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| **Referee 1’s Comments** | **Responses to Referee 1’s Comments** |
| Whereas they report the municipal LTT revenues from Toronto, they do not mention that the LTT imposed on non-residential transactions generate a sizable amount of the revenue. | We do not have data on non-residential land transfer tax revenue for Toronto. However, data from British Columbia indicate that 95% of land transactions are residential. Farms, commercial and other transactions represent the other 5% of transactions. However, BC statistics do not break down revenues by type of property transferred. |
| t would be beneficial to know whether LTT revenues reported for provinces and cities in Canada and Australia are for residential properties only or the total revenue generated from transactions of all property types. | The data for BC breaks out the land transfer data by type of property. We have not seen data on land transfers taxes by type of property for other Canadian jurisdictions or for Australia.  |
| If the authors would like to keep the discussion about fairness implications in the draft, I would request additional analysis to demonstrate that LTT, as the authors have suggested, is less fair than an increase in property taxes. For instance, David Nowlan (2007) demonstrated that if the buyers had stayed in the same dwelling for a certain period, the LTT would equate to the increase in property taxes paid over time in the absence of an LTT. | We have added the following sentences on page 20: “For example, Nowland (2007, p.iii) shows that with a 1.25 percent LTT an average property owner in Toronto would face a reduced property tax bill in present value terms with a LTT if their property is sold and another bought after 10 years. In other words, frequent movers will pay more often and infrequent movers will pay less. Although younger cohorts are more likely to initially be renters, over their lifetimes they will on average purchase homes more frequently than older cohorts, which means that a non-shifted land transfer tax will generally impose a larger burden on younger generations.” We have also added a footnote referring to the Harvey report’s calculation of the effective tax rate of Australian land transfer taxes based on households’ frequency of housing transactions |
| The authors may want to review other literature, especially in the case of Toronto, that questions the findings that the decline in housing sales in 2008 in Toronto was a direct result of the LTT imposed in February 2008 | In response to this suggestion, we have amended the sentence on page 18 to read: “Dachis, Duranton, and Turner (2012, 348) found that the introduction of a land transfer tax in Toronto reduced the number of transactions by 14 percent.”9 And added the following footnote 9: “However, Haider, Anwar, and Holmes (2016) concluded that the introduction of the LTT in Toronto did not have a statistically significant effect on housing sales. They argued that the Great Recession and mortgage market regulations were responsible for the decline in sales.” |

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| The authors may want to broaden the review of the literature to include more nuanced takes on the impact of the LTT on buyers and sellers. | The inclusion of the reference to the Haider, Anwar, and Holmes study (noted above) refers to a study that is skeptical of the impact of the LTT in Toronto on the volume of transactions. However, the Haider et al study has not been published in an academic journal, whereas the Dachis et al study was. Therefore, we give the Dachis et al study more prominence.  |
| Since younger cohorts are more likely to rent than own, one needs to revisit the claim to see if indeed young homeowners relocate more frequently than the older cohorts do. | The sentence on page 20 now reads:“Although younger cohorts are more likely to initially be renters, over their lifetimes they will on average purchase homes more frequently than older cohorts, which means that a non-shifted land transfer tax will generally impose a larger burden on younger generations.”  |
| The authors point out significantly high values of land transfer in 2010 and 2016 in Alberta, but do not explain why. | We have not been able to determine which transactions contributed to the high land transfer values in Alberta in 2010 and 2016. Our queries to the Land Titles Office concerning the transactions in these years were unanswered. Similarly, the Alberta Real Estate Association did help us with our inquiries. All that we can do in this report is point out that they were anomalous years and have left those years out of the Figure 8.  |
| Even when the residential property values increased at a feverish pace in BC, why did the rate of increase in property tax revenue remained stable? | British Columbia uses land assessment averaging in calculating property taxes in Vancouver. The averaging bylaw limits the amount of property tax an owner of property has to pay. For example, in 2015 the FMV of the property was $350,000, and in 2016 the property value increased by 30% to $455,000. Without averaging, in 2016 the owner of the property pays for the property tax rate times FMV of $455,000. However, with averaging, the owner in 2016 only pays property tax for the value of his home equal to $350,000+(0.196\*350,000) or $418,600. Then if in 2017 the property’s FMV only increases by 15%, averaging is no longer in effect. . . Averaging is not applied to the land transfer tax. Thus sales of properties are subject to the full fair market value of the property in the calculation of the land transfer tax payment. Another reason why provincial property taxesare growing at a slower rate than land transfer tax revenues is that the provincial school property tax rate has declined in some years |

