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Research Paper

Gold Demand increase and Its impact on Inflation

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ABSTRACT:- Present paper deals with study on Gold Demand increase and its impact on inflation. All these factors are the reason for hyping the demand for gold day by day. As per world gold council gold demand in India is about to rise 33% by 2020.The cumulative annual demand will be excess of 1,200 tones by 2020.Recently India has become the largest consumer of gold and price of gold is likely to breach Rs 32,000 mark in the next calendar year. We find that gold contains significant information for future inflation for several countries, especially for those that have adopted formal inflation targets. This finding may arise from the manner in which inflation expectations are formed in these countries, which may result in more rapidly mean-reverting inflation rates.

Keywords:- Gold Demand, Inflation, BSE, Volatility, Co-integration.

I. INTRODUCTION

Gold demand appears to have its own "logics" and mystique. It has traditionally been very conservative investment due to it's relatively scarcity, but it tends to accurate reflector of short term fear about the economy in general. Gold has traditionally been considered an attractive investment in India and its excellent performance in recent years has substantially confirmed the wisdom of that tradition. When markets are volatile and investors panic they tend to move out the risky assets such as stock and invest into assets such as gold. Gold like virtually all commodities is traded on a dollar dominated basis. In times of crisis, capital often flow out of emerging markets currencies. This makes it a doubly attractive investment for Indian investors in volatile times, the rise in the rupee price of gold is fuelled by both the increase in international gold prices and by the appreciation of the dollar against the rupee. Gold as an investment option was dramatically illustrated in early 2009. Gold surged even as global stock markets plunged and the rupee briefly traded at Rs. 51 to the dollar. Prior to the introduction of liberalization and globalization policies, gold prices in India showed an increasing trend (Figure-1). In the post liberalization period, the average annual prices of gold also showed an increasing trend from the year but, it showed a decreasing trend in 1997 and 1998and again showed an increasing trend in the year2000. From 2002 to 2012, gold prices are continuously increasing. The domestic gold price in India is continuously increasing due to its heavy demand in the country. There are several reasons gold has high demand in India. The first reason is security; gold offers full security as long as it is retained by central banks. There is no credit risk attached to gold. Secondly, gold is able to maintain its liquidity even at times of crisis situations like high global inflation or political turbulence. The third reason for holding gold is to build a diversified portfolio. Gold also has taken the role of an asset of last resort. World Economic History shows that countries have repeatedly used gold as security against loans when they have had difficulties with their Balance of Payments and have felt the need to borrow on the international capital markets.

II. DATA AND METHODOLOGY

This paper aims at investigating the dynamic relationship between gold demand increase and Inflation in India for the period 2002 to 2012. This study is mainly based on secondary data that have been collected from the database on Indian economy maintained by Reserve Bank of India and Bombay Bullion Association. The study analyses the monthly data on domestic gold prices and stock market returns in India for the aforesaid period. Wherever data were missing, the averages of the data of the previous month and next month have been

taken. We also note that results can differ markedly when analyzing either Total or Core CPI. For example, Total CPI inflation appears stationary for the United States, whereas CPI excluding Food and Energy prices appears to be non-stationary. A similar observation was made by Levin et al. (2004). The consequence of unit roots for our study is that modeling a non-stationary variable using stationary regresses will almost surely yield poor results as the regression equations and will be unbalanced. We will proceed under the maintained assumption that the inflation rates are mean-reverting, but leave it for future work to construct models that exploit the possible features of inflation rates in countries such as Brazil, China and Israel, and for CPIXFE inflation in the United States.

III. EMPIRICAL ANALYSIS

2. Gold Prices and Inflation

At $1.5 Trillion, the world gold market capitalization in 2003 was only 17% that of the New York Stock Exchange, but with a turnover of $4.5 Trillion it is highly liquid and operates 24 hours per day. Gold is a peculiar asset, since it is both a commodity used, for example, in the production of jewelery and industrial applications, and a financial asset, where it can be used as a store of value. It is unrivaled as the ultimate tangible store of value, since it has a psychological advantage over other assets stemming from its use for this purpose spanning several centuries. As a financial asset, which represents about 12% of the gold market, the demand for gold would be a function of the current and expected price of gold, the opportunity cost of holding gold (which could be the rate of return on a risk-free asset, such as U.S. Treasury bills), income, expected future inflation, and overall financial market stress. From a macroeconomic perspective, our interest in gold prices lies in the embedded inflation expectations. Specifically, we wish to establish whether gold price movements can, to any degree, lead future movements in future inflation. In theory, increases in inflation expectations reduce the perceived purchasing power of money, so agents would divest themselves of money and increase their holdings of gold. This increase in the demand for gold would cause gold prices to rise, so higher gold prices should signal higher future inflation rates. As surveyed by Stock and Watson (2003), several studies have explored the indicator properties of financial assets for future inflation, but no recent studies have considered gold as a possible candidate variable.

Our objective is to extract information regarding future inflation from observed gold prices. We first define the inflation rate as the k-period annualized percentage change in the Consumer Price Index (P) or any other closely-related price index:

$$Pt = [\log Pt - \log Pt\text{ -}k] \acute{}1200\ k, \quad (1)$$

Where k can take the values 6, 12, 18 or 24 Using monthly data, this implies that we try to explain movements in inflation for periods ranging from 6 to 24 months. Following Tkacz (2004) and others, we can decompose the k-period inflation rate into nominal and real rates of return on a financial asset:

$$t\ t\ t\ p = R - r \quad (2)$$

Normally one would assume that (2) applies only to bond rates, but in practice this can be used for any financial asset. Agents, as a minimum, would require that the nominal rate of return on an asset will compensate for the eroding effects of inflation on purchasing power. As a result, above can refer to the nominal k-period annualized rate of return on gold, and rt its real rate of return. This is a similar strategy as that used by, for example, Kolluri (1981) and Culp (2001).Note that, for any particular country, the inflation rate is computed using domestic currency prices. As a hedge against inflation, investors must consider the rate of return on gold expressed in terms of domestic currency units. Since the price of gold is determined in world markets and is priced in U.S. dollars, the price of gold must first be multiplied by the prevailing exchange rate prior to computing its rate of return. We henceforth denote the domestic rate of return on gold by D t R, and t R will be reserved to denote the U.S. dollar rate of return on gold. With G denoting the price of gold (per ounce) in U.S. dollars and E representing the domestic currency / U.S. dollar exchange rate, the international (U.S.) and domestic annualized k-period rates of return on gold are respectively

IV. CONCLUSION

In this paper analyze the casual relationship between Gold demand and Inflation. The study uses the monthly data which is collected from Reserve bank of India, Bombay bullion association and from bse-india.com. The results of Augmented Dickey- Fuller test conclude that the series are stationary and integrated of order one. There is a positive correlation between stock returns and gold price from 2002 to 2007 but due to economic crisis in USA in 2008 and 2011 this correlation seems to be fading and it was establish by using correlation and Johansen's co-integration test that there is no relation between gold prices and stock returns i.e. Sensex return in the long run period. The results of Granger causality test reveals that returns of Sensex index does not lead to increase in gold price and rise in gold price does not lead to increase in Sensex. Overall, we can conclude that gold is a significant predictor of inflation for many developed inflation-targeting countries. The optimal horizons, however, vary across countries, although 12 and 18 months seem to be the most common.

Given that these correspond to some of the more interesting horizons for policy- makers, the price of gold may add some value to debates about the direction of inflation in these countries.

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