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Statistics

THE EFFECT OF ECONOMIC CONDITIONS ON GOLD

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ABSTRACT

To understand what determines the price of gold. Gold is a unique commodity not consumed unlike other commodities. The traditional economic theories of supply and demand do not apply in analysing the gold prices. Hence, it is important to study gold as a monetary metal whose prices are affected by the global economic conditions.
This paper explores which macroeconomic conditions affect the price of gold. It also investigates how these macroeconomic conditions are supremely crucial to the price of gold.
Insights on how these gold prices react to the market conditions are important to make better decisions in commodity trading markets.

KEYWORDS :

INTRODUCTION

Renowned Mathematician and Monetary Scientist, Professor Antal E. Fekete says, "Monetary metals are exempt from the general law of supply and demand. In their case, unlike all other commodities, high and increasing prices may not bring out new supply. Rather, they might make supply shrink."

Trading of gold and its derivatives is quite common and popular in the markets. It acts as a store of value. Also, gold is a hedge against economic, social and political unrest. But as a commodity, gold is subject to the fundamentals of supply and demand with factors that are different from the general law of demand and supply.

Gold is widely used as an instrument of safe-haven. It is often seen that investments in gold increase in financial turmoil. However, it is ignored that demand for gold prices is indirectly affected by the volatile market conditions.

Unlike other commodities, gold is one of the many crucial investments for investors. Gold has some industrial uses and is regarded for jewellery. Despite that, gold is primarily a monetary metal, and has been of use throughout human history. It is old-school money: rare, portable and concealable. Hence it is essential to examine which of these factors are favourable to gold prices.

Insights on how gold prices have moved and reacted to the economy sheds light on the macroeconomic factors that drive its demand. Macroeconomic information can help speculate the price of gold and this paper investigates which and how relevant macroeconomic announcements affect the gold prices.

LITERATURE REVIEW

There have been many financial and economic literatures which study the macroeconomic factors that affect the price of gold.

Sherman (1983) provided the first model of the gold price that sought to conclude about its relationship with inflation. However due to lack of theoretical clarity in the choice of variable included, his attempt at modelling the gold price needed significant improvement.

Similarly, Moore (1990) emphasized that many individuals invest in gold as a hedge against inflation. Based on the ratio of the current month's leading index to the average level of index during the proceeding twelve months, a six-month smoothed growth rate was employed.

In Larsen and McQueen's view (1995), the relationship between gold and unexpected inflation was concluded weak. It was based on their findings that the coefficient of unexpected inflation is significant and positive while F-statistic remains insignificant.

Exchange Rate affecting gold prices was studied by Capie et. Al (2005). A relationship between the gold price and US dollar was drawn. Gold was concluded as a Hedge against the US Dollar.

The relationship between gold and the exchange rates against the US dollar over the whole periods of years from 1971 to 2002 was explored using number of statistical tools. It was found that the US dollar gold price moves in opposition to the US dollar.

David Hiller, Paul Draper, and Robert Faff (2006) analysed the daily data for gold, platinum and silver from 1976 to 2004 to investigate the investment role of these metals in the financial markets. It was seen that these metals have low correlations with stock index returns. Also, it was seen that during periods of abnormal stock market volatility, these metals have some hedging capability.

In the Dalal Street Journal, Sashikant Singh has carried out research on how investing in Gold ETF's has started gaining popularity. It has been seen that investing in gold ETF's is less cumbersome and risky than the other means.

Dirk Baur and Thomas Mc Dermott (2009) investigated whether gold represents a safe-haven with respect to stocks of major and developing countries. The correlations between gold returns and stock market returns in 13 countries over the past three decades was investigated. It was concluded that gold is generally a hedge and safe-haven for stocks in developed markets, but not in emerging markets.

