



# **The Silver Investment Market**

Prepared by GFMS Ltd  
for the Silver Institute

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GFMS Ltd is the world's foremost precious metals consultancy, specialising in research into the global gold, silver, platinum and palladium markets. GFMS is based in London, UK, but has representation in Australia, France, India, Russia and Spain, and a vast range of contacts and associates across the world.

GFMS is credited with producing the most authoritative surveys of the gold and silver markets, the annual Gold Survey and World Silver Survey, and produces a range of other publications dealing with all aspects of the precious metals markets. GFMS also provides consultancy services in the form of tailor-made research into selected areas of the precious metals markets. GFMS' research team of twenty two full-time analysts comprise experienced economists and three geologists.

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## 1. Executive Summary

This Silver Investment Market report sets out to describe and, where feasible, measure the contribution made by investors to the silver market. Since the start of the bull market in 2003 the importance of investment demand has grown, with the spectacular success of Exchange Traded Funds (ETFs) the most visible sign of silver's growing appeal. In the sections below we summarize the key findings of this report.

### From disinvestment to investment

Combining GFMS' implied net investment series plus new coin demand figures suggests the silver market was in net disinvestment from the late 1980s through to 2000. In 2001 there was a move into positive territory for the first time in well over a decade, which has grown in size and importance during 2003-09.

The growth in investment over recent years can be linked to a number of important developments. First, improving supply/demand fundamentals, in particular the erosion of near market stocks due to the heavy supply deficits in the 1990s, set the scene for investors to return to the buy-side in the early part of this decade.

The initial move in the price outside the \$4-\$6 range, to which it had been confined for some time, owed much to fundamental supply/demand and related bullion stock developments. Nevertheless, the surge to notably higher levels over 2003-05 was largely due to the market swinging back into net investment for the first time since the mid 1980s.

Silver's jump into double-digit price territory in 2006-09 has been assisted by the general boom in investor

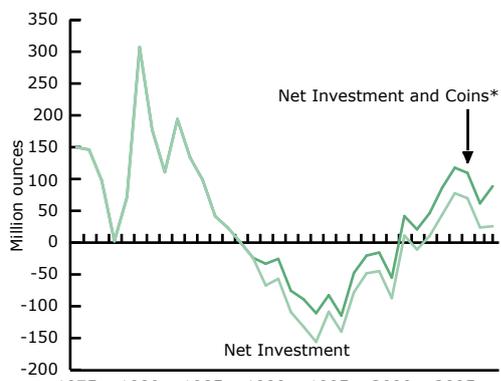
interest in commodities over the last three to four years and, specifically, the additional demand for the white metal created during the run-up to, launch and successful development of the first silver ETF.

A positive price trend has played a large part in drawing in more investment. The fact that, unlike gold, the all-time nominal high for silver (1980's \$50/oz) still remains a good way off has motivated certain buyers. In addition, silver's historically greater volatility than gold but close correlation to its yellow cousin has recommended it to those who regard silver as a more leveraged alternative to gold. Silver's lower unit price also makes it a more affordable and hence attractive investment to some buyers of precious metals.

Besides these price-related issues, investors have also been motivated to buy silver due to wider and growing concerns regarding the value of the US dollar, inflation and the stability of the financial system. As regards the latter, the credit and banking crises have given a fresh impetus to investment demand in the last two years.

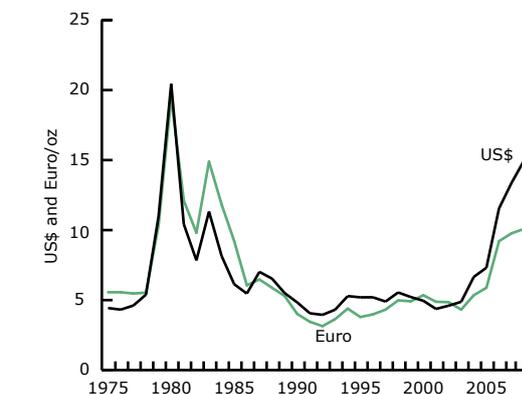
The growth in silver investment moreover has been buoyed by the more general flow of funds into commodities. Not only has this helped to reaffirm silver as an asset but also investment in the white metal has taken place "indirectly" through investors purchasing index and basket products that contain some weighting in silver. Although, such positions have to some extent been unwound since mid-2008, commodities have not disappeared as an alternative investment and silver can expect to benefit from fresh inflows into this asset class when economic conditions become more favorable.

Silver Investment Demand



\*Sum of implied net (dis)investment and coin fabrication  
As coin fabrication data prior to 1990 is not available,  
1975-1989 data only includes implied net (dis)investment  
Source: GFMS

Silver Prices



Source: Reuters EcoWin



### Who invests in silver, why and how

Investors in silver can usefully be divided into three broad groups: retail, institutional and high net worth. As we explain in Chapter 3, although these groups have similar motives for investing in silver, there are some subtle differences that can be identified. Furthermore, although there is a fair amount of commonality, retail, institutional and high net worth investors typically favor somewhat different investment vehicles. For instance, small players' penchant for silver coins only appeals to a limited number of very wealthy investors and is not at all shared by funds. The opposite would hold true for investment via over-the-counter (OTC) products.

The report comments in detail on the type of investment products available and the trends in demand for these. In Chapter 4, we discuss "paper" products including futures, OTC instruments, allocated accounts, ETFs and exchange-listed structured products. In Chapter 5, the analysis switches to investment in physical bullion bars and coins in the western and developing worlds.

Demand for paper products has traditionally been concentrated in the futures and OTC markets. As regards the former, of the six exchanges where silver futures are traded the dominant market is the Comex division of Nymex. In 2008, for instance, basis the number of ounces traded, Comex accounted for roughly 69% of global turnover in silver futures. As explained, however, in detail in the relevant section of this report, investors' open positions on the New York exchange appear to have fallen in volume (though not in value) terms since peaking in December 2004.

To some extent in recent years investor business has migrated away from futures to the OTC market. This

probably reflects the larger participation of funds that would be natural users of the more flexible and less transparent loco-London market. Trading over-the-counter may also in some cases give such players greater ability to leverage their positions and put in place more complex strategies.

We believe, though, that a more significant challenge in the last few years to the pre-eminence of the futures exchanges has come from the development of silver ETFs as an alternative. First, for some investors who are proscribed from investing in futures, ETFs have provided an acceptable form of holding silver. Second, others appear to have switched out of futures into ETFs once the latter became available.

Perhaps surprisingly, ETF demand has remained rather solid in spite of the ups and downs of the silver price. Although redemptions have occurred, these have generally not been particularly large or sustained. Moreover, fresh buy-side interest has been forthcoming. As such, at the end of December 2008 total ETF holdings had reached an impressive 265.3 Moz (8,253 t). Although precise data on ETF investors is not available, they clearly have a large retail following that, in aggregate, is believed to outweigh the size of institutional positions.

Retail investors' strong interest in ETFs helps to explain, until fairly recently, the growth in demand from this group for physical bullion over the rally-to date. From 2003-07 net purchases of bars and coins rose somewhat but the volume of sales was, for instance, a good deal lower than the tremendous demand seen for such products in the late 1970s and early 1980s. In 2008 and early 2009, in contrast, there has been a step up in demand for physical bullion, this change mainly reflecting investors' growing concern over the stability of financial institutions. Buy-side interest for bars and coins remains most pronounced in the United States, although in the last couple of years demand has also grown significantly in Europe in spite of the adverse tax regime for silver in the EU.

With only a few exceptions, bullion demand from investors in developing countries is marginal. In large measure this is due to a historical preference in many such countries for gold. Mexico is one noteworthy exception, with, in recent years, the local population hoarding (rather than spending) circulating silver coins issued by the Casa de Moneda. India is the other major country in the developing world where there is

### Silver ETF Holdings



Source: various ETF issuers



a tradition in hoarding silver. Until relatively recently, though, the country had seen waning interest in silver bullion, in contrast to rising investor demand for gold coins and bars. However, in the latter part of 2008 a substantial drop in local silver prices stimulated a massive wave of speculative investment in the metal.

For many investors in silver, mining stocks are the preferred - albeit indirect - form of taking exposure to the metal. However, it would appear that the ETFs have absorbed some money that would otherwise have gone into stocks. On the other hand, the price gains achieved on the back of the ETFs' success have undoubtedly more than compensated for such effects. We discuss silver mining stocks in more detail in Chapter 6.

### Silver investment and above-ground stocks

The net disinvestment in the latter part of the 1980s and throughout the 1990s that we comment on in this report obviously had a major impact on the level of private bullion stocks. At the beginning of the aforementioned period, inventories were enormous, reflecting the heavy investment demand, which had previously taken place during the then recently ended bull market. The subsequent liquidation of a good part of these bullion stocks undoubtedly did much to keep silver prices under pressure thereafter. As we explain in Chapter 7, though, the persistent market deficits of the 1990s were mainly covered by sales of private bullion stocks, this silver ending up in fabricated products. The erosion of this 'inventory overhang', in turn, did much to prepare the ground for the bull market that was initiated earlier in this decade. In the last few years private bullion stocks have been growing again, with much of the near-market inventories being stored loco-London.

### Prospects for silver investment in 2009

This Silver Investment Market report describes the ebb and flow of investor interest in silver over the last 30 years. It also explains in detail the current state of play across all the major arenas of silver investment demand. Lastly, in the final chapter of this study, we make some observations on the outlook for this area of the market, including the scope for a wider geographic spread of ETF products. In terms of the outlook for investor interest, GFMS believe that silver's appeal going forward will continue in large measure to be driven by gold's performance and the external economic and other factors, which in turn are driving investment demand for the yellow metal. This is not to say that

silver does and will not have its own special attraction. However, the evidence is that with few exceptions, gold prices tend to lead those for silver rather than vice versa. Given continued financial uncertainty, worsening economic conditions, including the eventual prospect of higher inflation as a result of ultra-loose fiscal and monetary policies, plus the backdrop of ongoing geopolitical turbulence, it is probable that silver investment demand will remain strong for much of 2009. Certainly the evidence from the first quarter is encouraging: ETFs collectively added 63.5 Moz (1,976 t) through to end-March and over the same period demand for bullion coins and bars has been very strong (first quarter data for the leading four bullion coins shows their combined sales up 93% year-on-year). The strength of investment demand has kept silver prices well into double digit levels (basis the London fix, prices averaged \$12.60 in the first quarter) in spite of some major losses on the fabrication front, especially its hard-hit industrial component. Looking ahead, over the rest of 2009 this pattern should be repeated, namely, growth in investment compensating for the not inconsiderable headwinds stemming from weakness in fabrication demand as a result of the synchronized global economic downturn that is currently taking place. For the silver price this is likely, in GFMS' view, to result in a volatile market but with the metal continuing to trade this year at what are historically high levels.



## 2. Introduction

Throughout the recent history of the silver market, investment has played an important role in the fate of the price of the metal. The late 1970s and early 1980s price rallies, as well as that experienced since 2003, were largely fueled by a rise in investment demand. In contrast, investors' disenchantment with silver over much of the years in between these two great bull markets was in large part responsible for the price first falling and then remaining constrained within a low range, in spite of the market slipping into a fundamental deficit over most of this period.

The importance of investor activity to the silver price is a hardly surprising fact. Given that silver, like gold, is a commodity with abundant above-ground bullion stocks, the propensity of individuals or institutions to hold or release these stocks into the market (which is largely synonymous with investor activity) is as important, if not more so, than the state of the underlying fundamental market for determining the price of the commodity.

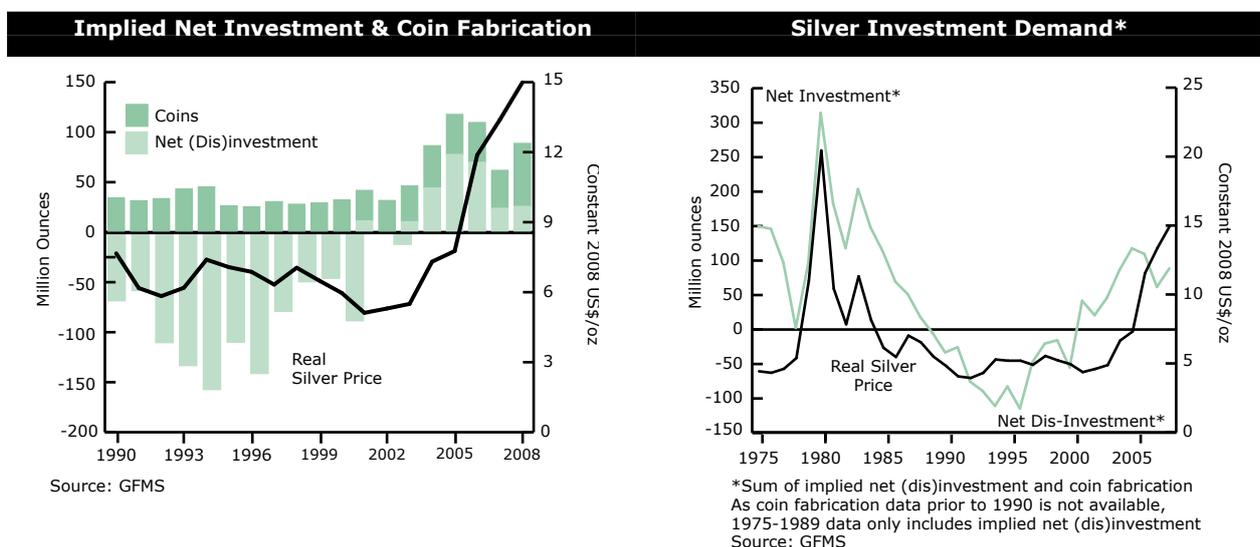
The graph below features annual implied net (dis)investment as well as coin fabrication demand going back to 1990. Implied net (dis)investment is the balancing item that brings all other independently calculated elements of silver supply and demand into equilibrium. As it represents all metal that was added to or released from privately held stocks, it is essentially equivalent to the net impact of investor activity on the physical market over the course of the year, excluding demand for coins and allowing for a certain margin of error related to unidentified flows that fall out of the definition of investment.

Focusing on the implied net (dis)investment figures, a number of general observations can immediately be made. First of all, it is interesting to note the move from a net positive market impact of investors' activity in the late 1970s and the first half of the 1980s, to a broadly neutral picture over the rest of that decade, followed by what could be described as "structural" disinvestment in the 1990s and, finally, a swing back to net investment in the last few years.

The second graph below features annual observations of the broader definition of silver investment, which in addition to implied net (dis)investment also includes coin fabrication. It should be noted here that this measure is only available for data from 1990 onwards, as a series for coin fabrication demand consistent with GFMS' methodology was not available prior to that. The 1975-1989 data in the graph below therefore only includes implied net disinvestment. Nevertheless, given the small relative magnitude of coin demand, the trends are broadly unaffected.

The data presented in the graph provides some empirical evidence that supports our earlier contention that investment demand has a strong influence on the price performance of silver. Over the last 33 years, the annual average silver price has followed a trajectory very similar to that of silver investment.

It is also worth examining how these figures compare to the relevant ones in the gold market, namely World Investment (defined as the sum of implied net investment, bar hoarding and official coin fabrication demand). The graph on page 8 features investment figures for both metals since 1980. (1980 was the year when GFMS' database on gold began to account for





global rather than exclusively western world figures, from which time onwards a comparison between the two metals' figures is meaningful.) Interestingly, although the net impact of investors' activities in silver was negative for a prolonged period of time, the gold market has consistently been in net investment mode, only approaching neutrality in 2000.

