

# THE INTERNATIONAL JOURNAL OF BUSINESS & MANAGEMENT

## Silver Investment in India: Trends and Analysis

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### **Abstract:**

*Silver is one of the most popular precious metals with universal acceptance. Its affordable prices, structural stability, ease of handling, liquidity, high returns on investments, and global acceptability, make it an attractive trading proposition. Throughout history, as compared to any other metal silver has been used as a currency more often. Therefore, the purpose of this study is to analyse the trend in silver trading in Indian stock market. In order to draw the trend, monthly closing spot prices of silver have been taken from April, 2005 to March, 2014. Technique of simple moving averages and annual high and low has been used to draw the trend. Both the techniques used for the analysis pointed out the bullish trend in silver prices till the mid of 2011. The silver prices have encountered 'euphoria' many a times since 2011 and a trend reversal could be traced since mid of 2011.*

**Key words:** Silver prices, technical analysis, moving averages, annual (or 52 weeks) high and low

### **1. Introduction**

For many thousands of years, silver has attracted the fascination of man. On or near the earth's surface, plentiful silver deposits were found by ancient civilizations. Souvenirs of these civilizations include food vessels, jewellery, and religious artefacts made up of the malleable, durable metal. Throughout the ages, this metal held near magical qualities in marking substantial historical milestones, and also served as a mode of exchange. Silver assumed a crucial role in the monetary system of United States in 1792, when the currency was based on the silver dollar, and its fixed relationship with gold by Congress. Until the use of silver was discontinued in 1965, it was used for the coinage of nation. The beginning of the 20th century marked a significant economic role for silver, which was of an industrial raw material.

Silver is doubtlessly a vital precious metal. It satisfies the demand both as an industrial metal and as an investment asset. Silver is eternal, being acknowledged as a store of wealth from antique civilizations through present day era. Silver also has an increasing number of industrial uses.

Traditionally, silver was used in two primary ways in India, i.e., to make jewellery and to make coins during the monarchy regime. Although silver is not used to mint coins presently, the significance of silver has not diminished with the passage of time. One of the major consumers of silver is India. However, India has been primarily a price-taker in the global marketplace because there was no gold-silver future trading exchange in India.

After a 42 years long break, India had started futures trading in silver and gold to maintain price stability of these bullions. The futures are online traded. The first exchange identified by the Forward Market Commission for futures trading in bullions was National Multi-Commodity Exchange of India in Ahmedabad. In November 2002, this exchange had initially started futures trading in 24 commodities and had later added 23 more commodities.

### **2. Objectives of the study**

As discussed earlier, silver is one of the most popular precious metals with universal acceptance. Its affordable prices, structural stability, ease of handling, liquidity, high returns on investments, and global acceptability, make it an attractive trading proposition. Throughout history, as compared to any other metal silver has been used as a currency more often. Therefore the objectives of this study are as follows:

- To analyse the trend in silver trading in Indian stock market.
- To review the studies conducted and results suggested in the area of silver trading.
- To highlight the findings and suggestions drawn there from.

### **3. Data and Methodology**

The study is based on the secondary data analysis. Data relating to price of silver was collected from the website of NCDEX. In order to draw the trend, monthly closing spot prices of silver have been taken from April, 2005 to March, 2014. Thereafter, using

various mathematical functions and tools, technical analysis of price is done. Technique of simple moving averages and annual high and low has been used to draw the trend.

#### 4. Review of Literature

Lucey and Tulley (2005) examined the dynamic relationship between gold and silver over the 1978- 2002 period. They concluded that the stable relationship between gold and silver found to prevail historically appears to have continued to the present day. This relationship is, in general, strong and convincing. However, there are significant periods when it is weakened or broken. Lucey and Tully (2006) checked whether there is seasonality in the unconditional and conditional mean and variance of daily silver and gold contracts during the 1982–2002 periods. They provided the first evidence of daily seasonality in silver prices. These were similar to the gold findings. McCown and Zimmerman (2006) used the conventional asset pricing models to examine the investment performance of precious metals. It was observed that the returns on silver are lesser than the returns on Treasury Bills. Estimates of the APT and CAPM showed that both silver and gold bear no market risk virtually. Both of these precious metals showed signs of inflation-hedging ability, but the case was less strong for silver than for gold. Prices of both silver and gold are cointegrated with consumer prices, which signify the relationship between their stochastic movements. Hillier, Draper and Faff (2006) examined the comparative benefits of adding an investment in the S&P 500 with platinum, silver, or gold from 1976 to 2004. They showed that the silver, platinum, and gold have the ability to play a role of diversifier in broad-based investment portfolios. The authors found that portfolio performance improves irrespective of which precious metal is included. The precious metals exhibit some hedging capability, particularly during periods of abnormal stock market volatility. Gold offers the greatest incremental benefit, while silver offers the least benefit..