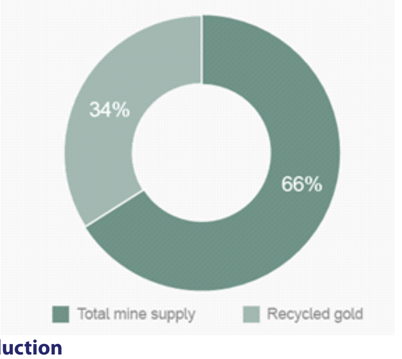
Natalie Dempster and Juan Carlos (2009) studied the inter-relationship between four asset classes namely Gold (represented by closing gold rate in New York), Commodities (represented by S&P, GSCI), Real estate (represented by BBREITs) and Treasury Bills (TIPS). It was concluded that gold is more effective than the other three assets at achieving both the maximum risk- reward portfolio and minimum-variance portfolio by using a portfolio optimizer. It was also found that gold brings additional diversification to the portfolio comprising of the above three assets.

Artigas (2010) found that money supply growth has an impact on future gold performance. It was demonstrated that changes in the United States money supply has the largest impact on the price of gold. On the other hand, it is very important to look through the changes in money supply in countries where gold has a preeminent cultural role like India.

THEORETICAL ANALYSIS

- **SUPPLY**

Over the last ten years, the annual total supply of gold has averaged around 4000 troy ounces. Mining is not the only source through which gold is supplied to the market. One third of total supply accounts to mine production and net producer hedging. The remaining is attributed to recycled gold accounts.



Mine production

The sources of mine production are geographically very diverse. China has been the largest producer (around 14%) in the world in 2015. Mine production of gold remains stable at approximately 2,485 tonnes per year. As old mines play out, new mines begin production, helping to keep the amount of mined gold relatively consistent.

Net Central Bank Sales

Central Bank and International Monetary organizations hold about 20% of the above ground stock of gold as reserves. At the end of 2015, central banks held around 31,400 tonnes of gold, which is approximately one-fifth of all the gold ever mined. These holdings are mainly concentrated in the advanced economies of Western Europe and North America. Hence, central banks have significant pricing power in the gold market.

Recycled Gold

In the dynamics of the gold market, recycled gold plays a very important part. Since the gold mine production is relatively inelastic, gold recycling helps stabilise the gold price by providing easy supply of gold when needed. The supply of recycled gold is also an important indicator of the future price of gold. When the price of gold is rising or the economy is slowing down, individuals and companies are encouraged to scavenge it. It is then available to new investors.

DEMAND

Gold's rarity and appeal has given it an emotional, cultural and financial value all over the world. Right from fashioning it into jewellery to using it to manage risk in financial portfolios, gold has a diverse number of uses. Its spans from jewellery, technology to central banks and investors. The demand in these sectors have risen at different points in the economic cycle.

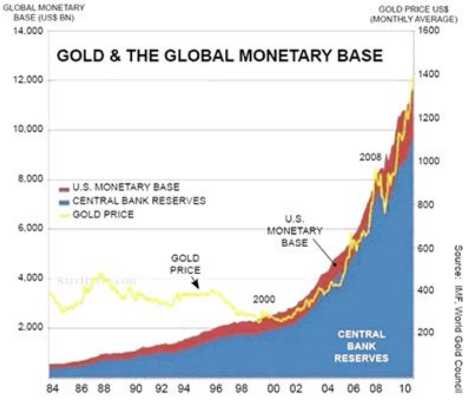
INFLATION

Inflation is regarded as the most important factor that affects the price of gold. In an inflationary environment when the value of paper currency is falling in regards to what other goods and services can be bought with it, people demand for gold since it retains its value. Hence, gold's use as a retainer of value and wealth, makes it a safe-haven.

Also during the inflationary cycles, the value of the financial assets is threatened. Hence gold looks like a more attractive option as a store of value.

Because inflation often accompanies times of economic unrest, many investors look to gold as a safe-haven investment for use in times of all sorts of distress, ranging from geopolitical conflict to systemic financial risk. When investors no longer trust currency, it is natural to turn to gold, and that helps push prices up.