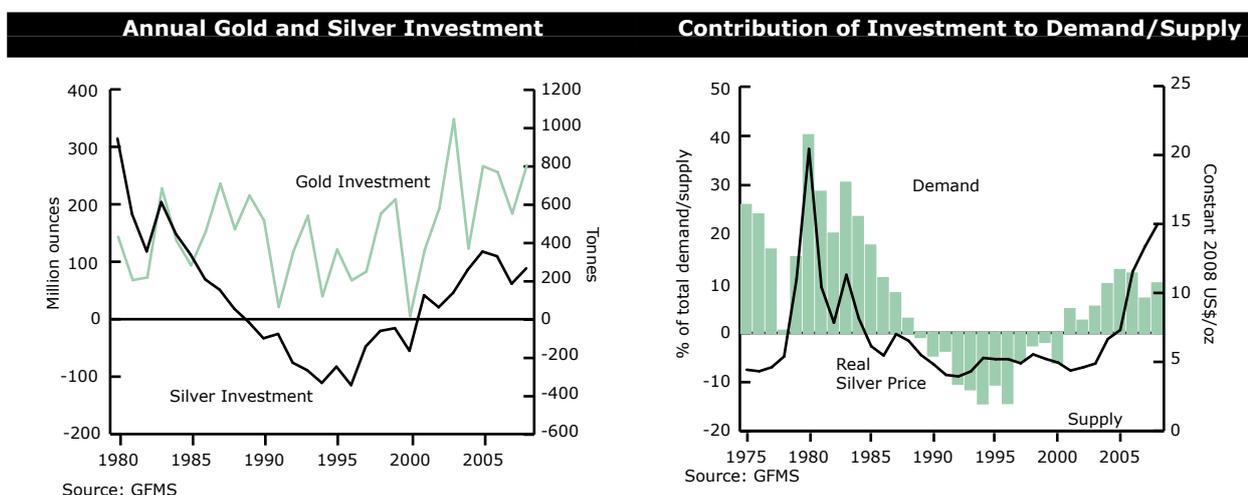
An alternative approach to assessing silver (dis)investment, both in its own right and in comparison with the relevant figures for gold, is to consider the portion of overall demand or supply it accounted for annually. The annual data is presented in the relevant graph below. One can immediately notice the dramatic contrast between the structure of the market over the first 10 years and the rest of the period examined. During the former, net investment accounted for more than a fifth of total annual demand on average, peaking at 40% of demand in 1980. Over the course of the latter period, (dis)investment has accounted for an average 7% of annual supply or demand. Comparing the figures with those available for gold one can also see that, as a general rule, net investment has accounted for a larger portion of the gold market than it has of the silver market over the last 33 years.

It is now worth examining what the drivers were that led the trends in silver (dis)investment described above. During the second half of the 1970s, investment demand for precious metals was supported by a very favorable set of economic circumstances, that in some measure are present again today. These include: rising inflation, strong commodity prices, negative real interest rates, a weak US dollar, a bear market in stocks and heightened geopolitical tensions. Particularly at the end of the period regarding Iran and

Afghanistan. This environment was highly positive for investment in silver and, particularly in the historically silver-friendly US market, private investor demand grew strongly. However, towards the end of the decade the peak in prices owed much to the Hunt brothers' and other speculators' aggressive purchases of silver. This climaxed with the attempted cornering of the market in 1979, which resulted in prices rising more than four-fold within the course of a few months, peaking a little short of \$50 in January 1980.

Faced with such dramatic market distortions, regulatory authorities imposed certain restrictions on speculative activity. This triggered a reversal of the price trend and later proved to be the beginning of a new era for silver investment. With the exception of a short-lived recovery in 1983 (largely fueled by speculators), investor interest declined over the rest of the 1980s, with the market falling into net disinvestment in 1989. Investors continued to supply the market with bullion throughout the 1990s, only returning to (initially very modest) positive net investment in 2001.

By the 1990s, investors' attitudes towards precious metals and commodities in general had become rather negative, only partly due to the disappointing price performance since their early-1980s peaks. In addition, the zero or, at best, very low yield on silver and gold contrasted with the positive interest rates available on major currencies and the bull market in stocks. Moreover, the collapse of the Soviet Union led to a considerable easing of political tensions, reducing the safe haven appeal of precious metals. In the case of silver, the negative price trend combined with these economic and political developments not only undermined the case for fresh investment but also





prompted a sustained period of dishoarding of bullion stocks that had been built up to considerable levels during the preceding bull market.

A couple of years into the new millennium and the first signs that the tables were about to change emerged. Led by a weakening US dollar, a rising gold price and a perceived improvement in silver's market fundamentals, investment demand for the metal eventually revived and started growing, providing much of the fuel for a rise in the price, initially to beyond the \$5 and \$6 levels. Thereafter, investment demand was further stimulated in 2005 and 2006 by rumors, news and eventually the actual launch of the silver ETF in late April 2006. It should also be mentioned that during this time the economic backdrop became increasingly supportive for silver. The white metal also benefited from the strong performance of the wider commodities complex and, importantly, the remarkable gold price rally last year when the metal comfortably breached its previous all time high of \$850/oz.

Related to the last point, it is worth briefly discussing here the link the silver price tends to maintain with that of gold over time. Historically, this link was related to the two metals' similar uses, both monetary and ornamental. Given the demonetization of gold and silver and the increasingly different fundamentals underpinning the two (the bulk of silver fabrication demand has, for the past two years, been accounted for by industrial uses while jewelry continues to comprise the majority of gold fabrication), such a link is difficult to argue to have been in place over the last few decades.

Nevertheless, as is suggested from the graph below, featuring annual correlations between log-returns in

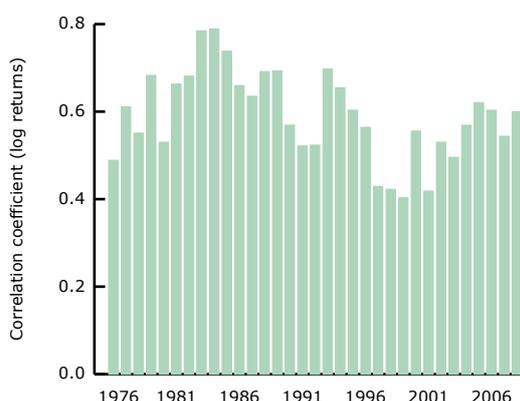
daily gold and silver prices, there is strong empirical evidence of the prices of the two metals moving closely over much of the period. It is our understanding that this apparent relationship between the two is in large part the result of a self fulfilling prophecy, fueled by investors trading the two metals together, due to their historical link. The strength of this link can vary significantly over time, depending on other factors affecting silver and changes in investors' attitudes.

Having discussed how silver investment demand has fluctuated over the last few decades, it is worth assessing the various instruments available for investors to gain exposure to the silver price. These are discussed in more detail in the fourth chapter of this report, together with commentary on historical trends as well as data (where this is available) on investor activity in the different segments of the market.

Due to the large portion of the overall market it accounts for and the wide availability of data on activity on it, the Comex had until recently been the most widely commented on arena for silver investment. Since as far back as the run-up to the Hunt brothers' crisis and through to the present time, investors' activities in Comex listed futures and options have accounted for a significant portion of the overall silver investment market.

The over-the-counter (OTC) market has also traditionally accounted for an important share of silver investment. A variety of instruments ranging from simple spot forward and vanilla products to more complicated structures are available to suit investors' specific requirements. Although trading in OTC products normally has a cost advantage, it also involves a higher entry level, meaning that it is normally only accessible to institutional and high net-worth investors.

### Gold & Silver Annual Price Correlations



Source: GFMS, Reuters EcoWin

Following the success of similar products linked to gold, April 28th 2006 saw the launch of the first ever silver ETF, which was followed by two additional products reaching the market at later stages. Silver ETFs are essentially securities that are listed on stock exchanges, which are fully backed by positions in allocated metal. Silver ETFs have both allowed small retail investors easy access to VAT-free silver and provided institutional players that are unable to invest directly in silver derivatives a means of gaining exposure to the price of the metal.



Silver warrants and certificates are available on a number of European stock exchanges. These are essentially standardized silver derivatives, which tend to be strictly cash settled. Although a variety of products to suit a range of strategies exist, activity within this segment of silver investment is low compared to both that in gold and, importantly, other parts of the overall silver market.

The last segment of the silver investment market, namely the direct purchase and sale of silver bullion products, varies considerably across different regions. This is largely due to the varying tax regimes that are in place in different countries. In much of Europe, for instance, high rates of value added tax have traditionally tended to deter investment in silver bullion.

It is worth mentioning that many investors choose to gain indirect exposure to silver through purchasing silver mining stocks. The advantage of this approach is the potential for a leveraged return on capital, the existence of dividends as well as, in the case of companies are in part hedged or producing other metals besides silver, some level of protection, should prices retreat. Its main drawback is the exposure to company and sector risk, which can be linked to a range of drivers unrelated to the silver market, such as energy costs or geopolitical risk. Finally, although, as mentioned above, investing in companies that do not exclusively produce silver can provide protection against falling silver prices, it also introduces exposure to other metals' prices.



### 3. Who is Investing in Silver and Why

Having provided a general overview of silver investment during the last three decades and the various segments of the current investor market, in this chapter we analyze who are the investors, as well as what drives their decisions to be long or short the metal. Understanding this is of paramount importance not only when assessing past developments in silver investment and how these affected the silver price, but also the ability to make meaningful projections as to future trends.

The silver investment community can be broadly divided into three groups of investors: retail, high net-worth or family office and institutional. The lines that divide these categories are often blurred, and assessing where certain players belong can frequently be difficult. For instance, the threshold above which a retail investor becomes a high net-worth one is by no means clear cut. Elsewhere, although private wealth management companies and private banks strictly speaking belong to the institutional category, their investment objectives and actions are more likely to resemble those of their high net-worth clients.

Likewise, when it comes to the motives for investing in silver it is not always easy to segregate these. An investor, for example, may purchase silver both 'defensively' as a store of value and 'offensively' in expectation of capital gains. Similarly, while some investors' time horizon may only extend out a few weeks or even days, others have more of a 'buy and hold' mentality, albeit in some cases, and to confuse matters further, for only a core part of their position. Notwithstanding these caveats applying to investors' motives and those explained above regarding the three

broad groups of investors, in the sections below we assess 'who is investing in silver and why'.

Starting with retail investors, part of this group, primarily investors based in North America, continue to consider silver to be a quasi-monetary commodity. After all, silver only ceased to be part of the United States' monetary system in the 1960s. Some players consider silver (as well as gold) to be a superior store of value to fiat money, due to the latter arguably not bearing any intrinsic value. These investors are understood to have "kept the faith", to varying extents, throughout the bear market of the 1990s, while some seem to ascribe to various theories of silver price-suppression.

A significant portion of retail investor activity in silver is related to its being part of the wider precious metals complex. Such investors' portfolios would normally include varying amounts of gold and silver and, in some cases, palladium and (even less frequently) platinum.

Related to the above, a number of retail investors trade silver on the back of its link to gold. For instance, those with a somewhat shorter term outlook may often choose silver over gold during a bull run, due to the white metal's greater volatility and therefore higher expected returns. Meanwhile, for others, perhaps investing with more of a medium to longer term outlook, silver is the metal of choice due to it arguably being undervalued compared to gold, on the basis of historical precedents (specifically the early 1980s peak), such buyers expecting a "catching up" to take place. Finally, there are also some smaller investors who are attracted to silver's much lower unit price.

Finally, a smaller minority are specifically interested in silver on the basis of its fundamentals. Such investors

#### Correlations with Gold & Other Commodities

(using log-returns in spot prices)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Gold	0.40	0.56	0.42	0.53	0.50	0.57	0.62	0.60	0.54	0.60
Oil (WTI)	0.22	-0.20	0.02	0.04	0.06	0.08	0.18	0.16	0.09	0.08
GSCI	0.04	-0.12	-0.03	0.02	0.04	0.04	0.17	0.17	0.13	0.11
CRB Index	-0.01	0.12	-0.02	0.00	0.11	0.03	0.21	0.32	0.27	0.12
DJ-AIG Industrial Metals Index	0.08	0.09	-0.02	-0.07	-0.04	0.18	0.11	0.14	0.15	0.02
DJ-AIG Agriculture Index	0.00	0.12	-0.14	-0.01	0.03	-0.06	0.08	0.17	0.13	0.08

Source: GFMS, Reuters EcoWin



are buying into expectations of silver industrial fabrication continuing to grow healthily, outweighing further attrition in photographic demand, and mine production failing to increase adequately to match the aforementioned increase in fabrication demand, against the backdrop of arguably low-field above-ground, near market stocks.

Moving to the sphere of institutional investors, namely hedge funds, pension funds and other such entities, there are a number of different considerations that one can identify behind their decisions to invest in silver. First of all, because silver belongs to the wider precious metals and indeed the even broader commodities complex, immediately suggests that many funds that seek exposure to either of the two sectors would tend also to add silver to their portfolio. (Regarding the reasons why such players are interested in commodities in the first place, the apparent fundamentally fueled supercycle, weakness in the US dollar, rising inflationary expectations and a general hunger for alternative investments are the principal drivers of their desire to invest in this asset class.)

This motivation can apply to both longer-term (such as pension funds) and shorter-term (such as hedge funds) investors. While the former would normally maintain a more or less fixed strategy, the latter are likely to engage in active management of their silver holdings as well as the products used.

The link between the silver price to that of gold is also an important driver of institutional investor activity in the metal. The strategy deployed is often similar to that of shorter-term retail speculators, which was discussed earlier in this chapter. Specifically, silver is used as a means of enhanced returns due to the market being less liquid and its price consequently more volatile. Moreover, GFMS are aware of numerous funds that very actively trade the gold:silver ratio, despite it arguably having little fundamental basis.

There is also significant interest in silver from the more straightforward technically driven funds. Such players tend to speculate on short term price movements and use both long and short instruments to gain exposure to the silver price. Their involvement peaks during times of dramatic price changes. Such players have often provided the fuel for "self fulfilling prophecies", both on the upside and downside, to materialize. This involves investors expecting a certain move in the market, trading aggressively on the back of their

expectation and therefore actually moving the market in line with it.

Looking, finally, at the high net-worth, wealth management and family office type investors, their investment approach tends to be somewhere in-between that of the two groups discussed above. Motivations mentioned previously, such as silver being part of the precious metals or wider commodity complex, linked to the gold price although more volatile, the gold:silver ratio and, more rarely and usually in the case of older investors, the thesis for a return towards past all time highs are all present within the high net-worth group. Overall, investors belonging to this group tend generally to follow medium to longer term strategies. Although short term speculative activity is by no means insignificant, wealth preservation is a key consideration.

Of particular interest (and applying to investors belonging to all three groups discussed above) is the difference between the investor base of silver and that of gold and how this changes over time. As mentioned in the previous chapter, the fate of silver investment demand is linked to the performance of the gold price as well as investors' activities in the yellow metal. Nevertheless, as was also mentioned in the introduction, this relationship can vary greatly over time and the difference in the investor base for the two metals provides part of the reason why this is the case.

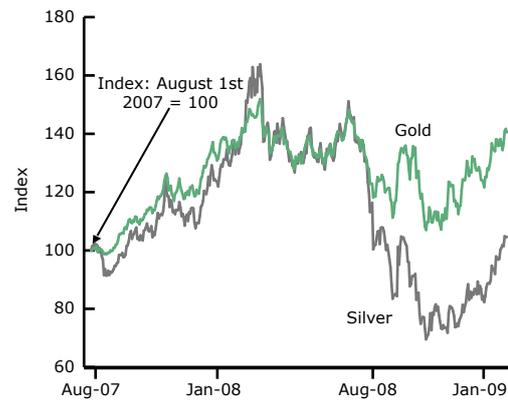
The principal reason why most investors view gold and silver differently is the established quasi-monetary properties that the former has and the latter lacks. On the one hand this is the result of gold having formed the basis for global monetary systems, until more recently than silver. In addition to this, arguably psychological consideration, there is also a very real factor that makes gold a far superior commodity to serve quasi-monetary purposes. Specifically, when measured in value terms, the above-ground stocks of gold are considerably larger than those of silver, providing a far deeper and more liquid market. As a result, there is a general tendency for investors looking for a store of value or safe haven vehicle to prefer gold. Conversely, portfolios geared towards accelerated returns at the expense of higher risk tend to have a greater weighting in silver. This is the likely explanation of the fact that, since the eruption of the sub-prime market crisis in August 2007, silver has generally failed to outperform gold, despite both metals enjoying a bull-run. During these turbulent times, the rise in risk



aversion is believed to have benefited gold more than it did silver. This is clear in the accompanying chart, featuring the gold and silver price indexed at August 1st 2007.

Silver continued to track gold's price performance closely during January-July 2008 on the back of both an ongoing surge in commodities investment and rising risk aversion, the latter in response to the deepening financial and economic crisis. Even the first wave of a large-scale sell-off that followed in July-August hit both metals almost evenly. However, in September as the crisis intensified when Lehman Brothers collapsed and other well known financial institutions incurred massive losses, silver's lack of monetary features compared to gold as well as its semi-industrial nature became too much of a handicap. As a result, by year-end silver's intra-year performance had diverged considerably from that of gold, it posting a 27% decline as opposed to the 3% growth registered by its yellow cousin over the same period. Nevertheless, since December 2008 to-date, investors, spurred by a renewed rally in gold and heavily oversold conditions in the silver market have bought aggressively, pushing the metal's price higher and thereby gradually narrowing the gap between gold and silver indexed prices.

