



SDI Review Form 1.6

Journal Name:	<u>British Journal of Economics, Management & Trade</u>
Manuscript Number:	2014_BJEMT_12544
Title of the Manuscript:	ZIMBABWE STOCK EXCHANGE ("ZSE")'S EXPOSURE TO GLOBAL CRUDE OIL PRICE VOLATILITY
Type of the Article	Original Research Article

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This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

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PART 1: Review Comments

	Reviewer's comment	Author's comment <i>(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
<u>Compulsory</u> REVISION comments	1. Section 5, Conclusions Refer line 384, wording “presents” needs to be replaced by “presence” to have the sentence meaningful 2. Out of the two sectors in the ZSE considered for the study, the more important “Industrial” sector did not show clear evidence of “causal” relationship with world oil price movements (interpreting your statement in lines 398 and 399). Therefore your concluding statement in lines 403 and 404 needs to be rephrased as below; “....that the ZSE stocks appear to be exposed to exogenous factors due to movements in global oil prices.”	
<u>Minor</u> REVISION comments	1. A summary of the time series variables would add value to the paper. You may indicate mean, median, Standard deviation, Skewness, Kurtosis and J-B stats in a table under section 4 just before you introduce DF stationarity test specification. 2. Table 2 Summary of (GARCH, 1,1) estimations; The table is not clear, please identify the Parameter, Estimate, Standard Error and P value clearly Above the table please indicate the GARCH model; $Y_t = \delta + \eta Y_{t-1} + \varepsilon_t$	



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	$\sigma_t^2 = \omega + \alpha_1 \varepsilon_{t-1}^2 + \beta_1 \sigma_{t-1}^2$ In my model parameters $\delta, \beta_1, \eta, \alpha_1, \omega$ are relevant, please show what is relevant to your model 3. Under section Results and Discussion, could you also present the volatility charts of oil prices/ZSE sector indexes following Stock and Watson (2002) calculations and present Volatility against the sample period. This is a more popular method of plotting volatility and provides better clarity of volatility among variables. Stock, J. H and Watson, M, W (2002), “Has the Business Cycle Changed and Why?”, NBER Working Paper 9127, NBER Inc 10	
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<u>Optional/General</u> comments	1. Under Section 3.2, GARCH (p,q) Model, suggest that you expand the theoretical basis of GARCH model. A suggestion is given below; In 1982, Engle proposed a volatility process with time varying conditional variance; the AutoRegressive Conditional Heteroskedasticity (ARCH) process. The empirical evidence shows that high ARCH order has to be selected in order to catch the dynamics of the conditional variance. This requires that many parameters have to be estimated and the calculations get heavy. Bollerslev 1986, introduced the Generalised ARCH (GARCH) model as a solution to the difficulty with the high ARCH orders. This model is based on an infinite ARCH specifications and it allow to reduce the number of estimated parameters from an infinite number to a few. In Bollerslev's GARCH model the conditional variance is a linear function of past squared errors and earlier calculated conditional variances. This is mathematically shown as below; Conditional Mean Equation; $Y_t = \delta + \eta Y_{t-1} + \varepsilon_t$ Conditional Volatility Equation $\sigma_t^2 = \omega + \alpha_1 \varepsilon_{t-1}^2 + \beta_1 \sigma_{t-1}^2$ Where ε is the error term of the time series and σ^2 is the variance of the error term. The GARCH model is equal to a infinite ARCH model Bollerslev, T. 1986. "Generalized Autoregressive Heteroskedasticity". <i>J. Economet.</i> 52: 307-327. Engle, R (1982), "Autoregressive Conditional Heteroskedasticity with	
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	Estimates of UK Inflation”, <i>Econometrica</i>, Vol 50, 987-1008 2. You have computed ZSE sector returns for correlation calculations on a nominal basis. Considering the sensitivity of Zimbabwe economy to high inflationary tendency in the past, it is preferable if calculations are supported with real data. You may use the following formulae for that; $\Delta(\text{ZSE Industrial/Mining Index}) - \Delta(\text{Zimbabwe consumer price index})$ If the results do not change significantly, you may add a qualifying note stating that the computations done on real terms do not material affect the results presented.	
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Reviewer Details:

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