RESPONSE TO BASEL COMMITTEE ON BANKING SUPERVISION’S CONSULTATIVE DOCUMENT:

“International framework for liquidity risk measurement, standards and monitoring, December 2009”
The World Gold Council’s mission is to stimulate and sustain the demand for gold and to create enduring value for its stakeholders. The organisation represents the world’s leading gold mining companies, who produce more than 60% of the world’s annual gold production in a responsible manner and whose Chairmen and CEOs form the Board of the World Gold Council (WGC).

As the gold industry’s key market development body, WGC works with multiple partners to create structural shifts in demand and to promote the use of gold in all its forms; as an investment by opening new market channels and making gold’s wealth preservation qualities better understood; in jewellery through the development of the premium market and the protection of the mass market; in industry through the development of the electronics market and the support of emerging technologies and in government affairs through engagement in macro-economic policy issues, lowering regulatory barriers to gold ownership and the promotion of gold as a reserve asset.

The WGC is a commercially-driven organisation and is focussed on creating a new prominence for gold. It has its headquarters in London and operations in the key gold demand centres of India, China, the Middle East and United States. The WGC is the leading source of independent research and knowledge on the international gold market and on gold’s role in meeting the social and economic demands of society.
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“International framework for liquidity risk measurement, standards and monitoring, December 2009”  
Natalie Dempster, World Gold Council  

Executive summary  
The WGC endorses the need for the realignment and strengthening of international capital requirements. Action in this area is a vital component of the response to the financial and economic crisis. In this respect the WGC fully supports the work of the G20 and the Basel Committee on Banking Supervision (BCBS), believing that it is imperative that steps are taken to improve the quality of the capital held by financial institutions as this will play a crucial role in mitigating future crises.  

Through this paper the WGC wishes to take the opportunity to comment in detail on the consultation launched by BCBS on the International Framework for Liquidity Risk Measurement, Standards and Monitoring, on 17 December 2009. Specifically, the omission of gold from the proposed definition of a “high quality liquid asset” in the 30-day liquidity coverage ratio (LCR) and the 50% required stable funding factor (RSF) applied in the net stable funding ratio.  

The BCBS set out four fundamental, four market-related and some operational requirements that it uses to judge whether an asset should be considered a “high quality liquid asset”. The WGC provides a wealth of empirical evidence showing that, based on these characteristics, gold not only fits comfortably into this category, but that it would contribute to the counter-cyclicality of the new liquidity measures and that the application of a 50% RSF is wholly inappropriate and punitive in comparison to the historical treatment of gold in EU and US regulatory legislation.  

Gold bears no credit risk and has negligible inflation and foreign exchange risk. Unlike cash reserve balances, the value of gold cannot be debased by the potentially inflationary impact of the quantitative easing policies that are often put in place to remedy financial crises. On the contrary, gold exhibits a positive correlation with global money supply growth and has a long history as an inflation hedge.  

Gold’s volatility is comparable to major stock market indices, rather than other commodities. Moreover, gold’s volatility is higher on the upside than on the downside. Typically, most asset prices tend to fall harder when negative news reaches the market compared to price increments when there is more upbeat news than expected. Conversely, negative economic news tends to induce flight-to-quality flows into gold, thus raising the price and producing the opposite effect.  

Gold has a long history as a safe-haven asset. The 2007/2009 banking crisis is a good case in point. Between June 2007, when the credit crisis first began, and June 2009, when the world economy was showing signs of bottoming out, the gold price increased by 43% in dollar terms. This compares to a 65% decline in financial stocks and a 40% slide in the S&P500. Gold also compared favourably to long-dated US Treasury bonds, which rose by 21% over the same period (and are being proposed in the narrow definition of high quality liquid assets) and to high quality corporate bonds, which increased by 4.9% (and are being proposed in the broader definition of high quality liquid assets).  

Fund managers turned to gold as an “asset of last resort” after the collapse of Lehman Brothers, which marked the height of the 2007/09 liquidity and financial crisis. The yellow metal was one of the few assets that could be sold at a meaningful price in order to meet margin calls and redemptions payments. Some central banks also swapped gold for dollars at the height of the liquidity crunch. This provides a concrete example of gold’s effectiveness as a high quality liquid asset during a systemic financial crisis.  

