# Does Hedging Increase the Value of Gold Companies?

Bachelor Thesis

University of Zurich
Department of Economics and Business Administration
Institute of Banking and Finance
Prof. Dr. Per Östberg

Field of Study: Banking and Finance

Author: Cristian Andrei Alexe

Deadline: 29th of November 2013

# Abstract

This study examines the effect gold hedging has on the value of gold mining companies. The sample contains data from 20 of the largest gold producers in the gold mining industry between 2003 and 2012. When controlling for size, profitability, leverage, investment growth and cash costs, no relationship is found between hedging and Tobin's Q. This may be due to endogeneity problems, the fact that hedging has no effect on firm value or that hedging is a result of managers reducing their personal risk.

# Executive Summary


### Hypothesis

Risk management theories make a strong case for hedging by arguing that by hedging, a firm can smoothen out earnings and take on more debt which in turn reduces the firm's tax burden. It is also argued that hedging can relieve an under-investment problem which arises when unfavourable market conditions e.g. a fall in the price of gold, reduces a firm's cash flow and consequently its investable funds. The most common justification of hedging policy given by gold mining companies themselves usually revolves around their outlook on the price of gold. Hedging is also often stated as a condition to take on more debt. Empirical studies have had mixed results regarding the relation between hedging and firm value. This paper attempts to find a relation between gold hedging and the value of gold mining companies using anecdotal and statistical evidence derived from recent data.

### Methodology

This study uses data from the period between 2003 and 2012 from 20 of the largest gold mining companies in the world. The hedging practices of these 20 companies are surveyed manually by going through the disclosed hedging policies in their annual reports and captured by a dummy variable. Similar to many previous studies, Tobin's Q is used as a proxy for firm value. However, due to skewedness, the natural logarithm of Tobin's Q is used as the response variable in the regression. Control variables that have been known or are likely to influence Tobin's Q are included in the regression. These include proxy variables for size, profitability, leverage and investment growth. The data is gathered from Bloomberg.

## Results

The regression yields no statistically significant relation between hedging and firm value. As expected, size, profitability, leverage and investment growth have statistically significant effects on firm value. However, the survey of the companies in the sample shows that hedged companies have a higher debt ratio and higher investment growth on average. Any interpretation of the regression is likely to be difficult due to endogeneity problems which inevitably occur.

## Conclusion

The survey of the hedging policies of gold mining companies' supports risk management theories to a large degree. However, no statistically significant association between hedging and firm value can be found in the study. This may be due to several reasons. First, endogeneity problems make any possible interpretation of the results difficult. Second, the relatively small sample size reduces the power of the regression and makes it weak. Lastly, hedging may have no effect on firm value or hedging programs may not be implemented by managers in order to increase firm value but rather to reduce their personal risk in which case they have no effect on firm value.