the trading range during the first 30 minutes. Price reversals and increased volatility of the US stock market could also have an impact on the price of gold during the fixing period.

Abrantes-Metz and Metz also point out that the spikes are more to the downside than to the upside. As Bloomberg has written, "on days when the authors identified large price moves during the fix, they were downwards at least two-thirds of the time in six different years between 2004



How the Gold Price is set twice daily.
Administrated by the London Gold Market Fixing Ltd (not LBMA).

and 2013. In 2010, large moves during the fix were negative 92 percent of the time." This is not really surprising if one considers who participates in the London fixing on the commercial side. During the period under investigation, many central banks had been sellers of gold. For this group, the fixing is one means to sell larger quantities and to obtain an 'official price' for their audits. But also mining companies sell their production in larger quantities at the fixing, as hedging and financing operations are often tied to the fixing price. The typical buyers such as jewellers or ETFs are less reliant on an objective price set during the fixing and could also be active in unreported spot market transactions.

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Another argument often used in articles and blog contributions is the movement of the gold price during the period of the fixing. But again, this is not an indication of price manipulation, but reflects more a lack of understanding. In a few articles, we even found statements that the LBMA is an exchange. However, this is not true. The London Bullion Market Association is an industry association and not an exchange. It is also not responsible for the gold and silver fixing. This misunderstanding might result in the perception that some exchanges hold auctions at certain times and call the price of this auction the fixing price. However, the London gold fixing is not an auction. At an auction, the participants submit the quantities that they would buy or sell at a certain price. These bids and offers have to be submitted at a certain time and then the price is determined that would lead to the highest quantities traded. Usually, all orders are settled at the same price. This procedure is for example applied at the Xetra trading platform of Deutsche Boerse. There, the prices of the closing auction often deviate considerably from the last price of the official trading session and, in some cases, are even outside of the trading range of the day. Nevertheless, the German watchdog BaFin, which has reviewed the London gold fixing, has not yet raised the slightest suspicion or even started any investigations that could suggest this practice might be a manipulation.

The London gold fixing is a process of price discovery. The chairman calls a price close to the actual spot quotations when the fixing starts. Then the five member banks submit the quantities they would buy and sell based on the orders of their clients or for their own accounts. For fixing the price of gold, the difference between supply and demand has to be less than 50 bars – around 620kg. This is usually not immediately the case. In the case of excess demand, a higher price is called and a lower price is called if supply exceeds demand. The five banks involved in the fixing then contact their clients with the new price called and collect new bids and offers, which are then submitted to the chairman. This process of adjustment to find the fixing price takes some time. Usually, the gold price is fixed within 10 minutes, but the fixing could last up to one hour depending on the market situation. This procedure had also been applied by official exchanges. For example, the Frankfurt Stock Exchange used this procedure for the official fixing of the Deutsch Mark exchange rates until the introduction of the euro.

However, markets do not stand still during this process. Especially, trading in the gold futures is continuous and prices are disseminated within milliseconds. This information is also available to the clients of the five banks conducting the fixing and banks active in spot gold trading display indicative bid and ask prices. Thus, when a new price is called, the clients of the banks are well informed about the current market situation and can adjust the quantities they want to buy or sell at the new price called accordingly. Usually, the banks don't know the exact quantities their clients want to buy or sell in total when a new price is called.

If one defines market manipulation as an attempt to move the price to a certain level, the five banks would have to agree on this price before the fixing starts. In order to push prices artificially lower, this would also require that they were willing to sell an unknown quantity of gold, which would expose them to significant price risk. At best, they might know the total quantity supplied and demand at the first price called. That gold is not fixed at the first call and that prices move and more new prices are called is not an indication of price manipulation. Just the opposite, it is an indication of no wrong doing by the fixing group!

All in all, we come to the conclusion that the findings of Professor Abrantes-Metz and Metz could be well explained and are not a valid proof of manipulations at the pm London gold fixing. Normally, a flawed academic research paper is not a problem. However, Professor Abrantes-Metz advises the European Union on financial benchmarks. If this research paper leads to accusations against the five banks of the London gold fixing and the EU imposing fines, then it would be a scandal.

Peter Fertig, Director, QCR Quantitative Commodity Research Limited Before founding QCR - Quantitative Commodity Research Limited in June 2007, Peter worked for over 20 years in the research department of Dresdner Kleinwort. He was Chief Fixed Income Strategist at Dresdner Kleinwort. As a strategist he covered commodity markets, focusing on precious and base metals. Within that framework, he gave presentations to institutional investors worldwide. He has also commented on market developments on TV and is regularly interviewed by Reuters and Bloomberg. He also holds workshops on quantitative analysis of commodity markets.