Extending the pool of high quality liquid assets, and implementing maximum weights for each category, would help to diversify the portfolio, protecting it from growing sovereign downgrade/default risks and
reducing potential distortions to any one market. The current rise in sovereign debt concerns in Europe, led by the Greek debacle, clearly drives this point home. Even money market funds did not prove immune in the 2007/09 financial crisis. Gold has a statistically insignificant correlation to risky assets and only a very low correlation to mainstream assets. A portfolio optimiser suggests that the performance of a typical liquidity portfolio could be enhanced by allowing banks to invest up to 5%-10% of their high quality liquid assets in gold.

The gold market is deep and liquid. The total value of the gold market is currently estimated at US$5.2 trillion, of which US$1.8 trillion is thought to be in the hands of private investors and official institutions. This is larger than the combined value of the UK’s conventional and index-linked gilt market, of US$713 billion. Daily trading volumes in the gold market are estimated at a minimum of US$100 billion and in reality are likely to be much higher.

Unlike financial assets, gold is not solely dependent on investment as a source of demand. There are a diverse range of buyers and sellers, with differing trading motivations. In the five years to 2009, 61% of demand came from the jewellery sector, 26% from investment and 13% from industry. Supply is also diverse, coming from a combination of newly mined gold, the mobilisation of central bank reserves and the recycling of above ground stocks. A sharp increase in Indian jewellery demand (+29% year-on-year in tonnage terms and 78% in rupee terms) put a firm floor underneath the gold price during the 2007/09 crisis.

Most gold trading takes place in the global OTC market, which is centered on gold stored in London. The wholesalers in London market are represented by the London Bullion Market Association (LBMA), which has nine market markers and many more members. Gold futures, options and physically backed exchange-traded funds are listed on various recognised exchanges around the world, which also have committed market markers. The twice daily “fix” in the gold price in the London market ensures that there is an international benchmark, published price (that is widely used as a pricing medium by producers, consumers, investors and central banks), a narrow dealing spread and that any quantity of gold may be dealt.

There is an active gold leasing market between central banks and bullion banks. Central banks have long held gold in their reserves in recognition of the unique qualities that gold possess. The Eurosystem central banks and the ECB held an average of 55.7% of their total reserves in gold at the end of 2009. Moreover, a number of central banks have recently added to their gold positions, including the central banks of China, Russia, India, Sri Lanka and Mauritius. The proposed changes to international capital requirements should allow financial institutions to reap the same benefits from holding gold.
Introduction

The WGC endorses the need for the realignment and strengthening of international capital requirements. Action in this area is a vital component of the response to the financial and economic crisis. In this respect the WGC fully supports the work of the G20, believing that it is imperative that steps are taken to improve the quality of capital held by financial institutions as this will play a crucial role in mitigating future crises.

Through this paper the WGC wishes to take the opportunity to comment in detail on the consultation launched by the Basel Committee on Banking Supervision (BCBS) on the International Framework for Liquidity Risk Measurement, Standards and Monitoring on 17 December 2009.

Abstract of BCBS proposals

The Basel Committee on Banking Supervision seeks to strengthen global liquidity risk management and supervision through two minimum global liquidity standards for internationally active banks: a 30 day liquidity coverage ratio (LCR) and a net stable funding ratio (NSFR)

- The LCR is designed to promote resilience to a short-term sharp shock, such as that caused by a major credit downgrade. The ratio identifies the amount of unencumbered “high quality liquid assets” an institution holds that can be used to offset the net cash outflow it would experience under an acute short-term stress scenario and should >100%. The BCBS is considering a narrow definition of “high quality liquid assets”, comprising cash, central bank reserves and high quality sovereign paper, and a broader definition including high quality corporate bonds. The Committee describes four fundamental characteristics, four market-related characteristics and some operational requirements that it considers to define a “high quality liquid asset”.

