Is Gold a Safe Haven Asset?

Matthias Herp

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Table of contents

What is a safe haven asset?

1. **Safe Asset:**
   Assets which do not carry a high risk of loss across all types of market cycles. They are insensitive to information.

2. **Hedge:** .
   "A strong (weak) hedge is defined as an asset that is negatively correlated (uncorrelated) with another asset or portfolio on average." (Bauer and McDermott, 2016)

3. **Safe Haven:**
   "A strong (weak) safe haven is defined as an asset that is negatively correlated (uncorrelated) with another asset or portfolio in certain periods only, e.g. in times of falling stock markets." (Bauer and McDermott, 2016)

How does the raw Data look like?

Closing Values of Indices

Gold: Gold, Blue: MSCI_World, Red: SP_500
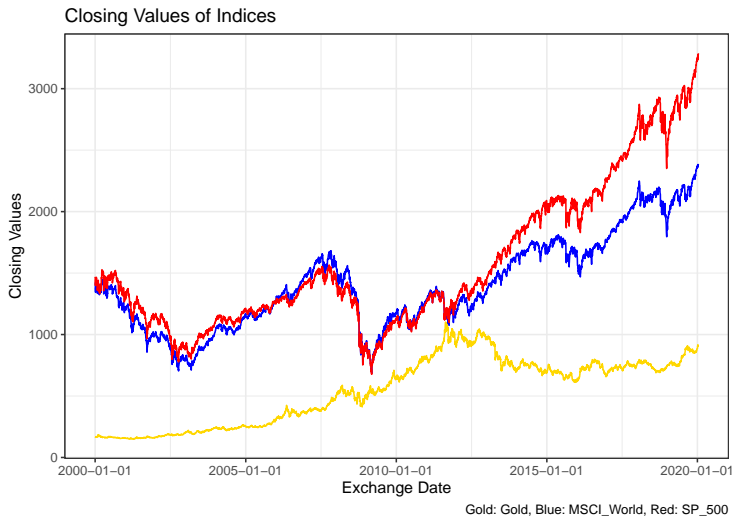
What do the descriptive statistics of the returns show?

	Min.	Q25%	Med.	Q75%	Max.
Gold	-9.35	-0.45	0.00	0.58	8.97
MSCI_World	-7.06	-0.41	0.05	0.48	9.52
SP_500	-9.03	-0.43	0.03	0.54	11.58

Table: Daily Returns in Percent

	Mean	SD.	IQR.	Obs.	Freq.
Gold	0.04	1.08	1.03	5226	Daily
MSCI_World	0.01	0.98	0.9	5226	Daily
SP_500	0.02	1.17	0.98	5226	Daily

Table: Daily Returns in Percent

How are the returns of the indices and gold correlated over time?

Correlation of Indices with Gold

Blue: MSCI_World, Red: SP_500 (dotted lines represent lowest 20 return dates)
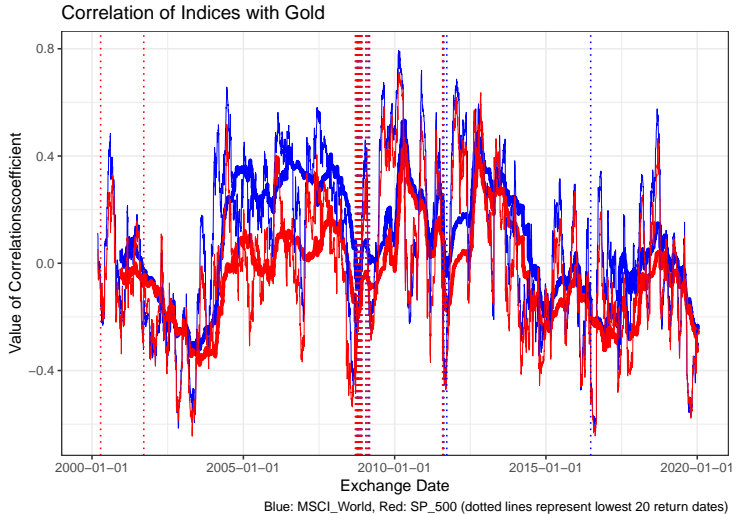
Is gold a safe haven asset?

My Findings

- ▶ The Correlation changes across time significantly, including positive values, which contradicts the idea of a hedge
- ▶ The Correlation also seems to drop in periods of strong market downturns, which speaks for the hypothesis of a safe haven

Bauer and McDermott (2009,2016)

- ▶ *"We find that gold is a strong safe haven for most major developed world stock markets including the larger Eurozone markets (Germany, France and Italy), Switzerland, the UK and the US."* (Bauer and McDermott, 2009)
- ▶ *"safe assets (..) are fundamentally different from information-sensitive safe haven assets and their short-lived effects."* (Bauer and McDermott, 2009)

Is their a difference in the correlation coefficients depending on the index used?

Correlationcoefficients with Gold

Red: SP_500, Green: MSCI_EM, Black: DB_DAX, Blue: EURO_Stoxx, Pink: MSCI_World

Results from the Homework Assignment Set of Slides 3

Table: Table from Task 2

Matrix.Age	Matrix.Weight
22	72
19	65
20	76

Table: Additional Results

mean.Weight_n.	Matrix.Age	Matrix.Weight
71	22	76

Results from the Homework Assignment Set of Slides 3

Table: Table from Task 1

Name	Gender	Age	Weight
Hans	male	22	72
Erika	male	19	65
Peter	female	20	76