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Is gold investment a hedge against inflation in Pakistan? A co-integration and causality analysis in the presence of structural breaks

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ABSTRACT

The last few years have witnessed overwhelming investments in the gold market. Numerous studies have discussed how investment in gold is a hedge against inflation. The current study investigates whether a gold investment is a hedge against inflation in case of Pakistan. In doing so, we have used time series data on gold prices; economic growth and inflation are used for the period of 1997Q1–2011Q4. The study has applied the ARDL bounds testing approach to co-integration for the long run, and innovative accounting approach (IAA) to examine the direction of causality in variables. Our findings reveal that "investment in gold is a good hedge against inflation" not only in the long-run but also in the short-run. The implications and applications of the study are discussed in detail.

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1. Introduction

Gold is considered as one of the most prestigious commodities in the history of mankind. There are two types of investments in gold; using gold in production of ornaments, medals, minted coins and electrical and medical components etc. and to use gold as an investment avenue by governments, hedge funds, and other institutional and individual investors. Investment in gold is traditionally believed as an effective hedge against inflation and other economic uncertainties. Gold price increases with the rate of inflation, therefore investment in gold can be used as an effective hedge against inflation (Ghosh, Levin, Macmillan, & Wright, 2004). Allan Greenspan, the former governor of the Federal Reserve Bank of America also stressed the significance of gold-inflation link in his speech in Congress on February 02, 1994. Alan Greenspan stated gold as "store of value measure which has shown a fairly consistent lead on inflation expectations and has been over the years a reasonably good indicator" (The Wall Street Journal, 28 February, 1994). Historically, gold played an important role in monetary system around the globe. However, due to the demise of the Bretton Woods System in 1971, its role as classical gold standard reduced. But the significance of gold in the financial system is very persistent due to the great interest of large institutional and individual investors.

Investment decision making is a complex process especially for people having limited or no investment related knowledge. Such investors usually follow the market trends and go for investment options, which offer handsome returns with modest risk. Therefore, in different spans of times particular investment alternatives gain more focus of such investors. For instance, in previous decade people made an abundant investment in real estate sector in Pakistan. Many people earned abnormal returns by investing in real estate. There was an increasing trend of investing in real estate that caused over investment and price hikes in this sector. The flow of investment is toward gold now-a-days and people are increasingly investing in gold to earn maximum return. Gold is a more durable, transportable, universally acceptable and authentic asset among all physical assets. Although gold is very much liked by the women globally, the traditional use of gold as ornaments is higher in Pakistan and other regional countries including India, Bangladesh, Sri Lanka, Nepal, and Afghanistan, etc. In Pakistan and India gold jewelry is an important part of dowry. The gold prices are recording historically high levels across the globe. The increasing gold prices are affecting people in various ways. People with meager income resources are making less traditional use of gold in the shape of ornaments. The demand of gold bullion is more than traditional gold ornaments now. The increasing price of gold is also compelling low income communities to use artificial jewelry or light weight ornaments. People with additional money are investing in gold to protect their wealth from inflationary effect. The high level of inflation is inducing people to invest in gold because banks and other investment alternatives are offering rates of return, which are below the prevailing inflation rate in Pakistan. Many gold jewelers are also buying old gold ornaments to recycle and export them for earning better prices abroad.

The higher rate of return in gold investment has also attracted huge institutional investors. Investment in gold is paying more returns than offered by bank deposits, national saving schemes, mutual funds, high yield corporate bonds and Pakistan investment bonds, which offer less than 15% return (Aazim, 2011). Investment in gold is also boosted due to depression in the real estate market, exchange rate fluctuations and low economic growth rate across the globe, especially in Pakistan. The increase in gold jewelry demand in India, China and the Middle East are also among the factors, which have boosted gold demand in international markets (Worthington & Pahlavani, 2007). In a nutshell, individual and institutional investors are buying gold in physical gold and futures market directly and indirectly as a strategic investment alternative. Gold is largely traced to hedge against currency and inflation risks not only in physical markets but also in futures market. Trading in gold futures consists of more than one half of overall traded volume in Pakistan Mercantile Exchange (PMEX), which also indicates the increasing investment in gold by sophisticated investors.

The relationship between gold prices and inflation has been widely discussed in existing economics literature. For instance, Baur and Lucey (2010) and Kaul and Sapp (2006) defined hedge as an asset that is un-correlated or has an inverse relationship with a given asset in economic depression times, not necessarily so in routine. Numerous studies have highlighted the significance of investing in gold to build a well diversified portfolio to hedge against currency prices, inflation, political uncertainty, low economic growth, oil price movements and the related dimensions. For instance, Adrangi, Chatrath,