- The NSF ratio is designed to incentivise banks to use more “stable” sources of funding. It is defined as the ratio of available stable funding to a required amount of stable funding, and must be >100%. “Stable” funding is defined as those types and amounts of equity and liability financing expected to be a reliable source of funds over a one-year time horizon under conditions of stress. The required amount of stable funding is calculated as the sum of the value of assets held and funded by the institution, multiplied by a specific required stable funding factor (RSF), added to a measure of off-balance sheet activity. The RSF applied to each asset is the amount of that item that supervisors believe should be supported by stable funding. The report recommends, inter alia, that cash and money market instruments be given a 0% RSF, unencumbered corporate bonds rated at least AA with a maturity >1 year a 20% RSF and gold a 50% RSF.

- The BCBS have also been keen to highlight the importance of counter-cyclical capital; throughout their consultative document on strengthening the resilience of the banking sector the benefits of avoiding procyclicality are set out. The Committee of European Banking Supervisors (CEBS) has also provided extensive discourse on the benefits of a countercyclical capital buffer.

1 Strengthening the resilience of the banking sector, Basel Committee on Banking Supervision, December 2009.
**Fundamental characteristics**

The BCBS says that a “high quality liquid asset” should have low credit and market risk, ease and certainty of value, a low correlation with risky assets and be listed on a developed and recognised exchange: gold meets each of these criteria.

**“Low credit and market risk: assets which are less risky tend to have higher liquidity.”**

On the credit front, high credit standing of the issuer and a low degree of subordination increases an asset’s liquidity. On the market risks front, low duration, low volatility, low inflation risks and being denominated in a convertible currency with low foreign exchange rate risk all enhance an asset’s liquidity,” BCBS.

Gold bears no counterparty risk associated with gold, after it has been settled. There is no chance that a coupon or a redemption payment will not be made, as for a bond, or that a company will go out of business, as for stocks. By contrast, the risk of a sovereign or corporate default/downgrade increases during financial crises, as cuts in household spending erode corporate profits, and declining tax revenues and rising social expenditures swell budget deficits. The current rise in sovereign debt concerns in Europe, led by the Greek debacle, clearly drives this point home. Even money market funds did not prove immune in the 2007/09 financial crisis.

Unlike cash balances, the value of gold cannot be debased by the quantitative easing policies of a country’s central bank or monetary authority, that are often put in place to deal with financial crises. On the contrary, gold exhibits a positive correlation with global money supply growth\(^3\) and has a long history as an inflation hedge\(^4\). Gold is priced and traded in US dollars making its foreign exchange risk negligible.

Gold has market risk, but its volatility characteristics are often misunderstood. The behaviour of the gold price is often mistakenly equated to other commodities, which are typically very volatile. Oil and copper, for example, had annualised volatilities of 35.8% and 22.6% respectively in the twenty years to December 2009, while the Goldman Sachs Commodity Index (GSCI), a production-weighted commodity basket, had average volatility of 21.4%. Gold’s price volatility averaged just 14.8% over the same period, the same as the S&P500 index. The volatility of high quality corporate bonds, as measured by Barclays AA long-dated corporate bond index, averaged 8.8% over the same period. Although corporate bond volatility is notably lower than gold, it needs to be juxtaposed against the absence of credit risk in the gold market.

It also needs to be viewed in the context of gold’s volatility skew. Gold’s volatility is higher on the upside than on the downside. Typically, most asset prices tend to fall harder when negative news reaches the market compared to price increments when there is more upbeat news than expected. Conversely, negative economic news tends to induce flight-to-quality flows into gold, thus raising the price and producing the opposite effect. Over the past 20 years, the standard deviation of positive monthly gold returns was 16.9%, compared to a standard deviation of 12.6% on negative gold returns in the same period.

The S&P500 index exhibited the opposite, with a standard deviation of positive monthly returns of 13.8%, versus a standard deviation of negative monthly returns of 17.1%. Both the GSCI and high quality corporate bonds exhibited only a marginal positive skew over the same period.

