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Do Commodities Make Effective Hedges for Equity Investors?

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ABSTRACT

The purpose of this paper is to evaluate whether commodities are effective hedges for equity holders. We employ three different methodologies to calculate time varying hedge ratios. First, we examine time-varying hedge ratios and how much portfolio risk can be reduced relative to a long position in the S&P 500. We calculate hedge ratios from realized variances and covariances; second, we estimate a recursive multivariate GARCH (BEKK) model and calculate the hedge ratios from the estimated covariances; and thirdly, we calculate the hedge ratios by estimating recursive OLS regressions. The results of our paper are very clear. First, commodities are not effective hedges for the S&P 500. Equity market investors and asset managers looking for a way to manage and reduce portfolio risk will be well advised to search for alternative hedges for the S&P 500 than commodities. Second, our results do not support the claim that commodities were a good hedge for the equity market during the financial crisis.

Keywords: Dynamic Hedge Ratios, Conditional Correlation, Commodity Market, Equity Index, Risk Management

JEL: C12, C32, G10

1. Introduction

There is growing evidence that equity and commodity markets are inter-connected and that the correlations between commodities and equities have generally increased since the early 2000s (see for example Silvennoinen and Thorp, 2013; Creti, Joets, and Mignon, 2013;