Batten, Ciner and Lucey (2008) found significant dependency in the conditional volatility of silver prices on its own lags. Furthermore, there was evidence of volatility spillover from silver prices to gold markets. Conover, Jensen, Johnson and Mercer (2009) extended earlier studies and presented new evidence on the benefits of adding precious metals to U.S. equity portfolios. They found that as compared to silver and platinum, gold shows superior stand-alone performance and seems to have better hedging ability against the negative impacts of inflationary pressures.

#### 5. Major Characteristics of silver

One place to look to for an alternative to gold is silver. Silver is unique in that it is not only a precious metal like gold, but also has industrial uses. Silver owns many special physical attributes and qualities which make it useful in a large number of industries. Some of the characteristics of silver as a commodity are as follows:

- Unique properties of silver make it a very valuable 'Industrial Commodity', in spite of it being tagged as a precious metal.
- Primary mines produce only about 27 percent of world silver, whereas around 73 percent of silver comes as a by-product of copper, gold, zinc, and lead mining.
- Demand for silver is primarily from four main sources; photographic uses, industrial uses, coin and bar purchases and Jewellery & silverware.
- Silver price is not influenced by its primary output only but also by the price of other metals.
- The tie between economic activity and silver is strong, as around two-thirds of total silver lie in the photographic and industrial sectors.
- Silver is an effective portfolio diversifier and an important component of global monetary reserves.

#### 6. World Silver Markets and Indian Trading Centres

Silver is mainly traded on the COMEX in New York and London Bullion Market Association (LBMA). In COMEX majority of fund activity is based since it is an exchange of futures and options. LBMA serves as the main physical market of silver as it is the global hub of over-the-counter (OTC) trading in silver,. Silver is perpetually quoted in the US dollars per troy ounce. However, worldwide other major trading centres for silver are Zurich, Chicago (CBOT), Hong Kong and Tokyo Commodity Exchange (TOCOM).

Silver is traded in India at the following places- Indore, Delhi, Rajkot (Gujarat), Rajasthan, Mathura (Uttar Pradesh) and Madhya Pradesh. Silver is also traded in the commodity exchanges of India like, National Multi Commodity Exchange of India Ltd, Multi Commodity Exchange of India Ltd. and National Commodity & Derivatives Exchange Ltd.

#### 7. Investment in Silver: An Empirical Investigation

The precious metals have attained popularity as investment alternatives over the past few years, since they have generated attractive returns. The present section provides the technical analysis of the silver prices for the past 9 years with moving averages, resistance and support levels and annual (or 52 week) low and high.. Then, findings and suggestions drawn there from are presented.

#### 8. Moving Averages

Zigzag movement of prices often makes it difficult to judge the underlying trend. A moving average makes the underlying price data smoother and represents the trend for the period used to calculate the average. Since the moving average reflects the trend, intersection of the price with the moving average signals at least a pause in the trend by way of a correction and possibly a trend reversal. Here 3 months moving averages of silver prices are analysed.