**Indexed Gold & Silver Prices**





## 4. Investing in Paper Instruments Linked to Silver

### i. Investment Through Commodity Exchanges

One popular way in which various institutional and more sophisticated investors typically access the silver market is through derivatives on commodities traded on futures exchanges. There are now six exchanges offering silver derivatives which play a key role in providing commercial hedgers as well as investors with a way in which to manage underlying price risks and to speculate on the future price movements of silver. The most popular tool is that of futures, which are standardized contracts to buy or sell an asset at a predetermined price in the future. Options are also extensively used by hedgers and speculators, but unlike futures, differ in that they give the right, rather than obligation, to buy or sell the underlying asset.

While silver futures contracts can be exercised for the actual physical metal, the vast majority of contracts are offset prior to maturity; as most commercial participants favor buying and selling physical silver through their regular distribution channels. Similarly, investors too will enter into these contracts with little intention of ever owning the underlying, but will rather have the objective of simply placing a bet on future price changes.

Interest in silver and commodity futures has grown in recent years due to a number of factors. Firstly, research has shown that historically, commodity futures have delivered similar returns to those of equities, while maintaining a somewhat equivalent level of risk. As such, commodities are no longer being viewed as too risky for the average portfolio, and are now actually increasingly utilized to minimize portfolio variance. This is due to silver's and, in general, the asset class' negative correlation with the returns of traditional assets, such as equities and bonds.

### Comex

The Comex division of the Nymex offers a 5,000 ounces silver futures contract and options contract based on one COMEX Division silver futures contract. The exchange is the world's foremost arena for silver derivatives with the greatest level of activity in terms of volume and open interest. It is worth noting that in August last year, the Nymex was taken over by the CME Group. However, no changes were made to the silver products' nomenclature and their specifications.

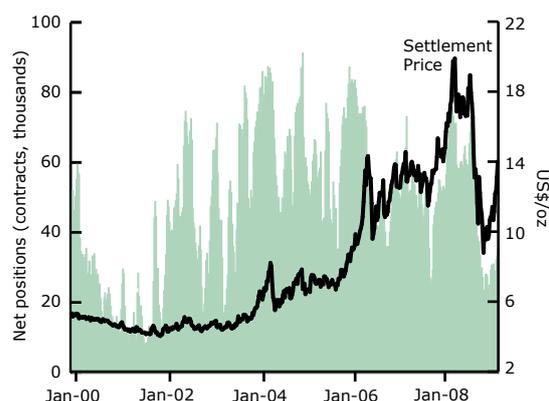
One initial key point that merits attention regarding the Comex (as well as all commodity exchanges) is that there is a great deal of commercial activity on the exchange, which is usually in practice the counterpart of speculative activity by private investors and funds. A critical way in which it is possible to differentiate between the two when it comes to the major US commodities exchanges are the regular CFTC reports on futures and options activity that attempt to distinguish positions held by commercial and non-commercial players. In principle, this allows the analyst to focus on non-commercial (and non-reportable) gross and net positions as a measure of investor activity in commodity futures and options. It should be noted, however, that CFTC reports are a somewhat imperfect gauge of investor or speculative activity, as there can actually be a degree of investment 'hidden' on the commercial side.

In reviewing the weekly CFTC data over the last twenty years, investors' total net positions in silver futures tended to move in a somewhat directionally similar trend to silver prices while also displaying a significantly higher level of volatility.

When it comes to annual averages, investors' net positions, although they have fluctuated in size, have remained on the long side over the past two decades. This is particularly curious given the large scale and sustained disinvestment of physical silver we have noted that took place in the 1990s. It is also in stark contrast to gold where CFTC shows that non-commercials were firmly on the short side for much of the past decade.

From end-1988 to end-2008, the net 'investor' long in silver on the Comex rose from 26,587 contracts (equivalent to a nominal 132.9 Moz or 4,134 t) to

#### Comex: Net "Investor" Positions



Source: CFTC



30,244 contracts (equivalent to a nominal 151.2 Moz or 4,703 t), a gain of 14%. A historic high was achieved in more recent times, near end-2004, of 91,212 contracts (equivalent to a nominal 456.1 Moz or 14,185 t). This came after the net long, with a great deal of volatility, had soared for several years, after the trough and relative low point in the price of silver in 2001.

The net long declined however from the end-2004 spike, despite a continued surge in the price of silver, implying that investment flows from other arenas of silver investment, namely the OTC market (and later, ETFs), acted as the chief drivers of the price.

Finally, in contrast with a relatively stable first half of 2008, the second half saw the net long dramatically plummet, hitting a low of 22,268 contracts at the end of October. This was primarily the result of the deepening global financial and economic crisis and subsequent liquidations in financial and commodity markets (particularly associated with a bout of hedge fund redemptions and other investors raising cash to cover losses elsewhere). Heavily undercut net longs were sluggish to recover through the remaining two months of 2008. However, the recovery accelerated at the beginning of 2009 on the back of renewed risk aversion and the rally in gold. By mid-February the net long stood at 35,037 contracts, up 57% (equivalent to 175.2 Moz or 5,448 t) from the low seen in October 2008.

Average daily turnover in Comex futures has been steadily increasing since 1999, rising from over 16,630 contracts to over 35,000 contracts in 2008, a rise equivalent to 93.1 Moz or 2,895 t.

Total annual volumes have climbed from near some 4.2 million contracts in 1999 to 8.9 million contracts

Net "Investor" Position on Comex			
	Contracts	Moz	Price
2003	52,622	263	4.88
2004	68,949	345	6.69
2005	59,450	297	7.30
2006	56,912	285	11.51
2007	49,755	249	13.39
2008	51,193	256	14.91

(average non-commercial and non-reportable net futures positions, Moz equivalent and Comex settlement price in \$/oz; Source: CFTC)

in 2008, up 114%. Apart from 2006, growth in total annual volumes has remained strong over the past several years, with 2008 recording a rise of 31% to approximately 44,586 Moz or 1.39 Mt.

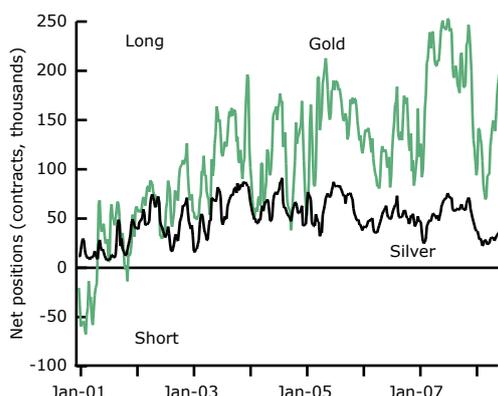
Overall open interest on the New York exchange has visibly trended in line with the spot price of silver over the past decade, rising from 76,387 contracts at end-1999 to 85,923 contracts at end-2008 (a gain equivalent to 47.7 Moz or 1,483 t). Looking at growth in end-year levels from 1999 to 2008, the gain in open interest has averaged roughly 5% over the period, with an impressive year-on-year rise of 51% recorded in 2007 followed by a similar in scale decline of 44% the year after. Prior to this in 2008, though, a historic high of 189,151 contracts was set on February 19th, roughly one month before silver's multi-decade high of \$20.92 on March 17th. By the end of last year, open interest had more than halved and totalled 85,923 contracts equivalent to a nominal 429.6 Moz or 13,362 t.

### CME Group/NYSE Euronext

The CME Group (formerly known as the Chicago Board of Trade (CBOT) prior to the 2007 merger between the Chicago Mercantile Exchange and the CBOT) offers a standard silver futures contract of 5,000 ounces in addition to a "mini-sized" 1,000 ounces contract. On March 14th 2008, the NYSE Euronext announced it would purchase the CME Group's Metals Complex. Moreover, as mentioned earlier in this section, an acquisition of the Nymex by the CME Group was completed in August of 2008.

In 2007, total open positions in CME Group silver futures were at such low levels over the majority of the year that only 12 observations were reported by the CFTC. Furthermore, even at the times when open interest was sufficiently large to be reported, the data show that the CBOT accounted for but a small fraction of the total open interest on US-based futures exchanges. In reviewing the years prior, 2006 also

**Comex: Net "Investor" Positions**



Source: CFTC



saw trivial levels in data reported by the CFTC on non-commercial and non-reportable positions on the CBOT. In 2006 the combined net long for these averaged 5,000 contracts, less than 10% of the relevant figure for the Comex.

When looking at total volumes in CBOT 5,000 oz silver futures, turnover levels saw a notable rise in 2006 to 1.2 million contracts up from a total volume in 2005 of 86,218 contracts. It is important to note here, however, that the gain was partly due to levels having risen from a very low base as the contract was only launched in the third quarter of 2004. In 2007, after the impressive run up the year prior, daily volumes on the exchange rose less strongly, by 25% to 1.5 million contracts, equivalent to around 22% of the annual turnover on the Comex the same year. Volume on the CBOT in 2008 fell away sharply to just 0.5 million contracts.

After the gains seen in end-year levels in overall open interest in 2005 and 2006 in the 5,000 ounce contract (where positions went from 514, to 1,633 to 9,970 contracts from 2004, 2005 and 2006 respectively), gaining by 218% and 511% respectively, the 2007 end-year level fell to half that of the previous year's, at 4,860 contracts. It is important to note that, in contrast to gold, where activity on the CBOT has had a significant impact on the market at various points in time over recent years, the CBOT's influence on the silver market has been minimal due to it never achieving a sufficiently high share of global silver futures trading. Trading activity continued to diminish further in 2008 until in September last year the contract was transferred to Liffe, the global derivatives business of the NYSE Euronext group. From that point through to the end of 2008 turnover in 5,000 ounce silver futures totalled over 72,000 contracts, a level

close to the entire year's turnover on the CBOT in 2005. Overall end-2008 open interest for the contract totalled 2,174 contracts or 55% less compared to end-2007, when it was still trading on the CBOT.

### Tocom

The Tocom is another important exchange for trading in silver derivatives, and offers a 30 kg contract quoted in yen, which began trading on January 26th 1984. The fact that the contracts are priced in the Japanese currency makes for a market in which demand for silver futures traded on the exchange is influenced by the yen's exchange rate movements against the dollar; where yen appreciation against the dollar diminishes the returns in the yen-denominated silver price and typically drives net speculative positions down.

GFMS have data back to 2004 on non-reportable net positions on the Tocom, which are a fair proxy for investors' positions on the Japanese exchange (this data has been kindly provided to us by Sumitomo Corporation). Prior to 2004 and through to April of that year we understand that in aggregate these positions were net short silver. The move to the long side occurred soon after the non-reportable net position had risen from a trough of -16,270 contracts (equivalent to 15.7 Moz or 488 t) on February 13th 2004. Since April 2004, the net position has remained on the long side during a majority of the time, while often fluctuating in an inverse pattern to the yen-denominated silver price. The most recent spike in investors' net long positions occurred near the end of 2005, when these achieved a level of well over 15,500 contracts (equivalent to over a nominal 15 Moz or nearly 473 t). Since then, the net speculative long has gradually trended downwards.

Net speculative positions, since the second quarter of 2007, have diverged noticeably from the yen-denominated silver price, with the reason for this likely attributable to a trend reversal in the yen versus the dollar; as the former recently rallied to a high of 96, a level not seen since the third quarter of 1995. Again, this is illustrative of how strength in the yen against the dollar typically acts to mitigate the dollar hedging appeal of silver futures on the Tocom. In 2008, in spite of dollar prices reaching fresh highs, the net speculative long remained subdued, again, most likely due to the continued surge in the yen over much of the period.

In regards to volumes on the Tokyo exchange over the last several years, the trend in total annual levels has been varied. From a level of 1.5 million contracts in

**Tocom Futures Turnover and Open Interest**



Source: Tocom



2004, total turnover slid in 2005 and 2006 to 817,624 and 858,153 contracts, respectively (equivalent in each case to a nominal 24,529 t and 25,745 t). Total volumes fell again in 2007, dropping by 37% to 536,583 contracts (equivalent to a nominal 517.5 Moz or 16,098 t). The fall accelerated in 2008, with total turnover collapsing 45% to 297,764 contracts (equivalent to a nominal 8,934 t). Overall open interest in silver futures on the exchange at the end of 2005 reached a level of slightly under 17,000 contracts, dipping 11% to record an end-2006 level of just over 15,000 contracts. However, this decline increased by over three times the following year as the end-2007 level sank to a little over 9,500 contracts. 2008 saw the number dropping further, down by nearly 42% to 5,464 contracts. To put this in perspective, the nominal silver equivalent of these open positions amounted to just 5.3 Moz (164 t) compared to an equivalent end-2008 figure on the Comex of 429.6 Moz (13,362 t) which was about 81 times higher.

### Other Exchanges

In recent years, financial liberalization in various developing countries, combined with notable growth in investment demand for commodities has resulted in the launch of several new global commodity exchanges, with many of these experiencing a gradual expansion in activity. In relation to overall market share however, these platforms have exhibited relatively low trading volumes and thus far had an insignificant impact on the silver market.

### Shanghai Futures Exchange

At present, the Shanghai Futures Exchange only lists contracts on gold, copper, aluminium, fuel oil and natural rubber. Yet, with consumer prices at elevated levels in China, demand for silver and precious metals as an inflation hedge may continue to grow. To note, evidence of rising investor interest in exposure to gold was evidenced by the impressive launch of a gold futures contract on the exchange on January 9th 2008. The robust activity that the contract saw on its first trading day (where large volumes were recorded as the contract traded at a hefty premium of nearly \$100 over world gold prices) was highly indicative of the potential for the new contract to prove key in channelling substantial inflows from Chinese investors. Basis this, the launching of other commodity futures on the exchange, namely silver, seems conceivable as Chinese investors seek to diversify their pool of savings.

### Indian Exchanges

In India, silver futures contracts are traded on the Multi Commodity Exchange of India (MCX), with a 30 kg contract and a mini contract (5 kg), and on the National Commodity and Derivatives Exchange (NCDEX), which also offers a 30 kg and 5 kg contract. Both exchanges have been active since the last few months of 2003 but represent only a small share of the global silver futures market. The MCX is India's dominant commodity exchange, and, after reaching a level of 300,000 t in 2006, total volumes gained a further 9% in 2007 to over 328,000 t. In 2008 total volumes on the exchange continued to grow with a rise by nearly 20% to slightly over 393,000 t. Looking at open interest, end-year levels have trended lower over the past few years, sliding from a level of 613 t in 2005, to 351 t at end 2007. However, the trend changed direction in 2008 with an open interest climbing to a level of close to 399 tonnes by the year-end.

Activity on the NCDEX is a fraction of the size of that on the MCX. Nevertheless, the NCDEX saw remarkable volume growth of 281% in 2005, with annual turnover that year reaching just under 70 million contracts, up impressively from 18.3 million contracts in 2004. However, this was not to last, total volumes falling by 18% the following year to slightly under 60 million contracts. Thereafter, activity on the NCDEX plummeted, as annual turnover dropped to just 15.5 million contracts in 2007. The fall continued in 2008 with the total number of contracts traded in the year collapsing to 4.6 million (approximately 138,000 t), a fraction of its peak reached in 2005.

### Dubai Gold and Commodities Exchange

The Dubai Gold and Commodities Exchange (DGEX) commenced trading in late 2005, and offers a 1,000 ounce silver futures contract, which launched on March 28th 2006.

The contract's trading volumes in its early stages were at decent levels, however, activity eventually slumped and has since remained at low levels. For example, in the first half of 2008, total volume stood at just under 2,000 contracts (equivalent to a nominal 62 t or 2 Moz). The second half of the year was even weaker with only 640 contracts traded (19.9 t or 0.64 Moz). Open interest data is not available for this exchange.



## ii. The Over-the-Counter and Metal Account Markets

A substantial portion of investor activity in silver takes place in spot and derivative products issued by a variety of institutions over-the-counter (OTC), rather than through a marketplace such as a commodity or stock exchange. Depending on their size, nature as well as their relationship with the respective issuers, investors can access such products either directly from the issuing institution or through a brokerage or trading platform.

The main advantages of using OTC products are related to costs, flexibility and confidentiality. Starting with the cost argument, the lack of a formalized marketplace, the limited requirement for reporting by implication and the economies of scale related to higher ticket sizes result in the overall costs of operating on the OTC market being lower. Part of this decline is certainly passed to the investor. Regarding flexibility, depending on the respective issuers, the OTC market allows for tailor-made products to be created in order to satisfy the specific needs of various investors as well as provide scope for higher unmarginated leverage than that offered on a futures exchange.

