**Reply to reviewers’ comments**

**Reviewer A:**

A summary of the review is provided in the list below:

|  |  |
| --- | --- |
| **Reviewer A** | **Reply** |
| An article summary should be added that acts as a roadmap for the reader advising of what to expect in the article | Added at the end of section 1 (Introduction). |
| There are comments about the chart styles to improve the presentation, particularly if the article is not published in color | Some previous articles have been published in color, so I am not sure if this would be applicable, more details from the editor would be appreciated. |
| Section 4 (the authors results should be linked more directly to Section 2, the theoretical framework. That is, identify which component of the theory is used to develop each outcome. | Extra explanation provided. |
| A validation of the theory would be a powerful addition to the article. | A new section 5 is added with causality tests to show relationships in the economy. |
| There is a forward looking prediction subsection near the end of the article. The same process could be used to predict known economic outcomes of the last year of the data series to validate the theory. The details have been provided in the original manuscript using the “Track Changes” feature of MS Word | Causality tests performed in new section 5 and more explanation of interrelatedness of variables.  |
| **Reviewer C** |  |
| General comments: (Any comments of a general nature including language, readability, references used or technical aspects)This is an important research topic with a recognised tool being applied to an under-researched sector, namely, real estate. For this reason, the research should be commended. Notwithstanding this, it is unclear what is multi-disciplinary about the research that contributes to its originality (see the introduction). What is original about the research is the application of an I-O model to the Dispasquale and Wheaton et al models of real estate markets. Unfortunately, the research does not show how the variables measured in the I-O analysis relate to the sub-markets outlined in the above models. The researcher is encouraged to do this as this would strengthen the theoretical base of the research and would be an excellent application of theory. | New section 5 is added to show how FDW-model relates to NIPA account and I-O analysis, which is validated by way of causality testing. |
| Generally the abstract is clear but fails to highlight the forecasting aspect of the paper. | Added in the abstract. |
| There is quite a weak thread through the paper, with it often being unclear as to how the sections relate to each other. This could be partially addressed by applying the I-O model more clearly to the Dispasquale et al models. | Roadmap at the end of section 1 added, section 5 added that brings together different concepts and validate the theory. Explanations of different models added in section 5. |
| Originality: (Does the manuscript contain adequate new information to justify it publication in an ISI indexed journal)Yes. If the model was more transparent and better aligned to the Dispasquale et al models, then the research would add significantly to the knowledge base. | Hopefully new section 5, as well as other explanatory sections to show the thread throughout the paper will solve this. |
| Generally the literature reviewed is good. However, it is surprising that recent research undertaken by the South African Property Owners Association and the Property Sector Charter Council are not referred to. Furthermore, the Reserve Bank Bulletin should be better referenced when the statistics from this source are quoted. | The work in this paper is based on the recent work for SAPOA. Comment is added to acknowledge funding of this research by SAPOA, unless other SAPOA work is referred to. SAPOA’s research is, however, not of particular academic nature.  |
| It is quite difficult to understand how the I-O model is used to calculate the direct, indirect and induced impacts of real estate. It would be useful to highlight which of the equations shown apply to which impact. | The following has been added:“The direct impact is measured using the technical coefficients as derived by equation 2. The direct impact considers the value of the real estate necessary to enable the current level of economic activity or GDP. The tax generated by the real estate sector, associated with this level is also reported. The indirect impact applies equations 3-9 and considers the indirect impact of the real estate sector, by including the knock-on benefits of the real estate industry. This is also known as type 1 multipliers. Lastly, the induced impact is measured using type 2 multipliers, taking into account changes in household spending. Household spending is effectively endogenized in the transaction matrix. This could be seen as the broadest measure of economic impact. Type 2 multipliers are used as published by Statistics South Africa (2015). “ |
| The author needs to explain that GDP, economic activity etc. are discussed in section three as these are the main variables used in the I-O model. Furthermore, it is unclear how the I-O model outputs are calculated. It needs to be shown what data was applied to which equation in section two. This could be contained in an addendum but currently it is not possible to verify any of the numbers calculated. | The following has been added:“In the context of Input-Output analysis, total economic activity is calculated as the sum of the value of all inputs on the production side (intermediate demand), as well as the value of final demand (final demand from households, government and exports).”“The real GDP (at constant 2005 prices), defined as the market value of final goods and services newly produced within South Africa, during one year, at constant 2005 market prices, show a 10 year average growth of 3.40%.“Statistics South Africa (2015a) defines unemployedpersons as those (aged 15–64 years) who: a) Were not employed in the reference week; and b) Actively looked for work or tried to start a business in the four weeks preceding the survey interview; and c) Were available for work, i.e. would have been able to start work or a business in the reference week; or d) Had not actively looked for work in the past four weeks but had a job or business to start at a definite date in the future and were available.”“In the context of Input-Output analysis, “net taxes on products” and “other taxes less subsidies”, are captured in the value added matrix.”We think that the rest of the comment is valid, and that we addressed it under the previous comment. |
| Lastly, the author needs to reach a conclusion regarding the findings. In other words, the author needs to explain how the results enable the author to make a concluding statement that, “…the real estate sector has a marked (ly) influence on the economy…” | Should be more clear based on the new section 5 that was added. Summary section was also expanded. |

|  |
| --- |
|  |