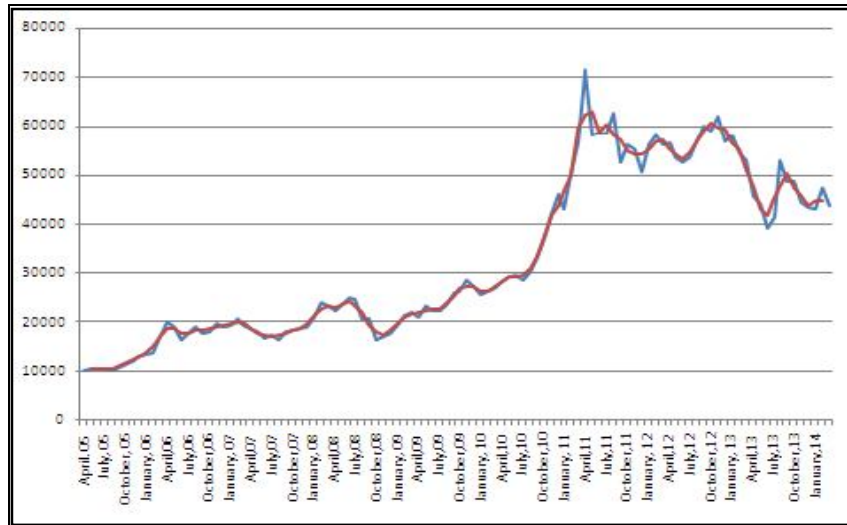


Exhibit 1: 3 Months Moving Averages

Source: Compiled by the researcher from the data taken from the website of NCDEX

The actual price line and the moving average line for silver is overlapping. However, at a few points euphoria and correction is visible. For example, during April, 2006 prices suddenly reached to around Rs.20200/kg and suddenly during June, 2006 correction was seen as the actual price line penetrated the moving average line and moved downwards. However the prices again rose in July, 2006 and again the actual price line was coincided with moving average line. The general trend was upward. However at the end of 2010, prices increased sharply and were above the moving average line during December, 2010. Short term correction was visible in January, 2011 when the price level again fell. However the prices again rose sharply during February, 2011 and March, 2011. Silver prices have shown dramatic increase in April 2011. Starting from Rs.56265/kg on 1st April, 2011 it crossed the benchmark of Rs.60000/kg in next 8 days and reached Rs.61100/kg on 9th April, 2011. Rising sharply, the price reached to the peak of Rs.74000/kg on 25th April, 2011. This was the highest price ever. However, correction took place soon and the price again declined to Rs.53390.90/kg within next 12 days i.e., on 6th May, 2011. The prices keep on fluctuating between Rs.50000/kg to Rs.60000/kg since then. Moreover, during last week of June, 2011 prices seem to become more stable around Rs.52000/kg. The reason for sudden outburst of silver prices may be the speculative forces in the market. Also, the correction was the result of measures like cut in margin by COMEX.

Afterwards, silver prices started falling continuously. However, a number of corrections were visible. Prices fall to even Rs. 39199/Kg in June, 2013 because of the reasons like China’s leading banks’ credit squeeze; growth showed by several U.S. reports, the decline in the rate of growth of the manufacturing sectors in Europe and China, etc. But prices again rose sharply to cross Rs.53000/Kg by the end of August, 2013. By the end of the month, silver increased by 19.61%. Several reasons were responsible for this. Some U.S reports were not as good as many had anticipated: new home sales fell last month; Philly Fed index tumbled down during August; the U.S dollar depreciated against the Aussie dollar, Euro and Japanese yen and the fall of equity markets in U.S that are regarded as an alternative investment option for precious metals. However, correction started soon and the price started falling again.

**9. Annual High and Low**

This section presents an analysis of the annual highest and lowest values of silver prices. The following exhibit presents the highest and lowest values each year based on the daily prices.

Year	Silver (Rs. Per kg)		
	High	Low	Range
2005-06	17496	10235	7261
2006-07	22364	15048	7316
2007-08	26172.75	16251.90	9920.85
2008-09	26350	16168.40	10181.60
2009-10	29928.20	20047	9881.20
2010-11	56500	26952.75	29547.25
2011-12	74000	48965	25035
2012-13	62972.4	51383.45	11588.95
2013-14	56034	39119.85	16914.15

Exhibit 2: Annual High and Low Prices of Silver

Source: Compiled by the researcher from the data taken from the website of NCDEX

Now when we look at the price range of silver every year we found that the price range of silver was around Rs.7300/kg for the first 2 years and thereafter it increased to around Rs.10000/kg for next 3 years. We could notice that since global economic crises in 2007-08, the price range widened because these metals encountered greater fluctuations. The reason is that these metals were now considered as safer investment as compared to securities and real estates. However, the range was highest during 2010-2011 because of increasing demand in industries as well as increasing speculation. 2011-12 also showed high range. The reason might be the European debt crises which forced the investors to move towards the precious metals. Since corrections were there in 2012-13, price range was lower. However, the price again fell sharply in June, 2013 and hiked in August, 2013 resulting in increased range of around Rs. 17000/kg in 2013-14.

#### **Findings and Suggestions**

The above analysis presents a clear picture of the trend prevailing over last 9 years in silver market in India. Both the techniques used for the analysis i.e. moving averages and annual (or 52 week) low and high point out the bullish trend in silver prices till mid of 2011. The silver prices have encountered 'euphoria' many a times since 2011 and a trend reversal could be traced since mid of 2011. However, some of the important findings are as follows:

Firstly, silver prices showed a large number of fluctuations. It showed a bullish move again and again till mid of 2011. The silver prices have encountered 'euphoria' many a times since 2011 and a trend reversal could be traced since mid of 2011.