<table>
<thead>
<tr>
<th></th>
<th>Annualised volatility</th>
<th>Positive return vol*</th>
<th>Negative return vol**</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gold</strong></td>
<td>14.8</td>
<td>16.9</td>
<td>12.6</td>
</tr>
<tr>
<td><strong>S&amp;P 500</strong></td>
<td>15.0</td>
<td>13.8</td>
<td>17.1</td>
</tr>
<tr>
<td><strong>S&amp;P GS commodity index</strong></td>
<td>21.4</td>
<td>21.8</td>
<td>20.9</td>
</tr>
<tr>
<td><strong>AA corporate bonds</strong></td>
<td>8.8</td>
<td>9.4</td>
<td>8.5</td>
</tr>
</tbody>
</table>

* Standard deviation of positive monthly returns during the period times √12
** Standard deviation of negative monthly returns during the period times √12

The International Monetary Fund (IMF) draws a similar conclusion for gold: “Gold’s high sensitivity to real interest rates and its unique role as a safe-

\(^3\) Linking Global Money Supply to Gold and Future Inflation, Juan Carlos Artigas, World Gold Council (www.gold.org).

havens and store of value typically leads to a counter-cyclical reaction to surprise news, in contrast to (other) commodities. It also shows a particularly high sensitivity to negative surprises that might lead financial investors to become more risk averse. These results have a number of implications…For longer-term participants, these results provide confirmation of the pro-cyclical bias of many commodities and gold’s role as a safe-haven during periods of economic uncertainty”\textsuperscript{5}.

\textbf{Ease and certainty of value:} an asset’s liquidity increases if market participants are more likely to agree on its valuation. A liquid asset’s pricing formula must be easy to calculate and not depend on strong assumptions. The inputs into the pricing formula must also be publicly available\textsuperscript{4}, BCBS.

The vast majority of gold trading takes place in the global over-the-counter (OTC) market, which is centered on gold stored in London. The price of gold is “fixed” in London twice daily. The fixing ensures that there is an international benchmark, published price (that is widely used as a pricing medium by producers, consumers, investors and central banks), a narrow dealing spread and that any quantity of gold may be dealt.

Since 1919, the fix has been carried out by five banks. At the start of each fixing, the Chairman announces an opening price to the other four members who relay the price down to their dealing rooms, who are in contact with as many bullion dealers as are interested (or who have interested clients). Each fixing member then nets off the positions and declares himself, as the representative of all those interested parties, as a net buyer or seller (and of how much), or to be in balance. If the market is out of balance with more gold required than offered, then the price will be adjusted upwards (and vice versa) until balance is achieved. At this point the price is declared fixed. On very rare occasions the price will be fixed when there is an imbalance, at the discretion of the chairman of the fix. The fix is thus entirely open and any market user may participate through his bank.

\textbf{“Low correlation with risky assets: the stock of high quality liquid assets should not be subject to wrong-way risks. Assets issued by financial firms, for instance, are more likely to be illiquid in times of liquidity stress in the banking sector”}.

Because gold is no one else’s liability, it is not adversely impacted by negative credit events. More

