

Letter to reviewer #2

We would like to thank your comments that could lead to improve our paper.

Regarding the weaknesses that you argue about our work, we would like to make the following considerations.

○ *The issue raised is quite documented*

Thank you very much for the suggestion. We agree that this issue has been widely discussed in the literature for a few decades. However, we consider that the issue is far from having lost its validity and there is an enormous interest in investigating the important interrelationships that exist between financial and real activity due to the implications that it has for both emerging economies and developed economies in that the financial sector could play, or plays, a key role in the economic growth.

The empirical evidence is far from conclusive and this encourages an increasingly important number of papers that attempt to provide clear evidence on the implications of the financial sector in the real economic growth, both from the point of view of markets and banking activity.

Therefore, our interest stems from that need to continue providing clear evidence to the “market-based” empirical literature. To this end, the main contribution of our paper, and that brings novelties in the literature, is to obtain robust empirical evidence from the use of three causality measures in ten Central and Eastern European countries (CEECs) that joined the European Union in 2004 and 2007. As far as we know, this robust evidence had not been found before.

○ *They could be a problem of heterogeneity of data as they come from different databases for the same variable (market capitalization)*

Thank you very much for the observation because we have realized that, as the text is written, it seems that different databases have been mixed to obtain the market capitalization series. Market capitalization data for all countries are obtained from the World Bank (*World Development Indicators Database*) so the market capitalization series are homogeneous. We do not know very well why over time the World Bank has eliminated some data from its databases that makes the series remain incomplete.

The Federal Reserve Bank of St. Louis (*FRED Economic Data*) provides stock market capitalization data directly from the World Bank as its source (and with the same definition of the variable). Given that the source and definition of the series was the same we decided to take the series from *FRED Economic Data* in three cases: Latvia, Lithuania and Romania.

○ *The variable used to proxy stock market development is by construction correlated with GDP*

The statistical correlation tells us if two variables are related or not and if that relationship is positive or negative. However, the relationship between these variables may be spurious and

offer the impression of an appreciable link between two variables. Therefore, the correlation does not imply causality, that is, that there is a high correlation coefficient between two variables does not necessarily imply that one variable is the cause of the other.

That is why, prior to the causality analysis of the series we have performed the unit root tests, and the analysis of cointegration between the series, to know if there is a true relationship between the market capitalization and the real economic growth, in the long-run, in each of the countries. The results have shown us that there is indeed that relationship (evidence of non-spurious relationship between the variables) and that this relationship is also maintained over the time (evidence of cointegration).

- *Paper is too long due to useless annexes (annex 2-4)*

Thanks for the suggestion. We will reconsider the information offered in the annexes in order to reduce the little useful content.

- *Results are not enough discussed. They should be discussed according to countries' particularities and economic theory*

We agree that this is an aspect in which we must deepen. In the new version of the paper, we will introduce a more detailed analysis of the results obtained and the implications that this entails for each country.