Finally, the opacity that is inherent in trading OTC products (related to the aforementioned relaxed reporting requirements, at least compared to the various futures exchanges), is another factor that pushes certain players, towards OTC products. This property of the OTC market is particularly attractive to investors of substantial size, whose actions could distort the market in a counter-productive manner,

In the case of silver, the OTC market offers an additional advantage to investors. Specifically it provides them with an avenue to tax free silver, in countries where physical purchases are taxable. For instance, in Europe investors can accumulate silver free from Value Added Tax, as long as the metal is in the form of unallocated as opposed to allocated metal accounts. As a result, many players who, were it not for the tax considerations, would normally purchase physical silver, are drawn into this segment of the market to avoid paying tax, at the expense of somewhat higher counterparty risk.

The cost for all the above-mentioned benefits of operating in the OTC market comes in the form of a notably higher minimum investment threshold. This is more pronounced when dealing directly with product

issuers. (When trading through a broker of course the threshold is notably reduced, at the expense of higher costs and lower flexibility.) As a result of all the above, the OTC market tends to be the stomping ground of institutional investors, high net-worth individuals and family offices as well as the private wealth management community. In contrast, the presence of smaller retail players is minimal.

As far as the types of silver-linked products found in the OTC market are concerned, a wealth of instruments ranging from simple spot, forward and vanilla option products to more complex structured products is available to suit different investors' needs. Overall though, activity tends to be centered around the simpler rather than the more complicated products' end of the spectrum. Unallocated metal account, in particular, seems to be the segment of the OTC market that attracts the largest pool of liquidity.

On the back of long positions in metal account, GFMS are aware of investors often writing out-of-the-money call options. On the one hand these can serve as an automatic profit-taking trigger, for those players that wish to follow the relevant strategy. On the other, the option fee essentially comprises a return to investment, regardless of whether the option is exercised or not. Depending on the option, return can often match or exceed the yield available in the money markets (and in recent years has almost certainly been significantly higher than any yield gained through leasing the metal). Players who are only interested in the fee rather than the profit taking, when called out of their position will often immediately re-purchase silver to replenish their stock.

Similarly, investors that are interested to acquire or expand a long position in silver will often do so by selling puts. Regardless of whether these are exercised or not, this generates an income from the option fee. If the put is then exercised, the issuing investor simply buys the metal they wanted to purchase anyway. (Opposite strategies to the two described above using vanilla options are of course also utilized by investors, depending on their view and objective.)

Investor activity in allocated metal accounts is normally limited in silver's case and notably lower than that in gold. This has generally continued to be the case recently, despite mounting concerns over counterparty risk, in the aftermath of the sub-prime crisis. When it comes to gold, such concerns have prompted a



good deal of switching from unallocated to allocated positions, something that has been less noteworthy in silver's case. In large measure, this is due to the far higher storage costs allocated positions in silver suffer from compared to gold, particularly in terms of percentage of value. (This is due to a given amount invested in silver being far larger in volume than if it were invested in gold.) One additional consideration when looking at allocated metal accounts outside London or the United States is tax that is often applicable (as such positions are treated similarly to holdings in physical metal, discussed in detail in the next chapter).

Moving to the drivers that push investors into acquiring positions linked to silver in the OTC market, the fact that silver belongs to the precious metals' as well as the wider commodity complex once again stands out. (Players specifically interested in the white metal rather than either of the two wider asset classes mentioned above tend to be a minority, particularly outside the United States.) It is therefore the norm that investors' portfolios will include a range of commodities (sometimes specifically belonging to one or another sub-sector) whose weights are varied over time depending on investment objectives and views of the markets. For instance, in Europe and Asia, it is infrequent for investors only to hold silver through OTC positions. Usually they will also hold gold or perhaps a basket of commodities. On the other hand, it is fairly common for investors in these regions to hold gold and have no other commodity exposure.

In addition to the above, through to at least the middle of 2008, a significant portion of the OTC market in silver reflected purchases related to OTC commodity

basket products of one form or another. Since then these positions have fallen in size as a result of the major sell off in commodities that took place in the second half of 2008. Nevertheless, we understand that a fair amount of silver would still be invested in via commodity indices and the like.

Regarding the precise nature of these commodity-linked investments, these can range from a passive basket with fixed weightings, issued by an investment bank, fund or other financial services institution all the way to actively managed hedge funds or mutual funds that specialize in commodities.

It is worth ending this section with a comment concerning the quantification of activity in the OTC silver investment market. Due to its nature, actual data on volumes and open interest is not available. Although the London Bullion Market (LBM) clearing statistics presented in the accompanying graph can provide a guide to trends and shifts in direction, they are a flawed indication of investor activity.

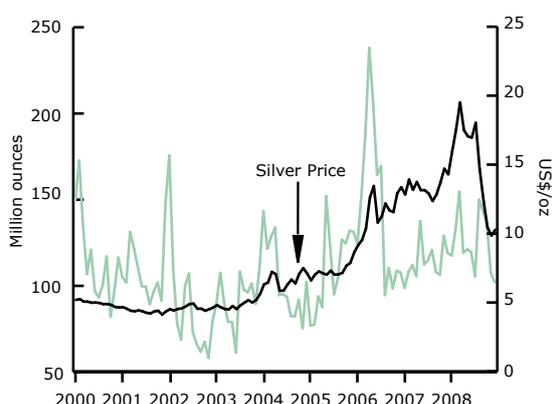
First of all, this is because although the London market is by far the largest one for physical silver and OTC trading, it is not the only one. More importantly, though, the LBM clearing statistics do not differentiate between investment and other activity. Thus, a substantial portion of the volume included in the figures reflects activity that falls out of the realm of investment, such as producer and end-user (de)hedging as well as fundamental flows. Finally, part of this volume is likely to reflect the hedging by issuers of other products (such as ETFs, futures etc) and as such is not strictly speaking OTC investment activity.

### iii. Silver Exchange Traded Funds

After the notable success of gold exchange traded funds (ETFs), several of which were launched in 2003 in response to strong investment demand, April 2006 marked the introduction of the first silver ETF. The iShares Silver Trust sought to provide investors with a unique way in which to participate in the silver market, either going long or short, via secondary securities exchanges. Investors benefited from these securities' cost efficiency, and by gaining exposure to the market without the obligation of having to take delivery of the underlying or trade in futures contracts.

Specifically, a silver ETF is a securitized open ended, continuously listed, passively managed fund that is linked to allocated holdings in silver, with share

**London Bullion Market Volume**



Source: GFMS



prices that reflect the spot price of silver held by the fund. There also exists an ETF (ETFS Silver), which is designed to follow the DJ-AIG Silver Total Return Sub-IndexSM; and a leveraged ETF that offers an exposure to the same index (200% times the daily percentage change).

Perhaps one of the more crucial aspects of these products is that they have provided large institutional players, such as insurance companies and pension funds (which are typically precluded from purchasing commodities and futures) with a highly liquid tool with which to access the silver market, gaining for the first time a near direct, price exposure to the underlying physical commodity.

Demand for and inflows into these vehicles have been fueled by a host of investment drivers also present in the gold market. Namely, these are noted to be historically low short term US interest rates (with real rates now negative), a need to hedge against the falling dollar, ongoing geopolitical tensions and a trend towards diversification into commodities and alternative assets. For much of 2008, interest in silver ETFs was spurred by the sub-prime and credit crises, a downturn in the US economy, greater uncertainty regarding global growth and, during the first half, soaring inflationary pressures created by surging energy and food prices.

### Historical Background

Beyond creating a new form of investment and widening the investor base for silver, ETFs have had a substantial impact on the price. While a spill-over effect from the bull market in gold has undoubtedly been beneficial to silver, GFMS believe the price levels which have prevailed in recent years would have been difficult to achieve had it not been for the introduction of a silver ETF.

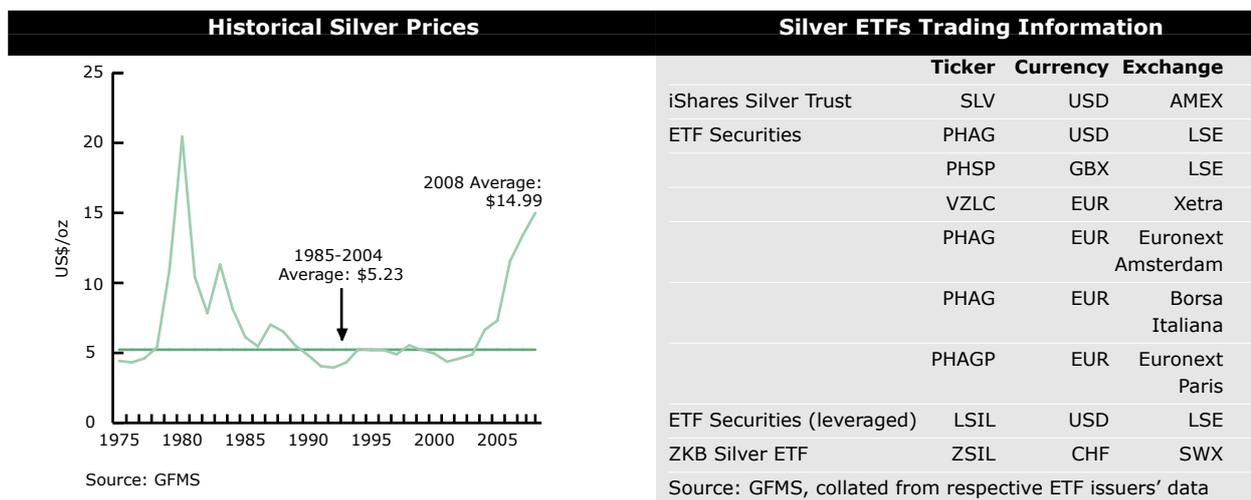
Silver ETFs (million ounces)			
(end-period)	2006	2007*	2008
iShares Silver Trust	121.1	148.8	218.4
ETF Securities	-	12.4	14.2
ZKB Silver ETF	-	9.1	32.7
Total	121.1	170.3	265.4
Silver Price (US\$/oz)	\$12.90	\$14.76	\$10.79

Source: GFMS, collated from respective ETF issuers' data

\*end-2007 data refers to December 28th

To understand why, and in gaining some perspective over the impact these products have had on the market, a review of historical prices is warranted. Firstly, prior to 2004, silver had been in a bear market for the better part of two decades. From 1985 to 2004, annual average prices (during all but one year) remained below the \$7-level, and averaged just over \$5 for the period. Yet, when looking at the market prior to and then after the launch of the first ETF product in April 2006, it is clearly apparent that a structural shift in the equilibrium price level occurred during 2005. For example, the average price from 2005 through to 2007 was up impressively at \$10.75. Growing investment demand, much of it via ETFs, lifted the silver price even higher in 2008 when the metal averaged \$14.99.

It is further worth noting that the introduction of the first silver ETF, when compared to the gold one, had a far stronger effect on investor sentiment. This was basis expectations that the iShares product would have an impact which far exceeded that of the similar product on gold, due to the potential for the silver ETF to absorb a much larger portion of the available above-ground stocks of the metal (and therefore act as a drain on the available pool of liquidity). As such, market participants looked to a near term spike in prices and surge in lease rates; a view which began to gather momentum as far back as May 2005 when





rumors of a silver ETF first began circulating. These growing expectations resulted in investors aggressively expanding their long positions in silver in the futures and OTC markets, and at the same time, there is evidence that precautionary borrowing was also taking place; as market participants looked to avoid the inflated lease rates that were expected to occur after the product's introduction. The result was a rise in the silver price and the cost of borrowing the metal, as expectations of higher prices created exactly that, in a classic example of what turned out to be a self-fulfilling prophecy (all occurring well before the product had even launched).

Subsequent to the iShares product launch, however, the market's fears proved largely exaggerated. Price rises following the product's debut were much lower than some had anticipated and it soon became evident that the silver ETF's drain on the market's liquidity was less dramatic than initially feared. What is more, lease rates began to ease as the precautionary borrowing that had taken place in early 2006 began gradually to unwind. Rates continued to trend downwards until they bottomed in late November, with borrowing costs having remained low to negative until fairly recently.

Such overall results were not due to any lack of interest in the product. Indeed, the iShares product initially recorded robust inflows, yet such growth was largely offset by an unwinding of positions in other arenas of the silver market, namely the OTC and futures markets. In part this reflected some investors in the latter two markets switching a portion of their funds into the ETF product. Probably of greater importance, however, was the liquidation of long positions by those who had successfully front run the ETF's launch, allowing them to take profits at multi-decade highs. Further restraining the possibility of a liquidity squeeze and (additional) price spike, was the broad correction in base and precious metals in late May through to mid-June 2006. During this time, silver prices tumbled from their 25-year highs of near \$15 to a trough of under \$10 by mid-June. After a period of consolidation and range-bound trading through the rest of 2006 and 2007, silver resumed its move higher in the first half of 2008, jumping to a 28-year high of near \$21. However, a steep correction followed in July-October 2008, driving the price below \$9. As the sell-off ran out of steam however, the white metal rebounded and at the time of writing is firmly trading in a \$12-\$14 range. It is interesting to note that since July and

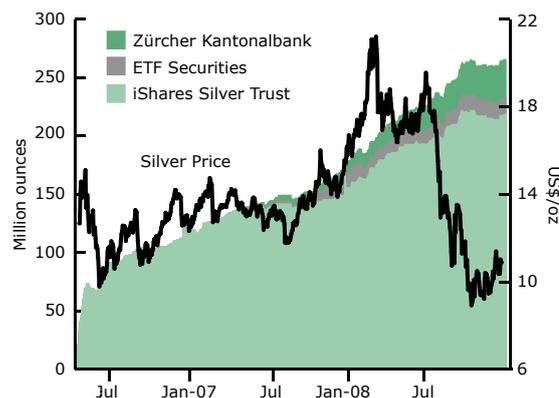
Average Daily Volumes of Commodity ETFs		
(shares '000s)	2007	2008
iShares Silver Trust	4,409.7	7,022.8
SPDR Gold Trust*	6,062.9	15,980.5
US Oil Fund	3,310.4	15,389.0
Market Vectors Steel Fund	100.0	403.6
PowerShares DB Agricultural Fund**	326.9	1,559.3
*Formerly: StreetTRACKS Gold		
**From 05 Jan 2007		
Source: Commodity Systems, Inc. (CSI)		

through to February 2009 that investment in silver ETFs has remained very robust. For instance, during the initial drop in the price in August and September last year combined ETF holdings actually increased by over 30 Moz or nearly 1,000 t. Thereafter they remained reasonably stable in the fourth quarter before resuming growth again in the first two months of 2009. In our view, the resilience of silver ETFs during the heavy sell-offs across the commodities complex in the second half of last year did much to limit the damage to the silver price, which in the absence of this support would most likely have fallen further and, most importantly, failed to have recovered as strongly as has turned out to be the case.

### Comparisons with Other Commodity ETFs

There are now numerous ETF products that are based on commodities, many of which have seen healthy growth and have proved popular with both retail and institutional investors. The performance of these ETFs are of course closely linked to the underlying commodities that they track, and of the five listed products in the table above, the price of the Power Shares DB Agricultural Fund saw the most notable gains in 2008, up by 377%. The United States Oil Fund

### Silver ETFs



Source: various ETF issuers



exhibited a similar gain, with a return of 365%, while the iShares Silver Trust recorded a gain of 59% over the relative period. Rather impressively, in terms of total value, at end-2008, the SPDR Gold Trust was the largest among gold and silver ETFs, at \$21.8 billion, with the iShares Silver Trust the third biggest, at nearly \$2.4 billion.

The notable jump in the share prices and volumes of these vehicles, which tend to be purchased by investors with longer term investment horizons, is illustrative of the trend of greater asset allocations towards commodities, which we believe remains intact over the longer run in spite of the massive sell off in commodities during the second half of 2008. At least some large institutional investors, such as pension funds and insurance companies, have utilized these instruments for various investment objectives, most obviously for portfolio diversification.

### Growth in Silver ETFs

The growth in total ETF holdings of silver has been impressive over the past two years. Moreover, as indicated above, these positions have proved to be highly resilient during corrective phases in the precious metals markets such as those that occurred during the second and third quarters of 2008. The buoyancy of these holdings is largely attributable to the fact that (in contrast to the short term speculative flows that often are a defining feature of futures exchanges) the investors in silver ETFs are typically pursuing a buy and hold strategy and seeking long term capital appreciation. To illustrate, when prices markedly eased from the 25-year highs recorded in mid-March 2008, silver's three physically-backed ETFs actually saw an acceleration in growth, holdings rising by 10% over the second quarter, up from a gain of 7% recorded over the first quarter of the year. Despite the silver price sinking by 58% to \$8.88/oz in October 2008 from its mid-March high the combined holdings of silver ETFs proved to be resilient, with only minor redemptions occurring during the October-November period. Such gains noticeably contrasted with the trend on the Comex in 2008, where the non-commercial and non-reportable net long position declined by 53%.