\begin{table}[h]
\centering
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|}
\hline
\hline
Gold & 1.00 & 0.81 & 0.36 & 0.37 & 0.41 & 0.16 & -0.04 & 0.35 & 0.08 & 0.07 & 0.23 & 0.14 & -0.07 & -0.03 & -0.16 \\
Silver & 0.81 & 1.00 & 0.43 & 0.41 & 0.40 & 0.29 & 0.10 & 0.30 & 0.08 & 0.12 & 0.29 & 0.17 & 0.03 & -0.03 & -0.04 \\
Copper & 0.36 & 0.43 & 1.00 & 0.48 & 0.55 & 0.52 & 0.36 & 0.06 & 0.02 & 0.15 & 0.29 & 0.16 & 0.06 & -0.03 & 0.14 \\
Oil & 0.37 & 0.41 & 0.48 & 1.00 & 0.83 & 0.45 & 0.28 & 0.13 & 0.00 & 0.16 & 0.27 & 0.19 & 0.02 & 0.05 & 0.13 \\
GSCI & 0.41 & 0.40 & 0.55 & 0.83 & 1.00 & 0.52 & 0.36 & 0.11 & -0.07 & 0.08 & 0.27 & 0.13 & -0.02 & 0.00 & 0.12 \\
MSCI Wild ex US & 0.16 & 0.29 & 0.52 & 0.45 & 0.52 & 1.00 & 0.84 & 0.17 & -0.06 & 0.03 & 0.47 & 0.28 & 0.17 & -0.02 & 0.26 \\
S&P500 & -0.04 & 0.10 & 0.36 & 0.28 & 0.36 & 0.84 & 1.00 & -0.08 & -0.13 & -0.01 & 0.20 & 0.21 & 0.05 & -0.05 & 0.21 \\
Barclay’s Global Tsy & 0.35 & 0.30 & 0.06 & 0.13 & 0.11 & 0.17 & -0.08 & 1.00 & 0.14 & 0.04 & 0.79 & 0.28 & 0.35 & 0.12 & -0.08 \\
Barclay’s Global EM & 0.08 & 0.08 & 0.02 & 0.00 & -0.07 & -0.06 & -0.13 & 0.14 & 1.00 & 0.74 & 0.29 & 0.56 & 0.37 & 0.03 & 0.03 \\
Barclay’s High Yield & 0.07 & 0.12 & 0.15 & 0.16 & 0.08 & 0.06 & -0.01 & 0.04 & 0.74 & 1.00 & 0.30 & 0.48 & 0.37 & 0.09 & 0.11 \\
Barclay’s Corporate & 0.23 & 0.29 & 0.29 & 0.27 & 0.27 & 0.47 & 0.20 & 0.79 & 0.29 & 0.30 & 1.00 & 0.47 & 0.63 & 0.15 & 0.07 \\
Barclay’s Global Inf-linked & 0.14 & 0.17 & 0.16 & 0.19 & 0.13 & 0.28 & 0.21 & 0.28 & 0.56 & 0.48 & 0.47 & 1.00 & 0.45 & 0.15 & 0.08 \\
Barclay’s US Credit & -0.07 & 0.03 & 0.06 & 0.02 & -0.02 & -0.17 & 0.05 & 0.35 & 0.37 & 0.37 & 0.63 & 0.45 & 1.00 & 0.20 & -0.01 \\
S&P REITs & -0.03 & -0.03 & -0.03 & 0.05 & 0.00 & -0.02 & -0.02 & 0.12 & 0.03 & 0.09 & 0.15 & 0.15 & 0.20 & 1.00 & -0.06 \\
3-Mth Tsy & -0.16 & -0.04 & 0.14 & 0.13 & 0.12 & 0.26 & 0.21 & -0.08 & 0.03 & 0.11 & 0.07 & 0.08 & -0.01 & -0.06 & 1.00 \\
\hline
\end{tabular}
\caption{Correlation matrix (5 year ended December 2009)}
\end{table}

broadly, gold shows no correlation with risky assets, such as emerging market stocks or high yield bonds. Over the past five years, the correlation between changes in the gold price and changes in the price of these two asset classes has not been statistically different from zero. Gold’s correlation with other mainstream assets, such as global equities, US equities, global inflation-linked bonds, REITs and 3-month Treasury bills is also very low. The yellow metal’s only strong correlation is with silver. High quality corporate bonds, being considered in the wider definition of “high quality liquid assets” are, by contrast, highly correlated with Treasury bonds.

Gold’s lack of correlation with other assets is a function of the unique drivers of demand and supply, which, as for any freely traded good, ultimately determine price movements. Demand for gold comes from three sectors: jewellery, industry and investment; while supply comes from newly mined gold, official sector sales and the recycling of above ground stocks. The three sources of demand and three sources of supply are, in turn, affected by a wide range of factors. Some factors, such as inflation and currency movements, are tied to developments elsewhere in financial markets, but many more are peculiar to the gold market, underpinning the yellow metal’s lack of correlation to other assets year after year. These include fashion trends, marketing campaigns, the Indian wedding season, religious festivals, gold mine exploration spending, new discoveries of gold, the cost of finding and mining gold and central banks’ strategic reserve decisions.

