

Review of: "COVID-19 or Russia-Ukraine conflict: which is informative in defining the dynamic relationship between Bitcoin and major energy commodities?"

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Potential competing interests: No potential competing interests to declare.

Gabriele Marinello

Peer Review Team, Qeios

Dear Gabriele Marinello,

I am writing to you about the manuscript entitled 'COVID-19 or Russia-Ukraine conflict: which is informative in defining the dynamic relationship between Bitcoin and major energy commodities?'

The paper considers evaluating the returns and volatilities of energy commodity indices and Bitcoin through dynamic conditional correlation analyses [GARCH-DCC (1,1)]. It reveals a significant and considerable dynamic conditional correlation between energy commodities indices and Bitcoin when the COVID-19 pandemic and Russia-Ukraine conflict shocks are incorporated in variance assessments.

1- There exist two sections of the Introduction. The authors need to revise the whole paper.

2- The introduction section (pp: 2-4) needs some citations. For instance;

How do know that In Canada and the United States, stock markets quickly lost more than 30%, erasing most of the gains made in recent years? (See 2nd paragraph of Intro).

Or, where can we find the info if, on 24 February alone, the price of natural gas rose by more than 25% on the TTF market, a platform located in the Netherlands and considered a benchmark in Europe? (See p. 2).

Or, where a potential reader can confirm the below lines regarding the major consequences of inflation? (See p. 3).

'This acceleration in inflation could have two major consequences: First, it should weigh on purchasing power, i.e., the ability of households to buy goods and services with their income. If inflation is higher than the increase in household income, then purchasing power declines. This is also the scenario forecast by the National Institute of Statistics and Economic Studies (INSEE) for the year 2022. According to forecasts by the Institute published last December, the

purchasing power of households should fall in France by 0.2% in 2022. The “additional” inflation generated by the war in Ukraine should aggravate this phenomenon.

The acceleration of inflation could then encourage central banks, including the European Central Bank (ECB) for the euro zone and the Federal Reserve (FED) in the United States, to further tighten monetary policies. To limit inflation, they have already announced the forthcoming end of the quantitative easing programs implemented at the start of the Covid-19 crisis, such as the PEPP in Europe, and increases interest rate futures. Due to the war in Ukraine, central banks could accelerate the implementation of these strategies to the detriment of economic activity’

By the same token, where did authors obtain the information given on p. 3 as follows?

Finally, Russia's invasion of Ukraine has caused turbulence in international financial markets. Most stock markets in the United States and Europe closed lower. Unsurprisingly, the stocks most affected are those most exposed to the Russian market. For France, it is, for example, banking establishments. On the Paris Stock Exchange, the CAC 40 index fell by nearly 3.8% during the session on Thursday, February 24.

3- The authors should follow a separate section of the literature review regarding the topics of COVID-19; bitcoin, energy commodities, the Russia-Ukraine conflict, and others to improve the paper. To this end, the authors might follow below (all or some of) publications or other works from the relevant literature.

- The Age Structure, Stringency Policy, Income and the Spread of COVID-19: The Evidence from 209 Countries, *Frontiers in Psychology*, 11, 1-14, 2021 <https://doi.org/10.3389/fpsyg.2020.632192>
- Dynamics and Co-movements Between the COVID-19 Outbreak and the Stock Market in Latin American Countries: An Evaluation Based on the Wavelet-Partial Wavelet Coherence Model, *Evaluation Review*, 1-23, 2022 <https://doi.org/10.1177/0193841X221134847>
- COVID-19 and Spillover Effect of Global Economic Crisis on the US' Financial Stability, *Frontiers in Psychology*, 1-13, 2021 <https://doi.org/10.3389/fpsyg.2021.632175>

4- The unit root tests should consider the potential available (if any exists) structural breaks in the data. Otherwise, the resulting output might be biased.

(a) Clemente-Montanes-Reyes unit root tests with structural breaks. The Clemente, Montanes and Reyes test can handle structural break(s) through additive outliers and innovational outliers. Additive outliers capture sudden change, while innovational outliers allow for a gradual shift in the mean of the time series.

Jesús Clemente, Antonio Montañés, Marcelo Reyes, Testing for a unit root in variables with a double change in the mean, *Economics Letters*, Volume 59, Issue 2, 1998, Pages 175-182,

(b) Lee and Strazicich (2013, 2003) LM tests with one and two structural breaks. In LS-LM unit root tests, structural breaks are determined endogenously.

Junsoo Lee & Mark C. Strazicich, 2013. "Minimum LM unit root test with one structural break" *Economics Bulletin*,

AccessEcon, vol. 33(4), pages 2483-2492.

Simultaneously accounting for asymmetries/symmetries and unobserved structural breaks can produce the most robust findings.

5- This paper needs a discussion section in which (a) theoretical and empirical facts underpinning the estimated outputs are available, and/or (b) the outputs of this paper are compared to those of available relevant works in the literature.

Yours sincerely,