Secondly, in first half of the year 2007-2008, prices of silver declined. The reason was the emergence of global economic crisis in U.S. The per capita income of people started declining. Therefore, the domestic demand of these metals declined. Also industrial demand of silver was also declining. Thus, the prices fell down. But during second half of the year, the prices again gained momentum. The reason might be the festival season and marriages season. Again steep fall in the silver prices were recorded in October, 2008. According to the Economic Times, Delhi, (dated October 17, 2008), "selling by foreign institutional investors (FIIs) almost pushed the sensx below the psychological 10,000-mark. The rupee touched an intra-day low of 49.05 against the dollar before closing at 48.82". Global crisis deepened. This caused fall in the prices of silver.

Thirdly, since 2007-08, the prices of silver fluctuated in a wider range. The reason was that after global crisis, precious metals became the most preferred investment tools.

Fourthly, the silver prices have encountered 'euphoria' many a times since 2011. Prices rose very sharply and reached a record level of Rs.74000/kg on 25<sup>th</sup> April, 2011. The major reason for such a high level was the increasing speculative demand for silver. Fifthly, correction took place soon and the price again declined to Rs.53390.90/kg within next 12 days i.e., on 6<sup>th</sup> May, 2011. A strengthening US dollar, an unexpected boost in the silver trading cost on COMEX and mixed evidences on the global front have blended to pull down commodity prices worldwide and shook investor confidence. Afterwards, silver prices started falling continuously. However, a number of corrections were visible. Prices fall to even Rs. 39199/Kg in June, 2013 because of the reasons like China's leading banks' credit squeeze; growth showed by several U.S. reports, the decline in the rate of growth of the manufacturing sectors in Europe and China, etc.

Sixthly, prices again rose sharply to cross Rs. 53000/Kg by the end of August, 2013. By the end of the month, silver increased by 19.61%. Several reasons were responsible for this. Some U.S reports were not as good as many had anticipated: new home sales fell last month; Philly Fed index tumbled down during August; the U.S dollar depreciated against the Aussie dollar, Euro and Japanese yen and the fall of equity markets in U.S that are regarded as an alternative investment option for precious metals. However, correction started soon and the price started falling again.

Lastly, the effect of global political events was observed on silver prices. This was evident from the fact that since when Osama bin Laden was killed by US forces, the dollar appreciated against most major currencies. As dollar have an inverse relationship with the commodities, this resulted into falling commodity prices in 1<sup>st</sup> week of May, 2011.

Now, how can one benefit from the current correction in the bullion market? One can either buy these commodities directly, or pick up stocks that manufacture silver and gold in India. Since these stocks are also correcting with the commodities, investors should consider investing in these stocks slowly. Also, the superior performance of precious metals equities, relative to precious metal commodities, is explained by the fact that a commodity investment gains only if the commodity increases in value, while equity appreciates based on the firm's operations. For example, an investment in the equity of a gold mining company may appreciate even if gold prices remain flat because the mining company earns a profit from mining and selling the gold ore.<sup>1</sup> There are a number of ways to invest in bullions. Some of the ways to invest in silver are silver futures and options, ETFs, silver mining stocks, silver jewellery, silver coins, bars and biscuits, etc.

#### **10. Conclusion**

Both the techniques used for the analysis i.e. moving averages and annual (or 52 week) low and high point out the bullish trend in silver prices till mid of 2011. The silver prices have encountered 'euphoria' many a times since 2011 and a trend reversal could be traced since mid of 2011.

Now let us have a look at the forecast for 2014. For the rest of 2014, silver is expected to trade within a range of \$17.75 and \$22.75 since the worldwide silver surplus broadens to about 156moz this year. There are three predominant trends that are probable to stimulate the silver market in 2014. These are strong supply, the current boost in jewellery and industrial demand, and a modest recovery in investment demand. Mine production continues to increase, partly because of investments made previously in the mining cycle, especially from the projects of base metals where as a by-product silver is produced.

<sup>1</sup> Conover, C. Mitchell, Gerald R. Jensen, Robert R. Johnson and Jeffrey M. Mercer, (Spring 2009), "Can Precious Metals Make Your Portfolio Shine?" The Journal of Investing, pp. 75-86.

There are four sources of growth in demand that are believed to help support prices on downfall, if any. These are industrial demand, increasing jewellery demand, coin and bar purchases, and greater demand from China. Higher silver consumption in industries this year is a crucial factor for steady prices. Market share of jewellery demand is increasing and coin and bar demand is positive. If tariffs on gold import are lowered, Indian demand may fall from record high levels. A modest recovery is also visible in investment demand. After steep declines in 2013, net long term positions on the COMEX are building up again. Silver ETFs have exceptionally remained strong despite falls in price and heavy withdrawal in the gold ETFs. Hence, these four sources, industry, jewellery, coin and bar purchases, and demand from China should help set the ground for prices.

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