Notes

Title: Is gold a hedge or a safe haven? An analysis of stocks, bonds and gold.

Objective: this paper investigates the role of gold as both a hedge and a safe haven in financial markets while the flight to quality literature only analyzes stocks and bonds and typically focuses on the factors that trigger a flight from stocks to bonds. The analysis has focussed on the question whether gold is a safe haven and a hedge for stocks and bonds

Definition: A hedge must be uncorrelated or negatively correlated with another asset on average while a safe haven must be uncorrelated or negatively correlated in extreme market conditions only.

Methodology: regression model in which gold returns are regressed on stock and bond returns and two interaction terms that test whether gold indeed serves as a safe haven if stock or bond markets fall or exhibit extreme negative returns. The empirical analysis focuses on three large financial markets (the US, the UK and Germany) with different currencies (US dollar, UK pound and the euro) in order to examine the differences and similarities of the role of gold in these markets. Daily returns are used in order to analyse whether investors react to extreme negative shocks relatively fast and use gold as a safe haven asset. The regression models estimate the unconditional impact of stock and bond returns on the return of gold. In order to examine whether the impact of stocks and bonds on the price of gold is constant they additionally estimate time-varying betas. The findings emerge from a regression model, with a time-varying covariance estimator that is used to compute the influence of stocks and bonds on the price of gold and a simple portfolio analysis

Data: The data consist of daily prices of MSCI stock and bond indices and US closing spot gold. The MSCI bond indices are sovereign total return indices with maturities longer than 10 years (10year+). All stock and bond prices are in local currency, i.e. US Dollar, British Pound and EURO. The gold price is converted into British Pound (GBP) or EURO when necessary. The data cover a time-period of 10 years from November 30 1995 until November 30, 2005

Results: Our empirical analysis shows that gold is a safe haven for stocks in the US, in the UK and in German. Gold is also a hedge for stocks in the US and the UK. However, gold is nowhere a safe haven for bonds; nor is it a bond hedge in the US or UK. Furthermore, gold is not a safe haven for stocks at all times but only after extreme negative stock market shocks. In addition, the safe haven property is extremely short-lived so that investors buying gold one day after a shock lose money. In other words, gold is a safe haven when it is needed most but is not a safe haven, and is not supposed to be, in periods of rising stock markets. While gold is no hedge or safe haven in bull markets, it is a hedge and a safe haven in bear markets. These results of the time varying betas are consistent with the regression results for the sub-samples obtained above and confirm the finding that gold is a safe haven for stocks in all three markets analyzed.

Discussions: Future research could extend the number of stock and bond markets analyzed and examine the role of exchange rates for the safe haven hypothesis