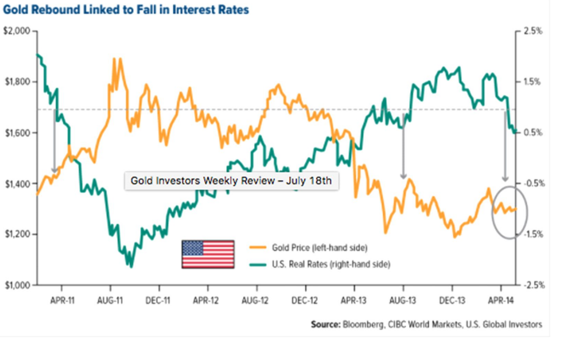
Therefore, during inflationary cycles, when the value of the dollar drops, investors put their money in gold to help preserve value. To link to our foundation, this then increases the demand for gold investment, which ends up driving gold prices. Also, because of the sensitive nature of the market, the fear of inflation – and not the actual inflation – also drives the price of gold high.



INTEREST RATES

Interest rates are another major indicator of where gold prices are likely to go. Gold is a non- income producing asset. Hence when interest rates are high, bonds become a more attractive option to invest in to yield higher returns. Therefore, gold prices and interest rates are negatively correlated.

Money lenders are also willing to lend out their money rather than gold when interest rates are high as during this period capital is scarce and in high demand.



The Federal Open Market Committee releases the federal funds rate 8 times per year in the United States. This federal funds rate is basically a target inter-bank lending rate, which make it either cheaper or more expensive for banks to borrow money from each other. In a higher interest rate environment, it would be difficult to borrow money and rates of return would be higher as well. It would imply an unfavourable environment towards gold.

Looking at lower interest rates, it would be easy to choose gold as an alternative to fixed income investments and bonds. This is because they pay very little in income. Also, they have the risk of substantial decrease in value when rates rise.

THE US DOLLAR

The US Dollar, originally tied to a gold and silver standard was moved to a gold standard after 1900 until 1971. Gold helped stabilize the value of the currency but to protect the gold reserves it had to be abandoned. After both the US dollar and gold were freed, a new relationship could be seen between the two. US Dollar was traded on foreign markets and used as a reserve currency without risking the gold reserves. On the other hand, the price of gold was freed from all the restraints of currencies.

However, by 1971, countries were far invested in massive dollar reserves and indirectly in gold. Hence the US paper was still as good as gold to many stakeholders. This historical association of the gold standard has held a psychological sway over investors even today.

When the US dollar is in trouble, global banks stock their reserves tending to abandon it in favour of gold. Conversely, when the US dollar is appreciating, banks will shift their reserves into currency. This negative correlation is not always applicable. In times of crisis of some other currency, the prices of both the US dollar and gold can be affected.

As seen how in the past during wars and depression, gold's utility was affected, the unpredictability of the gold prices still comes into picture.

Nevertheless, naturally the US dollar became a substitute for gold and a cheaper one if compared to the limited availability of gold. Hence, the inverse correlation between the two is vital to determine the price of gold.

ECONOMIC STRENGTH

When the economy is strong, stocks rise in value. Investment demand shifts away from these precious metals and other commodities that don't generate income. On the other hand, when the economy weakens, demand for financial assets slackens that drives more money towards gold since it is a stable investment.

Hence, investors to preserve their wealth prefer gold. In general, fears of economic instability drives investment demand for gold high and hence the price of gold also increases. While when a strong economy is predicted, investment in gold is low and hence is the price of gold.

WORLD INSTABILITY

Any major world event for example a terrorist attack, some war or crisis occurs – safety of gold ownership is always preferred. At such times, the prices usually respond upwards. The current financial system of stock markets, debt fuelled growth and fiat paper currencies operate successfully under the assumption that things continue without a hitch. When any of these assumptions begin to break down, the rest of the system can too and hence gold becomes a main fall back.