In 2009 to-date, silver has been increasingly favored by investors due to generally increased risk aversion, a positive spill-over effect caused by the rally in gold and the belief in some quarters that silver was 'cheap' on a ratio basis relative to its more expensive yellow cousin.

Indicative of the renewed surge in investor interest was that combined silver ETF holdings surpassed a new milestone of 290 Moz or over 9,000 tonnes at the end of January and that these have also showed solid growth of 13% since the beginning of 2009 through to mid-February. This suggests that those investing in ETFs were at times buying on price weakness, using dips as an opportunity to increase positions.

Looking specifically at the growth of silver's ETFs in 2008 alone, total bullion holdings across the three investment vehicles experienced substantial gains, rising by 56% or 94.8 Moz (equal to roughly 2,949 t) to 265.1 Moz (8,245 t) and a nominal value of \$2.9 billion by end-year.

In regards to individual products, the iShares Silver Trust is the ultimate leader in terms of metal accumulated since the ETF was launched in April 2006. Stocks of the fund grew markedly during 2007, increasing by close to 23% or 28 Moz (a little under 900 t) to 148.82 Moz (4,629 t) by end-year. During 2008, the fund's holdings surged by nearly 47% to a level of 218.40 Moz (6,793 t) at year-end. (Note that end-2007 data used for this analysis is basis the fund's holdings reported for December 28th, 2007 as the figure for 31st December is a 'rogue' one.)

Following on the marked success of the iShares product, two additional silver funds were launched in the first half of 2007 by ETF Securities and the Swiss Zürcher Kantonalbank. By end-2007, the ETF Securities fund had seen healthy inflows as accumulated holdings rose to over 12 Moz (384 t) since the fund's launch on the London Stock Exchange on April 24th. Further growth in volumes took place in 2008, with silver stocks held in the ETF Securities product reaching 14.28 Moz (444 t) by the year-end.

The Zürcher Kantonalbank issued ETF (ZKB Silver), which trades on the Swiss Stock Exchange and was launched on May 11th 2007, reached a level of 9.14 Moz (284 t) by the end of that year. Over its first seven months the vehicle experienced good demand, which was partly driven by the decision by Novartis, the Swiss-based pension fund, to allocate 4% of its CHF 14 billion portfolio into precious metals. Growth in holdings over 2008 was also strong, with total volumes gaining by an impressive 255% to end the year at 32.44 Moz (1,009 t).



In terms of value, silver's three physically-backed ETFs rose to a level of just under \$4 billion by the end of June 2008. However, over \$1.1 billion evaporated in the second half of 2008 on the back of the sinking silver price that was severely hit by a heavy sell-off in the July-October period. A total value of nearly \$2.9 billion as of end-2008 falls well short compared to the collective value of gold ETFs, at over \$34 billion at the same date.

Finally, it is worth adding a word of caution. It is important to note that while the surge in volumes of silver ETFs continues, these holdings also represent a overhang in the market, and could therefore potentially be a source of downside risk to the price over the longer term. Despite the resilience to liquidation that holdings in silver ETFs have thus far shown, any new significant retracement in the price could see this reverse some time in the future, particularly if the underlying conditions currently favoring investment demand in precious metals were to change materially.

#### **iv. Stock Exchange Listed Structured Products**

As the name suggests, stock exchange listed structured products on silver are standardized derivatives listed on a number of stock exchanges. They are issued by financial services providers such as investment banks and are in their overwhelming majority cash settled. Indeed, investors in these products do not normally have the option to take physical delivery.

Stock exchange listed structured products comprise warrants, knock-out warrants and certificates. The former are standardized vanilla options, set at various strike levels and expiries. The majority of silver warrants are American style options (in other words they can be exercised at any point prior to their expiry), with the balance being European style (they cannot be exercised until their expiry). If a warrant is "in-the-money" (meaning that the silver price is at a level higher than its strike price) and is exercised, the investor is remunerated with the difference between the strike and the silver price at the time of exercise.

Knock-out warrants on silver are also standardized silver options, with the addition of a knock-out barrier. If the silver price reaches that barrier, the security becomes worthless (regardless of whether the price returns to levels above or below the aforementioned barrier). Due to the higher risk inherent in knock-out warrants compared to simple vanilla warrants, they are, *ceteris paribus*, relatively cheaper. Although in

theory the barrier for a silver warrant can be set to a level higher, equal or lower than the strike price, to our knowledge there are no products belonging to the latter category available on the exchanges monitored. By implication, knock-out warrants are "in-the-money" when they are issued.

The last remaining group, namely certificates, includes all other exchange listed structured products. Simple and quanto (which includes an automatic currency hedge) price trackers, mini futures, discount, bonus and a range of other more complex products are available, to suit various investment objectives.

Trading in warrants and certificates provides small to medium sized retail investors with a number of advantages. The most important of these are low entry level and ease of access, due to their essentially being traded as shares. In addition, unleveraged products such as price trackers offer investors the ability to gain a similar exposure to the silver price as physical metal purchases, without the need for them to pay tax (at the cost, of course, of counterparty risk).

Despite the above-mentioned benefits, exchange listed structured products suffer from relatively high costs and a lack of flexibility compared to other arenas of silver investment such as the OTC and futures markets. Moreover, in contrast to ETFs and allocated metal account, investing in warrants and certificates involves exposure to counterparty risk.

As mentioned earlier, warrants and certificates are normally cash settled products. Nevertheless, activity in silver exchange listed structured products can and does have an impact on the underlying physical market, through product issuers' hedging against any open positions. It is unfortunately not possible to provide a sufficiently accurate estimate of the magnitude of this impact, due to the diversity and opacity of the different issuers' hedging policies. Based on information collected through field research, we are nevertheless confident that, overall, this segment of silver investment activity accounts for only a very small portion of the total.



## 5. Physical Investment in Western and Developing Markets

Throughout the world, investor attitudes regarding purchasing silver in physical form are greatly varied. On the one hand, this is driven by fundamental differences in the types of players and their objectives, as well as the legacy silver has as an investment vehicle within the respective areas. Moreover, as was mentioned in the second chapter of this report, such differences are augmented by the varying tax regimes concerning purchases of physical metal, as this clearly affects expected returns. This chapter begins by examining one of the most important, historically, markets for investment in silver coins and bars, that of the United States and North America. Europe is then discussed in some detail, along with silver bullion investment in India.

It is worth commenting here on the lack of any discussion on physical investment demand in the bulk of the developing world. This might seem strange, particularly considering the notable volumes of gold bar hoarding demand GFMS record in many East Asian and Middle Eastern countries. For example, in 2008 demand in Vietnam and Iran stood at 3.1 Moz (96 t) and 2.7 Moz (85 t) respectively. This is due to the fact that, in contrast with gold, the majority of developing countries do not have a tradition of investing in silver.

Investing in precious metals in physical form is in general a somewhat costly option due to the markups charged to cover fabrication costs. This obviously becomes more acute the smaller the size of the individual bullion product. In addition to such costs, investors also need to consider the issue of storage. If held privately, investors need to consider the risk of

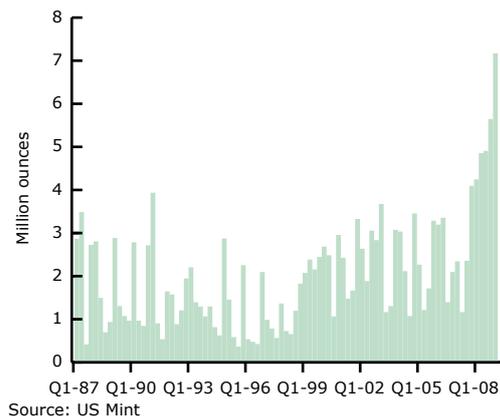
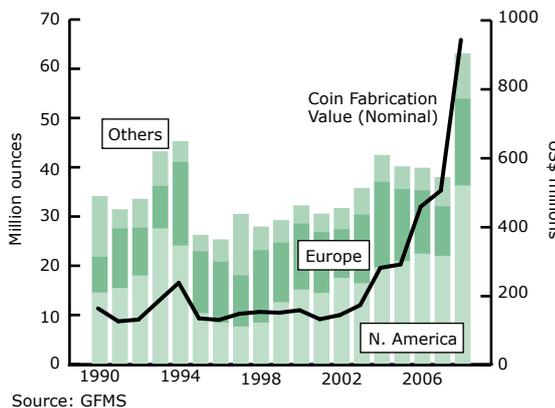
loss through theft or alternatively, the cost of insurance at any facilities purchased to store the metal (for instance, privately owned safes). If stored in a safety deposit box or in the vaults of one of the counterparties that offer such facilities, the storage fees (as well as, at the margin, some counterparty risk) are the obvious additional costs.

In regards to the world coin market, it is revealing to note the importance of commemorative coins, in comparison to bullion coin products. For example, data for 2007 points to a little over half of the global total being accounted for by these products, although there would still be a degree of notional investor demand for some of these pieces. That said, the product split by country does vary enormously. For example, the United States, as consistently the largest fabricator of silver coins (in the past 18 years only once, in 1998, did it briefly cede the top spot to Germany) has seen its bullion products account for around two-thirds of its annual output. In contrast, Germany, which had comfortably retained second place in the global rankings until overcome by Canada in 2008, is almost entirely dominated by the production of commemorative coins.

### i. North America

Given its population and wealth, it should come as no surprise that the United States dominates physical investment in North America. Moreover, silver has a long pedigree as a store of value in the country, helped in part by the United States' record as a leading silver producer for well over a century. In addition, silver's importance to private investors was enhanced during the period from 1933-75 when investment in gold bullion was illegal. Silver was the logical precious metals alternative. Even after gold was freed from

## Coin Fabrication & Value Primary Sales of Silver Eagle Bullion Coins





its shackles, however, popular demand for the white metal remained solid. This was particularly noticeable during the latter part of the 1970s and the early 1980s when investors were active buyers of physical metal in the form of 40% and 90% coin bags (consisting of demonetized US circulating coins) and bullion bars, mainly in 100 ounce size. For instance, such was the appetite for silver during the great rally a generation ago that, according to GFMS' estimates, over 350 Moz (10,900 t) of 100 ounce bars were produced, most of these, in first instance, ending up in investors' hands.

The massive increase in bullion stocks prompted by this wave of investment was later to come back into play as silver moved from bull to bear market in the second half of the 1980s. Indeed, by the following decade dealers were reporting a steady flow back into the US market of coin bags and 100 ounce bars. Such disinvestment was particularly noticeable on the occasional rallies in the price, most importantly during the spike from late 1997 through to early 1998, which was fuelled by Warren Buffett's move into silver. At that time, the price rally to a peak of \$7.81 in February 1998 triggered a massive wave of dishoarding from what could be described as "stale longs". Net disinvestment of physical metal died down once prices moderated but did not altogether disappear. And, although the approach of "Y2K" prompted some nervous buying of silver US Eagle coins, dealers continued to report net selling back of 100 ounce bars and, especially, coin bags. Furthermore, once the turn of the millennium had occurred with no major adverse impacts, the pace of dishoarding picked up again, with net disinvestment characterizing the bullion product market through until at least 2003.

Since then demand for physical metal from investors has staged a comeback that, in spite of the occasional hiccups, has been gathering marked momentum from 2004 into 2009. This is particularly clear from two segments of the bullion product market: modern bullion coins and 100 ounce bars. As regards to the former, figures released by the major mints show a strong growth in the last four years in sales of US Eagle and Canadian Maple Leaf silver bullion coins. Indeed, recently, demand has at times been so strong that the mints concerned have been unable to produce sufficient coins. In the second half of 2008, for instance, US Eagle sales reached 10.5 Moz (327 t) compared to 6.4 Moz (200 t) over the same period in 2007 (indeed, full year 2008 sales marked a new record for the coin). And, when it comes to 100 ounce bars, the market in

the United States has moved from net selling, prior to 2004, to equilibrium between buyers and sellers, to growing net purchases in the last couple of years. This has required new 100 ounce (and other smaller size) investment bars to be manufactured for the first time since the early 1980s. On the other hand, to-date there is still a partially offsetting net flow into the market of dishoarded coin bags. Although by no means as abundant as formerly, this material is still being sold back to the market on a net basis by investors, with most of the surplus silver finding its way into certain industrial end-uses.

It is worth making a few comments about physical investment demand in Mexico, traditionally the world's largest producer of silver. As might be expected given its historical importance to the country, Mexicans have an affinity for silver that is reflected in the use of the metal in recent years for circulating coins, details of which are included in the focus box overleaf.

Investment demand for silver bullion in Canada has traditionally been overshadowed by that for gold. Also, given the country's small population, it is no surprise that the level of demand is a fraction of that seen in its far more populous neighbors to the south. However, the Royal Canadian Mint has since 1988 manufactured one of the world's premier silver bullion coins, namely the Maple Leaf (further information can be found in the focus box on the global coin market).

## ii. Europe

In addition to the added storage and markup costs discussed in the introduction to this section, investments in physical silver in Europe, are normally also liable to Value Added Tax (VAT) charges. These vary from one country to another and across different forms of bullion (for instance, coin and bar form). The implication of these charges is that in order for investors to achieve positive returns on their physical silver purchases, the price needs to appreciate by more than the relevant VAT rate. This regime, as well as silver's legacy as a monetary asset being weaker than, say, in the United States, are the principal reasons behind the lower interest in physical silver from European investors, in contrast to their peers across the Atlantic.

Nevertheless, there remains a minority of investors that do opt to buy silver in physical form, despite its inherent drawbacks. These players are generally small to medium sized investors (who therefore have



limited access to loco-London, VAT free, allocated metal accounts), concerned with counterparty risk, who often expect silver will appreciate by far more than the VAT rate. (The highest rates in Europe reach 25%, while the majority of countries' VAT ranges from 16% to 22%, although in some cases VAT rates on coins can drop to as 'low' as 7%.) Investors discussed in the third chapter of this report, who expect a rally to the historical all-time highs certainly comprise part of this market, as they often overlap with the risk-conscious group.

Moving to the form preferred by investors purchasing physical metal, VAT considerations remain of the essence. Specifically, in the majority of European markets, purchasing silver in bar form bears a significantly higher VAT charge than buying silver bullion coins issued by state mints.

Markups on silver coins, which are generally limited to a maximum of one ounce sizes, on the other hand are normally higher than those on, say, kilobars. Nevertheless, the aforementioned difference between the VAT rates applicable to the two forms of silver would normally exceed any differences in markups, making the expected returns on silver coin purchases higher than those for silver bars. It is therefore not surprising that coins are the generally preferred form of physical silver investment in Europe, although in 2008 there was also a notable surge in demand for silver kilobars, especially in Germany.

### iii. India

In an important change in trend in recent years, Indian physical investment has shifted away from jewelry and silverware to bars and coins. Even though the former categories of demand have traditionally been the main vehicle for silver investment in India, demand for them has generally been on a downward spiral. Taking both jewelry and silverware and bullion demand into account, during the current decade overall investment in silver has tended to fall rather heavily until, as outlined below, the tremendous surge in buying that took place last year.

Although demand for jewelry and silverware appears to have stabilized and possibly even rebounded somewhat in 2008, this form of 'investment' has over recent years been undermined by the dual issues of poor quality (above-all, underkarating) and ever higher local prices. This is well illustrated by GFMS' Indian statistics, which show that by 2007 combined jewelry and silverware

consumption had fallen by over 70% from its 2001 peak. The migration over this period of demand to 'purer' forms of investment can be illustrated by the fact that from its peak, combined offtake of bars and coins "only" fell by 34% through to 2007. Demand for bars and coins has been supported by this form of silver being far less prone to underkarating. In addition, coin sales have also been maintained by non-investment related demand in the form of gifting, both by individuals as well as by corporations.

As indicated above, in 2008 the Indian market experienced a major reversal in trend, with unprecedented local demand emerging for silver bars and coins. The explosion of investor interest in silver bullion, that mostly occurred during the latter part of the year, saw this category of demand comfortably exceed the quantity of silver purchased in the form of jewelry and silverware. Indeed, investment demand was so strong that total supply of silver to the Indian market in 2008 jumped to over 6,000 tonnes or 190 Moz of which more than 5,000 tonnes or 160 Moz was imported. There is no doubt that the largest share of this metal was destined for bullion investors. Last year's dramatic change in direction and the associated surge in local purchases of silver bullion has two main explanations. First, a good part of the growth in demand stemmed from investors placing a much greater emphasis on 'wealth preservation', especially in the absence of other promising, safe investment avenues. Secondly, the explosion in investor interest in silver bullion was stimulated by the opportunity to purchase at very low local prices, even below Rupees 17,000/kg, this coming after a period earlier in 2008 when the rupee price had exceeded 26,000/kg. Much of this buying was also speculative in nature, on expectations of future price gains, hence locals' willingness to pay high premia on silver bullion, these hitting 50 cents per ounce at one stage.