Gold’s lack of correlation with other assets means that, even though it has a higher volatility than the other assets that would a liquidity portfolio made up of cash and bonds, adding gold can help to enhance risk-adjusted returns. For example, a portfolio optimiser, shows that the risk-adjusted returns of a benchmark liquidity portfolio made up of 70% Treasury bills, 20% US Treasuries and 10% Global Treasuries, can be improved with a 5% allocation to gold. A somewhat higher risk tolerance portfolio made up of 30% Treasury bills, 50% US Treasuries and 20% Global Treasuries, can achieve the same returns for a lower level of risk, by allocating 10% of the portfolio to gold.

“Listed on a developed and recognized exchange: being listed increases an assets transparency”, BCBS.

There are many ways to trade gold. The vast majority of gold trading takes place between bullion banks in the global OTC market. The twice daily London fix ensures there is an international transparent price. However, gold products are also traded on various exchanges. Gold futures and options are traded on the Comex division of the CME Globex and the Tokyo Commodity Exchange, amongst others. Since 2003, gold exchange traded funds, which are typically 100% backed by physical gold, have become available on the world’s major stock exchanges. The largest gold ETF, SPDR® Gold Shares, which are 100% backed by London Good Delivery Gold bars, is listed on the ARCA platform of the New York Stock Exchange.

Market-related characteristics

Gold also meets the four market-related requirements set out by the BCBS. Namely, gold has an active and sizeable market, committed market makers, a low market concentration and often enjoys “flight to quality” inflows.

“Active and sizeable market: the assets should have active outright sales and repo markets at all times (which means a large number of market participants and a high trading volume)”, BCBS.

Most gold trading takes place in the global OTC market, which is centered on gold stored in London. The wholesalers in the OTC market are represented by the London Bullion Market Association (LBMA). There are currently 57 full members of the LBMA, which include fabricators, brokers, refiners and shippers.

6 New Frontier Advisors patented portfolio optimizer.
7 Both scenarios are based on historical monthly returns between January 1992 and December 2009, based on Barclays bond aggregate indices and the London PM fix for gold.

Calculating daily trading volume is complicated by the numerous channels through which gold trading takes place. But we estimate that, at a minimum, average daily turnover in the gold market is c. US$100 billion. This is based on published statistics for futures traded on COMEX and TOCOM, the largest two futures exchanges, together with estimated average daily trading volumes from OTC trades cleared via London. LBMA clearing volumes have been multiplied by a factor of three, in line with traders’ minimum estimates for actual dealing turnover that is settled using gold stored in London (some estimates are as high as eight). However, these calculations exclude all trading on exchanges elsewhere, such as Shanghai, Hong Kong, Istanbul, Taiwan and various Indian cities, as well as all OTC trades that are not settled via London, so in reality daily trading volumes are likely to be much higher.

In terms of the overall size of the gold market, GFMS, the leading independent precious metals research consultancy, estimates that at the end of 2009 the total above ground stock of gold was 165,500 tonnes. This equates to US$5.2 trillion in value terms, when converted at the average 2009 gold price. Around US$1.8 billion is estimated to be held by private individuals, in the form of coins and bars, and by official institutions. Thus, even excluding the jewellery and industrial sector, the gold market is much larger than individual corporate debt issues and even sovereign debt markets. The combined market value of conventional and index-linked UK gilts, for example, was US$713 billion in 2009.

Spot gold typically settles on T+2, but can easily be traded on a T+1 basis if required. There is also an active gold leasing market between central banks and bullion banks. Typically an institution buying gold will vault the gold with the bullion bank it is purchased from, for a vaulting fee which will vary according to the quantity of gold, rather than taking physical delivery of the gold bars. There are some similarities here with ETFs, which have recently attracted investors from pension funds, endowments and even the insurance sector. The ETF shares are 100% backed by gold bars, but the individual investor does not take physical possession of the bars.

“Presence of committed market makers: quotes will be available for buying and/or selling”, BCBS.

There are currently nine market making members of the LBMA: The Bank of Nova Scotia-ScotiaMocatta, Barclays Bank, Deutsche Bank, Goldman Sachs International, HBSC Bank USA, JP Morgan Chase Bank, Mitsui & Co Precious Metals Inc, Société Générale and UBS AG who must quote each other in gold trading throughout the day (www.lbma.org.uk). There are also committed market makers for the various gold exchange-traded products.