JEWELLERY MARKET

Giving and owning gold in the form of jewellery is a part of the cultural tradition that has transcended through generations. China, India and the US are the three largest markets for gold jewellery.

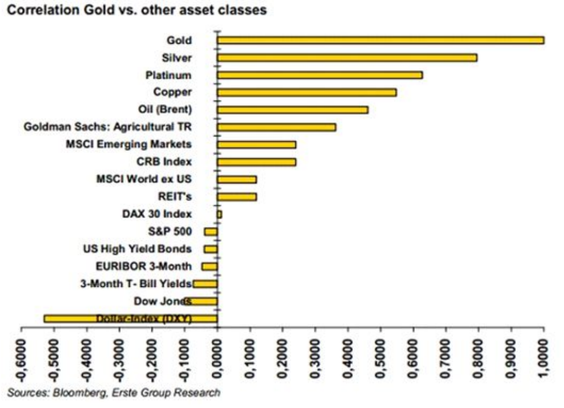
Gold is perceived as metal of unique cultural significance. The demand for jewellery accounted for 57% of gold demand, of which 60% comes from India and China as at the end of 2015.

There is a fundamental belief that gold is auspicious and an enduring store of value. It is considered an ideal gift to mark festivals and weddings. Further, today it has been given a new relevance with new innovative designs that talented goldsmiths create.

OTHER INVESTMENT ALTERNATIVES

Investors look at investment in gold when other investment alternatives look riskier and less attractive. Government bonds, commodities and stock markets are some investments that dissuade investors from owning gold. Especially at the time of good averages or good returns on investment, investors might be tempted to sell their gold to enjoy some gains.

It has been seen that gold moves in similar lines with other commodities and is inversely correlated with the stock market. Hence when attractive alternatives exist, gold prices could go down temporarily.



CONCLUSION

Gold demand analysis has shown, about 45% of yearly gold demand comes from jewellery, 45% from investment bullion, while 10% comes from industrial demand. It can be concluded that if one of these areas showed a great surge in demand, then gold prices could rise. In contrast, supply contractions can also cause a change in the price of gold. Recent gold supply trends show that gold is becoming more expensive to mine, which will have a upward pressure on the price as population growth and demand surpasses any new gold supply.

With the demand of gold for investment, jewellery and for industrial purposes, it can be reviewed that there is no set predictive determinant for its price. With the highly volatile market, there is little that the demand for jewellery and industrial purposes can do, to shift the price of gold.

Gold's characteristics of rarity, uniqueness and symbol of prosperity has given it its charm. Also, its regard as a safe-haven in times of financial turmoil and when the market is not at its best, makes it as unique commodity.

Inflation, Interest Rates, the US dollar and other factors move in different directions at the same time. Hence it can be clearly seen that it is difficult to see the relationship between the economic conditions and the gold market. Hence, understanding these fundamentals can help investors invest more effectively in the commodity.

It was seen that commodities were less sensitive than financial assets. Crude Oil for example, despite being the most actively traded commodity futures contract, shows no significant responsive to all announcements. However, as commodity markets have become financialized their sensitivity appears to have risen to the macroeconomic news. Hence, the surprise element in macroeconomic news heavily influence the commodity prices, especially gold.

Gold has been adding diversification to portfolios and investors look out to increase their risk adjusted returns. It also provides a foundation which investors rely on to manage risk and preserve capital more efficiently especially in times of financial turmoil.

Hence, investors typically buy gold when they sense financial danger. It is because gold has preserved wealth through economic depressions, stock market crashes, and every kind of crisis imaginable. Gold is the ultimate form of wealth insurance.

To conclude, as inflation, interest rates, the US dollar and currency rates determine the investment demand for gold and the jewellery market also pulls the price up or down, gold prices are difficult to determine. Its rarity, makes it a good investment and its cultural significance makes it more demandable. Hence with the scarce supply, these determinants create a price for gold that adds to it unpredictable nature.

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