## Silver Coins

A cursory glance at the global totals might suggest little change in world coin fabrication over the majority of the past two decades, save for 2008. In 1990, total coin output stood at 34.0 Moz (1,058 t) and world minting staged a near uninterrupted period of growth through to 2004, drifting lower over the following three years before sharply recovering in 2008. From a world production level of just 37.8 Moz (1,176 t) in 2007, initial estimates for 2008 show the global figure gaining by over 25 Moz to 63.0 Moz (1,959 t), predominately due to strains in the global financial system sparking a tremendous wave of investment.

One point worth making, is namely the division between bullion and commemorative silver products. Although a little under half of the global total is accounted for by bullion products it would be misleading to only focus on this segment as many so-called special issues, which might be labelled collector pieces are in fact purchased by investors. And, given that this study is concerned with global investment the following discussion looks at certain key coin products, some of which are not defined as bullion coins, but which nevertheless would be the focus of the investor community.

In Europe, the coin market has been dominated by the production of commemorative and collector coins, of which the largest producer has been **Germany**. Originally designated in 1987 as circulating or legal tender pieces, the coins were minted in silver with a purity of 625/1000. In spite of being circulating coins, each year the entire production consisted of limited issues to mark a given event, and so the number of pieces struck in any twelve month period could vary considerably. This characteristic meant that collectors, rather than investors, proved to be the main target market and so in 1998 the coins' purity was raised to 925/1000, although investors have also participated in this market. In addition, there has been a broad trend over the past two decades towards raising the number of issues, which, by definition, has lifted Germany's consumption of silver. For example, during the 1990s, the country's outturn of coins averaged 4.7 Moz (146 t), compared with 8.2 Moz (254 t) per annum for the current decade to-date (2000-08).

Elsewhere in Europe, there has been a general drift towards lower coin production, **Spain** being the most notable example. Although the country leapt to prominence in 1994, when the 2,000 peseta legal

tender sterling silver coin was launched (4.7 Moz, 146 t, were minted that year), it subsequently faded and in 2008, just 0.9 Moz (28 t) of silver was consumed. The notable exception has been **Austria**, which saw unprecedented demand in 2008, as fabrication of coins skyrocketed from a 2007 figure of 0.5 Moz (16.5 t) to 7.8 Moz (242 t) in 2008, in line with the overall rise in physical investment demand in Europe last year (a trend which particularly benefited the newly launched Austrian Philharmonic one ounce bullion coin).

In North America, the **United States** has enjoyed a pre-eminent role as the largest global coin fabricator. Stripping out commemorative, and other related pieces, the country would still retain its foremost position. For example, in 2008, output of one ounce Eagle bullion coins totaled 19.6 Moz (609 t), an all time high. Since its introduction in 1986, the US Mint has in total minted 178 Moz (5,526 t) of the Silver Eagle coins.

Turning to **Canada**, minting of the one ounce Maple Leaf bullion coin from 1988-2008 used around an estimated 31 Moz (964 t) of silver. Historically, the bulk of production has been exported to the United States and Europe (especially Germany). Demand for this one ounce coin has grown in recent years as investors have dramatically returned to the silver market. For instance, in 2007 some 3.8 Moz (over 118 t) of Maple Leaf coins were sold by the Royal Canadian Mint, while 2008 saw this figure more than double to an estimated 9.7 Moz (over 300 t).

Finally, turning to **Mexico**, as noted earlier, the country's coin production is principally accounted for by circulating coins. Specifically, from 1992-94 Mexico's Casa de Moneda produced around 39 Moz (1,206 t) of 10, 20 and 50 peso coins that were mainly hoarded by the local population. The peak year of output, 1993, saw minting of such coins reach 17.1 Moz (532 t). After a hiatus, a new series of circulating coins was produced from 2004 to 2006, although minting was on a smaller scale. These coins have also tended to be hoarded by the general public rather than used in everyday commerce. Finally, it is worth noting that not only does Mexico have an active ongoing commemorative coin program but also since 1949 has produced a bullion coin, the Libertad, which is mainly sold to local investors. At its height in the 1980s and early 1990s minting of this coin absorbed between 0.5 to 2.5 million ounces per annum. It is significant that demand in 2008 jumped back to above the 1.4 Moz (43.5 t) level on the back of a surge in investment.



## 6. Silver Mining Stocks

Investing in silver mining equities is another way in which to gain exposure to the silver market. Silver stocks, which are a return on value (as the investor gains from growth and dividend payments) can, at times, yield returns that act as a form of leverage upon the metal's spot price. These securities have been widely utilized by institutional investors that are ordinarily precluded from purchasing the physical metal or buying derivatives based on silver. Investors in stocks also benefit from the absence of storage costs that are associated with holding physical bullion. Furthermore, like the underlying commodity, some of these securities can be low to negatively correlated with other broad-based equities and can be an effective tool for portfolio diversification and hedging against inflation and US dollar depreciation. On the other hand, as explained below, holders of stocks are exposed to company and management risks that are largely avoided by making investments directly in the metal. It should also be pointed out that in many cases silver stock shareholders have a far from direct exposure to silver, as many 'silver mining companies' also produce significant amounts of gold and other metals.

It is worth stressing that mining equities have an altogether different risk-reward profile when compared to investing in the metal, and typically display an even greater level of volatility. To list the set of higher risks and potential disadvantages faced by shareholders, there are those pertaining to: management of the firm, the overall stock market, foreign exchange, political and environmental to name a few. Furthermore, investors will need to be aware of a company's individual risk

### Market Cap and Volumes: Silver Mining Equities

(end-2008)	Market Cap (US\$ bn)	Avg volume* (shares)
Cia. Minas Buenaventura	5.4	1,510,199
Industrias Peñoles*	3.7	1,405,311
Silver Wheaton Corp.	1.9	4,833,842
Pan American Silver	1.3	1,466,389
Silver Standard Resources	1.0	951,806
Coeur d'Alene Mines Corp.	0.4	11,656,123
Hecla Mining Co.	0.3	3,955,759
Silverstone Resources	0.1	299,306
First Majestic	0.1	221,798

Source: Reuters  
\*Average daily volume in 2008

\*The majority of silver projects previously operated by Industrias Peñoles are now owned by its Fresnillo subsidiary, the majority shareholder of which remains Industrias Peñoles.

### Silver Output by Source Metal

(million ounces)					
	2006 Output	% of Total	2007 Output	% of Total	Change y-o-y
Primary	177.9	28%	192.3	29%	8%
Gold	62.3	10%	60.5	9%	-3%
Lead/Zinc	217.2	34%	226.3	34%	4%
Copper	174.9	27%	174.9	26%	0%
Other	14.1	2%	13.5	2%	-4%

Source: GFMS

management strategies, as well as the degree to which the underlying price risks faced by the firm have been hedged, if at all. Another element that has become an increasingly important consideration in the last year has been companies' credit risk and their ability to continue to raise finance and service existing debts.

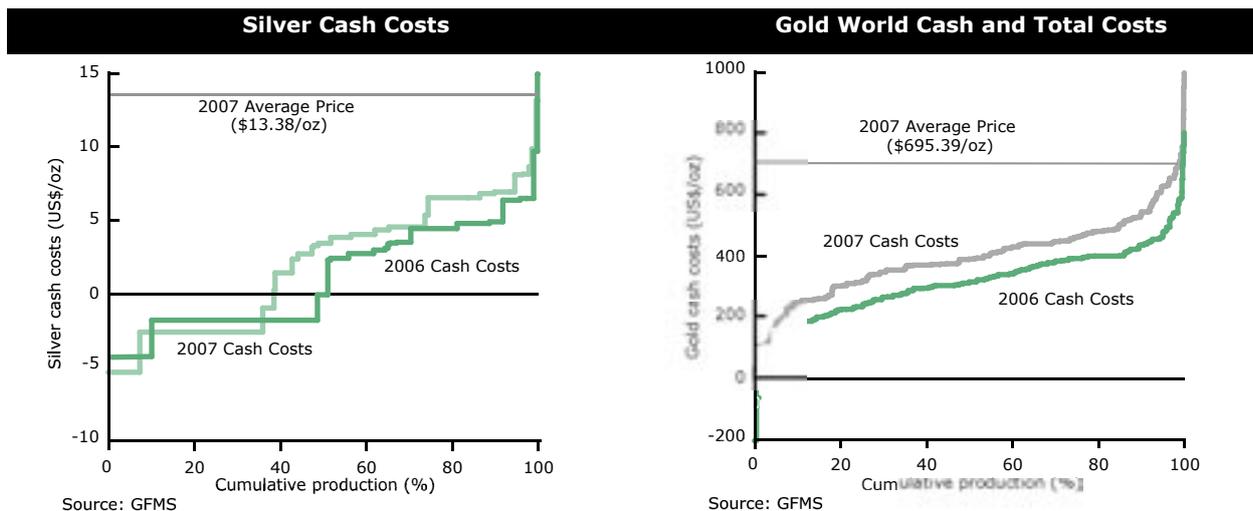
There exists a broad suite of mining companies that investors can choose from, ranging from the more established, major producers, to the higher risk development companies. Typically it will be, in part, the investor's individual risk appetite that governs the investment decision, with the juniors (which usually display a much higher volatility in their share price movements) representing the more speculative plays in the sector.

In looking at silver production, it is perhaps slightly counter intuitive that many of the leading miners of the metal are not the primary producers (whose income is primarily derived from silver) but rather the large, diversified resource companies (such as BHP Billiton) that are involved in the extraction of a range of varying key commodities, such as coal, petroleum, iron ore and base metals. In many of these instances substantial quantities of silver may be yielded as a relatively incidental by-product of gold or base metal production that in some cases is not even a reported component of their sales revenue. In 2007, 71% of silver mined on

### Volatilities: Silver vs Equities

(%)	2006	2007	2008
Silver	44.7	26.2	52.6
Industrias Peñoles*	53.0	54.5	94.9
Cia. Minas Buenaventura	44.4	42.6	114.3
Silver Wheaton Corp.	60.6	50.2	52.6

Source: EcoWin, Commodity Systems, Inc. (CSI)



a global scale was a by-product of other metals mining and it is estimated that this figure increased to around 73% in 2008. Since the diversified mining stocks provide exposure to various elements of the wider commodities sector, they would be less appropriate investment vehicles as a play specifically on movements in the silver price.

Even primary producers are invariably involved in the production of a number of metals, mining so-called polymetallic deposits. As such, their revenues may have significant exposure to gold and/or base metal prices, which may provide another element of background 'noise' to an equity's price performance. This presented advantages for shareholders up to last year as the advances in base metals prices (largely fueled by growth in the BRICs and other emerging markets) led to significant increases in by-product credits where applicable. These had a strongly positive benefit on earnings over the 2001-2007 period and, consequently, greater share price appreciation versus silver spot prices was the result for many silver mining stocks.

Some silver equities, due to their partially diversified exposures, have also seen a notable outperformance relative to gold equities, which have been pressured by marked cost inflation. Due to their concentration in one metal, gold companies generally receive low or no by-product credits. The above charts are illustrative of the notable difference in the cash cost structure between gold and silver producers.

In 2007, annual average total cash costs of gold producers rose \$78/oz, or 25%, to \$395/oz, representing well over half the price of gold's annual average. In stark contrast, respective cash costs for

silver producers, although they expanded by \$0.46/oz, or 43% during the same period, represented a level of about one-tenth of the 2007 annual average spot price of silver, at a weighted average of \$1.52/oz.

Annual data is not yet finalised for 2008, but trends are nevertheless evident and indicate marked changes: gold miners' average costs, using conventional by-product accounting methods, continued to increase at a consistent rate of around 20% last year. On the same basis provisional information for silver miners' costs points to dramatically greater cost inflation, where examples of costs having doubled are by no means exceptional. A major factor in these calculations has, once again, been base metal prices which, following a severe decline, have provided less substantial by-product credits.

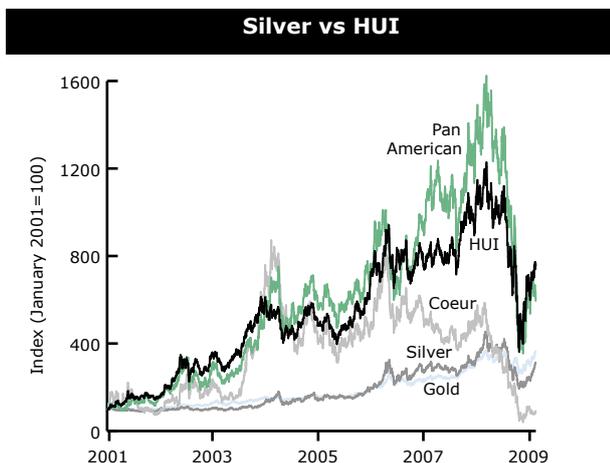
What proved attractive side-features for silver producers' valuations until last year, specifically this exposure to the buoyant base metals space, quickly evolved into a detracting feature for some companies as the prices of industrial commodities (and therefore earnings forecasts) collapsed. Nevertheless, comparing the performance of silver stocks with many undiversified base metals companies shows that the loss of value by many silver mining companies has been modest in relative terms, as evidenced in the chart on the next page. These trends effectively illustrate the leveraged nature of silver stocks, which clearly outperformed silver, gold and, for that matter, gold equities in the 2001 to 2007 period. Silver stocks have, however, subsequently unwound much more aggressively than these other precious metals investment vehicles in recent months.



Silver Mine Production Costs			
	2005	2006	2007
Cash costs	\$2.13	\$1.06	\$1.52
Average spot price	\$7.31	\$11.55	\$13.38
% sample with costs > spot price	2%	0%	0%
Sample size (million ounces)	86.6	87.4	104.7
Source: GFMS			

Aside from conventional mining stocks, for those investors still seeking a purer play upon silver, there are what are referred to as royalty companies, such as Silver Wheaton Corporation and Silverstone Resources. These firms derive 100% of their income from silver, yet have no physical mining presence, and act rather as financiers for mining companies. Income is generated through the purchase of silver at a low fixed price via long term contracts, which is agreed along with an upfront cash payment. Shareholders then are able to benefit from exposure to upside risks in silver, yet remain shielded from any mining cost pressures as these royalty companies carry zero exposure to cost inflation within the mining industry.

Finally, it is worth noting the performance of silver mining equities in relation to the launch of the first silver ETF on April 28th, 2006. As the silver ETF provided investors with a more direct exposure to the metal, a slight diversion effect (which was the case in gold mining stocks) could explain why in the first few months after the iShares launch some of the major silver mining stocks underperformed silver. However, when looking at historical data, the impact appears to have been marginal overall.





## 7. Analysis of Privately Held Silver Bullion Stocks

In contrast to the gold market, where the above-ground stock of metal, that can be efficiently mobilized, could satisfy a good few decades of annual demand, liquidity for silver is in principle far tighter. In large measure this is due to the bulk of fabricated products' silver content accounting for a much smaller portion of the final product's cost than is typically the case for gold, the latter being dominated by jewelry. In contrast, the largest share of silver fabrication these days (over half the annual total) is accounted for by industrial uses, where the value of the silver contained in most final products is tiny relative to their price. Much of the silver used in industrial products is also very difficult and costly to recover and this has resulted in a good deal of the silver contained ending up in landfill once these products reach the end of their lives. (More recently tighter environmental legislation is starting to change this somewhat, although the increase in recovery to-date remains modest.) Even considering higher silver-content products such as jewelry and silverware, the propensity for these to be recycled is generally lower than gold jewelry, due to the much higher markups over metal content on the former than on the latter. Indeed, the only area of silver fabrication demand where historically recovery rates have been high is photography. Yet even here, actual recycling levels have always been far lower than the theoretical ones, in large measure due to insufficiently high silver prices, inadequate recycling infrastructure and, in many countries, a less than rigorous application of environmental standards.

For all the above-discussed reasons, a far higher percentage of historical silver mine production has effectively been "lost" than is the case for gold. The

corollary of this is that above-ground stocks of silver, particularly in the form of fabricated products, are far less abundant than those for the yellow metal.