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| What is the reason behind the fact that property tax revenue is almost twice as large as the land transfer tax revenue in Ontario, but in BC, the two sources generate almost similar revenue? | The relative sizes of the property taxes and land transfer tax in the two provinces will depend on the tax rates that are chosen by the provinces. There is no reason why there should be a fixed relation between the two taxes across provinces. |

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| **Referee 2’s Comments** | **Responses to Referee 2’s Comments** |
| 1. The description of the results displayed on the graphs, do not need to be fully presented (the graph is in itself sufficient). So, the text description could be shortened and focused on the most important and representative results;  | We do not agree with the referee’s comment. The graphs do not speak for themselves. It is always good practice to draw the readers’ attention to the key points that are illustrated in the graph.That said we have significantly revised the text in the section on BC’s land transfer tax to improve clarity and reduce repetitions. |
| 1. the authors should insist on interpretations and conclusions. | We do not understand this comment.No changes made. |
| 2. If possible, it would be useful to have some descriptive statistics (e.g. volume of transactions per year, average housing price, population, cities’ size, firms, fiscal situation, deficit, etc.) on the different provinces of Canada and their local housing markets, in order to see the potential differences between these provinces. | We think that the author is asking for too much detail on the effects of land transfer taxes in the five provinces that levy them. We do discuss in some detail these data for BC, which is a neighbouring province to Alberta and an interesting case because of the housing market situation in the Lower Main Land region.No changes made. |
| 3. The estimated marginal cost of public fund (MCF) - it is a very good idea to compare the empirical studies on LTT with a common scale – has no details on its computation. Since this is one of the most important contributions of the paper, it is crucial for the readers to have access to the equation of this index (either in the text or in appendix) and to the references used for its construction (there are many different ways to compute it according to economics literature). | Appendix 2 has been added which describes the model and derives the formula for calculating the MCF based on the results of the econometric studies of the effect of land transfer taxes on the volume of housing market transactions. The key parameters from the studies that are used to calculate the MCFs are contained in a table in the appendix. |
| 3. Furthermore, on p.29 it is written: “Estimated Marginal Cost of Public Funds: 1.04 with a 95 percent confidence interval of 1.02 to 1.15”; so, if there are confidence intervals, is there p-value for each MCF?  | We were only able to provide this confidence interval for the MCF because the Besley, Meads, and Surico (2014) is the only one that indicated the confidence interval for the MCF.  |