“Low market concentration: a diverse group of buyers and sellers in an asset’s market increases the reliability of its liquidity”, BCBS.

Unlike financial assets, the gold market is not solely dependent on investment as a source of demand. In the five years to 2009, 61% of demand came from the jewellery sector, 26% from investment and 13% from industrial uses. Gold has a diverse range of buyers, stretching from Indian jewellery manufacturers, to electronics producers in Asia, to

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Chart 1: Demand Flows and Supply Flows

![Chart 1: Demand Flows and Supply Flows](image-url)
worldwide dentistry and medicine, to retail investment demand, to pensions and endowments and central banks. The latter became net buyers of gold in the second quarter of 2009, having been net sellers for two decades.

The motivations for gold investment demand are also disparate. Some investors buy gold as a long-term strategic asset, some as an inflation or dollar hedge, some as a safe-haven and others because of their tactical view on the gold market.

Likewise, the sources of supply are disparate. The annual supply of gold comes from a combination of newly mined gold, the mobilization of central bank reserves and the recycling of above ground stocks. In the five years to 2009, 59% of supply came from newly mined production (net of producer de-hedging), 10% from net official sector sales and 31% from the recycling of fabricated products, principally jewellery from emerging markets.

Unlike other commodity markets, such as oil or palladium, the geographic distribution of gold production and reserves is diverse. This helps to underpin gold’s lower price volatility compared with other commodities, as it substantially reduces the yellow metal’s vulnerability to a country or regional specific economic or political shock. Contrast this to oil, for example, which can be strongly affected by events in the Middle East.

Many factors affect gold supply. Mine production has a long (typically 8 years) relationship with the gold price and exploration spending. It is also influenced by the cost of extracting gold. Recycled gold is affected by price, price volatility and general economic conditions in the host country, while net official transactions depend on central banks’ long-term strategic reserve decisions.

“Flight to quality: historically, the market has shown tendencies to move into some types of assets in a systemic crisis,” BCBS.

Gold has a history of safe-haven inflows during times of financial market duress. This stems from its lack of credit risk and because its value cannot be de-based by the policies that are often put in place to remedy financial crises. For example, quantitative easing, which can lead to inflation and erode the value of fiat currencies.

The 2007/2009 banking crisis is a good case in point. Between June 2007, when the credit crisis first began, and June 2009, when the world economy was showing signs of bottoming out, the gold price increased by 43% in dollar terms. This compares to a 65% decline in financial stocks and a 40% slide in the S&P500. Gold also compared favourably to long-dated US Treasury bonds, which rose by 21% over the same period (and are being proposed in the narrow definition of high quality liquid assets) and to high quality corporate bonds, which increased by 4.9% (and are being proposed in the broader definition of high quality liquid assets).

That said, gold was not immune from the financial crisis. Between the end of Q2 2008 and September 11, the gold price fell from US$925.40/oz to US$746.47/oz. The quarterly low in the gold price coincided with the collapse of Lehman Brothers, which arguably marked the height of the financial crisis.

This was also the time that liquidity constraints were most pronounced. The cost of borrowing dollars in the interbank market had soared to 325 basis points above the Fed’s target rate. Fund managers were facing large margin calls and massive redemptions. They turned to gold as an “asset of last resort”, the yellow metal being one of the few assets they could

![Chart 2: Selected asset returns (end June 2007- end June 2009) %](image-url)
still sell at a meaningful price to help them ride out the financial crisis. Margin-related selling remained a feature of the gold market in the first half of Q4 08. Some central banks also swapped gold for dollars at the height of the liquidity crunch. This provides a clear example of gold’s effectiveness as a high quality liquid asset during a systemic crisis.

It also drives home the importance of gold’s diverse demand base, as it was a surge in jewellery demand that arrested gold’s decline. The fall in the gold price to US$750/oz stimulated a sharp increase in consumer demand from countries like India (the world’s largest consumer of gold jewellery). Demand for gold jewellery rose by 29% year-on-year in tonnage terms and 78% year-on-year in rupee terms, putting a firm floor underneath the gold price.