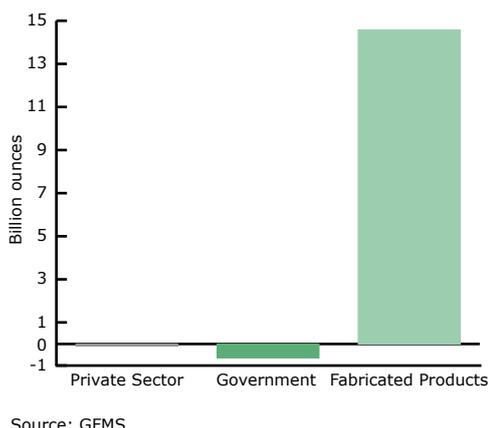
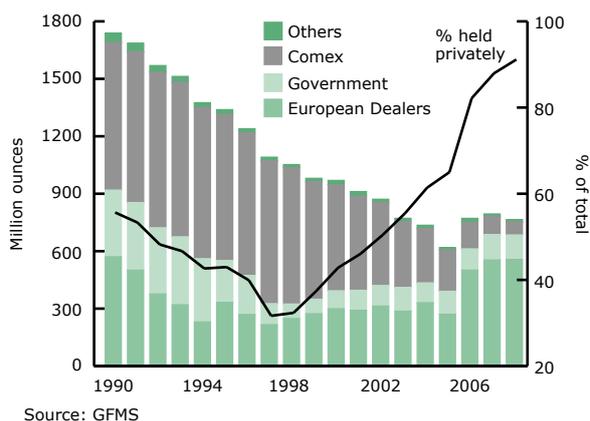
The bullion component of above-ground silver stocks is by definition 'nearer market' than that of fabricated products. Bullion stocks can be sub-divided into two components: private and government. Only the first of these is of particular relevance to this Report, although it should be pointed out in passing that net sales out of government stocks have been of some significance to silver supply over the past decade.

The rise and fall, and more recently, rise again, in private sector bullion stocks has been of paramount importance to the market over the past 30 years. Indeed, were it not for the supply from such stocks to cover the fundamental deficit that existed in the market throughout the 1990s (defined as the difference between supply from mine production and scrap and demand from fabrication), it is hard to picture where the metal would have been sourced from, suggesting a major rebalancing would have taken place (fueled, perhaps, by rising prices resulting in a fall in demand).

The graph below features a historical overview of identifiable bullion stocks of silver (including government holdings). It is important to note that in addition to the stocks captured by the data featured in this graph, there exist notable additional hoards of metal around the world (that cannot be accurately quantified). By implication, therefore, changes in the identifiable stocks of silver could be determined by both 'real' changes to global bullion stocks, or shifts between identifiable and unidentifiable ones.

As one can see in the aforementioned graph, the majority of the above-ground stock of silver bullion

**Identifiable Bullion Stocks** | **Changes in Silver Stocks since 1990**





is accounted for by privately held metal. Indeed, the last decade has seen a transfer of much of what used to be government held bullion to privately held stocks (in addition to part of the former being supplied to the end-user market). According to our estimations, by end-2008, government held stocks of silver had dropped further down to levels suggestive of only limited releases in future. At the same time, GFMS are confident that notable net government purchases of silver are most unlikely to be seen in the coming years. All this suggests that, going forward, it will be private stocks that would need to absorb surpluses or conversely fill deficits in the silver market.

It is worth providing a historical overview of how identifiable privately held stocks changed over the years and how this pairs with implied net (dis)investment. (It is also worth noting that any discrepancy between the two combined with annual coin fabrication, would by definition comprise the annual net change in unidentifiable silver bullion stocks.)

The graph below features annual changes in identifiable and unidentifiable privately held above-ground bullion stocks. (The latter calculated on the basis of the above-mentioned definition.) In addition, a line with the overall annual net change in privately held silver stocks (by definition identical to the sum of implied net investment and coin demand), is also included in the chart.

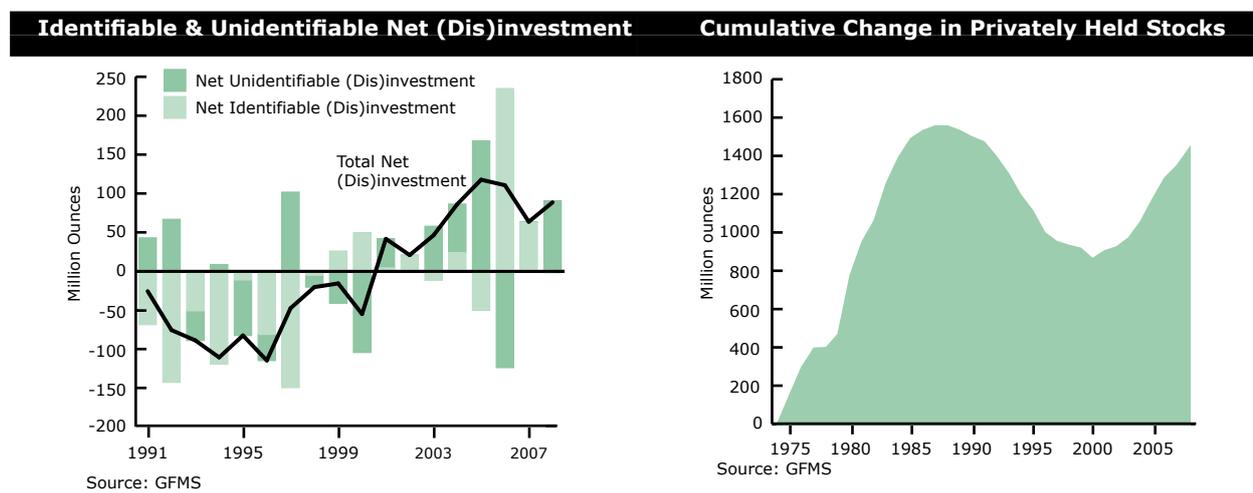
Essentially, the graph provides a guide to what portion of annual net (dis)investment came from identifiable and what from unidentifiable stocks. During years when substantial outflows from identifiable stocks were in part of fully matched by inflows into the same, the market essentially saw a flow out of identifiable stocks and into unidentifiable ones. According to the graph,

this happened in 1991, 1992 and notably in 1997, when Warren Buffet reportedly purchased 130 Moz of silver. The contrary was seen in 2006 (i.e. a fall in unidentifiable stocks and a rise in identifiable ones), likely to have been in part driven by activity in the run-up to and launch of the silver ETF.

As mentioned earlier in this chapter, data on total privately held silver bullion stocks is not available and a substantial portion of the total is unidentifiable. What is possible to construct though, using the annual net (dis)investment data is a series of cumulative changes to these stocks, going back to 1975. It is worth reiterating the caveat mentioned in the second chapter of this report, specifically that for the construction of the 1975-1989 series, only data on implied net (dis)investment was available.

The chart provides a visual illustration of the broad trends that have been discussed elsewhere in this report. The dramatic ramp-up in privately held stocks from the mid-1970s through to the late 1980s, the disinvestment that followed and lasted over a decade and finally the absorption of excess supply by willing investors over the last few years are all clearly seen depicted.

Moreover, although the chart fails to provide the exact levels of privately held silver bullion stocks, it does suggest that at end-2008, these were at least 1.4 billion ounces. This of course excludes stocks held by private individuals at end-1974 as well as coin purchases over the 1975-1989 period, for which the relevant data is not available.





## Deficits and Surpluses in the Silver Market

When discussing fundamental deficits and surpluses in the silver market, GFMS refer to the difference between the sum of mine supply and silver scrap and fabrication demand excluding coin and medal fabrication. (As the latter can be argued to fall under bullion or investment demand, strictly speaking it is not part of the 'fundamental market'.)

The graph below features data on the annual fundamental deficit or surplus in the silver market according to the above-mentioned definition, with surpluses appearing as positive and deficits as negative. Unfortunately, as comprehensive data on coin and medal fabrication is not available prior to 1990, GFMS are unable to generate deficit/surplus series for these years. An alternative to be used as a broad indication of general trends has nevertheless been constructed, using total fabrication instead of fabrication excluding coins and medals. As coins and medal fabrication is by definition positive or zero, the actual surpluses during the 1975-1989 period would have been either larger than or equal to the figures shown in the graph. Conversely, deficits over the same period would be lower than or equal to those shown in the graph, some potentially even swinging into surpluses.

Putting the above caveats aside, the graph illustrates three eras in the silver market. The first one, spanning from 1975, over the rest of 1970s and throughout the first half of the 1980s, was a period of notable surpluses. During those years, mine supply and scrap recovery exceeded fabrication demand by an average 126 Moz (3,900 t). This 'surplus' metal, as well as that which was used in the minting of coins and medals, was absorbed by investors whose stocks rose notably over the period, as was mentioned earlier in this chapter. (In addition to the fundamental surpluses, coins and medals, investors also absorbed on a net basis any releases from governments stocks. Nevertheless, as this is a simple transfer of stocks from one type of holder to another, it is not related to the issues discussed in this focus box.)

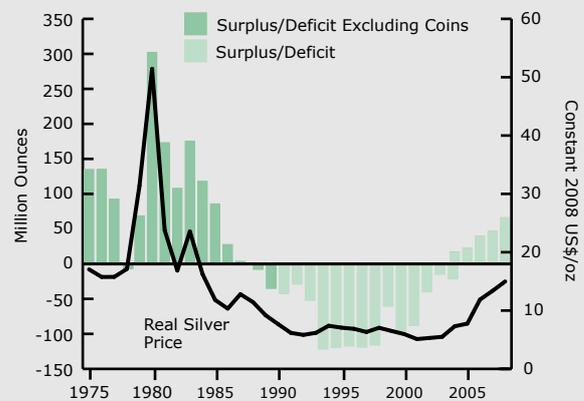
After a few years of broad neutrality came the antipode to what was discussed above: throughout the 1990s and during the first couple of years of the new millennium, fabrication demand exceeded what mine production and scrap could supply the market with. During that time, investors happily parted with stocks they had amassed during the 1975-1985 period. Sales of government owned bullion, particularly in the last few

years under consideration, were another source used to fill the gap. Overall, from 1990 to 2003 (the last year when a deficit was recorded), more than 1 billion ounces (31,000 t) had been mobilized from above-ground bullion stocks on a net basis, to satisfy fabrication demand excluding coins and medals.

More recently, the picture seems to be changing again, as surpluses have appeared in the market over the last few years. On the one side of the balance, healthy growth in mine supply and scrap keeping to respectable levels has resulted in fundamental supply rising. On the other, growth in industrial fabrication has failed to offset fully declines in photographic, jewelry and silverware fabrication. As a result, in 2004 fundamental supply was higher than demand for the first time since the 1980s and the gap between the two has grown every year through to 2008.

This excess metal (as well as coin fabrication and government sales) has been absorbed by private investors. Lured by its stellar performance and positive price outlook investors have so far maintained a healthy appetite for silver. The availability of silver ETFs is certainly thought to have facilitated the process, by expanding the metal's investor base.

### Silver Surpluses & Deficits



Source: GFMS



## Silver Borrowing

The last two decades have seen a major expansion take place in the silver borrowing market that has only partly been unwound more recently, chiefly in response to the credit crisis and sliding fabrication demand. Facilitated by the wider revolution in the financial services sector and fabricators' desire to remove the cost of silver stocks from their balance sheets, the amount of silver on lease exploded during the 1990s and the first part of this decade. From the perspective of flows of privately owned bullion stocks, a gradual change of ownership has taken place: stocks that were previously owned by the industry have been unwound, passed to, primarily, investors and then borrowed back.

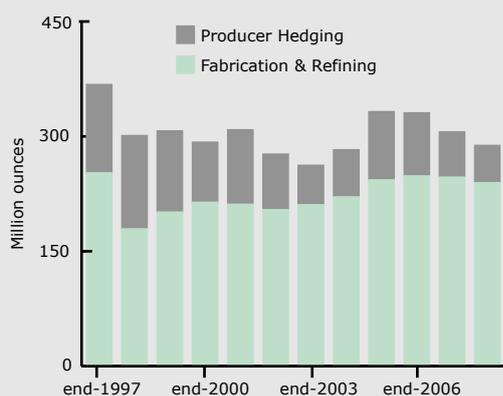
The fact that, in contrast to the gold market, where the bulk of liquidity is provided by central banks, most silver lending is sourced from private sector stocks has also helped the expansion of silver lending, as it has meant that the scope for policy-driven distortions has been muted. This has been augmented by the privatization of much of the government owned silver bullion that has taken place in recent years. Despite a higher portion of silver bullion stocks being available to the borrowing market, the overall size of these stocks remains limited and, until recently, was declining. For instance, at end-2008, identifiable bullion stocks of silver stood at 764.3 Moz (23,771 t), the volume enough to satisfy about 90% of global silver fabrication demand for that year. This compares to bullion stocks of gold at the end of the same year amounting to around 20 times annual gold fabrication. The restricted liquidity of the silver market explains the higher levels and volatility of silver borrowing costs compared to gold in recent years. (In contrast, prior to this high levels of near-market bullion stocks kept silver leasing rates at very low levels.)

A recent example of how this apparent lack of liquidity can impact the market is that of the run-up to the launch of the first silver ETF in the second half of 2005 and the first few

months of 2006. During that time, fears emerged that the new product would result in a major decline in silver liquidity, and that this would push prices and lease rates to very high levels. These fears were based on the nature of silver ETFs requiring the funds' metal to be held in allocated accounts and the success of gold ETFs suggesting the potential for high interest by investors. These fears developed into a "self fulfilling prophecy", as speculators piled into positions in silver futures and OTC instruments and silver users engaged in precautionary borrowing of higher than required volumes, to avoid the much feared impending rises in funding costs. As it turned out, these fears were largely unfounded: On the one hand, though the silver price certainly moved to a higher trading range as a result of the new product, the levels the industry had feared were not reached. Moreover, although leasing rates did rise, they did not reach problematic levels and returned to very low ones only a few months after the ETF's launch, suggesting that the much discussed lack of silver liquidity was greatly exaggerated.

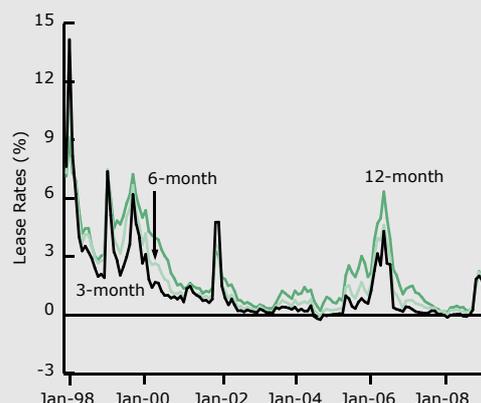
Moving to the demand side of the lending market, fabricators' move away from owning metal to borrowing it had until last year put this on a secular growth path. Since then a drop in global silver fabrication and the impact of the credit crisis on fabricators' credit lines has led to some reduction in borrowing demand. Furthermore, even prior to the slide in fabrication demand that set in during the fourth quarter of 2008, the rising silver price had squeezed users' credit lines, forcing them to minimize their work-in-progress and stock-related borrowing, at times to the extent of hampering production. In addition, with the exception of 2008, lower Indian silver imports (the result of government stock sales into the local market and falling fabrication) had reduced this market's historically important demand for liquidity. Finally, the substantial decline in producers' hedge-books over the last two years has also reduced borrowing demand. As a result of the above-listed developments, after tending to grow through to the middle part of this decade, the last two years have seen some decline in the overall volume of the global silver borrowing market.

**Silver Borrowing**



Source: GFMS

**Silver Lease Rates - Monthly Averages**





## 8. Conclusions

The purpose of this report has been to shed some light on the silver investment market and how this has evolved over time. Indeed, in the second chapter, a brief overview of historical trends and introduction to the various investment instruments was presented. The third chapter considered the different types of investors that are active in the silver market as well as the drivers that influence their investment decisions. Chapters 4 through 6 examined the various instruments available for investors to gain exposure to silver in detail. Finally, the penultimate chapter attempted to look into how investment has impacted on privately held stocks of silver bullion over the years.

In this final chapter we look at the current state of silver investment as well as consider what the future might hold for investor interest in the white metal. Specifically, what are the forces that currently drive investors' decisions on silver, and how are they likely to evolve in the years to come?

### i. The Current State of Silver Investment

As has been alluded to elsewhere in this report, silver investment is strongly influenced by the gold price as well as expectations thereof. By implication, the factors that affect sentiment on the yellow metal also play an important part in the silver investment market.

To a normally lesser, although considerable and recently increasing, extent, investors are trading silver on the back of expectations of other commodity prices, notably base metals and other commodities related to the industrial cycle in particular.