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| 4. Authors state that other sources of tax revenue should be considered, such as provincial sales tax, or the province could increase the residential property tax or the Education Property Tax; but they do not explain in details (or it is disseminated across the paper) why these other taxes would be more efficient than the LTT (e.g. less distortionary, more efficient in terms of fiscal revenue, etc.).  | A detailed study of the alternatives to a land transfer tax is beyond the scope of this study. Our claim that an increase in the Education Property Tax on residential property would be a superior way to raise revenue is simply a reflection of the conclusions of the most of the studies that we review in Appendix 1. Our view that a provincial sales tax would be superior is based on Dahlby and Ferede (2012, 2018) estimates of the MCFs for provincial sales taxes. A reference to the Dahlby and Ferede studies is now included in a footnote. |
| 4. Authors could also provide an estimation of the potential tax revenue from increasing the residential property tax, and by how many percentage points it should increase to reach the potential tax revenue from the implementation of a LTT (between $480 and $500 million in 2017).  | We have added the following footnote on page 28:To put the revenues from a one percent land transfer tax in perspective, raising an additional $500 million from the Education Property tax in 2018-19 would have required an increase in residential mill rate from 2.56 to 3.08 and the non-residential mill rate from 3.76 to 4.53. Calculations based on Alberta Tax Plan Tables at https://www.alberta.ca/budget-documents.aspx#18-19 |
| 4. A separate section dedicated to the presentation of alternative option to LTT should be added, as it is one of the most important and awaited conclusions of the paper.  | It has to be remembered that political party has proposed the introduction of a land transfer tax in Alberta. For this reason, we do not think that a detailed discussion of the alternatives to a “hypothetical” land transfer tax is not required at this time.As noted above, we have added a footnote on the size of the Education Property Tax required to raise $500 million. We have also referenced the Dahlby and Ferede (2012, 2018) estimates of the MCFs for provincial sales taxes, which indicates that it is a low cost source of tax revenues. We think that this is sufficient to indicate why these are good alternatives to land transfers tax.  |

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| 5. Further to previous comment, the authors consider and recommend only one solution to deal with the Alberta’s budget deficit: increase taxes. Nevertheless, there is another obvious solution: decrease public expenditures. Authors could investigate the public finance and budgets of the province of Alberta, with a special interest to the investment expenditures, operating costs, salary costs and social spending, in order to see a possible “irregularity” or non-essential expense.  | The purpose of this paper was to provide background on a land transfer tax. A lengthy analysis of the alternative options for dealing with the Alberta’s fiscal deficit is beyond the scope of this paper. We have added the following footnote to the first sentence: “A detailed analysis of the fiscal options for dealing with Alberta’s deficit is beyond the scope of this paper. See research papers on fiscal issues and options for reforming in Alberta at The School of Public Policy’s Alberta’s Fiscal Future project, https://www.policyschool.ca/albertas-fiscal-future/.” |
| 6. they must also explain (and/or provide examples) the potential difficulties encountered by Australian local governments, due to volatile LTT revenues (e.g. in terms of public finance, expenditures choices, public investment, etc.). | To conclude the section on Australia, we quote the assessment of land transfer taxes from the Henry Report, a major review of the Australian tax system in 2018. |
| 7. “Scaled to a one percent land transfer tax, their study suggests that […] the volume of transactions might fall by four percent”. Nevertheless, Dachis et al (2012) estimated that for an average LTT of 1.1%, the decrease in the volume of transactions is about 15%. Therefore, I am not sure to understand how the authors performed the previous computation of 4% of decrease, for a 1% LTT.  | Based on the referee’s comments, we have reconsidered how to calculate the reduction in transactions and have concluded that it would be larger than our previous estimate. How we derived the figures should now be clearer because we have revised this section so that it now reads:To provide some perspective of how changes in the volume and value of real estate transaction might affect projected revenues, we have used the estimates of the impact of the land transfer tax in Toronto by Dachis et al (2012). The introduction of Toronto’s land transfer tax increased the total transfer tax rate on the median property value from two percent to four percent. They concluded that property values declined by the amount of the tax and that the volume of transactions declined by 14 percent. Scaled to a one percent land transfer tax in Alberta, their study suggests that the value of a typical transaction would fall by the amount of the tax, i.e. one percent, and the volume of transactions might fall by 7 percent. Using these rough estimates of the impact of the tax, the projected revenue would be 92 percent of the previous figure or $467 million |

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| 8. Table 2 would be better and faster understandable if represented in a histogram.  | We do not think that it would be better to portray the information in Table 2 in a histogram because the range of property values for the tax rates is different in each city. |
| 9. Additional and updated references. | Additional references have been added. |
| 10. Some mistakes and typos  | Typos, corrections, and wording improvements have been made throughout paper and are shown in the tracked changes version. Make changes using tracked changes. |