**Operational requirements**

Operationally, the BCBS states that “high quality liquid assets” should ideally be central bank eligible. London Good Delivery Gold bars, the benchmark trading vehicle in the global OTC market, are not currently central bank eligible at the European Central Bank (ECB). However, the list of eligible assets varies widely from central bank to central bank, and over time, we see no reason why gold could not become eligible for open market operations at the world’s major central banks.

The fundamental purpose of collateralised, as opposed to unsecured, lending is to protect the central bank (and tax payers) from potential losses. Because gold bears no credit risk, and has negligible inflation and foreign exchange risk, it adequately meets this requirement.

That central banks are comfortable holding gold is clearly evidenced by the long history that gold has as a reserve asset. The Eurosystem central banks and the ECB held an average of 55.7% of their total reserves in gold at the end of 2009. Moreover, a number of central banks have added to their gold positions over the past two years, including the central banks of China, Russia, India, Sri Lanka and Mauritius.
Historical treatment of gold in EU and US legislation

WGC also notes that the 50% haircut applied to gold in the stable funding measure, while not directly comparable, is punitive in comparison to gold’s historical treatment in EU and US regulatory legislation.

EU: Basel II
A review of the Basel II framework reveals that there has been a shift in the way that gold has been assessed by the Basel Committee in terms of risk. Under Basel II, capital requirements are determined along three strands – credit risk; operational risk; and market risk. The constituents of tier 1 core capital remain the same throughout the three strands of risk and emphasis is placed upon equity capital and disclosed reserves.

Basel II sets out that banks are permitted a choice between two methodologies for calculating their capital requirements for credit risk – the Standardised Approach, and the Internal Ratings-Based Approach. Under the Standardised Approach, gold is given a haircut of 15%, in stark contrast to the 50% haircut being proposed under the NSFR. While this treatment of gold under Basel II does not equate to the measurement of liquidity risk as set out in the new LCR and the NSFR, it does however portray the way in which gold had previously been perceived, in terms of volatility, by Basel II in comparison to the new proposals.

EU: Recast of Directive relating to the taking up and pursuit of the business of credit institutions (2006/48/EC)
The objective of this directive is to introduce rules concerning, firstly the taking up and the pursuit of business by credit institutions and secondly, the prudential supervision of these institutions. In this directive the EU Commission is clearly stating that increasing financial requirements for credit institutions is necessary “to ensure safeguards for savers and fair conditions of competition between groups of credit institutions”. The directive also stipulates that “Credit institutions should ensure that they have internal capital that, having regard to the risks to which they are or may be exposed, is adequate in quantity, quality and distribution.”. What is important to note is that as a means of achieving the latter – the security of savings and longevity of the credit institutions – the directive states that “Gold bullion held in own vaults or on an allocated basis to the extent backed by bullion liabilities shall be assigned a 0% risk weight.”

US: Federal Reserve
In 1998 the Board of Governors of the Federal Reserve Bank legislated that for Membership of State Banking Institutions in the Federal Reserve System gold had a zero percent risk weighing and should be treated as a cash equivalent. “Category 1: zero percent. This category includes cash (domestic and foreign) owned and held in all offices of the bank or in transit and gold bullion held in the bank’s own vaults or in another bank’s vaults on an allocated basis, to the extent it is offset by gold bullion liabilities.”

Summary
Gold comfortably conforms to the four fundamental and four-market related characteristics the BCBS used to assess whether an asset should be deemed a “high quality liquid asset”. Gold bears no credit risk, has negligible inflation and foreign exchange risk, and has relative low volatility in comparison to other commodities. Gold is uncorrelated with other assets, making it an effective diversifier. It is a counter-cyclical asset, often enjoying flight-to-quality inflows during periods of financial distress. It was used as a “high quality liquid asset” during the height of the 2007/09 financial crisis, when many fund managers sold gold to raise the cash necessary to meet margin calls and pay redemptions. This was a time when money markets were effectively shut and other assets could only be liquidated at fire-sale prices. Central banks have long held gold in their reserves in recognition of the unique qualities that gold possesses. The proposed changes to international capital requirements should allow financial institutions to reap the same benefits.
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