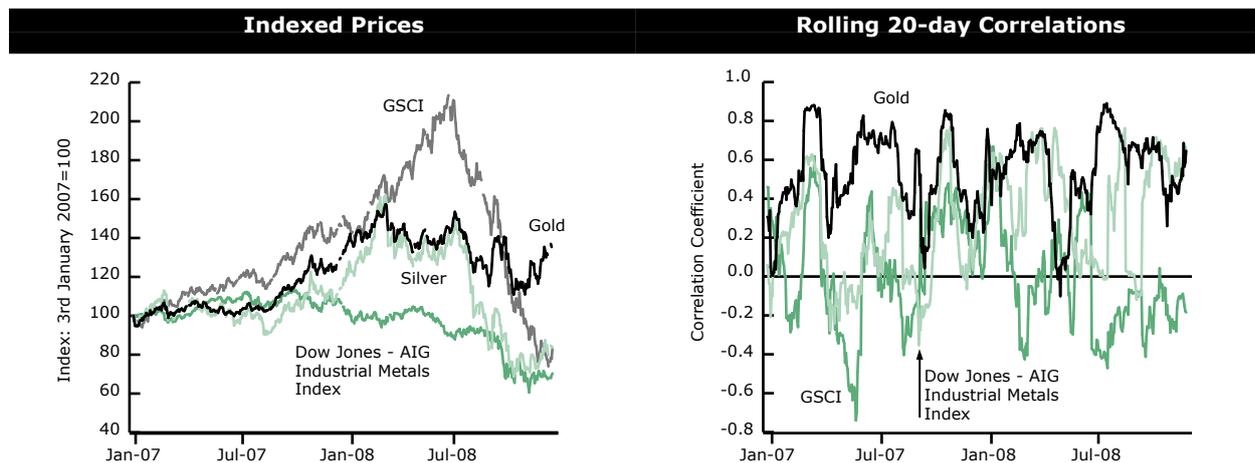
Investors' tendency to view silver as part of one or another group of commodities is largely the driver of

the high correlation that normally exists between the silver price and other commodity prices. The chart below features daily data on rolling 20-day correlation coefficients between log-returns in daily silver and other commodity prices since the beginning of 2007.

In addition to confirming the points made earlier, the graph reveals an interesting fact: In the first half of 2008, the correlation coefficient between silver and copper tended to be higher than that between silver and gold, suggesting perhaps that investors were at the time trading silver as part of the industrial commodities complex, however in recent months the traditional relationship with gold has been reasserted, implying that lately silver has been traded by some as a safe haven asset or by others as a leveraged play on gold.

Furthermore, despite some of the empirical evidence noted above, information collected through field research confirms that the majority of silver investors' strategies continue to be linked more to gold prices and expectations than to the same criteria for base metals. By implication, therefore, the global economic and political backdrop is at the moment of paramount importance to silver investment. The outlook for the US economy, the fate of that country's currency, the ongoing crisis in the global financial markets and concerns at the longer run implications of very loose fiscal and monetary policies are all factors that have driven silver investment demand in recent months.

It is worth reiterating here the point made in Chapter 3, regarding the differences between gold and silver investors, which remain very much in place. Specifically, whereas the above-mentioned macro factors have led a growing number of medium to longer term, primarily high net worth and wealth management type, investors to make substantial allocations into gold





due to its quasi-monetary or safe haven attributes, the same has not been noted to anything like the same extent in the case of silver. Therefore, although the economic and political backdrop is an important driver for investor activity in both metals, the dynamics of this differ notably across the two.

Moving to the impact of other commodity prices, until well into 2008, silver had benefited handsomely from the general boom in commodity prices and investors' appreciation that industrial demand for the white metal was making fresh highs. In contrast, the dramatic global economic slow-down that became clear as the year progressed and the associated drop, eventually, in industrial production hammered industrial metals' prices from the middle of last year onwards. Silver, due to its 'industrial exposure' (industrial uses accounted for over 50% of total demand in 2008) was equally hard hit, mainly due to investors bailing out of the metal, as our information is that industrial demand actually held up well until the fourth quarter.

Considering the types of investors currently active in the market, until last year institutional and, to a lesser extent, high net worth players accounted for most turnover. Since then there has been an important growth in private investor participation. As such, the dominance of futures, ETFs and OTC products in the investment mix has been challenged by a surge in physical bullion purchases. The growth in retail interest is also thought to be behind a sizable share of the increase in silver ETF holdings over the past year.

As far as the above-mentioned players' investment strategies and objectives are concerned, it is our understanding that a large part of them invest in silver with a short to medium term view, even though the share of 'buy and hold' investors would lately seem to have grown considerably. The substantial involvement of speculators in the market is clear when looking at non-commercial and non-reportable net positions over the course of the first half of 2008, which in February and July reached their highest levels since the launch of the silver ETF (understood to have cannibalized a great part of the less speculative non-commercial positions previously held in futures). Since then such speculative positions in Comex futures have suffered a sharp fall, plummeting in mid-October to a low not seen since April 2003. Since then they have recovered albeit to levels considerably less than half the peaks recorded last year. Likewise, information collected through field

research confirms that after growing during the first half of 2008, institutional investors' long positions in the OTC market declined considerably during the second half. The drop in speculative positions in futures and in the OTC market over the last year combined with the ongoing growth in ETF holdings and physical bullion purchases has resulted, we believe, in some change in the profile of silver investors. As of the first quarter of 2009, the market appears to have shifted towards a somewhat longer term and less institutional bias than formerly, the role of private investors with a longer term outlook having grown.

## ii. The Future of Silver Investment

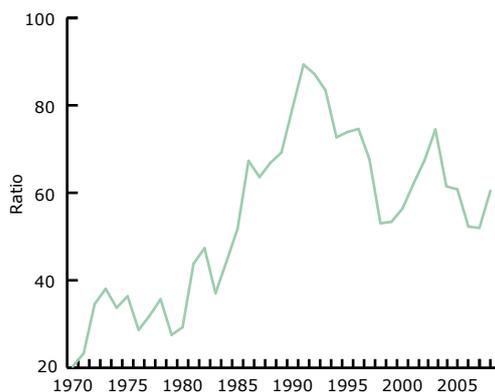
That the future of silver investment will to some degree be intertwined with that for gold is almost certain. On this assumption and on the basis of our expectation that gold investment will continue to thrive in the medium term, GFMS' projections see investors remain positive towards silver over the rest of 2009, providing essential fuel for a continued rally in the price of the white metal (in particular, taking as a starting point the sub-\$10 levels at which silver was trading during much of the fourth quarter of 2008).

The basic assumption on which our expectations that the rally in gold and silver prices will continue in the medium term is that the turmoil in financial markets and the global economy is far from nearing resolution. Specifically, we expect that the global economic slow down (recession in the case of the United States and other advanced economies) that is currently in place will result in fiscal and monetary policies that should be favorable for investment in precious metals. Government fiscal deficits are exploding and there are doubts as to how these can possibly be funded without recourse to the printing press, which will create the risk of much higher inflation in future. Moreover, short term interest rates have been reduced to extremely low levels, such that the 'cost of carry' for precious metals investments is close to zero. Given the scope for further falls in stock prices and, at some point, a major reversal in the government bond market, it is easy to see how this all adds up to a powerful cocktail encouraging some portfolio allocations to precious metals, including silver.

Based on the strong link between gold and silver, GFMS are therefore confident that silver investment demand will remain positive through most of 2009, although there will be some swings in investors' positions and in



### Gold/Silver Ratio



Source: GFMS

silver prices. What might perhaps be of more interest is how investor interest for silver might differ from that of gold and what the drivers of any changes might be.

As was mentioned elsewhere in this report, investors view silver as gold's more volatile counterpart. Inasmuch, speculators and other players that are looking for shorter-term returns tend to prefer silver during bull markets. At the same time, the higher volatility of the silver price can sometimes deter more risk averse players. These two countervailing forces have been and will almost certainly remain instrumental in determining how silver investor interest evolves in comparison to gold. In addition, the performance of the base metals and other industrial commodities sector is another factor that we believe will continue to affect silver investment and, by implication, also influence how the latter fares compared to gold investment.

The current state of the world economy and financial markets would, in theory, suggest that the case for silver investment is weaker than for gold. One would expect that credit market woes and their impact on

global markets would, if anything, push investors more towards the safer haven of gold than to silver (and, indeed, this has generally been the case). Elsewhere, the unfavorable outlook for global economic growth and the impact this is most likely to have on industrial production, coupled with base metals prices at levels still often higher than their marginal cost of production, would likely result in a lackluster performance of the industrial metals complex.

Nevertheless, the above-mentioned factors have been largely in place since as early as August 2007. Moreover, they have already at times (notably during the liquidations of August 2008 and the period that followed through to the time of this report's publication) resulted in silver investment being weaker than that for gold. Occasionally, however, the 'industrial burden' on silver seems to have been largely ignored by the investor community. This is illustrated in the two graphs below, that feature gold and silver prices (which can be used as a rough proxy for overall gold and silver investment), indexed at different starting points in time since August 2007. The graph on the left hand side features prices indexed on August 1st 2007 and January 2nd 2008. The one on the right hand side features prices indexed on September 15th 2008, the day Lehman Brothers went bankrupt.

The graphs confirm the higher vulnerability of silver to such financial and economical shocks when compared to gold. Straight after such an event takes place, investors are forced to dump various assets to raise cash to cover losses elsewhere. Due to silver lacking gold's safe haven appeal and its market being less liquid, silver gives way first, with its price dropping to much lower levels than gold in a highly volatile trading environment. As seen in the graphs, silver behaved in this fashion during the beginning of the sub-prime

### Indexed Gold & Silver Prices



Source: Reuters, EcoWin



Source: Reuters, EcoWin



market crisis in August 2007 and, again, shortly after collapse of Lehman Brothers in mid-September 2008. Nevertheless, it is significant that once the 'dust settles' silver has then tended to outperform gold, arguably to some extent 'catching up' with the yellow metal.

Careful analysis of the market conditions prevailing at various points over the periods under review would reveal a number of justifications to such price behavior. Strength in commodity prices and speculative interest in the sector for instance had much to do with the notable jump in silver prices compared to gold in the second half of February and during early March last year. Moreover, field research confirms that gold:silver ratio trading has also at times helped silver investment. On the other hand, the massive liquidations that followed the Lehman Brothers collapse combined with growing recession fears had a particularly adverse impact on silver investment, due to its lack of monetary features compared to gold and the especially poor outlook for demand from industrial consumers, which account for a larger share of silver than gold demand.

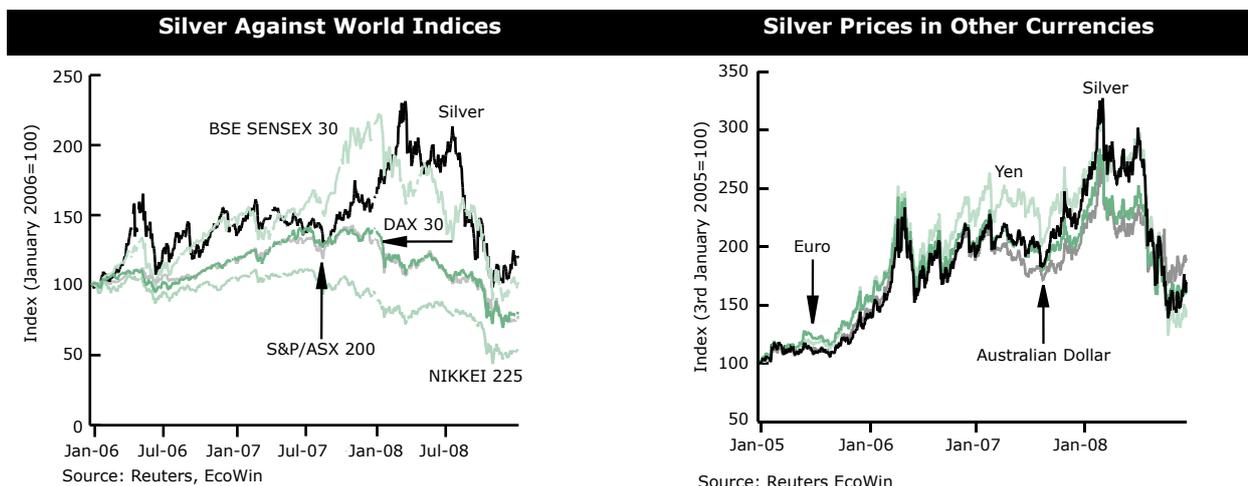
The conclusion is that silver's volatile nature and the high involvement of speculators in the market could, as a rule, result in greater net investment as well as disinvestment than in gold and, therefore, larger price swings in the white than the yellow metal. As was mentioned earlier, silver usually underperforms gold at the beginning of an up-leg and outperforms as the rally matures. This is essentially what we have seen in the first few months of 2009, with silver generally responding with a lag to renewed rallies in gold prices. As indicated elsewhere in this report, this phenomenon coupled with silver's comparatively low starting point at the beginning of the year could well result in silver outperforming gold on an intra-year basis in 2009.

Gold and Silver Relative Performance		
	Gold	Silver
December 31st, 2007	\$833.75	\$14.76
December 31st, 2008	\$869.75	\$10.79
Annual change, \$/oz	+\$36.00	-\$3.97
Annual change, %	+4.3%	-26.9%
2008 Low	\$712.50	\$8.88
Change start year to low, \$/oz	\$134.25	\$6.05
Change start year to low, %	-15.9%	-40.5%
2008 High	\$1,011.25	\$20.92
Change start year to high, \$/oz	\$164.50	\$5.99
Change start year to high, %	+19.4%	+40.1%
Source: Thomson Reuters EcoWin		

### iii. Scope for Introduction of Silver ETFs in Other Markets

To conclude this report, it is interesting to examine in detail a particular issue related to the future of silver investment. Given their dramatic impact on the silver investment market in the countries where these have been launched, it is worth investigating the possibility for silver ETFs to appear in more markets going forward. Moreover, were such products indeed to launch, it is useful to consider what impact this would have on the respective local as well as global silver market.

Basis several factors there remains some scope for the expansion of silver ETFs to other western markets as well as across the developing world. Namely, rising incomes, demand for inflation hedging products, the recent downturn in equity markets and spill over





from the gold market and success of its ETF products on global stock exchanges could make way for the expansion of silver ETFs to other exchanges, such as, for instance, ones based in India, where gold ETFs are already available, or in China.

Due to the notable success of silver ETFs in the United States, the United Kingdom and Switzerland, it is likely that issuers will seek to expand trading of these products to other regions. What is more, perhaps forging the way for such silver investment vehicles, gold ETFs have already seen such a proliferation, and now trade in a host of countries, from the United States, to across western Europe to South Africa and Singapore. Last year, on June 30th, SPDR Gold Shares also debuted a gold ETF on the Tokyo Stock Exchange, and another on July 31st in Hong Kong. Demand for such physically backed products in gold has driven total holdings to rise by over 500% from the start of 2005 to the end of 2008. If this growth represents any sort of a gauge to go by, then the launch of silver ETFs on these or similar exchanges would likely be marked by robust inflows as well.

On a more cautionary note, one potentially limiting factor, in terms of launching new silver ETFs might be the relative lack of a local tradition in investing in silver, compared with gold (East Asia being one example), in some of the prospective markets that might be considered for these products.

That said, the underperformance of traditional investments may also fuel demand for the metal. In looking at the left hand chart on page 39, one can see silver's recent relative outperformance of several

world equity benchmarks. Sustained poor returns in equity markets often translate into an increase in portfolio allocations into commodities, with silver and other precious metals proving popular alternatives, particularly in times of financial market turmoil. As such, silver's recent impressive track record in gains is likely to attract rising inflows and boost demand for silver ETFs in world markets. Further enhancing this possibility is the fact that silver's performance has often exceeded that of gold, as is often the case during certain phases in precious metals bull markets. Part of the reason for this, that we have already alluded to elsewhere in this report, is that silver's above-ground stocks and market liquidity are a good deal smaller than is the case for gold. This tends to translate into both higher price volatility (52.6% versus gold's 31.7% in 2008) and a wider trading range. As such, this could lead to a growing demand for silver ETFs by those investors seeking out potentially higher, albeit more volatile returns.

Expansion of silver ETFs on world stock exchanges would likely contribute to, if not fuel, price support for the metal (at least during periods of bull markets), with these products acting as a conduit for greater investor inflows into silver. However, compared to the initial launch of the first silver ETF, the broadening of similar products on global exchanges would have a relatively smaller impact on the price and concerns over liquidity compared to what occurred at the time of the iShares Silver Trust launch, when the silver market was dealing with the introduction of a major new product in what was and still remains the world's most important investment arena, namely the United States.

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